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**ASSESSING THE RISK OF ISLAMIST TERRORISTS
USING HUMAN VECTORS TO DEPLOY CONTAGIOUS PATHOGENS**

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DEDICATION

The authors would like to respectfully dedicate this study to Dr. Raymond A. Zilinskas, our friend and colleague at the Middlebury Institute of International Studies who both initiated the project and obtained the funding. Sadly, he died suddenly and prematurely shortly after the project received funding. Rest in peace, Ray.

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INTRODUCTION: MOTIVATIONAL FACTORS IN CHEMICAL, BIOLOGICAL, RADIOLOGICAL, AND NUCLEAR (CBRN) TERRORISM THREAT ASSESSMENT

Jeffrey M. Bale

There is a now large and ever-growing scholarly and popular literature on the subject of “WMD terrorism.” However, one of the peculiarities of the existing literature on that subject is the disparity between the relatively small amount of attention paid to terrorist motivations, on the one hand, and, on the other, the relatively large amount of attention paid both to a) preventing nefarious actors from getting their hands on CBRN materials, and b) the technical capabilities of terrorists.¹ A good deal of valuable research has been conducted on certain aspects of the CBRN terrorist threat, e.g., on the vulnerability of weapons-usable materials, on the technical capabilities required to construct CBRN weapons, and on the preparations necessary for dealing with the consequences of such attacks. However, far less attention has thus far been paid to the characteristics, motivations, decision-making processes, and behavior of the potential perpetrators themselves. Although this relatively narrow focus on proliferation issues and terrorist capabilities has recently been subjected to pointed criticism and is being increasingly challenged and compensated for by a long overdue emphasis on the vital importance of terrorist motivations and intentions, the imbalances in the literature have only begun to be redressed.²

Indeed, the long-standing focus on the availability of dangerous materials and terrorist capabilities rather than on terrorist intentions has arguably been seriously misplaced given that the threat of CBRN terrorism, including bioterrorism, is first and foremost a “demand-side” problem

¹ Emblematic of this ongoing neglect of terrorist motivations is the book by Barry Kellman, *Bioviolence: Preventing Biological Terror and Crime* (New York: Cambridge University, 2007), which devotes only two pages to general terrorist motivations for using bioweapons (pp. 71-2), five to al-Qa’ida’s interest in and justifications for using CBRN weapons (pp. 72-7), and four to the group’s reported attempts to acquire and produce bioweapons (pp. 77-80); and Daniel M. Gerstein, *Bioterror in the 21st Century* (Annapolis, MD: Naval Institute Press, 2009), who devotes a mere four pages to terrorist motivations for using biological agents (pp. 173-6). Cf., in connection with nuclear weapons, Michael Levi, *On Nuclear Terrorism* (Cambridge, MA: Harvard University Press, 2007), which devotes a mere two pages (pp. 11-12) to this crucial matter; and Matthew Bunn, *Securing the Bomb 2008*, the latest annual report sponsored by the Nuclear Threat Initiative (NTI) and the Belfer Center for Science and International Affairs at Harvard University, pp. 4-6, which devotes only three pages to the subject of whether terrorists actually want to acquire and/or use nuclear weapons.

² See, e.g., Brian Michael Jenkins, *Will Terrorists Go Nuclear?* (Amherst, NY: Prometheus Books, 2008), esp. chapters 3-5, 10, 14-15; Jeffrey M. Bale and Gary Ackerman, “How Serious is the ‘WMD Terrorism’ Threat?: Terrorist Motivations and Capabilities for Using Chemical, Biological, Radiological, and Nuclear (CBRN) Weapons,” report prepared by the WMD Terrorism Research Program, Center for Nonproliferation Studies, 2005, Part II on motivations; Brad Roberts, ed., *Hype or Reality?: The “New Terrorism” and Mass Casualty Attacks* (Alexandria, VA: Chemical and Biological Arms Control Institute, 2000); Nadine Gurr and Benjamin Cole, *The New Face of Terrorism: Threats from Weapons of Mass Destruction* (London: I. B. Tauris, 2002), chapters 4-7; and Gavin Cameron, *Nuclear Terrorism: A Threat Assessment for the 21st Century* (New York: Palgrave Macmillan, 1999), chapters 2-4.

rather than a “supply-side” problem.³ After all, if violence-prone extremist groups had no interest in acquiring or employing such materials, it would not matter, insofar as the threat of terrorism is concerned, whether those materials were accessible or whether the groups in question had sufficient technical capabilities to be able to deploy them. As political psychologist Jerrold Post has rightly observed, “absent a clear understanding of the adversary’s intentions, the strategies and tactics developed [to counter them] are based primarily on knowledge of terrorists [sic] technological capabilities and give insufficient weight to...motivations.”⁴ He was referring specifically to psychological motivations, but it is even more important, when one is attempting to assess the threat posed by violent ideological extremists, to recognize the centrality of, and to pay close attention to, their ideological beliefs and agendas.

Hence a priority in assessing the present and future non-state threat of biological weapons use must be on the issue of the actor’s motivations for carrying out acts of violence using such materials. More generally, Bruce Hoffman has rightly noted that “the need for a better understanding of the motivations, thought processes, mindsets and historical consciousness of terrorists...is essential if the [terrorism] field is to grow in new and beneficial directions, retain its relevance, and provide insightful and thoughtful analysis...”⁵ This same observation is likewise true with respect to the *ideological motivations* and *operational objectives* of different types and groups of violent non-state actors. The goal of this section is to highlight the range of opinions about how acute the threat of CBRN terrorism currently is, and then undertake an analysis of the historical record and specific extremist ideologies in order to help identify which types of extremist groups are most likely to be interested in carrying out acts of violence using biological agents.

Distinguishing Terrorism from Other Forms of Non-State Violence

Before turning to the central topic, however, a few words need to be said about the nature of terrorism, the importance of ideological extremism in evaluating terrorist motivations, and the principal ideological categories of non-state terrorist groups. Perhaps the first desideratum should be to draw a clear analytical distinction between “terrorism” in the strict sense of the term and other types of non-state violence, a distinction that unfortunately needs to be made at the outset precisely because most definitions of terrorism – including those employed by U.S. government

³ This is why certain specialists are now, albeit rather belatedly, paying somewhat more attention to the “demand” side, e.g., Charles B. Curtis, “Curbing the Demand for Mass Destruction,” in Graham Allison, ed., “Confronting the Specter of Nuclear Terrorism,” special issue of *Annals of the American Academy of Political and Social Science* 607 (September 2006), pp. 27-32.

⁴ Jerrold M. Post, “Prospects for Nuclear Terrorism: Psychological Motivations and Constraints,” in Paul Leventhal and Yonah Alexander, eds., *Preventing Nuclear Terrorism* (Lexington, MA: D. C. Heath, 1987), p. 91. Note that in this section, much of the literature cited is concerned with nuclear terrorism, the most frightening type. However, most of the same criticisms that can be levelled at the “nuclear terrorism” literature are also applicable to the literature on bioterrorism.

⁵ Bruce Hoffman, “Forward,” in Andrew Silke, ed., *Research on Terrorism: Trends, Achievements and Failures* (Portland, OR and London: Frank Cass, 2004), p. xviii.

agencies⁶ – are imprecise if not entirely misleading. Without spending too much time on contentious definitional questions, it can be said that the best way to distinguish between terrorism and other forms of violence is to recognize that most acts of violence are dyadic, i.e., they involve only two parties or protagonists--the perpetrator(s) and the victim(s):

Perpetrator(s) → Victim(s)

In marked contrast, bona fide acts of terrorism are triadic, i.e., they involve three parties or protagonists--the perpetrator(s), the victim(s), and a wider target audience (or audiences):

Perpetrator(s) → Victim(s) → Wider Target Audience(s)

In short, terrorism is violence that is consciously carried out by the perpetrator(s) in order to influence the perceptions, attitudes, and behaviors of a wider target audience (or multiple target audiences). It is, as Brian Jenkins and others have aptly pointed out, violence for psychological effect.⁷

Indeed, one of the many perverse ironies of terrorism is that, although the actual victims suffer its effects disproportionately and in the most direct and brutal manner, their importance is strictly secondary and derives principally from the fact that they have been specifically selected because they are viewed as symbolizing something larger or representing a broader category of persons. They are merely an instrument used by the perpetrators to influence the perceptions and behavior of wider target audiences. To put it another way, the most important nexus in any genuine act of terrorism is between the perpetrators and the target audience(s) they are trying to influence. It follows from this that targeted assassinations of particular individuals for purely instrumental

⁶ Note, e.g., the definition from Title 22 of the U.S. Code, Section 2656f(d): “Terrorism means premeditated, politically motivated violence perpetrated against noncombatant targets by subnational groups or clandestine agents, usually intended to influence an audience.” See www.cia.gov/terrorism/faqs.html. Here there is one unnecessary restriction (e.g., terrorism can be “religiously motivated” or even “economically motivated” as well as “politically motivated”) and two outright errors (terrorism is not always perpetrated against “noncombatant targets,” and it is not only carried out by “subnational groups” or “clandestine agents” – the worst perpetrators of terrorism, historically speaking, have been states, which often openly employ their own security forces instead of “clandestine agents”), and the quintessential feature of terrorism – the carrying out of violence in order to influence a wider target audience – is wrongly qualified with “usually.”

⁷ The best collection and analysis of definitions of terrorism can be found in Alex P. Schmid, ed., *The Routledge Handbook of Terrorism Research* (New York: Routledge, 2013), chapter 2. Many of the better definitions highlighted therein emphasize the centrality of carrying out violent actions with the conscious intention of exerting a psychological impact on a wider target audience. Although this work is now out-of-date and is crying out for new edition, I still regard it as the best single introduction to terrorism. The formal definition that I have been using in my own classes on terrorism for over three decades is as follows: “Terrorism is the use or threatened use of violence, directed against victims selected for their symbolic or representative value, as a means of instilling anxiety in, transmitting one or more messages to, and thereby manipulating the attitudes and behavior of a wider target audience or audiences.” Note also, in the interests of terminological precision, that the term “terror” refers to a psychological state marked by fear and anxiety, and must therefore be distinguished from terrorism, a violent technique of psychological manipulation. There is no such thing as a “terror network,” only a “terrorist network.”

reasons (e.g., murders of particularly effective or brutal policemen) or attacks that are solely designed to kill large numbers of people (e.g., massacres) are not, strictly speaking, acts of terrorism. They would only constitute acts of terrorism if their primary purpose was to traumatize and otherwise influence the behavior of wider target audiences. In many real-world cases, of course, attacks are carried out for both instrumental and psychological reasons, but *the latter would have to predominate in the eyes of the perpetrators* in order for such attacks to be regarded, strictly speaking, as terrorism. Hence violent acts that inadvertently end up traumatizing people other than the actual victim, e.g., a series of rapes in a particular neighborhood, should not be characterized as acts of terrorism.

In short, terrorism is nothing more than a violent technique of psychological manipulation, and like other techniques or tools it can be used by *anyone*, whatever their ideological orientation or relationship to the state. It can be employed by states, on behalf of state power, or in opposition to state power, by left-wingers, right-wingers, or centrists, by the irreligious or the religious, and for an infinite variety of causes. One man's terrorist is therefore *not* another man's freedom fighter, as many have foolishly assumed or claimed; rather, one man's terrorist should invariably also be another man's terrorist, since regardless of the underlying cause involved – or whether one sympathizes with or deplors it – a terrorist can be identified purely by the methods he or she chooses to employ. It follows that only those organized groups that rely primarily on the use of terrorist techniques can legitimately be described as terrorist groups.

Having clarified the meaning of the term “terrorism,” it is now necessary to describe the scope of the actors that will be considered in this study. First, since state actors and state agents have been comprehensively dealt with in many studies, this introductory chapter on CBRN threat assessment only focuses on non-state actors. Second, since both governments and citizens are concerned with any and all sub-national groups that may end up carrying out acts of violence using CBRN materials, in this chapter all violent non-state actors will be considered, whether or not they technically fall into the “terrorist” category. Therefore, this section will include criminal organizations and loners driven by solipsistic personal impulses, in addition to violent groups motivated by extremist political or religio-political ideologies. Even so, the concept of terrorism, as it has been defined here, remains important, especially when considering an actor's motivations for acquiring or employing biological weapons.

Classifying the Culprits: The Three Main Categories of Violent Non-State Actors (VNSAs)

1) Extremist Political and Religious Terrorist Groups

Now that the meaning of the term “terrorism” has been specified, the principal categories of non-state terrorists in recent decades need to be identified. When categorizing such groups, the

most useful way to do so is to differentiate between their ideologies. The reason is simple: the primary characteristic of such groups is the adherence of their members to particular extremist ideologies. Ideologies, unlike the vague conceptions held by most people about how the world operates, are structured, relatively coherent, and often all-encompassing worldviews that purport to explain what is wrong with the world, identify those who are supposedly to blame for perpetrating those wrongs, and provide a guide for action that is designed to right those wrongs and thereby usher in a better world for the broader constituencies whose interests the ideologues and their followers claim to represent. In this way, ideologies not only act as crucial perceptual filters through which all external information is refracted and processed, but also as important drivers of the actual behaviors of those who adhere to them.⁸ Furthermore, whatever their specific doctrinal tenets may be, extremist ideologies tend to share many features in common – they are generally characterized by Manicheism (a sharp division of the world into “good” and “evil”), monism, authoritarianism or totalitarianism, collectivism, utopianism, hyper-moralistic puritanism, conspiratorial thinking, and a penchant for dehumanizing or demonizing designated enemies.⁹ All of these traits can easily serve to provide a rationale or justification for causing large-scale disruption or carrying out brutal acts of violence against said enemies.

There are five primary types of non-state terrorist groups that have had historical significance during and after the Cold War:

- ethno-nationalist separatist and irredentist groups – groups relying heavily on the tactic of terrorism that seek either to establish an independent state for the ethnic, linguistic, cultural or national community with which they are affiliated, or (especially if they already have their own independent state) to unite all of the members of their community – including those that live in neighboring countries – under the aegis of such a state. Important groups in this category have been the Armenian Secret Army for the Liberation of Armenia (ASALA), Euskadi ta Askatasuna (ETA: Basque Fatherland and Freedom), the Front de Libération Nationale de la Corse (FLNC: National Liberation Front of Corsica), the Irish Republican Army (IRA), the Munazzamat al-Tahrir al-Filastiniyya (Palestine Liberation Organization or PLO), the Partiya Karkaren Kurdistane (PKK: Kurdistan Worker’s Party), the now defunct Liberation Tigers of Tamil Eelam (LTTE, also known as the Tamil Tigers), and Sikh groups seeking to create an independent state of “Khalistan.”
- secular left-wing groups – groups relying heavily on the tactic of terrorism that seek to overthrow the capitalist system and either establish a “dictatorship of the proletariat”

⁸ The term “ideology,” which is derived from the French *idéologie* (“the science of ideas”), essentially signifies a “systematic set of ideas.” It was first coined by the French philosopher Destutt de Tracy (1754-1836), but the original concept was subsequently elaborated upon by many subsequent intellectuals, including Karl Marx, Karl Mannheim, and Antonio Gramsci. For a general introduction, see Michael Freeden, *Ideology: A Very Short Introduction* (Oxford and New York: Oxford University Press, 2003). For much more information on the nature of ideologies, see the chapter below on jihadist ideology.

⁹ A much more detailed discussion of these characteristics can be found below, in the chapter on ideology.

(Marxist-Leninists) or, much more rarely, a decentralized, non-hierarchical sociopolitical system (anarchists). Important groups in this category have been the Fuerzas Armadas Revolucionarias de Columbia (FARC: Revolutionary Armed Forces of Columbia), Sendero Luminoso (SL: Shining Path) in Peru, various Maoist groups in Nepal and the so-called “fighting communist organizations” in Europe, such as Action Directe (AD: Direct Action) in France, the Brigade Rosse (BR: Red Brigades) and Prima Linea (PL: Front Line) in Italy, the Rote Armee Fraktion (RAF: Red Army Faction) and Bewegung 2. Juni (June 2nd Movement) in Germany, the Cellules Combattantes Communistes (CCC: Fighting Communist Cells) in Belgium, the Grupos de Resistencia Antifascista Primero de Octubre (GRAPO: October 1st Anti-Fascist Resistance Groups) in Spain, the Epanastatike Organose 17 Noemvre (17N: November 17th Revolutionary Organization) in Greece, and Devrimci-Sol (DEV-SOL: Revolutionary Left) and other groups in Turkey.

- secular right-wing groups – groups relying heavily on the tactic of terrorism that seek to restore national greatness (radical nationalists), suppress “subversive” or “alien” elements of the population (nativists), expel or subordinate troublesome ethnic and cultural minorities (racists), or overthrow the existing democratic and “plutocratic” capitalist systems in order to establish a revolutionary “new order” (neo-fascists). Important groups in this broad category have been Organosis X (the X Organization) in postwar Greece, the Organisation de l’Armée Secrète (OAS: Secret Army Organization) in French Algeria, Aginter Presse and the Exército de Libertação Português (ELP: Portuguese Liberation Army) in Portugal, Ordine Nuovo (ON: New Order) and Avanguardia Nazionale (AN: National Vanguard) in Italy, the Aktionsfront Nationaler Sozialisten (ANS: National Socialists’ Action Front) and the Nationalsozialistischer Underground (NSU: National Socialist Underground) in Germany, Westland New Post (WNP) in Belgium, the Grupos Antiterroristas de Liberación (GAL: Anti-Terrorist Liberation Groups) in Spain, the Bozkurtlar (Grey Wolves) paramilitary squads affiliated with the Milliyetçi Haraket Partisi (MHP: Nationalist Action Party) in Turkey, the Alianza Anticomunista Argentina (AAA: Argentine Anti-Communist Alliance or Triple A) in Argentina, the Frente Nacionalista Patria y Libertad (PyL: Fatherland and Freedom Nationalist Front) in Chile, vigilante (“death”) squads in various Central American countries, the Afrikaner Weerstandsbeweging (AWB: Afrikaner Resistance Movement) in South Africa, and the Minutemen in the United States during the 1960s.
- religious groups – groups relying heavily on the tactic of terrorism that seek to smite the purported enemies of God, impose strict religious tenets or laws on society (fundamentalists), forcibly insert religion into the political sphere (i.e., those who seek to “politicize” religion), and/or bring about Armageddon (apocalyptic millenarians). This type of terrorism comes in five main varieties: 1) Islamist terrorism; 2) Jewish fundamentalist terrorism, primarily inside Israel; 3) Christian terrorism, which can be further subdivided into fundamentalist terrorism of an Orthodox (mainly in Russia), Catholic, or Protestant stamp and terrorism inspired by the idiosyncratic Christian Identity

doctrine; 4) Hindu fundamentalist/nationalist terrorism; and 5) terrorism carried out by apocalyptic religious cults. Important groups in these four subcategories have been Islamist groups such as al-Qa'ida (the Base or Foundation, later renamed Qa'idat al-Jihad [The Base of the Jihad]), Hizballah (the Party of Allah, a Shi'i group) in Lebanon, the Harakat al-Muqawwama al-Islamiyya (Hamas: Islamic Resistance Movement) and al-Jihad al-Islami al-Filastini (Palestinian Islamic Jihad, also known as PIJ) in Palestine; the Tanzim al-Jihad al-Islami (Islamic Jihad Organization, also known as EIJ) and al-Jama'a al-Islamiyya (Islamic Group) in Egypt, al-Takfir wa al-Hijra (Excommunication and Migration) in North Africa, the Jama'at al-Islamiyya al-Musallaha/Groupe Islamique Armé (GIA: Armed Islamic Group) and Jama'at al-Salafiyya li al-Da'wa wa al-Qital/Groupe Salafiste pour la Prédication et le Combat (GSPC: Salafist Group for Preaching and Fighting) in Algeria, the Jama'at al-Islamiyya al-Maghribiyya al-Muqatila/Groupe Islamique Combattant Marocain (GICM: Moroccan Islamic Fighting Group) in Morocco, the Jama'at al-Tawhid wa al-Jihad (Unity of God and Jihad Group) in Iraq (later renamed the Tanzim Qa'idat al-Jihad fi Bilad al-Rafidayn [The Base of the Jihad Organization in Mesopotamia], al-Dawla al-Islamiyya fi al-'Iraq [ISI: The Islamic State of Iraq], al-Dawla al-Islamiyya fi al-'Iraq wa al-Sham [ISIS: The Islamic State in Iraq and Greater Syria], and finally simply al-Dawla al-Islamiyya [The Islamic State]), the Jabhat al-Nusra li-al-Ahl al-Sham [Support Front for the Syrian People] (later renamed the Jabhat Fatah al-Sham [Front for the Conquest of Greater Syria]), elements of Hizb al-Tahrir al-Islami (HT: Islamic Liberation Party) in Central Asia and elsewhere, Jemaah Islamiyah (JI: Islamic Community) in island Southeast Asia, the Abu Sayyaf Group (ASG) in the Philippines, Boko Haram (Western Education is Forbidden) in Nigeria, and various organizations operating in Kashmir; Teror Neged Teror (TNT: Terror Against Terror) in Israel; the Phineas Priesthood and the Covenant, the Sword, and the Arm of the Lord (CSA) in the U.S.; elements from Bajrang Dal (BD: Mighty Hanuman's Army), the youth wing of the extremist Vishva Hindu Parishad (VHP: World Hindu Council) in India; and Aum Shinrikyo (Aum Supreme Truth) in Japan.

- Single-issue groups¹⁰ – groups relying on the tactic of terrorism that obsessively focus on very specific or relatively narrowly defined causes of various sorts. This category includes organizations from all sides of the political spectrum, e.g., animal rights groups such as the Animal Liberation Front (ALF); anti-communist groups such as the Cuban exile organization Omega 7, the Comando de Caça aos Comunistas (CCC: Communist-Hunting Command) in Brazil, and the [Grupos] Autodefensas Unidas de Colombia (AUC: United Self-Defense Groups of Colombia); and anti-abortion groups such as the Army of God (AOG) in the United States.

¹⁰ In contrast to other specialists, I think it is a mistake to identify “single-issue groups” as a separate category, for the simple reason that most such groups fall within one of the other four ideological milieus. For example, most radical ecological groups fall into the secular left-wing (or secular right-wing) category, and anti-abortion groups mainly fall into the Christian religious category.

Needless to say, groups within each of these five broad categories have distinct ideologies that help to explain what they are for and against, who their friends and enemies are, and what targets they believe they can legitimately attack, but it is also the case that even superficially similar groups within each of these categories and subcategories have their own distinctive and often idiosyncratic doctrines. Moreover, it should be emphasized that these major categories of terrorism are not entirely discrete. Some essentially ethno-nationalist terrorist groups, e.g., have had a Marxist gloss (the PKK, factions of ETA), a religious gloss (certain Sikh groups), or a combination of the two (factions of the IRA). In more recent times, essentially religious terrorist groups have also displayed acute nationalist sentiments (the Islamist groups Hamas and al- Jihad al-Islami in Palestine), and previously ethno-nationalist terrorist groups have adopted an increasingly prominent religious coloration (important pro-Islamist factions within the Chechen separatist movement, such as that of Shamil Basayev).¹¹ These types of complexities need to be kept in mind when considering motivations for or against the use of biological weapons.

2) Criminal Organizations

In addition to political and religious extremists, other organized groups of non-state actors could conceivably have recourse to using, or at least threatening to use, CBRN weapons against their opponents. The most important and dangerous groups of this type are organized crime networks in various parts of the world, such as the Italian Cosa Nostra, 'Ndrangheta, and Camorra, their counterparts and homologues in the United States and other Western European countries, the Chinese triads, the Japanese *yakuza*, the Russian *mafya* and similar groups elsewhere in eastern Europe and the Caucasus, Latin American and Southeast Asian drug trafficking cartels, organized crime groups in Nigeria, India, Pakistan, Israel and Turkey, etc. In these contexts, however, the motivations for the employment or threatened employment of such weapons would be almost invariably pragmatic rather than, as is the case with political and religious extremists, in pursuit of more or less utopian ideological agendas, i.e., would be related either to the protection of existing illicit activities or the initiation of new profit-making ventures of various sorts. As an example, one could easily imagine their possible use by *mafiosi* to poison criminal rivals or perhaps even to threaten to carry out mass casualty attacks against governments that were launching crackdowns on their activities. One could also imagine, however, that biological materials could be employed by criminal organizations for more atavistic and possibly expressive reasons, such as exacting revenge against persons who were thought to have cheated them or violated their codes of *omertà*.

¹¹ The mixed religious and nationalist motivations of Hamas and al-Jihad al-Islami al-Filastini are widely recognized, but it is the former that clearly predominates in these two groups (in contradistinction to the motives of their political rivals in the PLO). For the "conversion" of certain key Chechen separatist factions to Islamism and their increasing resort to terrorism, see Julie Wilhelmsen, "Between a Rock and a Hard Place: The Islamisation of the Chechen Separatist Movement," *Europe-Asia Studies* 57:1 (January 2005), pp. 38-46; and Jeffrey M. Bale, "The North Caucasus Conflict and the Potential for Radiological Terrorism," in Russell D. Howard and James J. F. Forest, eds., *Weapons of Mass Destruction and Terrorism* (New York: McGraw-Hill, 2012), pp. 270-90. For more on the nature of Islamist ideology, see the chapter below.

3) *Individual Actors with Idiosyncratic Personal Motives*

In addition to organized political and criminal groups, individuals motivated by a wide variety of idiosyncratic personal motives might conceivably use or threaten to use biological materials, whether against real or imagined enemies. Since individuals are all too often driven to engage in unanticipated anti-social behavior by internal personal motives (colloquially referred to as “inner demons”), sometimes barely conscious ones, that may be a product of psychopathy, sociopathy, solipsism, extreme eccentricity, or other idiosyncrasies, their potential use of toxic biological materials to harm others may not even be discernable to, much less predictable by, outside observers. On the other hand, although there are some important historical exceptions, such troubled, delusional, or dysfunctional individuals generally lack the wherewithal to actually be able to turn their violent fantasies into a reality, especially if they involve “WMD,” whose acquisition, weaponization, and deployment are likely to be beyond the capabilities of most lone individuals who lack scientific knowledge or easy access to dangerous materials.¹² Nevertheless, it is significant that the overwhelming majority of the annual cases involving poisonings with dangerous substances are carried out by individuals with highly personal motives, ones that range from the utterly banal (e.g., killing annoying or unfaithful spouses) to the bizarre if not positively arcane. Hence, it is not inconceivable that certain individuals, acting on the basis of motives that may seem totally obscure to outsiders, could carry out some sort of attack with biological materials.

The Literature on Motivations for Chemical, Biological, Radiological, and Nuclear Terrorism

In the literature on CBRN terrorism, opinions about the severity, acuteness, and imminence of the threat run the proverbial gamut.¹³ On one pole of the spectrum, there are those who believe that certain extremist groups already have both the motivations and the capabilities to carry out catastrophic acts of biological or even nuclear terrorism as well as lower-impact acts of radiological or chemical terrorism, and are simply awaiting the optimal moment to launch those attacks. At the other pole are those who believe that terrorists are in general unlikely to carry out mass casualty attacks with nuclear, chemical, or biological weapons in the near future, since they

¹² One of those exceptions was the so-called Alphabet Bomber, a Yugoslav resident alien named Muharem Kurbegovic, who was working on preparing a binary nerve agent when he was apprehended in California in 1974. For more on this case, see Jeffrey D. Simon, “The Alphabet Bomber,” in Jonathan B. Tucker, ed., *Toxic Terror: Assessing Terrorist Use of Chemical and Biological Weapons* (Cambridge, MA: M.I.T., 2000), pp. 71-94.

¹³ See, in the context of bioterrorism, the remarks of Gerstein, *Bioterror in the 21st Century*, p. 151: “...the experts remain divided, with some believing a large-scale bioterror attack could be imminent, and others believing the threat is exaggerated...” For various contrasting views on bioterrorism, see Roman Espejo, ed., *Bioterrorism: Opposing Viewpoints* (San Diego and Detroit: Greenhaven Press, 2012). For a sober overview and analysis of some of the disparate conclusions drawn by specialists, see Marie Isabelle Chevrier, “Why Do Conclusions from the Experts Vary?,” in Andreas Wenger and Reto Wollenmann, eds., *Bioterrorism: Confronting a Complex Threat* (Boulder, CO and London: Lynne Rienner, 2007), pp. 119-51.

lack either the motives and/or the capabilities to do so. This is not surprising in the context of bioterrorism, since as Jeffrey D. Simon has noted, “[t]here has never been a major BW terrorist attack; therefore, there is no track record of incidents, groups, tactics, motives, and targets to analyze to determine the best strategies for combating this global threat.”¹⁴ However that may be, most informed speculation falls somewhere along the spectrum that lies between the aforementioned interpretative poles.

The most alarmist interpretations about the threat of bioterrorism have often been expressed by government officials, spokesmen for security and police agencies, and certain policy analysts. For example, in November 2005 Interpol Secretary General Ronald K. Noble argued that al-Qa‘ida’s “global network, its desire to do the unthinkable and the evidence collected about its bioterrorist ambitions ominously portend a clear and present danger of the highest order that al-Qaeda will perpetrate a biological terrorist attack.”¹⁵ Similarly, Henry “Hank” Crumpton, the former Department of State head of counterterrorism, opined that it was simply a matter of time before al-Qa‘ida acquired WMD and used them in an attack, and that the “worst-case scenario” would not be a nuclear attack, but a biological attack.¹⁶ In a January 2010 report published by Harvard University’s Belfer Center for Science and International Affairs, former intelligence officer Rolf Mowatt-Larssen claimed that Usama b. Ladin’s “top WMD priority has been to acquire nuclear and strategic biological weapons” and that a supposedly sophisticated “9/11-scale operational plot managed by the al Qaeda core leadership was the development of anthrax for use in a mass casualty attack in the United States.”¹⁷ In a subsequent study, Mowatt-Larssen stated categorically that “it is clear that al-Qaeda is seeking high-end WMD, specifically nuclear and biological weapons capable of causing mass casualties”, because they hope to kill people “indiscriminately” and “on a mass scale.”¹⁸ Although these claims were in part warranted, both issues are much more complicated than Mowatt-Larssen indicated in his analysis. Compare also the frightening remarks of Tiina Tarvainen, who argued that a WMD attack by global jihadists was “all but inevitable”, since for al-Qa‘ida and other “rootless jihadists...the audience is now superfluous; what matters is to cause mass casualties and create the greatest amount of instability

¹⁴ Jeffrey D. Simon, “Biological Terrorism: Preparing to Meet the Threat,” in Joshua Lederberg, ed., *Biological Weapons: Limiting the Threat* (Cambridge, MA and London: MIT, 1999), p. 236. He wrote those words almost twenty years ago, but there have fortunately not been any major bioterrorist attacks since that time.

¹⁵ “Interpol: Bioterror Attack Imminent,” Associated Press, 21 November 2005, available at <https://www.ynetnews.com/articles/0,7340,L-3172606,00.html> .

¹⁶ Cited in Con Coughlin, “Only a matter of time before terrorists use weapons of mass destruction,” *Daily Telegraph*, 17 January 2006, available at <https://www.telegraph.co.uk/news/worldnews/1508052/Only-a-matter-of-time-before-terrorists-use-weapons-of-mass-destruction.html> .

¹⁷ Rolf Mowatt-Larssen, *Al Qaeda Weapons of Mass Destruction Threat: Hype or Reality?* (Cambridge, MA: Harvard University/Belfer Center for Science and International Affairs, [January] 2010), pp. 5, 6. He did, however, at least acknowledge (ibid, p. 6) that most of those efforts to acquire WMD were “concentrated in the years preceding September 11, 2001.”

¹⁸ Rolf Mowatt-Larssen, *Islam and the Bomb: Religious Justification For and Against Nuclear Weapons* (Cambridge, MA: Harvard University/Belfer Center for Science and International Affairs, [January] 2011), p. 9.

possible, irrespective of the consequences.”¹⁹ Indeed, for such groups the assertion is that “[n]o matter how complex the [other] deep principles or incentives behind WMD terrorism, the only reliable motive is an unflinching desire to slay blindly”, for which purpose the best choice would be a biological weapon due to its “potential to cause mass casualties and spread infectious [sic] over vast distances.”²⁰

Even more alarmist views, in the context of nuclear terrorism, have been peddled by Paul L. Williams, the author of three sensationalistic books. In his view al-Qa‘ida already possesses nuclear weapons, specifically Soviet suitcase nuclear devices that were purchased on the black market, and is actively planning to carry out devastating attacks on multiple American cities in the near future.²¹ Even more extravagant assertions have been made by hawkish former Congressman Curt Weldon (R – Pennsylvania), who claimed – on the basis of unsubstantiated information obtained from an alleged high-ranking former official of the Shah’s government named ‘Ali – that Iran, Hizballah, and al-Qa‘ida were jointly planning to carry out a devastating nuclear strike on American soil known as the “12th Imam” operation, a plot organized by a secretive and mysterious Committee of Nine that purportedly controlled Iran’s terrorist apparatus.²² Alas, there is no hard evidence, at least in the public domain, to support these kinds of extravagant claims. The fundamental problem with such worst-case interpretations is that their proponents tend to take the claims from various unconfirmed media reports and less-than-credible witnesses at face value, at least whenever those claims reinforce their own political agendas or pre-existing assumptions, rather than engaging in a balanced, fair-minded search for the truth and a rigorous process of source

¹⁹ Tiina Tarvainen, “Al-Qaeda and WMD: A Primer,” *Terrorism Monitor* [Jamestown Foundation] 3:11 (2 June 2005), available at http://www.jamestown.org/single/?no_cache=1&tx_ttnews%5Btt_news%5D=30482. However, even if groups like al-Qa‘ida and the Islamic State are determined to cause mass casualties, as they often are, that hardly means that the “audience is superfluous.” Quite the contrary, since exerting a traumatic effect on wider target audiences is the primary aim of terrorist attacks. Unless, of course, Tarvainen is talking about simple acts of mass murder without any concern for their wider psychological impact.

²⁰ Ibid. Even so, she recognized that “[c]urrently the disconnect between [al-Qa‘ida’s] motivations and capabilities is far too wide, making an attack in the foreseeable future highly unlikely.”

²¹ Paul L. Williams, *Osama’s Revenge: The Next 9/11. What the Government and Media Haven’t Told You* (Amherst, NY: Prometheus Books, 2004), esp. chapters 2, 8, 10-11; idem, *The Al Qaeda Connection: International Terrorism, Organized Crime, and the Coming Apocalypse* (Amherst, NY: Prometheus Press, 2005), esp. pp. 26-9, 62, chapters 5-7, 12, and epilogue; idem, *The Day of Islam: The Annihilation of America and the Western World* (Amherst, NY: Prometheus Books, 2007), esp. prologue, chapters 1-8, and epilogue.

²² Curt Weldon, *Countdown to Terror: The Top Secret Information that Could Prevent the Next Terrorist Attack on America...and How the CIA has Ignored It* (Chicago: Regnery, 2005), passim. Information about this Iranian informant’s supposed background can be found on pp. 4-5, where it is also noted that he was a member of an Iranian opposition group dedicated to overthrowing the current clerical regime. The fact that U.S. intelligence agencies did not consider ‘Ali to be a credible source, and that various other books produced by hardline opponents of the Iranian regime make no mention of the “12th Imam” operation or the Committee of Nine, suggests that the tales of Weldon’s informant were bogus. None of these extraordinary claims were echoed, e.g., in the portions devoted to terrorism in Alireza Jafarzadeh, *The Iran Threat: President Ahmadinejad and the Coming Nuclear Crisis* (New York: Palgrave Macmillan, 2007), chapter 5; and Ronen Bergman, *The Secret War with Iran: The 30-Year Clandestine Struggle against the World’s Most Dangerous Terrorist Power* (New York: Free Press, 2008), chapters 9-14; or by Mohammad Mohaddessin, *Islamic Fundamentalism: The New Global Threat* (Washington, DC: Seven Locks Press, 2001), chapters 9-10.

evaluation. For example, many of the reported WMD activities of al-Qa‘ida that once appeared on the Center for Nonproliferation Studies (CNS) chart, which was repeatedly cited and even partially reproduced as an appendix by Williams, were viewed as unsubstantiated and hence not credible by the CNS team that actually produced the chart.²³ However that may be, even Graham Allison, a more sober academic analyst, has argued that “a nuclear terrorist attack on America in the decade ahead is more likely than not.”²⁴

For a more nuanced argument on the alarmist side of the spectrum, in this case both with respect to developing technical capabilities and al-Qa‘ida’s long-standing ideological motivations, is an article by Christina Hellmich and Amanda J. Redig entitled “The Question is When.”²⁵ In that article, the authors argued that for both technical and ideological reasons, it was likely that the group would eventually carry out an attack with biological agents, even though it may be a low-level rather than a catastrophic attack. They emphasized that al-Qa‘ida operatives have repeatedly demonstrated that they “can and will use any and all means at their disposal to carry out terrorist attacks.”²⁶ Hence, given their oft-expressed interest in acquiring and using CBRN weapons, “there is no justification for assumptions that the scope of such attacks would be limited to conventional terrorist weapons.”²⁷ In short, especially because of the evolving “new face” of biology, “there is no reason to think that the most destructive terrorist organization in history will not seek to subvert one of the most remarkable tools of modern science – the tremendous power of molecular biology – to achieve their goals.”²⁸ However, although al-Qa‘ida often seeks to cause mass casualties and indeed “may well wish to see entire civilizations annihilated,” its attacks most often function to simultaneously “kill a relatively small number of people, graphically injure a larger set of people for television cameras to replay around the world, and emphasize to political effect the vulnerability of the population at large.”²⁹ Even certain hazardous but nonaerosolized biological toxins or materials were well-suited to achieving these objectives, as well as using IEDs, targeting transportation infrastructure, and making use of suicide attacks, other key aspects of the group’s modus operandi.³⁰ This would not constitute “superterrorism,” but “if more and more people can be targeted as the delivery system improves, so much the better.”³¹

²³ Cf. Williams, *Al Qaeda Connection*, pp. 207-31; and Kimberly McCloud et al., “Chart: Al-Qa‘ida’s WMD Activities,” Center for Nonproliferation Studies, Monterey Institute of International Studies, 13 May 2005, available at http://cns.miis.edu/pubs/other/sjm_cht.htm. As one of the researchers who updated this chart in 2003, I can personally attest that there was considerable skepticism about many of the media reports included therein.

²⁴ Graham Allison, *Nuclear Terrorism: The Ultimate Preventable Catastrophe* (New York: Owl Books, 2005), p. 15.

²⁵ Christina Hellmich and Amanda J. Redig, “The Question is When: The Ideology of Al Qaeda and the Reality of Bioterrorism,” *Studies in Conflict and Terrorism* 30 (2007), pp. 375-96.

²⁶ *Ibid.*, p. 383.

²⁷ *Ibid.*

²⁸ *Ibid.*

²⁹ *Ibid.*, pp. 389, 384.

³⁰ *Ibid.*, pp. 384, 389-92

³¹ *Ibid.*, p. 384.

For examples of appropriately skeptical but not sanguine interpretations, see the short May 2003 report by the U.S. Central Intelligence Agency (CIA), which noted that “[s]everal groups of mujahidin associated with al-Qa‘ida have attempted to carry out ‘poison plot’ attacks in Europe” and that both Muhammad ‘Ata’ and Zakariyya Musawi, two 9/11 plotters, “expressed interest in crop dusters, raising our concern that al-Qa‘ida has considered using aircraft to disseminate BW agents.”³² Even so, the report concluded that, despite their desire to cause mass casualties, most CBRN attacks by jihadists “probably will be small-scale, incorporating relatively crude delivery means and easily produced or obtained chemicals, toxins, or radiological substances.”³³ Similarly, a lengthy March 2005 report produced by the U.S. Weapons of Mass Destruction Commission assessed that al-Qa‘ida’s bioweapons research and development program in Afghanistan was “further along” than the Intelligence Community had believed, and indeed that it was “extensive, well-organized, and [had] operated for two years before September 11...”³⁴ The authors of the report also argued that the program had made use of several different sites in Afghanistan, that al-Qa‘ida operatives “with special training” had worked at two of those sites with commercial equipment which could be used for at least the limited production of bioweapons agents, that “scientific articles and handwritten notes pertaining to Agent X” [*Bacillus anthracis*] were later discovered at those sites, that the group “had succeeded in isolating cultures of Agent X”, and that it had also “considered acquiring a number of other biological agents.”³⁵ However, they concluded that “outstanding questions remain about the extent of biological research and development in pre-war Afghanistan, including about the reliability of the reporting described above.”³⁶

On the non-alarmist pole of the spectrum, several scholars have adopted a much less worrisome view of the threat posed by catastrophic “WMD” terrorism. The most prominent among these skeptical specialists about bioterrorism is Milton Leitenberg, who has written numerous studies on biological weapons that have concluded that the threat has been greatly exaggerated.³⁷

³² Central Intelligence Agency, Directorate of Intelligence, *Terrorist CBRN: Materials and Effects* (Washington, DC: CIA, [May] 2003), p. 2.

³³ Ibid.

³⁴ U.S. Government, Commission on the Intelligence Capabilities of the United States Regarding Weapons of Mass Destruction, *Report to the President of the United States* (Washington, DC: GPO, [March] 2005), p. 269.

³⁵ Ibid, pp. 269-70.

³⁶ Ibid, p. 270.

³⁷ See, e.g., Milton Leitenberg, *The Problem of Biological Weapons* (Stockholm: Swedish Defence College, 2004), p. 202: “...the threat assessment, most particularly regarding ‘BW terrorism’ – the potential for BW use by non-state actors – has been greatly exaggerated.” Cf. *ibid*, pp. 35-40, 119-36; *idem*, *Assessing the Biological Weapons and Bioterrorism Threat* (Carlisle Barracks, PA: U.S. Army War College, Strategic Studies Institute, [December] 2005), part III, and p. 88: “Scenarios for national BW exercises that posit various BW agents in advanced states of preparation in the hands of terrorist groups simply disregard the requirements in knowledge and practice that such groups would need in order to work with pathogens....There is no justification for imputing to real world terrorist groups capabilities in the biological sciences that they do not possess.” Cf. also *idem*, “Evolution of the Current Threat,” in Wenger and Wollenmann, eds., *Bioterrorism: Confronting a Complex Threat*, esp. pp. 48-65. See further William R. Clark, *Bracing for Armageddon?: The Science and Politics of Bioterrorism in America* (New York: Oxford University, 2008), pp. 170-1, who concluded that “[i]t is almost inconceivable that any terrorist organization we know of in the world today, foreign or domestic, could on their own develop, from scratch, a bioweapon capable of causing mass casualties on American soil. It just isn’t going to happen.”

Similarly, John Mueller has insisted that concerns about nuclear terrorism – as well as about nuclear proliferation – have long been “overwrought.”³⁸ For his part, Brian Jenkins believes that Western fears of nuclear terrorism are far greater than the actual likelihood of nuclear terrorist attacks, which he characterizes as a “long-shot possibility.”³⁹ The same factors are likely applicable to potentially catastrophic attacks with lethal, contagious biological agents. Moreover, after surveying diverse types of terrorists and their motivations, Robin Frost has suggested, wrongly in my opinion, that most terrorists, including even those affiliated with al-Qa‘ida, have more or less rational political and strategic objectives that may serve to constrain them from carrying out acts of nuclear terrorism.⁴⁰ (This is a matter that will be addressed further below, albeit in the context of infectious biological weapons.) In short, many commentators have argued that the threat of catastrophic biological or nuclear terrorism remains relatively low, in terms of probability, although most would agree that the likelihood of smaller-scale acts of terrorism using radiological, chemical, or biological agents is significantly higher.⁴¹

However, as noted above, the focus of most of the literature on CBRN terrorism, including biological terrorism, has generally remained on the *capabilities* of assorted non-state extremists.⁴² The less frequent discussions about terrorist *motivations* for employing CBRN weapons have so far tended to be relatively superficial and unsophisticated, in large part because they have generally been undertaken by academicians and policymakers who are not specialists on particular extremist organizations, much less on the shifting array of ideological currents and other motivational factors that exist within the vast galaxy of diverse extremist milieus. As a result, some commentators appear to have effectively thrown up their hands and given up trying to fully understand the motives of terrorists, since it has been alleged that “[p]otential nuclear terrorists are notoriously hard to understand” and their motives are, consequently, said to “defy easy classification.”⁴³ Although the issues involved are in fact very complicated, this sort of fatalistic attitude is not

³⁸ John Mueller, “Radioactive Hype,” *The National Interest* 90 (September-October 2007), pp. 60 (quote), 62-3 (section on “The Atomic Terrorist”), available at <http://polisci.osu.edu/faculty/jmueller/NINFINL.PDF> .

³⁹ Jenkins, *Will Terrorists Go Nuclear?*, p. 376 and passim.

⁴⁰ Robin M. Frost, *Nuclear Terrorism after 9/11* (London: Routledge/International Institute of Strategic Studies, 2005), Adelphi Paper 378, chapter 3. Unfortunately, although Frost has adopted the correct approach by emphasizing the importance of terrorist motivations, there are some problems with his analysis that tend to undermine his conclusions, e.g., his characterization of the Caucasus hostage takers at Beslan as ethno-nationalists rather than Islamist religious extremists, and his overemphasis on the strategic rationality of al-Qa‘ida and other global jihadists. On the matter of al-Qa‘ida’s so-called “rationality,” see further below.

⁴¹ See, e.g., Al J. Venter, *Allah’s Bomb: The Islamic Quest for Nuclear Weapons* (Guilford, CT: Lyons Press, 2007), p. xxi: “Possibly the most immediate nuclear threat facing the world today is from a terror group exploding an RDD (radiological bomb) in one of the West’s preeminent business centers, like Wall Street or London’s banking center.”

⁴² Cf. *ibid.*, p. 41: “Discussion about the terrorist use of WMD typically begins, and usually ends, with essentially technical questions.” As an example, see Charles D. Ferguson et al., *The Four Faces of Nuclear Terrorism* (Monterey, CA: Center for Nonproliferation Studies, 2004), which contains only one chapter on terrorist motivations (Chapter 2) and hence focuses almost entirely on technological and “supply-side” issues.

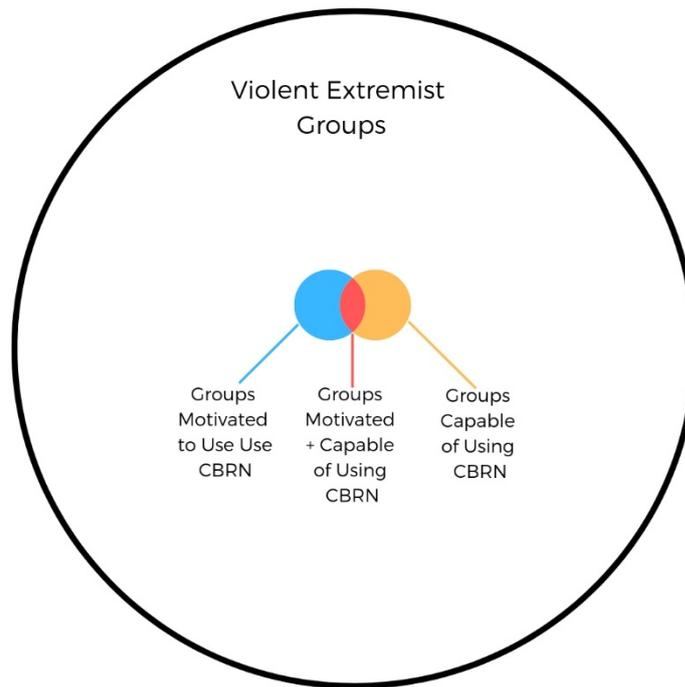
⁴³ See, respectively, Levi, *On Nuclear Terrorism*, p. 11; and Bonnie Jenkins, “Combating Nuclear Terrorism: Addressing Nonstate Actor Motivations,” in *Annals of the American Academy of Political and Social Science* 607 (September 2007), p. 35. By extension, the same confused and mistaken arguments could be made about potential “bioterrorists.”

terribly helpful, especially since there is abundant evidence available about what factors induce ideologically-motivated terrorists to take the actions they do.

Once again, there are two widespread but divergent responses to the thorny question of which types of terrorists might be inclined to acquire and employ CBRN weapons. On the one hand, it has sometimes simply been falsely assumed that many terrorist organizations would be interested in carrying out attacks with such weapons, as if there were no significant differences between the ideologies, ultimate goals, motivations, and operational objectives of diverse non-state actors.⁴⁴ On the other, it has been argued that only certain types of terrorist organizations would be interested in obtaining and deploying these sorts of weapons, and consequently that threatened states should focus on countering those particular types of organizations rather than worrying about – or at least devoting equal attention to – all non-state actors. Indeed, the good news is that, if one were to consider the vast array of violent extremist groups that operate throughout the world, only a relatively small subset is strongly motivated to carry out attacks using CBRN weapons (see figure 1 below). Moreover, within that small subset of motivated groups, an even tinier subset has the technical, organizational, operational, and financial capabilities to actually carry out such attacks. There are also some groups in the latter category that are not motivated to utilize CBRN weapons, which means that one does not have to worry about them in this particular context.

⁴⁴ This seems to be the implication of Allison's statement (in *Nuclear Terrorism*, p. 15) that a nuclear attack is likely within ten years "[g]iven the number of actors with serious intent..." (italics added) Elsewhere in the book, however, he focuses on al-Qa'ida as the most likely nuclear terrorist perpetrator. Note also the initial blanket statement made by members of the Commission on the Prevention of WMD Proliferation and Terrorism to the effect that "[t]errorists are determined to attack us again – with weapons of mass destruction," though later in the report the authors emphasize that "[a]t the moment, al Qaeda is judged to be the sole terrorist group actively intent on conducting a nuclear attack against the United States." See Commission on the Prevention of WMD Proliferation and Terrorism, *World at Risk* (Washington, DC: GPO, 2008), pp. xii, 20.

Figure 1: Violent Extremist Groups and CBRN Motivations and Capabilities



Be that as it may, the sorts of terrorist groups that have generally been identified as the most likely perpetrators of acts of CBRN terrorism are those motivated by extremist religious doctrines, above all transnational jihadist networks such as al-Qa‘ida and al-Dawla al-Islamiyya (the Islamic State) and/or apocalyptic millenarian cults such as Aum Shinrikyo.⁴⁵ Even though one cannot rule out other types of groups, exceptions of one sort or another, or even potential “black swans,” this view appears to be largely justified. However, in order to further clarify these complex motivational issues, it is necessary to provide a more in-depth analysis than has thus far been common in the literature on CBRN terrorism.

The Potential Multiplicity of Motives

It has already been argued that terrorism is a violent technique of psychological manipulation that necessarily involves three parties – the perpetrator(s), the victim(s), and a wider target audience or audiences – whereas normal acts of violence involve only two parties, the perpetrator(s) and victim(s). From this it follows that attacks which are solely designed to kill large

⁴⁵ See, e.g., Jenkins, *Will Terrorists Go Nuclear?*, pp. 71-97; Allison, *Nuclear Terrorism*, chapter 1; Gavin Cameron, “The Chemical, Biological, Radiological and Nuclear (CBRN) Threat – Exaggeration or Apocalypse Soon?,” in *Globalisation and the New Terror: The Asia Pacific Dimension*, ed. by David Martin Jones (Cheltenham, UK, and Northampton, MA: Edward Elgar, 2004), pp. 99-104; Venter, *Allah’s Bomb*, pp. 2-9; Ferguson et al., *Four Faces of Nuclear Terrorism*, p. 37 and Table 2.1, pp. 38-9.

numbers of people are not really acts of bona fide terrorism at all. They are better described as acts of “mass murder” (or perhaps as “acts of war,” if one takes the hyperbolic and often metaphorical rhetoric of both extremist groups and their state opponents at face value). In contrast, the phrase “mass casualty terrorism” properly refers to attacks that are intentionally designed to exert an impact upon wider target audiences by means of the production of large numbers of casualties.⁴⁶ This key distinction, and others as well, can easily be illustrated by reference to the possible motives behind the catastrophic attacks on 9/11. If the principal purpose of Usama b. Ladin and Ayman al-Zawahiri, whose al-Qa‘ida network sponsored and later claimed responsibility for those near simultaneous attacks, was simply to kill large numbers of people, it would have constituted an act of mass murder rather than terrorism. If their primary aim was simply to destroy the Twin Towers and damage the U.S. economy, it would have constituted an unusually destructive act of sabotage or economic warfare rather than terrorism. If their principal purpose had been to exert a psychological impact by physically destroying key symbols of American economic and military power, irrespective of the number of human casualties, it would have been a simple act of terrorism. But if their purpose was to exert a tremendous psychological impact by killing large numbers of people, as seems likely, it constituted an act of “mass casualty terrorism” per se. However, in this instance al-Qa‘ida seems to have had multiple aims for launching the attack— to destroy the physical symbols of American power, to damage the U.S. economy severely, to kill military personnel in the Pentagon and political leaders in Congress, to commit mass murder and/or to commit a traumatic act of mass casualty terrorism.⁴⁷

Of course, 9/11 was an unconventional attack launched with more or less conventional means. By extension, however, one can easily imagine scenarios involving the use of different types of “WMD” that might also serve multiple purposes. Here one needs to distinguish between nuclear weapons and CBR weapons (which cannot really produce mass destruction). If, on the one hand, a nuclear weapon was detonated in a major American city, the aim of the perpetrators could be:

- to kill hundreds of thousands or possibly millions of individuals within the actual blast radius;

⁴⁶ Jeffrey M. Bale, “Responses to Questions on CBRN Terrorism,” unpublished essay for the U.S. Government, pp. 2-3. One of the few authors who has emphasized the need to examine terrorists’ potential use of CBRN weapons explicitly within the framework of the impact that they hope to exert on target audiences is Daniel S. Gressang IV, “Audience and Message: Assessing Terrorist WMD Potential,” *Terrorism and Political Violence* 13:3 (Autumn 2001), pp. 83-106. As he puts it (p. 85), “terrorists are alike in at least one important way: they seek to acquire and maintain some degree of influence over an identifiable audience. While that audience may vary widely, the desire to have and exercise influence is seen as the most basic driving motivation of terrorists, regardless of additional motivational, ideological or theological imperatives.” From this it follows that, when speaking of terrorism in the strict sense, “the content and context of the terrorist’s message to his primary audience is a critical component for understanding the linkage between motive and action.” Ibid, p. 89. The common neglect of this factor in discussions of “WMD” terrorism, whether explicit or implicit, is rather odd given that so many terrorism experts acknowledge that *at least* one of the distinguishing characteristics of terrorist violence is that it is intended to influence a wider audience.

⁴⁷ Bale, “Responses to Questions concerning CBRN Terrorism,” pp. 2-3.

- to irradiate an even larger number of individuals, many of whom would likely die, sooner or later, due to excessive radiation exposure;
- to create massive physical destruction in the midst of a large metropolis;
- to wreak economic havoc by obliterating the infrastructure of a national or international center of finance, manufacturing, or commerce;
- to traumatize the remaining residents of the city and all other citizens of the nation, as well as citizens in allied countries, who may believe that other nuclear attacks will be carried out;
- to force the government of the targeted country to accede to their demands;
- to provoke a wider nuclear war;
- to demonstrate their technological and operational prowess;
- to inspire or rally their followers; or
- all or any combination of the above.

Therefore, even in the case of nuclear weapons, which are indisputably weapons of mass destruction, it is not necessarily the case that the only motivation of the perpetrators would be to cause mass casualties.

If, on the other hand, a Radiological Dispersal Device (RDD) or “dirty bomb” was detonated in a major American city, the aim of the perpetrators could be:

- to kill the (relatively limited number of) individuals unfortunate enough to be within the blast radius;
- to irradiate a much larger number of individuals, depending upon the precise nature and quantity of the radioactive materials used;
- to traumatize other residents of the city, whose lack of scientific knowledge and overriding fears of contamination could produce debilitating long term psychological effects;
- to contaminate vital sections of the city, such as the downtown business district, so as to inflict lasting economic damage;
- to demonstrate their technological and operational prowess (though in this case that prowess would be considerably less than in a nuclear attack);
- to inspire or rally their followers; or
- all or any combination of the above.

Indeed, every type of CBRN agent or weapon might likewise be employed for any number of potential reasons, both material and psychological, and not necessarily only to inflict mass destruction or mass casualties. Indeed, in the past, CBR materials have more often been used to

poison or contaminate specific individuals, with the intention of either injuring or murdering them.⁴⁸

In short, the objectives for carrying out CBRN attacks can vary greatly, both in terms of the actual impact sought and the political or religious goals being pursued.⁴⁹ Impact-wise, they could be seen as a means to diverse ends, including the precipitation of small or large numbers of casualties, minor or severe material damage, or varying levels of psychological trauma. Only nuclear weapons are actually guaranteed to cause massive damage and enormous casualties if they are detonated in populous areas.⁵⁰ Alternatively, such attacks could conceivably be carried out as an end in themselves, especially if the perpetrator(s) had some sort of technological fetish or was otherwise driven by an inner compulsion to utilize unconventional weapons, in the same way that setting fires appeals to certain types of arsonists entirely for idiosyncratic, subliminal psychological reasons rather than for rational, instrumental ones (e.g., bilking insurance companies, getting revenge on someone, etc.). As it happens, although most analysts concerned with these issues have pointed to a variety of possible terrorist motives for employing “WMD,” few if any have as yet attempted to enumerate and evaluate those motives in a systematic fashion.⁵¹ For this very reason, several such purported motives need to be considered in more detail below.

Operational Objectives for Employing Biological Weapons

1) Inflicting Mass Casualties

⁴⁸ This is not only true of frustrated individuals holding personal grudges, but also of non-state groups that wished to eliminate designated enemies and of regimes that intentionally established covert CBW programs in large part to assassinate “enemies of the state,” such as South Africa. See the detailed overviews of both the South African BW and CW programs by Jeffrey M. Bale, “South Africa’s Project Coast: ‘Death Squads,’ Covert State-Sponsored Poisonings, and the Dangers of CBW Proliferation,” in *idem*, *Darkest Sides of Politics*, volume 2, chapter 1; and Chandre Gould and Peter Folb, *Project Coast: Apartheid’s Chemical and Biological Warfare Programmes* (Geneva: United Nations Institute for Disarmament Research/Centre for Conflict Resolution, 2002).

⁴⁹ The most complete catalog of prior CBRN terrorist threats, hoaxes, and attacks was previously found in the Monterey Terrorism Research and Education Program’s WMD Terrorism database at the Monterey Institute of International Studies. At its height, this database listed around 1400 incidents. However, the information in that database has now been incorporated into an even more complete and much more up-to-date database prepared by the National Consortium for the Study of Terrorism and Responses to Terrorism (START) Center at the University of Maryland, the Profiles of Incidents Involving CBRN and Non-State Actors (POICN) Database. This database is not yet fully online.

⁵⁰ This presupposes, of course, that the devices function as intended. However, Charles Blair has pointed out that there are no guarantees that nuclear devices, especially improvised nuclear devices, would “function in an optimal sense and cause mass destruction. It is more likely than not that they would fizzle; in such cases certainly a lot of damage would result but it would not be anywhere close to a Hiroshima-like event.” Personal communication from Blair, 5 June 2009.

⁵¹ Perhaps the most systematic single effort to address terrorist motivational incentives and disincentives for using “WMD” is that of Gurr and Cole, (*New Face of Terrorism*). For example, therein (pp. 92-103) they discuss the operational pros and cons of using such weapons for indiscriminate attacks on population targets, assassinations, attacking military facilities, doing economic damage, blackmail and intimidation, generating propaganda, attacking key buildings and sites as well as nuclear and chemical facilities (i.e., critical infrastructure), and deterrence.

The most obvious motive, and the one that many non-specialists and casual observers seem to think is the only one, is a desire to inflict mass casualties on declared enemies. Certainly, violent political or religious extremist groups that wish to kill large numbers of people might well be interested in acquiring or deploying biological agents insofar as they believe – rightly or wrongly – that such weapons will enable them to accomplish this goal.⁵² Indeed, since more and more information about the fabrication of such weapons is becoming available to members of the public, including would-be terrorists, and since “new” types of violent non-state groups increasingly seem to be interested in carrying out mass casualty attacks, some observers have assumed that this will lead them to deploy biological weapons in acts of WMD terrorism, properly speaking.⁵³

There are, however, serious theoretical and practical problems with this assumption, which suggest that this potential transition is anything but inevitable apart from the difficulties involved in overcoming technical hurdles or the residual reluctance to transgress long-standing moral taboos.⁵⁴ The theoretical problem has to do with scale, specifically how the term “mass casualty” is defined and delimited. Exactly how many people – dozens, hundreds, thousands, tens of thousands, hundreds of thousands, or millions – actually have to be killed or injured for an incident to fall into the “mass casualty” category?⁵⁵ The practical problem, which is only tangentially related to how the term itself ends up being defined and delimited by scholars and policymakers, is whether violence-prone groups really need to have recourse to CBRN weapons in order to generate “mass casualties,” i.e., relatively large numbers of casualties.

If terrorists are satisfied with killing “only” dozens or hundreds of people, they will likely find it both easier and less risky to continue employing powerful conventional weapons (perhaps

⁵² Richard A. Falkenrath, Robert D. Newman, and Bradley A. Thayer, *America's Achilles' Heal: Nuclear, Biological, and Chemical Terrorism and Covert Attack* (Cambridge, MA: MIT Press, 1998), pp. 205-6.

⁵³ Richard A. Falkenrath, “Confronting Nuclear, Biological and Chemical Terrorism,” *Survival* 40:3 (Autumn 1998), p. 53. Cf. also Joseph W. Foxell, Jr., “The Debate on the Potential for Mass-Casualty Terrorism: The Challenge to US Security,” *Terrorism and Political Violence* 11:1 (Spring 1999), p. 96, who argues that “mass-destruction terrorism may rapidly become the predominant form of sociopolitical violence in the twenty-first century” and describes “mass-destructive-capability weapons” as “quintessential devices of terror” able to visit “apocalyptic [sic] devastation” that could result in civilian deaths on an “unprecedented” scale; as well as the remarks of Francis H. Marlo, “WMD Terrorism and US Intelligence Collection,” *Terrorism and Political Violence* 11:3 (Autumn 1999), p. 55: “the increasing willingness to engage in mass murder makes terrorists more likely to consider WMD as usable and even preferable to conventional explosives and other traditional terrorist weaponry.”

⁵⁴ The allusion to “long-standing moral taboos” here refers to the fact that members of many types of extremist groups, like most other people, have historically believed that carrying out attacks with CBRN materials is “beyond the pale,” morally speaking. See the discussion below about (most) ethno-nationalist, secular left-wing, and secular right-wing terrorist groups.

⁵⁵ Gavin Cameron, “WMD Terrorism in the United States: The Threat and Possible Countermeasures,” *Nonproliferation Review* 7:1 (Spring 2000), pp. 163-4. One attempt at definition, albeit of “mass destruction terrorism” rather than “mass casualty terrorism,” has been made by Foxell, “Debate on the Potential for Mass-Casualty Terrorism,” p. 98: “mass-scale violence purposed [sic] to cause immense death tolls enacted through use of weapons capable of killing or sickening large numbers *en masse*.” Yet even he is vague about what “large numbers” might be.

including military-grade explosives) to carry out effective “mass casualty” attacks.⁵⁶ Viewed from this perspective, the vehicular bombings of the Alfred P. Murrah Federal Building in Oklahoma City by Timothy McVeigh and of the tourist-friendly nightclubs in Bali by Jemaah Islamiyah, not to mention the 9/11 attacks and 11 March 2004, train bombings in Madrid by mainly Moroccan operatives, some of whom were linked at least indirectly to al-Qa‘ida’s network, can be classified as acts of “mass casualty terrorism” even though they did not involve the use of CBRN materials.⁵⁷ On the other hand, if terrorists hope to kill hundreds of thousands or millions of people, they will almost certainly be motivated to acquire and use WMD. Yet it is important to emphasize once again that certain types of weapons that have traditionally been categorized as “WMD,” specifically chemical agents and radiological materials, would not enable them to cause nearly that many casualties, even under optimal conditions. Hence any extremist group aiming at the wholesale murder of designated enemies would either have to acquire and successfully detonate a functional nuclear device or properly disseminate lethal and preferably highly contagious biological pathogens, actions that have the capacity to kill millions but are fortunately also exceedingly difficult to carry out.⁵⁸ In sum, even if a particular terrorist group was fixated on carrying out the kind of attacks that could produce relatively high death tolls, this would not automatically mean that it would seek to obtain and use CBRN weapons.⁵⁹

Nevertheless, it is fair to assume that if violent extremists were to weaponize a lethal, contagious biological agent, one of their principal aims – in addition to terrorizing the citizens of the targeted nation – would be to cause mass casualties. After all, if their objectives were less

⁵⁶ See Arpad Palfy, “Weapon System Selection and Mass-Casualty Terrorism,” *Terrorism and Political Violence* 15:2 (Summer 2003), p. 82: “the use of unconventional [CBRN] weapons is largely dependent on the terrorists’ desired mission outcome...missions *specifically* seeking to cause large amounts of casualties, even if only as a means to a desired end, will tend to employ weapons of a more conventional nature, though will perhaps do so in more elaborate ways. Conversely, terrorist missions seeking to disrupt, intimidate, or otherwise interrupt the regular functioning of a state, *irrespective* of total casualties and fatalities produced, may be tempted to employ chemical or biological-type weapons.” One reason for the common terrorist preference for using conventional explosives in mass casualty attacks – in addition to their proven power and effectiveness – is that “most, if not all, terrorist operations require a level of simplicity and cleverness as far from the maximum threshold of complexity as possible in order to achieve the desired outcomes.” *Ibid.*, p. 87.

⁵⁷ See Cameron, “WMD Terrorism in the United States,” p. 164.

⁵⁸ Indeed, if the high casualty figures resulting from an attack – or that could potentially result from an attack – are the sole criteria for identifying them as acts of “WMD terrorism,” then “terrorist attacks using non-conventional [CBR] weapons are not necessarily examples of WMD terrorism. NBC materials do not equate to WMD...It is not the material used, but whether it has been turned into a weapon that could be used effectively to kill many people, that makes the difference.” See *ibid.*

⁵⁹ However, as Gurr and Cole rightly emphasize (*New Face of Terrorism*, p. 90), large-scale (or mass casualty) attacks are not necessarily “indiscriminate,” just as smaller-scale attacks are not necessarily “discriminate.” For example, the bombings of the U.S. Marine base in Beirut by a Hizballah front group and the Oklahoma City federal building by McVeigh were both large-scale conventional attacks that were very costly in human lives, but they were quite discriminate insofar as their selection as targets was concerned. After all, the Marines were viewed as “occupying” foreign military personnel, whereas the employees working in the Murrah building were mainly government officials who allegedly served the interests of the anti-American “New World Order.” Conversely, if a gunman enters an airport and starts shooting people randomly, that would be a small-scale but “indiscriminate” attack.

grandiose and destructive, they would instead be inclined to employ other types of weapons that would not have such potentially profound, devastating, and catastrophic tangible effects, all the more so since the use of these types of biological weapons would likely result in widespread international condemnation of the perpetrator and aggressive responses by the targeted country that may well end up threatening the survival of the organization that deployed them. In the case of biological weapons, however, there are many other possible objectives that terrorists might be trying to achieve by employing them.

2) Psychological Impact

The most important single factor that would arguably motivate terrorists – in the strictest sense of that term – to employ biological weapons and other non-nuclear “WMD” is a desire to exert a tremendous psychological impact on one or more target audiences, perhaps including both their enemies, who would be stunned if not cowed, and their supporters, who would be impressed if not inspired.⁶⁰ It has been suggested above that if causing mass casualties and/or extensive physical destruction is their sole aim, terrorists may well recognize that conventional terrorist attacks can be every bit as destructive and devastating as small-scale biological attacks, if not much more so. In such a case, they would not necessarily see any particular advantage in employing these types of materials. But if the primary aim of particular non-state actors is to traumatize a wider target audience (or multiple audiences) psychologically, they are likely to prefer using such unconventional (CBRN) materials, provided that they have the technical capacity to do so and that the costs that they might incur as a result are not too great. Only the most spectacular conventional attacks, like those of 9/11, would be likely to have the same emotional impact as even a moderately effective smaller-scale chemical, biological, or radiological attack. Due to the lay public’s primal fears of contamination and infection from unseen agents, such an unconventional attack that “only” caused a couple of dozen deaths would probably have a more traumatic and terrifying impact than a conventional terrorist attack that killed hundreds.⁶¹ This is certainly the lesson of both the Aum Shinrikyo case, which attracted inordinate attention due to the group’s interest in WMD and use of chemical agents, and the 2001 *Bacillus anthracis* letter mailing incidents in the United States. Indeed, given the frequency of mass casualty Islamist terrorist bombings, it could be argued that

⁶⁰ Falkenrath et al, *America’s Achilles’ Heel*, pp. 206-7; Gordon H. McCormick, “Terrorist Decision Making,” *Annual Reviews in Political Science* 6 (2003), pp. 479-80; David Claridge, “Exploding the Myths of Superterrorism,” *Terrorism and Political Violence* 11:4 (Winter 1999), p. 141. This type of action falls under the category of “propaganda” in the analysis of Gurr and Cole, *New Face of Terrorism*, pp. 98-100.

⁶¹ See also the remarks of Jonathan B. Tucker and Amy Sands, “An Unlikely Threat,” *Bulletin of the Atomic Scientists* 55:4 (July-August 1999), p. 49. They also highlight some of the reasons for this disproportionate psychological impact: “[CB weapons] are generally invisible, odorless, tasteless, silent, and insidious,” and as a result they tend to “evoke deep human anxieties and instill a qualitatively different type of terror” than, say, cathartic explosions. Cf. Kellman, *Bioviolence*, pp. 17-18. See also Falkenrath, “Confronting Nuclear, Biological and Chemical Terrorism,” p. 49. In addition to triggering a “panic incommensurate with the real effects of the weapons,” he also lists six other supposed “general consequences” of a major NBC attack: massive casualties, contamination, degraded response capabilities, economic damage, loss of strategic position, and social-psychological damage resulting in political changes.

only conventional attacks that result in thousands of deaths would nowadays be likely to have the same psychological *frisson* as successful acts of biological terrorism, whatever their scale. In that sense “WMD” of all types are almost ideally suited for terrorism proper, since their employment is almost guaranteed to exert a profound effect on the psyches of those wider audiences that terrorists are by definition trying to influence with their acts of violence.

3) Assassination

A third major reason that extremist (or criminal) groups, like states, might decide to employ biological agents or toxins would be to carry out assassinations, which are by definition narrowly targeted, highly selective murders that fall on the opposite end of the spectrum from “mass casualty attacks.” As noted above, most of the prior uses of bona fide biological (as well as chemical or radiological materials) have involved efforts to poison one or more individuals.⁶² In that sense, far from being used primarily to inflict large numbers of casualties in catastrophic attacks, biological agents have thus far generally been deployed in tactical or discrete attacks to achieve far more limited and practical effects.⁶³ Moreover, as Jean Pascal Zanders has noted, many of the past cases of poisoning with such materials can more accurately be “classified as attempts at homicide, suicide, or criminal extortion motivated by financial rather than political gain.”⁶⁴ To financial gain one should also add personal animosities and other idiosyncratic individual motives.

4) Incapacitation

Biological materials might also be used for the purpose of incapacitating people rather than killing them.⁶⁵ One illustrative example in the biological area of previous attempts to incapacitate involved the Rajneesh cult, which used *Salmonella typhimurium* bacteria in an effort to prevent non-members from voting in an upcoming local Oregon election.⁶⁶

5) Contamination and Area Denial

⁶² For prior examples, see Alex P. Schmid, “Chemical Terrorism: Precedents and Prospects,” *Synthesis* (Summer 2001), electronic p. 1, at www.opcw.org/synthesis/html/s6/p9prt.html : “the use of the term ‘weapons of mass destruction’ is misleading, since what takes place with such chemical and biological agents has been mostly individual murder by poisoning, or a few killings with a substance that could also be a weapon of mass destruction if used to its full potential.”

⁶³ Jonathan B. Tucker, “Lessons from the Case Studies,” in idem, ed., *Toxic Terror*, p. 267.

⁶⁴ Jean Pascal Zanders, “Assessing the Risk of Chemical and Biological Weapons Proliferation to Terrorists,” *Nonproliferation Review* 6:4 (Autumn 1999), p. 19.

⁶⁵ However, Charles Blair has noted that “if a radiological agent is strong enough to cause prompt incapacitation, the victim [is likely to] die from the exposure received.” Personal communication from Blair, 5 June 2009. Hence perhaps such a distinction is less meaningful in this context.

⁶⁶ Jonathan B. Tucker and Amy Sands, “An Unlikely Threat,” *Bulletin of the Atomic Scientists* (July-August 1999), p. 50. For this case, see further W. Seth Carus, “The Rajneeshes,” in *Toxic Terror*, pp. 115-37.

Apart from the above primary motives or objectives, there are a number of subsidiary operational factors that might cause terrorists to utilize biological weapons. Various ideological and psychological motives will be examined below, but, with regard to potential operational motives, an extremist group may wish to contaminate key areas or facilities, including those which are widely regarded as vital to the normal functioning of a given nation's "critical infrastructure," including its economy and political system.⁶⁷ Certain highly infectious biological agents that can be weaponized and which persist in the environment, such as *Bacillus anthracis*, may be well suited to the accomplishment of such an objective.⁶⁸

6) Ease of Covert Delivery and Delayed Effects

A violent extremist organization might also decide to deploy biological materials because they are especially well suited for covert delivery.⁶⁹ For example, a small container of such materials can easily be transported to a crowded location, hidden in a trash container or placed under a seat, and then activated or opened so that the substance inside will be released. If the bearer has been provided with certain protections beforehand, he or she can then probably depart unnoticed and safely escape. Moreover, in the case of a disease agent whose harmful effects will not manifest themselves for hours or even days, the escape of its bearer would be virtually assured, long before any symptoms of exposure appear. Indeed, a sudden outbreak of disease may well be initially regarded as natural or accidental by medical personnel, thereby enabling the perpetrators and/or their covert sponsors to maintain "plausible deniability" – assuming that they actually wanted to keep their involvement secret instead of boasting about their spectacular unconventional attack.⁷⁰

7) Ease of Acquisition

Finally, certain biological agents may be relatively easy to acquire from clinical laboratories.⁷¹ These would include *Salmonella* species, which are associated with gastrointestinal illness. On the other hand, biological pathogens that pose the highest risk to national security and

⁶⁷ Falkenrath, "Confronting Nuclear, Chemical and Biological Terrorism," p. 49, where both "contamination" and "economic damage" are listed, albeit separately, as being among the consequences of a WMD terrorist attack. This scheme has been accepted but embellished by Gurr and Cole, *New Face of Terrorism*, pp. 83-5.

⁶⁸ *Bacillus anthracis*, which converts to its spore (non-replicating form), is NOT transmissible person-to-person. However, dormant spores may persist for many decades, and could potentially cause acute anthrax if breathed in (in the event, say, that they were aerosolized by something as common as a truck driving over a contaminated dusty dirt road). Fortunately, the pathogens discussed later in this study that may be spread by human vectors are fragile and do not persist for long periods in the environment. Thanks to Dr. Noreen A. Hynes for this information.

⁶⁹ Falkenrath, "Confronting Nuclear, Chemical and Biological Terrorism," p. 46; idem et al, *America's Achilles' Heal*, pp. 138-44; Cameron, "WMD Terrorism in the United States," p. 166; Tucker and Sands, "An Unlikely Threat," p. 50; and Kellman, *Bioviolence*, pp. 15-17.

⁷⁰ Ibid, pp. 12-15; Tucker and Sands, "An Unlikely Threat," p. 50. However, the latter authors rightly point out that such a delay might be viewed as a disadvantage by other terrorists, since it may lessen the psychological impact of their attack.

⁷¹ Claridge, "Exploding the Myths of Superterrorism," p. 141.

public health would be much more difficult to procure. One example would be the smallpox virus, which is purportedly stored in only two laboratories – one in the United States and one in the Russian Federation.

The Role of Ideology in Weapons Selection

Before discussing the types of violent non-state groups that may be particularly inclined to employ biological weapons in covert attacks, including using infected humans as vectors, the role of ideology in the process of weapons and target selection needs to be clarified. So far the discussion has been premised on the fact that terrorists are entirely “rational” actors, which is not in fact the case since their rationality tends to be undermined, compromised, and circumscribed by ideological blinders, high-pressure internal group dynamics, and a host of “expressive” emotional factors.⁷² However, even though terrorists and other non-state actors rarely if ever engage in the sort of formal “cost-benefit” analyses that are hypothesized by academic theorists, and their “rationality” will invariably be “bounded” or constrained and thus may not be comprehensible to outsiders, they normally carry out their acts of violence in order to achieve more or less calculated operational objectives.⁷³ To the extent that this is true, whether terrorists choose to employ biological weapons will largely depend on whether “the operational advantages that their use might be perceived to confer” are seen as outweighing “the operational disadvantages that their use might incur” – assuming that a) they have the technical capabilities to do so, and b) the use of such weapons is not utterly antithetical to their ideological agendas and/or psychological make-up.⁷⁴ From this perspective, a group’s decision to use CBRN weapons, like its other decisions concerning targeting, other weaponry, and tactics, will often be based on some degree of rational strategic calculation or choice but can also be heavily influenced by ideological and psychological factors.

Ideology plays a decisive, and at times even preeminent, role in the selection of weapons, targets, and tactical methods by terrorist groups.⁷⁵ The manner by which such groups make these decisions is an involved process that necessarily varies somewhat from group to group but, in general, can be characterized as a progressive limitation of the range of weapons or targets.

⁷² See Jeffrey M. Bale, “The ‘Strategic Thinking’ of al-Qā’ida and the Question of Terrorist Rationality,” report prepared for DOD, as well as the chapter below on jihadist ideology.

⁷³ See especially Martha Crenshaw, “The Logic of Terrorism: Terrorist Behavior as a Product of Strategic Choice,” in *Origins of Terrorism*, pp. 7-24; and McCormick, “Terrorist Decision Making,” p. 481.

⁷⁴ Gurr and Cole, *New Face of Terrorism*, p. 91. See also p. 80.

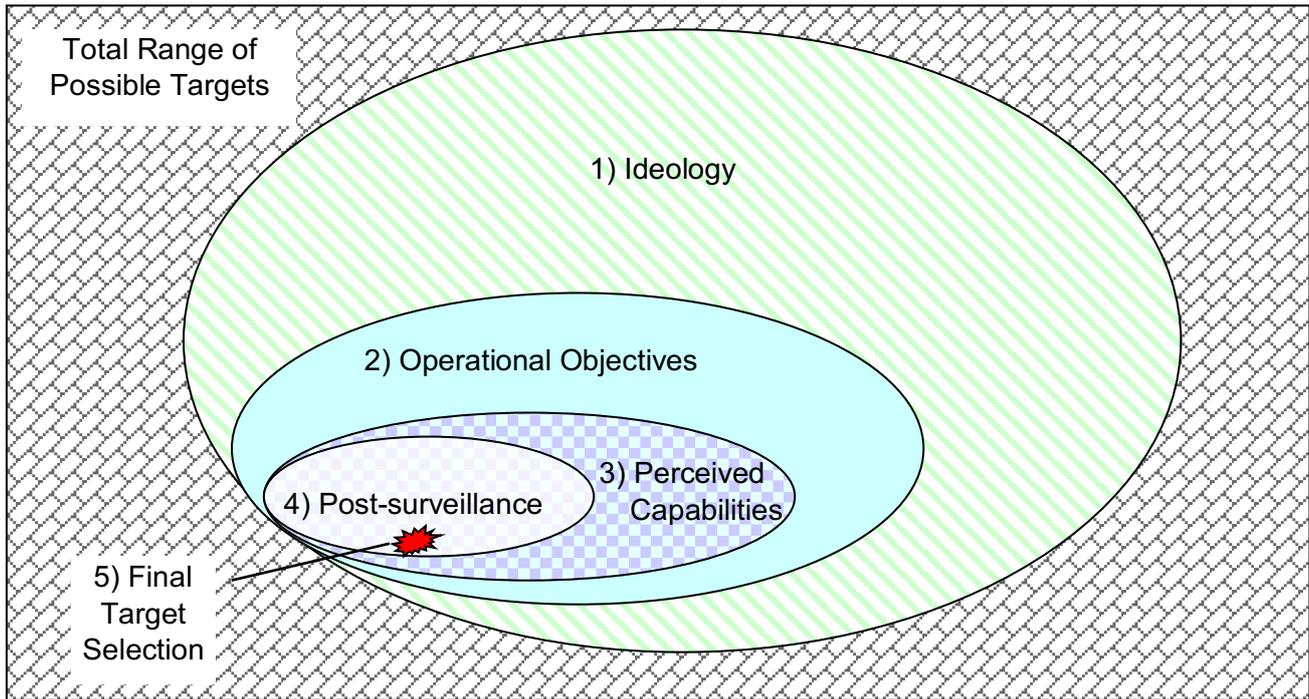
⁷⁵ Brian A. Jackson, “Technology Acquisition by Terrorist Groups: Threat Assessment Informed by Lessons from Private Sector Technology Adoption,” *Studies in Conflict and Terrorism* 24:3 (May 2001), p. 193: the “philosophical and ideological views of a group – including both the espoused philosophy of the organization and the “actual” philosophy revealed by the group’s actions – are...critical in determining whether it will seek out new technology.”

In the case of weapons selection, two primary factors are operative; One obviously is related to the specific operational objective(s) that a violent non-state group is pursuing. Depending upon what its particular operational objectives are, certain types of weapons will be viewed as more suitable than others in helping the group to achieve its goals. For example, if a particular organization is primarily interested in causing mass casualties, it is more likely to make use of powerful explosive devices than daggers or pistols. If, on the other hand, an organization wishes to limit the harm or damage it does to specific individuals, it is much more likely to have recourse to a weapon that can wound or eliminate the selected target without causing indiscriminate casualties or other types of “collateral damage.” In this context, pragmatism is paramount in the selection of weapons. However, the second operative factor is the influence exerted, directly or indirectly, by a group’s ideology, since ideology is a key – if not *the* key – behavioral driver of extremist groups. For example, the ideology of certain organizations may explicitly inhibit them, whether for moral or arcane doctrinal reasons, from carrying out attacks that are likely to cause mass, indiscriminate casualties. This is true, for example, of most eco-terrorist groups. On the other hand, groups that embrace an ideology that “sanctifies” or “fetishizes” the development and utilization of innovative, high technology, or unconventional weapons, such as Aum Shinrikyo, are arguably far more likely to try to acquire, develop, and deploy CBRN weapons rather than rely solely or even primarily on more conventional weapons.

In the case of target selection (see figure 2 below), a group’s ideology, by explicitly indicating what the group is “for” and “against,” essentially establishes the outside range of possible human and non-human targets that its members can legitimately attack. In other words, those who are not viewed as designated “enemies” are unlikely to be targeted. This maximal range of targets is then further limited by the group’s specific operational objectives for launching a particular attack. Once those objectives have been determined, several targets will be identified that might enable the group to achieve its objectives. At that point the group will consider which of those targets can be successfully attacked given its own operational capabilities. After the potential range of targets has been further reduced and various specific targets have been identified in a preliminary way, the group will then conduct close surveillance to determine which of these are most vulnerable, i.e., which can likely be attacked successfully. After that determination has been made, a final target will be selected and additional information will be collected on the layout and configuration of the target, its levels of protection, its peculiar vulnerabilities, approaches to and from the site, etc. When the group feels that it has acquired enough information on the target, it will develop a specific plan of attack, choose weapons suitable for accomplishing its goals, and then launch the attack.⁷⁶

⁷⁶ This particular scheme was first developed and elaborated by a CNS research team headed by myself and Gary Ackerman, specifically in connection with a project designed to assess terrorist motivations for targeting and attacking Critical Infrastructure in the United States.

Figure 2: Terrorist Targeting Process (Progressive Restriction of the Target Range)



Obviously, this is a highly schematic overview of the general process for selecting weapons, targets, and the methods for attacking them, many phases of which are in fact likely carried out simultaneously. Moreover, in some instances, certain phases will be telescoped or eliminated altogether, and there are also no doubt many cases in which such decisions are made in a far more impulsive and haphazard manner. All of these processes will be heavily influenced in particular cases both by the nature of the group and its internal dynamics, above all the characteristics of its leaders and their style and method of making decisions, as well as by external factors such as changes in the security environment, the group's links with other actors whose assistance may be necessary, and a variety of other factors. In short, in the "real world" there are many possible paths that may lead from a group's ideological proclivities to its determination of operational objectives to its final selection of weapons, targets, and tactics, but these can only be determined with more specificity after in-depth qualitative studies of particular groups have been carried out.

Ideological and Psychological Motivations for Employing Biological Weapons

1. Motivational Indicators Deriving from Ideological Proclivities: Ethno-Nationalist, Radical Leftist, and Radical Rightist Groups

If one hopes to shed light on why certain types of terrorist groups might be more inclined to carry out biological attacks than others, it is probably useful to divide the postwar history of terrorism into 1) an earlier era dominated by secular (or at least secularized) political terrorist organizations demanding political independence or espousing utopian revolutionary ideologies, whether of the left or right; and 2) a more recent period in which religious terrorism, i.e., terrorism inspired by religious doctrines and theological imperatives, has come to the fore. During this latter period, “a surge of religious fanaticism has manifested itself in spectacular acts of terrorism all across the globe...[a] wave of violence that is unprecedented, not only in its scope and the selection of targets, but also in its lethality and indiscriminate character.”⁷⁷ It can be argued that the factors inhibiting or facilitating the use of biological materials differed somewhat, and in certain respects perhaps quite dramatically, during these two eras.

The first of these two periods, which lasted roughly from the early 1960s to the early 1980s, was dominated on the one hand by ethno-nationalist terrorism and on the other by ideological left- and right-wing terrorism. For practical and/or ethical reasons, these types of groups were generally less likely to resort to CBRN terrorism than are insular or transnational groups of religious extremists.

As far as traditional ethno-nationalist groups are concerned, there are two factors that seem to have especially militated against their use of such weapons:

- they tended to operate within a delimited geographical sphere, a relatively vulnerable piece of territory occupied by their ethnic confreres, who might thereafter have been subjected to harsh retaliatory measures by those they attacked in this way; and
- they generally hoped to elicit broader international support for their independence struggles or their collective efforts to redress legitimate grievances, support that would have been likely to erode significantly had they crossed the so-called WMD threshold.

One may object that ethnic hatreds (especially those infused with religious sectarianism) often lead to the commission of atrocities against designated “out-groups,” that there are several instances of ethno-nationalist terrorist groups carrying out or threatening to carry out CB attacks, and that a

⁷⁷ Magnus Ranstorp, “Terrorism in the Name of Religion,” *Journal of International Affairs* 50:1 (Summer 1996), p. 43. Of course, as David Rapoport and many others have pointed out – see, e.g., Rapoport’s “Fear and Trembling: Terrorism in Three Religious Traditions,” *American Political Science Review* 78:3 (September 1984), pp. 658-77 – religious motivations had long served as the primary inspiration for terrorism, and in that sense their recent flowering in virulent new guises is only surprising insofar as they have partially displaced secular motivations that were once thought to have signalled the decline of religiosity. Alas, since the mid-1970s there has been an unanticipated resurgence of religiosity in many parts of the world. See especially Gilles Kepel, *The Revenge of God: The Resurgence of Islam, Christianity and Judaism in the Modern World* (University Park: Pennsylvania State University, 1994). For case studies illustrating this phenomenon, see David Westerlund, ed., *Questioning the Secular State: The Worldwide Resurgence of Religion in Politics* (London: Hurst, 1996).

number of such groups, including radical factions of the PLO and IRA, were not dissuaded from conducting other types of cold-blooded, brutal actions that proved to be counterproductive in the sense that they shocked the sensibilities of potential international sympathizers, if not always their own constituents.⁷⁸ But such cases involving “WMD” have nonetheless been relatively rare.

As for certain Cold War-era secular revolutionary terrorist groups, similar desires to elicit broader international support and sympathy for their causes may well have served as a brake on their commission of acts of biological terrorism. Here a distinction should probably be drawn between radical left groups that embraced Marxist or anarchist doctrines, and radical “right” groups that adhered to neo-fascist or neo-Nazi doctrines,⁷⁹ even though all four fall into the category of utopian revolutionary ideologies with quasi-religious characteristics.⁸⁰ The former generally targeted specific “class enemies” or representatives of the “imperialist state of the

⁷⁸ One such WMD case involving the Tamil Tigers has been briefly discussed by John Parachini, “Putting WMD Terrorism into Perspective,” *Washington Quarterly* 26:4 (Autumn 2003), pp. 43-4. Several other cases can be found in assorted WMD Terrorism databases such as POICN.

⁷⁹ Here we are using the term “radical right” merely for the sake of convenience and in order to avoid unnecessary confusion, even though fascism (and, to a lesser extent, its atypical, race-obsessed Hitlerian Nazi variant) was in actuality an outgrowth of turn-of-the-century attempts by an odd assortment of disillusioned revolutionaries and radicals to conjoin particular European intellectual currents from both the right and the left, specifically radical nationalism and non-Marxist socialism, and thereby create a new type of revolutionary nationalist movement. See especially Eugen Weber, *Varieties of Fascism: Doctrines of Revolution in the Twentieth Century* (Princeton, NJ: Van Nostrand, 1964); and Zeev Sternhell, “Fascist Ideology,” in Walter Laqueur, ed., *Fascism: A Reader's Guide. Analyses, Interpretations, Bibliography* (Berkeley: University of California, 1976), pp. 325-406.

⁸⁰ In classes that I have taught over the years, I have often described communism and fascism as the “two great secular religions of the twentieth century,” by which I mean that they were able to elicit similar degrees of dedication, fanaticism, and self-sacrifice among their followers, had pronounced ritualistic and ceremonial aspects, and were rooted in almost equally Manichean worldviews. Similar ideas have been articulated by many other theorists of such movements, above all as “political religions.” Cf., e.g., Eric Voegelin, *Modernity Without Restraint: The Political Religions, The New Science of Politics, and Science, Politics, and Gnosticism* (Columbia, MO: University of Missouri, 2000), esp. pp. 19-74; Raymond Aron, *The Opium of the Intellectuals* (New York: Routledge, 2005 [1955]), chapter 9; Emilio Gentile, *Politics as Religion* (Princeton, NJ: Princeton University, 2006); A. James Gregor, *Totalitarianism and Political Religion: An Intellectual History* (Stanford: Stanford University, 2012); Roger Griffin, ed., *Fascism, Totalitarianism and Political Religion* (New York: Routledge, 2005); and the three volumes edited by Hans Meier entitled *Totalitarianism and Political Religions: Concepts for the Comparison of Dictatorships* (New York: Routledge, 2008). Even so, these utopian secular revolutionary movements viewed the cataclysmic struggle between good and evil as something that was taking place solely on the material plane of this world, whereas religious movements view it, by definition, as a cosmic struggle that occurs both in this world and – that which is more important – on a higher spiritual plane. For the “cosmic” dimension of religious struggles, see Mark Juergensmeyer, *Terror in the Mind of God: The Global Rise of Religious Violence* (Berkeley: University of California Press, 2003), pp. 148-66. Moreover, self-sacrifice becomes rather easier when one imagines that it will lead to immediate entry into an other-worldly paradise, which is why “martyrdom operations” in the form of acts of “suicide” terrorism are generally carried out by members of extremist religious groups (with the exception of the Tamil Tigers, whose suicide attacks are nonetheless also undergirded by Hindu religious values and reinforced by Hindu ceremonies and symbols, not to mention their cult-like leadership and internal dynamics). Alas, this failure to understand the real nature of the LTTE, together with other factual errors, problematic methodologies, and incomplete data sets, caused Robert Pape to produce a seriously misleading study on suicide attacks, *Dying to Win: The Strategic Logic of Suicide Terrorism* (New York: Random House, 2006). For a necessary corrective to Pape, see David Cook and Olivia Allison, *Understanding and Addressing Suicide Attacks: The Faith and Politics of Martyrdom Operations* (Westport, CT: Praeger, 2007). More will be said about this in the chapter on jihadist ideology.

multinationals,” claimed responsibility for their attacks, and eschewed “WMD” terrorism, whether for moral or purely instrumental political reasons. (Even so, one of their immediate objectives was to provoke state repression so as to awaken the “exploited masses” to the supposedly “fascist” nature of “bourgeois” pseudo-democratic states. It is thus hard to explain why they failed to recognize that conducting a biological attack would have been likely to generate just such an overreaction and crackdown by the authorities.⁸¹) In general their right-wing counterparts were less liable to claim responsibility and more likely to carry out mass casualty attacks (such as bombings of banks, public squares, commuter trains, and train stations), often in the context of covert “false flag” operations specifically designed to implicate the far left.⁸² Despite this, they too rarely displayed any serious interest in CBRN terrorism.⁸³ These last remarks are clearly applicable to the veteran neo-fascist terrorists in Europe, but are seemingly not as applicable to right-wing radicals elsewhere, who have often been driven by markedly less secular worldviews (e.g., idiosyncratic Christian paramilitary groups in America).

In sum, although it is true that there are a wide variety of internal and external factors that might cause secular terrorist groups to risk alienating their proclaimed constituencies and would-be sympathizers by perpetrating atrocities of one kind or other, such as a perceived need to demonstrate continued operational effectiveness, rally the spirits of disillusioned members and hardcore supporters, or teach a pointed lesson to their opponents, it is also the case that they

⁸¹ Gurr and Cole refer to this cynical strategy of intentionally provoking state repression as “polarizing communities.” See *New Face of Terrorism*, p. 89. There are two allegations involving the Rote Armee Fraktion (RAF) and CB agents, one in which they supposedly threatened to use stolen canisters of mustard agent against German cities, the other in which botulinum toxin was reportedly found in a makeshift laboratory at an RAF safe house in Paris, but both appear to have been untrue. For details see, respectively, David Claridge, “The Baader-Meinhof Gang (1975),” in *Toxic Terror*, pp. 95-106; and Terence Taylor and Tim Trevan, “The Red Army Faction (1980),” in *ibid*, pp. 106-13.

⁸² The best illustration of this is provided by the terrorist “strategy of tension” in Italy, but similar tactics were also systematically employed by neo-fascist terrorists in Greece, the Iberian Peninsula, and parts of Latin America. For an overview, see Jeffrey M. Bale, “Terrorism, Right-Wing,” in Bernard A. Cook, ed., *Europe since 1945: An Encyclopedia* (New York: Garland, 2001), volume 2, pp. 1238-40. For scholarly English-language treatments of the “strategy of tension,” see especially Franco Ferraresi, *Threats to Democracy: The Radical Right in Italy after the War* (Princeton: Princeton University, 1996), especially chapters 4-6; and Jeffrey M. Bale, *The Darkest Sides of Politics* (New York: Routledge, 2018), volume 1, chapters 3-7. For an insightful introduction to this oft-ignored but crucially important pattern of covert state manipulation of terrorism, see Philip Jenkins, *Images of Terror: What We Can and Can't Know about Terrorism* (Hawthorne, NY: Aldine de Gruyter, 2003), pp. 87-109.

⁸³ The only case that we know of, which does not appear in any of the available listings of WMD terrorism incidents, was that of Eliodoro Pomar, a nuclear engineer and activist in an Italian neo-fascist terrorist group, the Movimento Politico Ordine Nuovo (MPON: New Order Political Movement), who hatched a plot in the early 1970s to contaminate Roman reservoirs with radioactive materials. See Gianni Flamini, *Il partito del golpe: Le strategie della tensione e del terrore dal primo centrosinistra organico al sequestro Moro* (Ferrara: Bovolenta, 1982), volume 2, p. 222. There is also another interesting case in Chile in which Eugenio Berríos, a military officer working for the Dirección de Inteligencia Nacional (DINA: Directorate of National Intelligence), the Chilean secret police, was reportedly manufacturing sarin at a DINA “safe house” then frequented by Italian neo-fascist terrorist Stefano delle Chiaie, the historic leader of Avanguardia Nazionale (AN: National Vanguard), and American DINA operative Michael Townley, who was later implicated in the Washington, DC Embassy Row assassination of Orlando Letelier, a former official in Salvador Allende’s government. See Samuel Blixen, *El vientre del Cóndor: Del archivo del terror al caso Berríos* (Montevideo: Brecha, 1994), p. 25.

previously considered – and will likely continue to consider – certain types of actions to be “beyond the pale,” whether for principled moral reasons or because their negative effects could far outweigh whatever tangible benefits the group might hope to gain from carrying them out. The use of CBRN materials appears to have fallen into that “beyond the pale” category for most such groups, irrespective of their level of technical competence. This is because they tend to have a *relatively* rational understanding of cause-and-effect relationships, more limited immediate political objectives, and an acute sensitivity to the impact of their actions on outside observers, however Manichean their worldviews or utopian their ultimate political goals may be.⁸⁴ It is also the case that up until the 1980s few terrorist groups seem to have had sufficient technical knowledge or the type of specialized equipment required to initiate a successful biological attack, even if they had wished to do so.

2. Motivational Indicators Deriving from Ideological Proclivities: Religious Groups

As far as the “new” religious terrorists are concerned, sometimes similar and at other times radically different factors seem to have been involved thus far in inhibiting their deployment of “WMD,” including biological weapons. For example, some analysts have suggested that religious terrorists “seek to appeal to no other constituency than themselves,” whereas others have instead argued that, rather than the particular group to which they belong, the primary “constituency” of violent religious groups is the god(s) they choose to worship and are seeking the favor of.⁸⁵ If certain religious groups carry out their violent actions solely in order to kill others, meet the solipsistic emotional needs of their own members, or only to please other-worldly deities, without regard to the effects of those actions on wider human audiences, they should not be described as terrorists at all, strictly speaking.⁸⁶ Such groups, given their seeming lack of concern about the psychological and practical effects of their actions in the profane world, are likely to be particularly dangerous because they are more or less unconstrained by external forces.⁸⁷

⁸⁴ Cf. Simon, “Biological Terrorism,” in Lederberg, ed., *Biological Weapons*, p. 239[-240]: “Most terrorist groups...will not be interested in biological weapons, because their use could create a backlash among the group’s supporters.” Although this has certainly been true for most secular extremists, it is definitely not the case for certain types of religious extremists – as will become clear.

⁸⁵ Bruce Hoffman, *Inside Terrorism* (New York: Columbia University, 1998), p. 95; Brian M Jenkins, “Understanding the Link between Motives and Methods,” in *Terrorism with Chemical and Biological Weapons: Calibrating Risks and Responses* (Alexandria, VA: Chemical and Biological Arms Control Institute, 1997), p. 48.

⁸⁶ It could conceivably be argued that if religious extremists carry out acts of violence specifically to influence the perceptions and behavior of other-worldly entities, then this too could technically fall into the category of terrorism. However, this circumstance is better viewed as a violent attempt to propitiate or curry the favor of supernatural entities whose very existence cannot be proven, much like human sacrifice. Since it does not by definition involve an attempt to influence the behavior and perceptions of human beings on the terrestrial plane, the term terrorism does not seem appropriate in this context.

⁸⁷ Indeed, Jackson argues (“Technology Acquisition by Terrorist Groups,” p. 190) that a group “seeking maximal destruction for the benefit of a divine audience would likely conclude [that highly destructive chemical or biological] weapons would be appropriate to their goals.”

Fortunately, most religious groups are at least partially concerned with events on the terrestrial plane,⁸⁸ and some may be as sensitive to the effects of their actions on wider audiences as secular terrorists. It is clear, for example, that a significant number of Islamist terrorists seek to convert other, less-committed Muslims to their own radical brand of Islam in the hopes of eventually recruiting new cohorts of dedicated fighters. In certain contexts, this has probably caused them to avoid carrying out various “beyond the pale” actions that would be likely to alienate a huge potential source of recruits. If, on the other hand, they fail to take cognizance of the alienating effects of their own actions, even on potential supporters, there are usually negative consequences. One excellent illustration of this can be observed in Algeria, where certain Islamist terrorists became so appalled by the Groupe Islamique Armé’s systematic carrying out of atrocities that they broke away from that organization, formed their own rival group, the Groupe Salafiste pour la Prédication et le Combat, and thence forged an alliance with al-Qa‘ida.⁸⁹ The same is true of al-Dawla al-Islamiyya (the Islamic State) and its organizational predecessors, whose egregious and indeed proudly displayed brutality has caused certain rival violent jihadist organizations and pro-*jihad* clerics to harshly criticize the group for its excesses.⁹⁰

In any event, the general consensus among experts seems to be that, given their sectarian religious worldviews, religious terrorists are more willing – and therefore likely – to violate traditional moral taboos against the use of CBRN weapons than their secular counterparts.⁹¹ As I

⁸⁸ Cf. John V. Parachini, “Comparing Motives and Outcomes of Mass Casualty Terrorism involving Conventional and Unconventional Weapons,” *Studies in Conflict and Terrorism* 24:5 (September 2001), p. 399, who points out that since “there is some evidence that some of the perpetrators of mass casualty violence do mix religion with other motivations, the charge that the new terrorism is predominantly religiously inspired overstates the case.” To illustrate this point, he cites the case of 1993 World Trade Center bomb-maker Ramzi Yusuf, whose lack of religiosity was “conspicuous.” See *ibid.*, pp. 391-2. There is no doubt, however, that most Islamist terrorists are deeply and indeed fanatically religious, so much so that secularized Westerners typically find it difficult to comprehend their motivations or actions. See, e.g., Jeffrey M. Bale, “Jihadist Ideology and Strategy and the Possible Employment of ‘WMD,’” in *idem*, *Darkest Sides of Politics*, volume 2, esp. pp. 157-82; or Terry McDermott, *Perfect Soldiers. The 9/11 Hijackers: Who They Were, Why They Did It* (New York: Harper, 2006), p. 49 (for an interesting example). For more general perspectives rightly emphasizing, albeit at times idiosyncratically, the intrinsic fanaticism of most religious terrorists, cf. Laurent Murawiec, *The Mind of Jihad* (New York: Cambridge University Press, 2008); Neil J. Kressel, *Bad Faith: The Danger of Religious Extremism* (Amherst, NY: Prometheus Books, 2007); and Barry Cooper, *New Political Religions, or an Analysis of Modern Terrorism* (Columbia, MO: University of Missouri Press, 2005).

⁸⁹ See, e.g., Rohan Gunaratna, *Inside Al Qaeda: Global Network of Terror* (New York: Berkley, 2003), pp. 183-6; and the more nuanced summary of Jason Burke, *Al-Qaeda: Casting a Shadow of Terror* (London: I. B. Tauris, 2003), pp. 194-8. Indeed, there have long been serious internal disputes within the jihadist milieu over the permissibility of indiscriminately targeting civilians (especially but not exclusively Muslim civilians) and under what circumstances it is justifiable, disputes which have in recent years become even more acrimonious and divisive.

⁹⁰ See the chapter below on jihadist ideology.

⁹¹ Hoffman, *Inside Terrorism*, p. 94; *idem*, “Terrorism and WMD: Some Preliminary Hypotheses,” *Nonproliferation Review* 4:3 (Spring-Summer 1997), pp. 45-50; *idem*, “*Holy Terror*”: *The Implications of Terrorism Motivated by a Religious Imperative* (Santa Monica: RAND, 1993); Cameron, “WMD Terrorism in the United States,” pp. 169-70; James K. Campbell, “On Not Understanding the Problem,” in Brad Roberts, ed., *Hype or Reality?: The “New Terrorism” and Mass Casualty Attacks* (Alexandria, VA: Chemical and Biological Arms Control Institute, 2000), pp. 30-3; Gurr and Cole, *New Face of Terrorism*, pp. 22-32, 126-48; Tucker, “Lessons from the Case Studies,” in

have expressed it elsewhere, “to the extent that violent extremist groups are absolutely convinced that they are doing God’s bidding, virtually any action that they decide to undertake can be justified, no matter how heinous, since the ‘divine’ ends are thought to justify the means.”⁹² This certainly does not mean, however, that every violence-prone group within the “religious” category is equally prone to perpetrate mass casualty terrorism or to have recourse to such weapons. On the contrary, many analysts have rightly emphasized the importance of recognizing key theological, historical, and cultural distinctions, not only between different religious traditions but also between diverse and often sectarian groups within those broader traditions.⁹³ For example, Gressang warns that

[t]he notion that a religious imperative offers a greater propensity for violence and a greater likelihood of WMD use is problematic, since religious motivation explanations may not explore the dynamic in sufficient depth. The resulting danger lies in the potential to overgeneralize and stereotype motivations. Emphasizing the religious imperative could also lead to the unintended incorporation of biases against differing religious orientations. We [might] assume the worst...based more on our interpretations of the group’s core beliefs than their motives and outcome expectations.⁹⁴

Other specialists have openly challenged this entire idea, in part because the historical record indicates that most “WMD” terrorist plots were hatched by non-religious groups and in part

Toxic Terror, pp. 261-2; and Marlo, “WMD Terrorism and US Intelligence Collection,” p. 55. One of the first studies to emphasize the greater WMD dangers posed by religious terrorists in general and by cults in particular is that of David F. Ronfeldt and William Sater, *The Mindsets of High-Technology Terrorists: Future Implications from an Historical Analog* (Santa Monica: RAND, 1981). For both sides of the issue, see the heated debate between Falkenrath, “Confronting Nuclear, Biological and Chemical Terrorism,” pp. 56-7; Pilat, in his segment from “WMD Terrorism: An Exchange,” *Survival* 40:4 (Winter 1998-1999), pp. 172-3, wherein Falkenrath’s supposed depiction of religious terrorists as “unconstrained mass killers” is described as a “caricature”; and Falkenrath’s reply in *ibid*, p. 181.

⁹² Bale, “Islamism,” in *Encyclopedia of Bioterrorism Defense*, ed. by Richard F. Pilch and Raymond Zilinskas (New York: Wiley, 2004), p. 298. Cf. Charles Selengut, *Sacred Fury: Understanding Religious Violence* (Walnut Creek, CA: AltaMira, 2003), pp. 6-9; and Hoffman, “*Holy Terror*”, p. 12. For more, see the chapter below on jihadist ideology.

⁹³ See Gressang, “Audience and Message,” pp. 100-2, who among other things distinguishes between religious groups that are essentially calling for political and social change, despite their overheated theological rhetoric, and those who “call for destruction as a necessary precondition for achieving [their] objectives.” For his part, Mark Juergensmeyer has sought to distinguish between “ethnic religious nationalism” and “ideological religious nationalism”: the former supposedly “*politicizes* religion by employing religious identities for political ends,” whereas the latter allegedly “*religionizes* politics [by putting] political issues and struggles within a sacred context.” See “The Worldwide Rise of Religious Nationalism,” *Journal of International Affairs* 50:1 (Summer 1996), p. 5. Many other more or less subtle distinctions can and have been made between different types of religious groups and their motivations. For an excellent example of the value of adopting a historically-grounded contextual approach to violent religious groups, see Rapoport, “Fear and Trembling,” which deals with three notorious pre-modern terrorist groups from entirely different religious traditions.

⁹⁴ “Audience and Message,” p. 88.

because they view both secular terrorists and religious terrorists as equally rational actors.⁹⁵ However, I remain convinced that in the future religious terrorists are much more likely to deploy such weapons than terrorists adhering to secular belief systems, no matter how radical these latter may be.

Certain types of religious groups seem to be much more prone than others to carrying out acts of catastrophic violence, with or without the use of CBRN weapons. In some cases this is mainly attributable to the content of their religious worldviews, whereas in others it is primarily a result of the authoritarian internal structures or dynamics of the group itself. In still other cases it is a product of both.

As far as religious beliefs are concerned, groups motivated by apocalyptic millenarian religious doctrines seem to be particularly dangerous, since such doctrines postulate; 1) the imminent destruction of the existing world order, which is viewed as thoroughly and irremediably “evil”; 2) a terrible fate for the majority of immoral, unenlightened people; 3) the playing of a key role by a select group of very special people – the true followers of the doctrine, namely, themselves – who will thus be spared the tragic fate of others; and 4) that the collapse of the existing order will usher in an “earthly paradise,” created by and for those same special people, which will be free of want, hardship, suffering, strife, oppression, immorality, and everything else that is “evil.”⁹⁶ Except in cases where they are persuaded to passively await the fulfillment of prophecy instead of taking any precipitant actions, the adherents of such doctrines may well be motivated to hasten the coming destruction of the existing world by carrying out extreme acts of violence against the “satanic” forces that now rule it. This was apparently the case with groups such as Aum Shinrikyo and the Covenant, the Sword, and the Arm of the Lord.⁹⁷

⁹⁵ See especially David C. Rapoport, “Terrorism and Weapons of the Apocalypse,” *National Security Studies Quarterly* 6:3 (Summer 1999), pp. 49-67. Cf. also Adam Dolnik, “All God’s Poisons: Re-evaluating the Threat of Religious Terrorism with Respect to Non-conventional Weapons,” in Russell D. Howard and Reid L. Sawyer, eds., *Terrorism and Counterterrorism: Understanding the New Security Environment* (Guilford, CT: McGraw-Hill, 2004). Both of the assumptions upon which this argument downplaying religious fanaticism is based, however useful that argument may be as a corrective to consensus thinking, seem to me to be flawed or, at the very least, exaggerated.

⁹⁶ Ted Daniels, ed., *A Doomsday Reader: Prophets, Predictors, and Hucksters of Salvation* (New York: New York University, 1999), p. 2. For the definitive historical analysis of apocalyptic millenarianism, see Norman Cohn, *The Pursuit of the Millennium: Revolutionary Millenarians and Mystical Anarchists of the Middle Ages* (New York: Oxford University, 1990).

⁹⁷ For the doctrinal motivations of these two groups, see Ian Reader, *Religious Violence in Contemporary Japan: The Case of Aum Shinrikyo* (Honolulu: University of Hawaii, 2000); Manabu Watanabe, “Religion and Violence in Japan Today: A Chronological and Doctrinal Analysis of Aum Shinrikyo,” *Terrorism and Political Violence* 10:4 (Winter 1998), pp. 80-100; and Kerry Noble, *Tabernacle of Hate: Why They Bombed Oklahoma City* (Prescott, Ontario: Voyageur, 1998), a revealing insider account of the CSA. Perhaps not surprisingly, both groups planned and/or attempted to employ WMD against their “evil” enemies. See David E. Kaplan, “Aum Shinrikyo (1995),” in *Toxic Terror*, pp. 207-26; Milton Leitenberg, “Aum Shinrikyo’s Efforts to Produce Biological Weapons: A Case Study in the Serial Propagation of Misinformation,” *Terrorism and Political Violence* 11:4 (Winter 1999), pp. 149-58; and Jessica Eve Stern, “The Covenant, the Sword, and the Arm of the Lord (1985),” in *Toxic Terror*, pp. 139-57. Yet it is also the case that Aum’s CB attacks were sometimes carried out for surprisingly practical reasons, e.g., to eliminate external critics or former members, test delivery methods, and divert the attention of the authorities once a

Second, religious communities whose members believe that they will absolve themselves of all their prior sins and immediately ascend to a heavenly paradise, or perhaps obtain certain other temporal or cosmic rewards, if they sacrifice themselves for their gods are also prone to carry out acts of extreme violence. This can easily lead to the commission of horrific acts of purifying violence, including “suicide” bombings, that the protagonists believe will lead to a full atonement for their earthly sins and the other-worldly rewards that follow therefrom. In the present era, for example, the absolute conviction that dying whilst waging *jihad* against infidels or apostates will result at once in ascension to Paradise, as opposed to spending time in the Muslim equivalent of Purgatory, has motivated dedicated members of both Sunni and Shi‘i Islamist groups to carry out “martyrdom operations.” In other cases, however, the violence of the believers may instead be turned inward rather than directed outward against external enemies, as in the case of Heaven’s Gate.⁹⁸

police crackdown on the group seemed imminent. Cf. Schmid, “Chemical Terrorism,” electronic p. 3; Marlo, “WMD Terrorism and US Intelligence Collection,” p. 56; and Zanders, “Assessing the Risk of Chemical and Biological Weapons Proliferation to Terrorists,” p. 28.

⁹⁸ For more on Heaven’s Gate, see Robert W. Balch, “Bo and Peep: A Case Study of the Origins of Messianic Leadership,” in Roy Wallis, ed., *Millennialism and Charisma* (Belfast: Queen’s University, 1982), pp. 13-72; Robert W. Balch, “Waiting for the Ships: Disillusionment and the Revitalization of Faith in Bo and Peep’s UFO Cult,” in James Lewis, ed., *The Gods Have Landed: New Religions from Other Worlds* (Albany, NY: SUNY, 1995), pp. 137-66; Rodney Perkins and Forrest Jackson, *Cosmic Suicide: The Tragedy and Transcendence of Heaven’s Gate* (Dallas, TX: Pentaradial, 1997); Robert W. Balch and David Taylor, “Making Sense of the Heaven’s Gate Suicides,” in David G. Bromley and J. Gordon Melton, eds., *Cults, Religion, and Violence* (Cambridge and New York: Cambridge University, 2002), pp. 209-29; and Christopher Partridge, “The Eschatology of Heaven’s Gate,” in Kenneth C. G. Newport and Crawford Gribben, eds., *Expecting the End: Millennialism in Social and Historical Context* (Waco, TX: Baylor University, 2006), pp. 49-66. Sometimes the mass deaths of adherents of the People’s Temple and Ordre du Temple Solaire (OTS: Order of the Solar Temple) are misleadingly placed in this same category, but in both of those cases several group members were murdered outright and, at least in the former, other members were then forced at gunpoint to “commit suicide.” For an excellent introduction to the OTS, see Jon R. Hall and Philip D. Schuyler, “The Mystical Apocalypse of the Solar Temple,” in idem, ed., *Apocalypse Observed: Religious Movements and Violence in North America, Europe, and Japan* (London and New York: Routledge, 2000), pp. 111-48. For empathetic if not sympathetic accounts, see Jean-François Mayer, *Les mythes du temple solaire* (Geneva: Georg, 1996); idem and Elijah Siegler, “‘Our Terrestrial Journey is Coming to an End’: The Last Voyage of the Solar Temple,” *Nova Religio* 2:2 (April 1999), pp. 172-96. For critical investigations, see Arnaud Bédard, Gilles Bouleau, and Bernard Nicolas, *L’Ordre du temple solaire: Les secrets d’une manipulation* (Paris: Flammarion, 2000); Jean-Luc Chaumeil, *L’affaire de la Ordre du temple solaire: Le dossier secret* (Benfield: ACM, 2001); and Rosemarie Jaton, *En quête de vérité: Ordre du temple solaire* (Geneva: Slatkine, 2000). For works emphasizing the intelligence and right-wing backgrounds of certain OTS founders and leaders, see Serge Caillet and Raymond Bernard, *L’Ordre rénové du temple: Aux racines du Temple solaire* (Paris: Dervy, 1997); and Renaud Marhic, *L’ordre du temple solaire: Enquête sur les extrémistes de l’occulte II* (Bordeaux: Horizon chimérique, 1996). Recently, conspiratorial interpretations suggesting that the murders were carried out at the behest of powerful political, financial, and criminal interests in France have appeared. As for Jonestown, I have yet to run across a study of the group that I consider entirely satisfactory, since most are overly sympathetic academic analyses, more or less sensationalistic journalistic treatments, or insider accounts by survivors. Among the more valuable books on the subject are Ken Levi, ed., *Violence and Religious Commitment: Implications of Jim Jones’s People’s Temple Movement* (University Park, PA:

On the other hand, religious organizations that are firmly ensconced within an exposed, vulnerable piece of territory or actively engaged in a broader array of conventional political activities are probably less likely to risk their own complete destruction by carrying out an attack that would be likely to precipitate the most extreme forms of retaliation. However fanatical some of their cadre may be, it would be extremely risky for established Islamist groups like Hizballah, Hamas, and al-Jihad al-Islami (Islamic Jihad) to engage in biological attacks, whether against Israel or the United States, since their entire lands could conceivably be occupied or physically destroyed in response.⁹⁹ In short, it may well be possible to deter such groups from carrying out CBRN attacks against democratic states in the same way that so-called “rogue regimes” occupying a fixed territory can be deterred from doing so. Nonetheless, this situation could quickly change if such groups felt that the time to launch a global *jihad* had arrived, that there was no possible way to achieve their goals using conventional measures, or that their very existence was threatened.

Moreover, these same restraining factors do not apply to certain other types of religious groups. First and foremost among these are transnational Islamist groups like al-Qa‘ida, which are spread all over the globe and do not depend for their survival on their continued occupation or control of specific territories. This seems to be borne out by the fact that in recent years several leaders of al-Qa‘ida and its affiliated groups have openly boasted of their intent to acquire and deploy “WMD.” For example, Usama b. Ladin himself has stated that acquiring weapons of all types, including nuclear weapons, is a Muslim “religious duty.”¹⁰⁰ Moreover, evidence found in al-Qa‘ida camps in Afghanistan or obtained from certain captured members indicates that the group was interested in carrying out radiological terrorist attacks, acquiring and testing chemical agents, and planning to produce dangerous biological materials, including “Agent X” (i.e., *B.*

Pennsylvania State University, 1982); Judith Mary Weightman, *Making Sense of the Jonestown Suicides: A Sociological History of the People’s Temple* (Lewiston, NY: Edwin Mellen, 1983); Tom Reiterman and John Jacobs, *Raven: The Untold Story of Reverend Jim Jones and His People* (New York: Dutton, 1982); and Deborah Layton, *Seductive Poison: A Jonestown Survivor’s Story of Life and Death in the People’s Temple* (New York: Anchor, 1999).

⁹⁹ Although Hizballah did in fact carry out several mass casualty terrorist attacks against Western embassies and military bases inside Lebanon in the 1980s, which might easily have provoked a harsh retaliation, those attacks were made during an earlier phase of the organization’s development, when it was still largely a client group of the Sepah-i Pasdaran (Guardians [of the Iranian Revolution] Corps). The more thoroughly that Hizballah is integrated into mainstream Lebanese politics, the less likely it may be to carry out these types of attacks in the future, whether inside or outside of Lebanon. Similarly, once the Islamic State established a large territorial Caliphate State, its leaders might have been more concerned about massive retaliation if they carried out serious attacks with biological agents.

¹⁰⁰ *Time*, December 24, 1998, transcript of interview with Usama b. Ladin. For recent examples of jihadist support for the use of “WMD,” most notably the May 2003 *fatwa* issued by Saudi shaykh Nasir ibn Hamid al-Fahd and Abu Mus‘ab al-Suri’s 2004 and 2005 strategic analyses, see Reuven Paz, “Global Jihad and WMD: Between Martyrdom and Mass Destruction,” in Hillel Fradkin et al., eds., *Current Trends in Islamist Ideology, Volume 2* (Washington, DC: Hudson Institute, 2005), pp. 74-86; and Bale, “Jihadist Ideology and Strategy,” pp. 182-95. For specific allegations concerning al-Qa‘ida’s purported acquisition of various types of “WMD,” see McCloud et al, “Chart: Al-Qa‘ida’s WMD Activities.”

anthracis), botulinum toxin, *Yersinia pestis*, and Hepatitis A and C.¹⁰¹ This same factor may now be applicable to the Islamic State. Since that group has recently lost most of the territory in Iraq and Syria that it had seized for its much ballyhooed Caliphate state, it will likely return to operating as a dispersed network that resorts primarily to guerrilla warfare and terrorism. For this very reason, it might be more motivated to risk carrying out a mass casualty attack with biological agents, even though such an attack would almost certainly precipitate a devastating counterstrike from the nation that was targeted.

A second major category of religious (or, for that matter, political) organizations that are unlikely to be restrained by environmental factors are insular cult-like groups which seem to act almost entirely on the basis of their own internal imperatives.¹⁰² Although such groups typically

¹⁰¹ For an excellent analysis of al-Qa'ida's attitudes and capabilities with respect to "WMD," see Sammy Salama and Lydia Hansell, "Does Intent Equal Capability?," *Nonproliferation Review* 12:3 (November 2005), pp. 615-53. For its biological agent activities, see the critical summary by Milton Leitenberg, *Assessing the Biological Weapons and Bioterrorism Threat* (Carlisle, PA: U.S. Army War College, Strategic Studies Institute, 2005), pp. 28-39. For the group's chemical agent testing, see "Disturbing scenes of death show capability with chemical gas," CNN, August 19, 2001. See further below.

¹⁰² Nowadays, the use of the term "cult" is the subject of bitter controversy among scholars in the field of Religious Studies, in part because it has all too often been applied in an imprecise or partisan fashion. The best introduction to the polarizing controversies in this field is provided by Benjamin Zablocki and Thomas Robbins, eds., *Misunderstanding Cults: Searching for Objectivity in a Controversial Field* (Toronto: University of Toronto Press, 2001). In order to avoid unnecessary terminological confusion, a "religious cult" can be defined, in the strict sense of the term, as a New Religious Movement (NRM) which systematically employs well-known techniques of coercive persuasion, irrespective of the precise nature of its theological doctrines. When it comes to assessing whether particular small-scale social organizations, non-mainstream or otherwise, are bona fide cults, or whether they merely display certain cult-like features, all one needs to do is pay careful attention to their internal social control mechanisms and authority structures. This is not all that hard to do as long as one remains skeptical about the claims of leaders and true believers, is allowed to conduct fieldwork or at least observe the group for a time, is able to obtain detailed inside information from present and former members, and knows what telltale signs to look for. The following can all be viewed as warning signs of coercive persuasion:

- a) selective recruitment of psychologically vulnerable targets
- b) initial deception concerning group affiliation and purposes
- c) application of extreme and often degrading forms of peer group pressure, including forced public "confessions"
- d) ongoing isolation from mainstream society (especially relatives and friends) at retreats
- e) sensory overload
- f) sleep and protein deprivation
- g) constant surveillance or enforced lack of privacy
- h) exploitation of labor (12-16 hour work days)
- i) confiscation of personal assets
- j) intense ideological indoctrination
- k) sexual exploitation
- l) physical abuse and imprisonment
- m) authoritarian forms of charismatic leadership

Religious, therapeutic, political, or hybrid groups that possess all or most of these characteristics can legitimately be categorized as thought reform cults, whereas those that exhibit only a few of these traits can perhaps best be described as "cult-like" or potentially "cultic." To portray religious groups with these characteristics as nothing more than "harmless" alternative religions and "innocent" victims of religious persecution defies all logic. The above remarks originally appeared in Jeffrey M. Bale, "The Cult Wars, Part I," *Hit List* 2:4 (January-February 2001). For further information, see Jeffrey M. Bale, "Apocalyptic Millenarian Groups: Assessing the Threat of Biological Terrorism,"

view certain external occurrences as signs and portents of future cosmic events that have been foretold by their leaders, and are likely to become even more paranoid and apocalyptic in response to any sign of hostility from mainstream society or repressive actions taken by the state, their actions often seem ultimately to be the products of a combination of idiosyncratic theological conceptions and authoritarian intragroup dynamics that may at times have little or nothing to do with specific developments in the outside world. Hence it should come as no surprise to discover that these types of groups are often responsible for carrying out sudden acts of horrific violence that seem to be triggered primarily by internal processes or mechanisms. Such was apparently the case with the Ordre du Temple Solaire (OTS: Order of the Solar Temple) in Switzerland and Quebec and the Movement for the Restoration of the Ten Commandments of God in Uganda.

In sum, there is not necessarily any direct correlation between religious extremism and a particular terrorist group's decision to employ biological weapons, much less any automatic relationship between the two. Many other factors are also undoubtedly involved, so the most that can be said is that under certain circumstances religious extremism can be a very important contributory factor in permitting a group to rationalize its acquisition, development, or use of "WMD."

3. Motivational Indicators Deriving from Ideological Proclivities: Assorted Single-issue Groups, Lone Actors and Techno-fetishists

Moreover, there are also other types of extremist groups that might also be attracted to using biological weapons. Some analysts have singled out groups bent on revenge, assorted right-wing extremists, ad hoc groups of like-minded people, and disturbed lone individuals as being especially prone to adopt such weapons, though in truth this is largely speculation on the basis of a handful of cases.¹⁰³ Furthermore, terrorist organizations with scientific and technological pretensions or fetishes might be more apt to employ high-tech weapons, including "WMD," assuming that they were actually able to acquire or develop them. (In this context, cult groups with worldviews inspired by science fiction motifs, including the Church of Scientology and the Raëlians, perhaps warrant special attention, all the more so if they promote genetic engineering or the use of other advanced scientific technologies and techniques.)¹⁰⁴ Whether such a techno-fetish is the product of a secular or religious ideology may or may not turn out to be particularly relevant.

in idem, *Darkest Sides of Politics*, volume 2, pp. 119-26. One of the few works devoted exclusively to "political cults" is that of Dennis Tourish and Tim Wohlforth, *On the Edge: Political Cults Right and Left* (Armonk, NY: M. E. Sharpe, 2000). For three insider accounts of political cults, see Amy B. Siskind, *The Sullivan Institute/Fourth Wall Community: The Relationship of Radical Individualism and Authoritarianism* (Westport, CT: Praeger, 2003); Alexandra Stein, *Inside Out: A Memoir of Entering and Breaking Out of a Minneapolis Political Cult* (St. Cloud, MN: North Star, 2002); and Janja Lalich, *Bounded Choice: True Believers and Charismatic Cults* (Berkeley: University of California, 2004).

¹⁰³ Tucker and Sands, "An Unlikely Threat," p. 49-50, 52; Falkenrath et al, *America's Achilles' Heal*, pp. 194-202.

¹⁰⁴ For Scientology, compare the sympathetic accounts of J. Gordon Melton, *The Church of Scientology* (Salt Lake City: Signature/CESNUR, 2000); and James R. Lewis, *Scientology: Religious Consciousness in a Technological Age* (New York: Garland, 1991), with the critical accounts of Roy Wallis, *The Road to Total Freedom: A*

To sum up, these are the types of groups that are most likely to employ biological weapons and other “WMD” for primarily ideological reasons:

- those whose doctrines explicitly advocate or encourage the “terrorizing” of their demonized and therefore dehumanized enemies, the causing of mass casualties, the outright extermination of “evildoers,” or the total destruction of the “corrupt” existing world order (including Sunni jihadist groups with a global agenda that explicitly advocate targeting the “far enemy”)
- those with apocalyptic millenarian doctrines which mandate that believers take violent action themselves in order to bring about the prophesied “end times” (as opposed to passively awaiting the outcome of ongoing cosmic clashes between “good” and “evil” supernatural beings)
- those with avid scientific or technological doctrinal fetishes that wish to display their technical prowess by using advanced or novel weapons to “smite” their enemies.
- those that are obsessed with getting revenge and believe that they have a moral “right” to kill millions of real or imagined enemies.

Groups that possess more than one of these doctrinal obsessions or motivations are arguably likely to be particularly prone to want to acquire and deploy “WMD,” including biological weapons.

4. Motivational Indicators Not Dependent Upon Ideological Proclivities

There also appear to be other warning signs that particular terrorist groups, irrespective of their specific ideologies, might at some point be inclined to produce or deploy biological weapons. Some of these are organizational in nature, some behavioral. If we combine the insights of James K. Campbell and Jonathan Tucker, for instance, all of the following characteristics may be viewed as potential indicators of a terrorist group’s propensity to employ CBRN materials:¹⁰⁵

Sociological Analysis of Scientology (New York: Columbia University, 1977); Jon Atack, *A Piece of Blue Sky: Scientology, Dianetics, and L. Ron Hubbard Exposed* (New York: Carroll, 1990); Bent Corydon, *L. Ron Hubbard: Messiah or Madman?* (Fort Lee, NJ: Barricade, 1996); Russell Miller, *Bare-Faced Messiah: The True Story of L. Ron Hubbard* (New York: H. Holt, 1988); and Robert Kaufman, *Inside Scientology: How I Joined Scientology and Became Superhuman* (New York: Olympia, 1972). Of particular interest is the well-researched monograph that exposes the covert activities of the Church of Scientology’s special operations unit, “Scientology’s Secret Service: Inside Scientology’s Intelligence Agencies,” available at <http://www.xs4all.nl/~kspaink/cos/SecrServ/go.html>. For the Raëlians, see especially Susan J. Palmer, *Aliens Adored: Raël’s UFO Religion* (New Brunswick: Rutgers University, 2004). Cf. also George D Chryssides, “Scientific Creationism: A Study of the Raëlian Church,” in Christopher Partridge, ed., *UFO Religions* (London and New York: Routledge, 2003), pp. 45-61. In the Raëlian case, however, it seems likely that the group’s essentially hedonistic orientation will serve to impede its eventual resort to apocalyptic violence.

¹⁰⁵ Cf. Campbell, “On Not Understanding the Problem,” pp. 35-9; and Tucker, “Lessons from the Case Studies,” in *Toxic Terror*, pp. 255-63.

- those directed by sadistic, megalomaniacal, or delusional but nonetheless charismatic and authoritarian leaders.
- those that are socially isolated, do not seriously aim to appeal to – much less claim to represent – a broader constituency, and are thus relatively unconcerned about the negative “blowback” resulting from their actions.
- those whose actual levels of violence have been progressively escalating over time;
- those that have consistently displayed innovation in their use of weapons and/or tactics, or at least a willingness to take higher-than-normal risks.¹⁰⁶
- those that go out of their way to recruit people with relatively advanced technical or scientific skills.
- those with sufficient financial resources to subsidize the acquisition or development of such weapons.
- those that have relatively easy access to such materials.
- those (with sufficient technical means) which are in such desperate straits, real or imagined, that they come to feel they have nothing left to lose by employing every means at their disposal to smite their hated enemies.¹⁰⁷

Needless to say, terrorist groups that display several of the above characteristics are particularly worrisome in this context.

The Role of Opportunity

Finally, there is the question of whether the opportunistic, unplanned acquisition of biological materials might, in and of itself, induce a terrorist group that was previously uninterested in pursuing such weapons to suddenly and unexpectedly cross the “WMD” threshold. Would the temptation to use them become much greater if particular terrorist groups inadvertently and unexpectedly happened to stumble across such materials? Although such a scenario cannot be ruled out, my own view is that extremist groups that were previously uninterested in causing mass casualties, whether for ideological or practical reasons, would not suddenly be motivated to do so if they happened to acquire biological materials. The same goes for most individuals. However, they might well be tempted to exploit their sudden possession of those materials in efforts to deter or blackmail opponents, sell them for money, or elevate their own status.

Motivational Indicators for Actions Other Than Direct Use to Cause Harm

Thus far, this section on terrorist motivations has focused exclusively on the issue of which groups and individuals might be motivated, whether for diverse operational reasons, due to arcane doctrinal injunctions, or possibly for incomprehensible personal reasons, to actually *employ* CBRN

¹⁰⁶ Jackson, “Technology Acquisition by Terrorist Groups,” p. 203.

¹⁰⁷ Sprinzak, “On Not Overstating the Problem,” in *Hype or Reality?*, p. 6.

materials in terrorist attacks. It has not focused on the question of whether non-state extremist groups might be motivated to acquire such materials for other, less destructive purposes, i.e., for purposes not involving the actual use of those materials in attacks. When a broader view is taken and other possible motivations for acquiring such materials are considered, it is likely that the number of potential groups that might be motivated to obtain them will increase, perhaps significantly.

Other possible motivations that non-state extremists or individual malefactors might have for trying to acquire lethal, contagious biological materials fall broadly into four main categories:

- 1) deterrence – to deter opponents from taking certain threatening actions – just as states sometimes feel compelled to develop nuclear weapons programs in order to effectively deter hostile action by enemy states, so too might certain non-state groups believe that acquiring dangerous biological materials would enable them to deter potential enemies from attacking them;
- 2) coercion – to blackmail opponents into taking certain desired actions – certain non-state groups or individuals might seek to compel their enemies, including incumbent regimes, invading powers, or other targeted states, to do something specific that they want (e.g., release imprisoned group members, withdraw military forces, cease aggressively hunting them down, grant the peoples they claim to represent more autonomy, etc.) by threatening to use biological agents or toxins to attack them;
- 3) building the brand – to augment the prestige, status, or influence of their group in relation to states or rival non-state groups. It goes without saying that an extremist group which managed to acquire and weaponized certain deadly materials, especially from a secured facility, would immediately force its opponents to sit up and take notice and might also thereby serve to inspire its supporters by seemingly giving itself an operational and psychological edge over its enemies and rivals;
- 4) commerce – to sell such materials for profit on the black market (or perhaps even back to the original possessors) in order to raise money to acquire desired equipment and resources.

These types of motives for acquiring biological agents, being more intrinsically pragmatic and more likely to be inspired by “realist” considerations than, say, an apocalyptic desire to destroy the existing world or exterminate designated enemies, are likely to be applicable to a much wider array of non-state extremist and terrorist groups. In that sense, it is not only would-be terrorist and individual users of such materials that must be taken into consideration by policymakers and the security services.

Explaining Non-Use

Given that several categories of non-state groups have just been flagged as being particularly prone to carry out attacks using CBRN weapons, the obvious question is why so few such attacks have been carried out up until now. The rarity of catastrophic biological attacks is understandable, especially given the difficulties of obtaining, weaponizing, and/or disseminating such agents, but this same rarity is also characteristic for cruder, smaller-scale attacks with biological materials, which almost any reasonably professional terrorist group could likely carry out if it was really determined to do so. Several analysts have explained this by claiming that terrorists, whatever their ideological predispositions, tend to be “conservative” in terms of their adoption of new techniques and new technologies.¹⁰⁸ Even if this claim is true, which is arguable, external pressures to carry out ever more spectacular attacks so as to obtain publicity or display their prowess, a perceived need to adopt new trends or follow precedents that have already been set by other and perhaps even rival groups, or a desire to “mimic” states that have launched successful attacks may all cause normally reticent groups to take risks and make a qualitative leap in their tactical or technical arsenals.¹⁰⁹

One point that surely needs to be emphasized is that the operational methods, tactics, and weapons used by terrorists in the past cannot, in and of themselves, allow us to predict their future behavior with any certainty.¹¹⁰ At best they can only provide us with general guidelines – specifically, some indications of the multiplicity of factors that may end up influencing the choice of particular tactics and weapons by today’s terrorist groups. As Sprinzak has noted, it would be advisable to carry out a systematic study of the “psycho-political” reasons why former terrorists adopted certain weapons and tactics rather than others, especially the members of groups that considered but eventually rejected the use of “WMD.”¹¹¹ However, even if the motives that earlier generations of terrorists had for adopting certain types of unconventional or innovative weapons were better understood, this would not necessarily allow us to predict the future use of biological weapons by particular groups with any certainty. As the history of warfare has repeatedly demonstrated, weapons and tactics often undergo a very gradual process of development over a long period of time before being suddenly and unexpectedly transformed, sometimes for reasons that make little or no apparent military sense, except perhaps in hindsight.¹¹² For example, as late

¹⁰⁸ See, e.g., Brian Jenkins, “Defense Against Terrorism,” *Political Science Quarterly* 101:5 (1986), p. 777; Bruce Hoffman, “Terrorist Targeting: Tactics, Trends, and Potentialities,” *Terrorism and Political Violence* 5:2 (Summer 1993), pp. 13-14; and Richard Clutterbuck, “Trends in Terrorist Weaponry,” *ibid*, pp. 130-9.

¹⁰⁹ Falkenrath et al, *America’s Achilles’ Heal*, pp. 207-13.

¹¹⁰ See Dan Verton, *Black Ice: The Invisible Threat of Cyber-Terrorism* (Emeryville, CA: McGraw-Hill/Osborne, 2003), pp. xix-xx: “we judge the future of terrorism solely on the basis of...historical examples at our own peril...we cannot disregard the use of new and innovative tactical measures that are designed to augment the psychological and even physical impact of traditional violent terrorist attacks.”

¹¹¹ Sprinzak, “On Not Overstating the Problem,” pp. 14-15.

¹¹² Cf. the remarks, specifically concerning terrorism, made by Verton, *Black Ice*, p. xix: “terrorism...evolves at tectonic speeds over many decades, making the process of discerning subtle changes in tactics extremely difficult, even for the trained eye. But there is a danger to this. Like seismologists who fail to detect the movements of the earth’s tectonic plates and the increasing pressure those movements cause, we can be caught by surprise by a massive, life-threatening earthquake when we fail to pick up on the subterranean changes in terrorism.”

as 1400 very few observers could have predicted the coming substitution of highly efficient missile weapons such as composite recurve bows, which had been used for centuries by some of the world's most formidable military forces, by clumsy, primitive, and seemingly ineffective hand-held firearms. Such forecasting problems are both compounded and temporally compressed in our current era of rapid technological change.

In short, even assuming that they had the technological capacity and/or access to the necessary materials, it is very hard to explain why particular terrorist groups might decide to adopt – or not adopt – new weapons and tactics, at least without inserting informants into their ranks or interrogating captured group members. It is harder still to determine why so few have previously carried out even crude biological terrorist attacks or assassinations with biological toxins, especially given that such attacks are not only relatively easy to launch but would also be likely to exert a much more profound impact on the psychological states of target audiences than conventional terrorist attacks.

There seem to be three main motivational reasons why these types of low-grade but nonetheless fear-inducing biological attacks have been relatively rare. First, many non-state groups still probably seek to avoid crossing the “WMD” threshold because they are concerned about alienating the sympathies of their proclaimed constituents or their potential international supporters. Only the most fanatical, insular, solipsistic, or desperate extremists will fail to concern themselves with, or fail to take cognizance of, the broader negative impact that their violent actions are likely to have. Fortunately, not many existing groups fall into this wholly “expressive” or perhaps other-worldly category, as opposed to the primarily “instrumental” and this-worldly category. Nor are they likely to in the future.

Second, conventional terrorist weapons such as military grade explosives are likely to do far more damage, both to human beings and to property, than low-level biological attacks. Why, in the final analysis, should terrorist groups risk experimenting with dangerous, “new-fangled” substances instead of relying upon the tried and true conventional methods of destruction that they are already intimately familiar with? As long as these methods continue to be effective, there will be little incentive for most such organizations to adopt more exotic and unpredictable techniques or technologies. Indeed, although it may well be rash to describe most terrorists as “conservative” in their methods, only a few rather peculiar extremist groups are likely to be radically innovative. According to Jackson, those that are “most likely to pursue and successfully deploy new technologies” are “tapped into new technology options, open and hungry for new ideas, willing to take risks, not afraid to fail, and driven by [their] environment to pursue novelty.”¹¹³ If they have access to necessary human and financial resources, collaborative relations with outsiders who have

¹¹³ “Technology Acquisition by Terrorist Groups,” p. 203. For a fuller discussion, see *ibid*, pp. 188-203.

both tacit and explicit knowledge, and enough time to experiment with different techniques and technologies, then their “technology adoption efforts are likely to be successful.”¹¹⁴

Third, the very same fears about the horrific effects of “WMD” that beset the general populace tend to be shared by members of terrorist groups who likewise lack enough specialized scientific knowledge to be able to distinguish between, say, actual disease threats and their own paranoid fears. Irrational phobias about possible contamination, infection, and disease are common to scientific laymen throughout the world, including terrorists themselves. Hence, only the most dedicated fanatics would probably be willing to risk dying slowly and painfully after inadvertently contracting an exotic incurable disease, being contaminated by high doses of radiation, or otherwise being exposed to an unseen toxin, especially after witnessing their gruesome effects on television after actual outbreaks of hemorrhagic fever, or even after seeing frightening fictional films about outbreaks of plague. Suicide bombers are also much more likely to prefer going out with a sudden, painless, glorious bang rather than a lingering, painful, inglorious whimper.¹¹⁵ And even assuming that a few actually volunteered to serve as “human guinea pigs” in this way, no one else is likely to want to follow in the footsteps of self-styled “martyrs” who are observed dying a horrible death after being willingly exposed to lethal contagious diseases.

Unfortunately, all three of these restraining factors may now be gradually breaking down. As noted above, certain “new” categories of terrorists are seemingly less concerned about local or world opinion than their traditional counterparts, and the bigger psychological payoff that would surely result from even a small-scale biological attack may increasingly appeal to today’s terrorists, especially after having witnessed the panic that temporarily ensued in the wake of Aum Shinrikyo’s 1995 sarin attack in Tokyo and, more recently, the 2001 *B. anthracis* letter mailings. Finally, greater and greater levels of scientific and technological literacy may over time lead to the attenuation of extreme fears of inadvertent contamination whilst handling biological materials among terrorists themselves, thereby increasing the likelihood that they would be willing to assume the attendant risks involved in carrying out such attacks.

In any event, it appears from the above analysis that the types of violent political and religious extremist groups that are most likely to be interested in carrying out attacks with “weapons of mass destruction,” including biological toxins and agents, would be small, insular, cult-like groups with active apocalyptic millenarian ideologies that explicitly sanction violence, and global jihadist organizations and networks, in particular those that are decentralized and diffuse rather than confined to a specific territorial base that can be easily retaliated against. Perhaps, then, the most dangerous extremist groups with respect to potential use of lethal, contagious biological agents would be those jihadist organizations with pronounced apocalyptic

¹¹⁴ Ibid, p. 203.

¹¹⁵ See Adam Dolnik, “Die and Let Die: Exploring Links between Suicide Terrorism and Terrorist Use of Chemical, Biological, Radiological, and Nuclear Weapons,” *Studies in Conflict and Terrorism* 26:1 (January-February 2003), p. 30.

millenarian beliefs. The fact that many such organizations also typically glorify Islamic conceptions of battlefield martyrdom and regularly encourage or organize suicide attacks as an operational method arguably makes them even more potentially dangerous. For that very reason, a brief survey of the bioterrorist activities of these types of groups should be presented.

Prior Jihadist Activities Involving Biological Toxins and Agents

When one examines the actual record of jihadist attempts to develop or deploy biological toxins or agents as weapons, there are four distinct phenomena that are worth noting. The first is that jihadists have periodically expressed an interest in carrying out attacks with such agents or have publicly threatened to do so. Examples of this are provided below in the chapter on jihadist ideology.¹¹⁶

The second is that various “poison” manuals, or sections thereof, have been circulating within the jihadist milieu since the late 1990s. For example, there was the famous 180-page al-Qa’ida training manual found in the home of Abu Anas al-Libi, a jihadist arrested in May 2000 by the Metropolitan Police in Manchester, England, which included some pages on how to purify ricin from castor beans that was, in the wake of the 9/11 attacks, expurgated by authorities before being republished by the U.S. Department of Justice.¹¹⁷ While this manual contained some useful if basic information about tradecraft, according to George Smith of Global Security, the page on ricin contained, with some minor changes, “the same discredited formula that was common in ‘anarchy files’ uploaded to private bulletin boards and the web over the past decade.”¹¹⁸ Another jihadist source that offered information on chemical agents and biological toxins, which was a later

¹¹⁶ See esp. the final section of that chapter, “Jihadist Attitudes towards CBRN Use.” For a useful overview of the entire question of intentions versus capabilities, using al-Qa’ida as an example, see Salama and Hansell, “Does Intent Equal Capability?”, pp. 615-53. For jihadists and biological agents and toxins, see *ibid*, pp. 619-20; and Cheryl Loeb, “Jihadists and Biological and Toxin Weapons,” in Gary Ackerman and Jeremy Tamsett, eds., *Jihadists and Weapons of Mass Destruction* (Boca Raton, FL: CRC Press, 2009), pp. 153-72.

¹¹⁷ See [al-Qa’ida], *I’alan al-jihad ‘ala al-tawaghit al-bilad: Silsilat ‘askariyya [Declaration of Jihad Against the Country’s Tyrants: Military Series]*, no publication information listed, pp. 155, 157-8. The full English translation of this manual is available on the Investigative Project on Terrorism (IPT) website, at <http://www.investigativeproject.org/documents/misc/10.pdf>. The information on ricin extraction therein was apparently borrowed almost verbatim from Maxwell Hutchkinson, *The Poisoner’s Handbook* (Port Townsend, WA: Loompanics Unlimited, 1988), pp. 7-9. This booklet was published by a well-known but now defunct publisher of arcane underground texts.

¹¹⁸ See George Smith, “The Recipe for Ricin, Part II: The legend flourishes from the Dept. of Justice to the Senate Intelligence Committee,” *Global Security* website, 4 March 2004, available at <https://www.globalsecurity.org/org/nsn/nsn-040304.htm>. Smith further noted therein that this was “the same useless lye and acetone procedure that has long been in residence on the Temple of the Screaming Electron web site.” For more on these ricin recipes, their provenance, and their efficacy, see George Smith, “The Recipe for Ricin: Examining the Legend,” *Global Security* website, 20 February 2004, available at <https://www.globalsecurity.org/org/nsn/nsn-040220.htm>; and *idem*, “The Recipe for Ricin, Part III: US Patent, ‘The production of toxic ricin,’ intellectual property of the US Army,” *Global Security* website, 23 July 2004, available at <https://www.globalsecurity.org/org/nsn/nsn-040723.htm>.

addition to the Organisation for the Preparation of Mujahidin's *Encyclopedia of Jihad* prepared in Afghanistan, was the 19-page *Mujahideen Poisons Handbook* written by a certain 'Abd al-'Aziz.¹¹⁹ Fortunately, according to Smith,

Careful examination of the electronic document shows that it is crammed with errors, seemingly the work of someone with little discernible sense, profoundly ignorant of the nature of simple compounds and incompetent in even minor procedures that would be conducted in a high school chemistry lab. What precious little information is actually factual can be found in any good general chemistry book....The quality of the text is so poor it would be humorous if it were not attached to a preface which puts on the airs of a sinister man confessing a wish to pass on an esoteric and dangerous technical capability to sympathizers. (Indeed, since the material is so shaky it cannot be entirely ruled out that it was fabricated as a hoax or written by a total know-nothing simply wishing to create an impression of menace. If the latter, the person was successful.)¹²⁰

Still another document of this type was one written by a jihadist from Gaza, a copy of which was later found in Usama b. Ladin's Abbottabad compound by U.S. special forces personnel, which also dealt with the subject of how to injure and kill people with toxic substances.¹²¹ Even more recently, an "Encyclopedia of Toxins" was posted on the Islamic State's website *al-Yaqin (Certainty)*, which likewise provided information on how to use poisonous materials against the enemies of Islam.¹²² Although the quality of the information about how to manufacture and deploy such materials is both variable and often inaccurate, their persistent presence within the jihadist milieu, including in online fora, is nonetheless indicative of an ongoing interest in producing them and an apparent willingness to use them to carry out attacks on their enemies.

The third is that there have already been several reported attempts by jihadists, either operating in small cells or as individual actors, to plan and carry out attacks using biological toxins. Fortunately, most of those media reports were alarmist and inaccurate, and those that were less histrionic have revealed the relatively low-level technical skills of the jihadist plotters involved. A few examples should suffice to illustrate this. On 5 January 2003, the British Metropolitan Police raided a flat in Wood Green, north London, and arrested six Algerians associated with the so-called "Chechen Network," who they originally claimed were manufacturing ricin to carry out an attack

¹¹⁹ Abdel-Aziz, *The Mujahideen Poisons Handbook*, undated, available at <https://www.oodalooop.com/wp-content/uploads/2015/03/Mujahideen-Poisons-Handbook.pdf>.

¹²⁰ Smith, "Recipe for Ricin, Part II."

¹²¹ See Qasura al-Ghazzi, *Nasay'ih wa afkar jihadiyya li-muda'afat al-a'imal al-fardiyya [Jihadi Tips and Ideas for Multiplying [the Effects of] Individual Actions]*, available at https://www.cia.gov/library/abbottabad-compound/B5/B5D07D6AEC2A5EA202992B0F3ADEB97A_Copy_of_%D8%B3%D9%85%D9%88%D9%85-.DOC.pdf. This document has not yet been translated into English.

¹²² See "Mawsu'at al-samum (Ta'rif istikhdam) [Encyclopedia of Toxins: Definition of Use]," *Al-Yaqin* website, 28 November 2009, available at <http://alyaqeen.mam9.com/t558-topic>.

on the London subway system. However, although the police “discovered castor oil beans - the raw material for ricin - along with equipment needed to produce it and recipes for ricin, cyanide, botulinum and other poisons, along with instructions for explosives”, no ricin was ever actually found by forensic examiners.¹²³ On 11 May 2018, French counterterrorism police arrested two Egyptians in the 18th *arrondissement* in Paris. According to French Interior Minister Gérard Collomb, the two would-be jihadists had been arrested for “preparing to commit an attack, with either explosives or ricin, this very powerful poison”, and added that they “had tutorials that showed how to make ricin-based poisons.”¹²⁴ Perhaps the most serious of these plots supposedly involving ricin was interdicted on 12 June 2018, when German police from the Bundeskriminalamt (BKA: Federal Criminal Police Office) arrested a Tunisian jihadist named Sayf Allah Hammami, who had previously established contacts with Islamic State operatives and unsuccessfully sought to travel overseas to the IS’ Caliphate, and then raided his residence in Osloer Strasse in Cologne-Chorweiler. The German Bundesamt für Verfassungsschutz (BfV: Office for the Protection of the Constitution) had learned from U.S. or British intelligence that this individual had purchased a considerable quantity of castor beans as well as a coffee grinder online (using his wife Yasmin Hammami’s PayPal account), and in his apartment the police discovered that he had accumulated 3,150 castor beans, had acquired information about how to produce and weaponize ricin from a jihadist video posted on an internet website, had already produced 84.3 milligrams of potentially lethal ricin, and had even tested some without effect on a hamster. Security officials eventually concluded that he had been planning to carry out a terrorist attack in Germany using an IED laced with ricin, and then flee the country to safety.¹²⁵ There have been several other reported biological toxin plots planned by jihadist groups, including the Kurdish organization Ansar al-Islam

¹²³ See “Killer Jailed over Poison Plot,” BBC, 13 April 2005, available at http://news.bbc.co.uk/2/hi/uk_news/4433709.stm . For more details, see Jeffrey M. Bale, Anjali Bhattacharjee, Eric Croddy, and Richard Pilch “Ricin [Reportedly] Found in London: An al-Qa’ida Connection?,” Center for Nonproliferation Studies, *Report*, 29 February 2008, available at <https://web.archive.org/web/20150911010233/http://cns.miis.edu/reports/ricin.htm> ; and Anne Stenersen, *Al-Qaida’s Quest for Weapons of Mass Destruction: The History behind the Hype* (Saarbrücken: VDM, 2008)), pp. 45-8 (for this component of the “Chechen Network,” also known as the Courneuve-Romainville group), and 48-50 (for the “ricin plot” in London). For more on the Europe-based components of the “Chechen Network,” referred to thusly because several jihadists had traveled to the Pankisi Gorge region for training, see Lorenzo Vidino, *Al Qaeda in Europe: The New Battleground of International Jihad* (Amherst, NY: Prometheus, 2006), part II on the “Algerian Network.”

¹²⁴ Cited in Henry Samuel, “Man Charged after French Police Foil Paris Ricin Terror Plot,” *The Telegraph*, 18 May 2018, available at <https://www.telegraph.co.uk/news/2018/05/18/french-police-foil-ricin-terror-plot-arrest-egyptian-brothers/> . One of the two arrested Egyptians was later released.

¹²⁵ Cf. Jörg Diehl, “Kölner Rizin-Fall: Islamist soll sich um Aufnahme beim IS bemüht haben,” *Der Spiegel*, 3 August 2018, available at <http://www.spiegel.de/politik/deutschland/koelner-rizin-fall-islamist-soll-sich-um-aufnahme-in-is-bemueht-haben-a-1221554.html> ; and the analyses by Christian Jokinen, “Foiled Ricin Plot Raises Specter of ‘More Sophisticated’ IS-Inspired Attacks,” *Terrorism Monitor* [Jamestown Foundation] 16:16 (10 August 2018), pp. 6-8, available at <https://jamestown.org/wp-content/uploads/2018/08/TM-Aug.-10-2018-Issue-.pdf?x87069> ; and Florian Flade, “The June 2018 Cologne Ricin Plot: A New Threshold in Jihadi Bio Terror,” *CTC [Combating Terrorism Center] Sentinel* 11:7 (August 2018), pp. 1-4, available at <https://ctc.usma.edu/app/uploads/2019/01/CTC-SENTINEL-082018-final.pdf> . According to Flade (ibid, p. 3), Hammami accessed the very same online jihadist ricin video as the two Egyptians who were arrested in Paris the previous month.

(Supporters of Islam) in Iraq and the Tanzim al-Qa‘ida fi Jazirat al-‘Arab (Al-Qa‘ida Organization in the Arabian Peninsula).¹²⁶ Fortunately, as Anne Stenersen rightly noted over a decade ago, thus far such attacks planned by local jihadists who had some affiliation with al-Qa‘ida – or later, by extension, with the Islamic State – have “all relied on crude, readily available materials, and the planned ‘delivery methods’ were very unsophisticated.”¹²⁷ The same has generally been true of jihadist “poison plots” involving the use of toxic chemical agents, including some involving the Islamic State.¹²⁸

The fourth – and by far the most worrisome – is that al-Qa‘ida’s leadership directorate, known as the *majlis al-shura* (consultation committee), actually initiated efforts to create covert programs to acquire, test, and/or develop biological agents as potential weapons. Fortunately, however, al-Qa‘ida’s CB ambitions have thus far vastly exceeded its capabilities. Prior to 9/11, Dr. Ayman al-Zawahiri and al-Qa‘ida’s military chief Muhammad ‘Atif (né Subhi Abu Sitta, but better known as Abu Hafs al-Masri) embarked upon a project, codenamed “al-Zabadi” (“Curdled Milk”), to develop chemical and biological agents for use as weapons.¹²⁹ Three key figures

¹²⁶ For Ansar al-Islam case, where it was claimed that the Americans had discovered forensic evidence that the group was preparing ricin and botulinum for use in attacks when they overran its Sargat camp, cf. “US knew of bioterror tests in Iraq,” BBC, 20 August 2002, available at <http://news.bbc.co.uk/2/hi/americas/2204321.stm> ; Preston Mendenhall, “Positive Test for Terror Toxins in Iraq,” NBC News, 2003 [no day or month listed], available at <http://www.nbcnews.com/id/3070394/> ; Mike Tucker and Charles S. Faddis, *Operation Hotel California: The Clandestine War Inside Iraq* (Guilford, CT: Lyons Press, 2010), 7-9, 14-16, 22; and Linda Robinson, *Masters of Chaos: The Secret History of the Special Forces* (New York: Public Affairs, 2004), 321, which mentions that chemical hazard suits and atropine injectors were also found at Sargat. But see the very different interpretation of Milton Leitenberg, “Assessing the Biological Weapons and Bioterrorism Threat,” unpublished report prepared for the U.S. Department of Defense, December 2005, pp. 26-7, although it is unclear whether he is talking about the same Ansar camp. For the case of AQAP in Yemen, see Eric Schmitt and Thom Shanker, “Qaida Trying to Harness Toxins for Bombs, U.S. Officials Fear,” *New York Times*, 12 August 2011, available at <https://www.nytimes.com/2011/08/13/world/middleeast/13terror.html> , where it is claimed that the U.S. “collected evidence that Qaeda operatives are trying to move castor beans and processing agents to a hideaway in Shabwa Province, in one of Yemen’s rugged tribal areas controlled by insurgents. The officials say the evidence points to efforts to secretly concoct batches of the poison, pack them around small explosives, and then try to explode them in contained spaces, like a shopping mall, an airport or a subway station.” In short, it is unclear whether either of these alarmist reports were actually confirmed by subsequent investigations.

¹²⁷ Stenersen, *Al-Qaida’s Quest for Weapons of Mass Destruction*, p. 52. See also the skeptical analysis of these “poison plots” by Leitenberg, “Assessing the Biological Weapons and Bioterrorism Threat,” pp. 26-8. An abbreviated version of the bioterrorism portions of that report later appeared in idem, “Evolution of the Current Threat,” in Andreas Wenger and Reto Wollenmann, eds., *Bioterrorism: Confronting a Complex Threat* (Boulder, CO and London: Lynne Rienner, 2007), pp. 39-76.

¹²⁸ Note, e.g., IS’ reported testing of pesticides, such as thallium sulfate (as well as nicotine), on imprisoned human “guinea pigs” in Mosul. See Gareth Browne, “Isis Tests Deadly Terror Chemicals on Live Victims,” *London Times*, 20 May 2017, available at <https://www.thetimes.co.uk/article/isis-tests-deadly-terror-chemicals-on-live-victims-cshx59080> .

¹²⁹ See Alan Cullison and Andrew Higgins, “Computer in Kabul Holds Chilling Memos,” *Wall Street Journal*, 31 December 2001; and Alan Cullison, “Inside Al-Qaeda’s Computer Hard Drive,” *Atlantic Monthly*, September 2004, available at <http://www.theatlantic.com/magazine/archive/2004/09/inside-al-qaeda-s-hard-drive/303428/> . This information was found on a second-hand computer obtained from a local merchant that had been looted from an office used by al-Qa‘ida leaders. Cf. also the testimony of Khalid Shaykh Muhammad in [United States Department of Defense], *Verbatim Transcript of Combatant Status Review Tribunal Hearing for ISN 10024 [Khalid Shaykh Muhammad]*, 10 March 2007, p. 17: “I was directly in charge, after the death of Sheikh Abu Hafs al-Masri Subhi

eventually became involved in this project. The first was Egyptian chemical engineer and bomb-maker Midhat Mursi al-Sayyid ‘Umar (better known by his jihad name, Abu Khabab al-Masri), who set up a “WMD” laboratory and test facility at al-Qa‘ida’s Darunta camp in Afghanistan. At that camp he developed special devices to disseminate toxic chemicals, prepared sections of manuals on the use of biological toxins, tested the lethality of toxic chemical substances (possibly hydrogen cyanide) on hapless dogs, and also tried but failed to acquire lethal strains of *Bacillus anthracis*.¹³⁰ Meanwhile, also in the 1990s ‘Atif and al-Zawahiri recruited, with the help of Hambali, a Malaysian member of Jemaah Islamiyah, Yazid Sufaat, to head its BW program. Sufaat, who had obtained a B.S. degree in biochemistry from California State University in Sacramento and thence served as a medical technician in the Malaysian Army, set up a pathology laboratory near Kandahar airport called Green Laboratory Medicine, where he unsuccessfully sought to weaponize *B. anthracis*.¹³¹ Finally, in the late 1990s, ‘Abdul Ra’uf, a biologist working for the Pakistani government, was sent overseas by al-Zawahiri to procure lethal strains of *B. anthracis* and the equipment needed to weaponize them, but also apparently without success.¹³²

As for the Islamic State, apart from repeatedly urging its supporters to kill “infidels” in any way that they can, including via “poisoning,” there is as yet no verifiable evidence that the group has seriously sought to acquire, much less actually tried to deploy, lethal biological toxins or disease-causing biological agents. Nevertheless, there is some evidence that the IS may have an interest in using such agents. The main evidence for this was contained in hidden files from a Dell laptop seized in 2014 by “moderate” Syrian rebels near Idlib in northern Syria.¹³³ Among the documents found therein were, according to analysts from the University of Maryland’s National Consortium for the Study of Terrorism and Responses to Terrorism (START), several “pertaining to weaponization and dispersal techniques for bubonic plague.”¹³⁴ More specifically, there was a 19-page document in Arabic that discussed, among other subjects, how to weaponize bubonic plague from infected animals. According to that document,

Abu Sittah, of managing and following up on the Cell for the Production of Biological Weapons, such as anthrax and others, and following up on Dirty Bomb Operations on American soil.” Ahmad Rassam, the failed Algerian “millennium bomber,” also testified that he had received rudimentary instruction at the Darunta camp about deploying toxic chemicals, either to assassinate individuals or for release into public buildings. See United States District Court, Southern District of New York, *USA v. Mokhtar Haouari*, 5 July 2001, pp. 620-6. Those substances were all chemical agents rather than biological toxins, however.

¹³⁰ Josh Meyer, “Al Qaeda is Said to Focus Again on WMD,” *Los Angeles Times*, 3 February 2008, available at <http://articles.latimes.com/2008/feb/03/world/fg-khabab3>. Experts still disagree about what chemicals may have been involved in these tests, but it now seems highly unlikely that it was a chemical warfare agent such as sarin, since no traces of actual CW agents were found by U.S. investigators.

¹³¹ Maria Ressa, “Reports: Al Qaeda Operative Sought Anthrax,” CNN, 10 October 2003, available at <http://edition.cnn.com/2003/WORLD/asiapcf/southeast/10/10/alqaeda.anthrax/>.

¹³² Joby Warrick, “Suspect and a Setback in Al-Qaeda Anthrax Case,” *Washington Post*, 31 October 2006, available at <http://www.washingtonpost.com/wp-dyn/content/article/2006/10/30/AR2006103001250.html>.

¹³³ Harold Doornbos and Jenan Moussa, “Found: The Islamic State’s Terror Laptop of Doom,” *Foreign Policy*, 28 August 2014, available at <https://foreignpolicy.com/2014/08/28/found-the-islamic-states-terror-laptop-of-doom/>.

¹³⁴ Herbert Tinsley, Jillian Quigley, Markus Binder, and Lauren Samuelson, *Islamic State Chemical and Biological Weapons Profile* (College Park: University of Maryland/START, [31 August] 2017), p. 46.

The advantage of biological weapons is that they do not cost a lot of money, while the human casualties can be huge.... When the microbe is injected in small mice, the symptoms of the disease [plague] should start to appear within 24 hours.... Use small grenades with the virus [*Yersinia pestis*], and throw them in closed areas like metros, soccer stadiums, or entertainment centers... Best to do it next to the air-conditioning. It also can be used during suicide operations.¹³⁵

The laptop's user was a Tunisian IS volunteer named Muhammad S., who appeared to be teaching himself how to produce biological weapons after having obtained a chemistry and physics degree at two universities in Tunisia.¹³⁶ No follow-up information about the possibility of the IS spreading contagious diseases has been found, other than unconfirmed reports in the media from late 2014 and 2015 suggesting that a few IS members may have contracted Ebola virus disease (EVD). One claimed that IS *mujahidin* had contracted the disease during a sojourn in sub-Saharan Africa, while another reported that five IS members who "were suspected of contracting" EVD had been incinerated by their jihadist "brothers" in April 2015, presumably to prevent the disease from spreading further.¹³⁷ Neither of these alarmist reports were confirmed, and indeed the first was quickly dismissed by Iraqi Health Ministry spokesman Ahmad Rudayni, who said that the possibility of identifying EVD infections was beyond the diagnostic capabilities of Mosul's medical facilities. However that may be, following the earlier 2014 report about the discovery of the IS laptop with file material concerning biological agents, one Western analyst had argued that "ISIS may already be thinking of using Ebola as a low-tech weapon of bio-terror", since jihadists could intentionally infect themselves with the virus and then be sent to spread the disease in the territories of their enemies.¹³⁸ Indeed, according to registered nurse and retired U.S. Navy Captain

¹³⁵ Cited in Doornbos and Moussa, "Islamic State's Terror Laptop of Doom." Also on that laptop was the infamous 26-page *fatwa* justifying the use of WMDs in order to kill millions of Americans, which was authored by Saudi pro-jihad cleric Nasir ibn Hamad al-Fahd, who in August 2015 reportedly pledged his support for the IS. See Bridget Johnson, "Saudi Cleric Who Issued Fatwa on WMD Permissibility Pledges Allegiance to ISIS," *PJ Media*, 25 August 2015, available at <https://pjmedia.com/blog/saudi-cleric-who-issued-fatwa-on-wmd-permissibility-pledges-allegiance-to-isis/>, which cites the following statement by al-Fahd: "I advise you to join, all of you, the Islamic State and to pledge allegiance to its leader, Amir al-Mu'minin Abu Bakr al-Baghdadi – may Allah protect him – and fight under his banner... It is the state that raised the banner of Islam, and established *Tawhid*, and destroyed the idols, and implemented the Shari'a. Allah has purified it from implementing man-made laws, from standing with the Disbelievers, and from supporting the *Tawaghit*, and has protected it from innovations, and misleading paths."

¹³⁶ Ibid. See also Damien McElroy, "Islamic State seeks to use Bubonic Plague as a Weapon of War," *Telegraph*, 29 August 2014, available at <https://www.telegraph.co.uk/news/worldnews/middleeast/iraq/11064133/Islamic-State-seeks-to-use-bubonic-plague-as-a-weapon-of-war.html>.

¹³⁷ Cf. Abdelhak Mamoun, "Urgent: Two Ebola Cases confirmed in Mosul," *Iraqi News*, 31 December 2014, available at <https://www.iraqinews.com/features/urgent-two-ebola-cases-confirmed-mosul/>; Julia Glum, "Officials Refute Iraqi Media Reports that ISIS Members have contracted Ebola in Mosul," *International Business Times*, 1 January 2015, available at <https://www.ibtimes.com/officials-refute-iraqi-media-reports-isis-members-have-contracted-ebola-mosul-1771792>; and "ISIS Cracks Down on Five Confirmed Ebola Cases among Fighters: Official," *Rudaw [Irbil]*, 1 April 2015, available at <http://www.rudaw.net/english/middleeast/iraq/04012015>. See further Tinsley et al, *Islamic State Chemical and Biological Weapons Profile*, p. 47.

¹³⁸ Bruce Dorminey, "Ebola as ISIS Bio-Weapon?," *Forbes*, 5 October 2014, available at <https://www.forbes.com/sites/brucedorminey/2014/10/05/ebola-as-isis-bio-weapon/#3bfc16557319>.

Albert J. Shimkus, an Associate Professor at the Naval War College, groups like the IS would not “even have to weaponize the virus to attempt to wreak strategic global infection”, since “[i]n the context of terrorist activity, it doesn’t take much sophistication to go to that next step to use a human being as a carrier.”¹³⁹ Others have disputed this claim, given that individuals infected with EVD would be unlikely to serve as an effective disease vector.¹⁴⁰ Finally, a December 2015 European Parliament briefing concluded that the IS “has recruited and continues to recruit hundreds of foreign fighters, including some with degrees in physics, chemistry, and computer science, who experts believe have the ability to manufacture lethal weapons from raw substances.”¹⁴¹ They may also be trying to recruit scientists in Iraq and Syria to help them, inasmuch as a report that same month in the Iraqi media claimed that the IS had executed the head of the Department of Physics at the University of Mosul when he refused to help the organization develop biological weapons.¹⁴²

Nevertheless, most analysts have concluded that it would be unlikely that the IS, despite showing some interest – rhetorical and/or operational – in acquiring and employing “poisons,” disease agents like bubonic plague, and crude chemical weapons, would be able to utilize bioweapons as a mass casualty tool to attack the West. According to Herbert Tinsley and his colleagues, for example, despite its undeniable appetite for apocalyptic destruction, “obtaining the

¹³⁹ Ibid. More cautiously, however, Shimkus did note that carrying out such an action in Western countries would likely not spread the disease “exponentially” due to their advanced health care systems.

¹⁴⁰ Stephen Hummel, “The Islamic State and WMD: Assessing the Future Threat,” *CTC Sentinel* 9:1 (January 2016), pp. 19-20: “The spread of Ebola gave rise to concerns that the Islamic State would attempt to use Ebola-infected individuals as delivery systems for the virus. This non-traditional transfer mechanism could, in theory, infect people around the world. The reality is far different, however. When first infected with a virus, individuals have a low titer count (the concentration of virus in the blood). Once inside the host individual, the virus invades cells and replicates. This progressively leads to higher levels of virus in the body and a corresponding escalation of symptoms. At low levels, the individual is relatively non-contagious and appears normal. It is at the later stages of the infection that the individual is most contagious, but also the most sick and debilitated. Such highly infected host individuals are easily identifiable and often barely able to function, let alone able to execute a clandestine infection strategy. Diseases are not limited by national or regional borders. The introduction of a pathogen in a developed nation would be rapidly detected through bio-surveillance networks.” See also idem, “Ebola: Not an Effective Biological Weapon for Terrorists”, *CTC Sentinel* 7:9 (September 2014), pp. 16-19, available at <https://ctc.usma.edu/app/uploads/2014/09/CTCSentinel-Vol7Iss95.pdf>. This analysis is essentially correct, according to Dr. Noreen A. Hynes.

¹⁴¹ European Parliament, “ISIL/Da‘esh and ‘Non-Conventional’ Weapons of Terror,” *Briefing*, December 2015, p. 3, available at http://www.europarl.europa.eu/RegData/etudes/BRIE/2015/572806/EPRS_BRI%282015%29572806_EN.pdf. On the basis of the unconfirmed assertions in this report, an even more alarmist article was written by Darren Boyle, “ISIS Army of Scientists set to Wage Chemical and Biological War on West: Experts warn Weapons of Mass Destruction ‘have been Carried Undetected’ into European Union,” *Daily Mail*, 6 December 2015, available at <https://www.dailymail.co.uk/news/article-3347671/ISIS-army-scientists-set-wage-chemical-biological-war-West-Experts-warn-weapons-mass-destruction-carried-undetected-Europe-Union.html>, wherein it was claimed that the IS had already recruited chemists and physicists and smuggled chemical and biological weapons into the EU.

¹⁴² Abdelhak Mamoun, “Source: ISIS executes Head of Physics Department for refusing to develop bioweapons in Mosul,” *Iraqi News*, 12 November 2015, available at <https://www.iraqinews.com/iraq-war/source-isis-executes-head-physics-department-refusing-develop-bioweapons-mosul/>. However, the reliability of this particular media source is open to question.

needed bulk agents or precursors for immediately lethal chemical agents and highly virulent microorganisms, let alone capably conducting the requisite testing and research, remains an overreach at this time.”¹⁴³ Similarly, although claiming that “there is little doubt that the Islamic State would like to possess and use biological weapons” and that it has consistently reiterated “its desire to possess biological weapons”, Hummel concluded that the IS “faces significant practical challenges” since “the development of biological weapons requires sophisticated personnel and technology that are not readily available in Iraq and Syria.”¹⁴⁴ Finally, Shahzeb Ali Rathore, who arguably gives too much credence to various unconfirmed reports concerning the IS’ interest in biological weapons, noted that, given the difficulties of weaponizing and containing biological agents, “a sophisticated bioweapon does not seem a plausible prospect” for the IS.¹⁴⁵ Furthermore, now that the IS has lost most of the territory in its Caliphate State, along with many thousands of its veteran fighters, it seems even less likely that it currently has the human, technical, and financial resources to successfully weaponize or mount a serious attack using lethal biological agents, including those with contagious diseases transmitted by infected jihadists. One cannot afford to be overly sanguine, however, since the increasing desperation of its core group in Syria and Iraq (IS Central), together with the operational capabilities possessed by particular IS affiliates, may make it possible for elements of the group to launch such an attack at some point in the future.

¹⁴³ Tinsley et al, *Islamic State Chemical and Biological Weapons Behavioral Profile*, pp. 98-9. They further add (ibid, p. 99) that “[t]he only pathways that appear open to Islamic State at this time are chemical.”

¹⁴⁴ Hummel, “Islamic State and WMD,” p. 19. His claim that there is “little doubt” that the IS wants to obtain BW is based on the material on this subject found in the aforementioned computer. But it is unclear what his assertion that the IS has consistently reiterated its desire to possess BW is based on, since he cites no examples to buttress such a claim. Other researchers, such as Tinsley et al, have not found evidence to support this statement.

¹⁴⁵ Shahzeb Ali Rathore, “Is the Threat of ISIS Using CBRN Real,” *Counter Terrorist Trends and Analysis* 8:2 (February 2016), p. 4, available at <https://www.jstor.org/stable/pdf/26369585.pdf?refreqid=excelsior%3A70487316726f9f37e2defce92257a2c8> .

CHAPTER TWO: JIHADIST IDEOLOGICAL MOTIVATIONS FOR MARTYRDOM, MASS DESTRUCTION, AND BIOTERRORISM

Jeffrey M. Bale

“Those who can make you believe absurdities, can make you commit atrocities.”
Voltaire¹⁴⁶

If one is endeavoring to understand the motivations and behavior of violent extremists, the single most important requirement is to comprehend their core ideological beliefs. Indeed, the phrase “violent extremists” itself specifically refers to those who carry out acts of violence against designated enemies on the basis of their *extremist political or religious views*, as opposed to others who carry out acts of violence primarily for financial gain (criminals, organized or otherwise) or for idiosyncratic personal motives. Therefore, when categorizing the perpetrators of acts of violence, including acts of mass casualty violence, the most important distinctions that must be recognized are between a) those who are ideologically motivated, i.e., inspired by particular extremist political and religious doctrines, b) those who are motivated mainly by greed, and c) those who have other, highly personalized motives.¹⁴⁷

Unfortunately, observers and pundits all too often fail to make these crucial analytical distinctions, and thus mistakenly compare, conflate, and confuse actions that are in fact attributable to radically different motivations.¹⁴⁸ This has not only led to a great deal of conceptual and analytic confusion, but also to the widespread tendency to ascribe these kinds of brutal actions to individual psychopathy, as if their perpetrators must have been mentally disturbed in a clinical sense in order to resort to such violence. Although this is much more likely to be true of perpetrators who carry out violent attacks for idiosyncratic personal reasons, many of whom are in fact mentally ill, severely dysfunctional from a psychological point of view, or delusional, it is generally *not* the case when one is dealing with ideologically motivated attackers. After all, individuals inspired by extremist ideologies believe that they are carrying out morally justifiable and indeed morally righteous violent actions against their ostensibly “evil,” doctrinally delineated enemies. Hence

¹⁴⁶ More precisely, the quote reads: “Certainement qui est en droit de vous rendre absurde est en droit de vous rendre injuste.” [“Certainly, anyone who has the power to make you believe absurdities has the power to make you commit injustices.”] See Voltaire, *Œuvres complètes de Voltaire, avec des notes et une notice historique sur la vie de Voltaire* (London: Forgotten Books, 2017), volume 8, p. 691.

¹⁴⁷ Note that this tripartite categorization scheme applies to non-state actors. Obviously, there are also acts of violence and terrorism sponsored by states in support of their perceived national interests and national security concerns.

¹⁴⁸ See, e.g., Adam Lankford, *The Myth of Martyrdom: What Really Drives Suicide Bombers, Rampage Shooters, and Other Self-Destructive Killers* (New York: Palgrave Macmillan, 2013), esp. chapter 6, who inexplicably lumps together ideologically-motivated suicide terrorists with troubled individuals who carry out mass killings for idiosyncratic personal motives.

their violence is not only inspired by but also invariably rationalized, both to themselves and to outsiders, on the basis of coherent, more or less all-encompassing belief systems. Since numerous studies of members of violent extremist groups in different countries have concluded that they do not exhibit higher levels of psychopathy than is normal for the general populations in their own societies, one should never ascribe their actions mainly to clinically diagnosable psychological causes unless there is tangible evidence that this is actually the case.¹⁴⁹ Instead, the one probable identifiable psychological common denominator shared by insurgent ideological extremists, whether they are revolutionaries, guerrillas, or terrorists, is *a profound sense of alienation from the status quo*, including the incumbent regime.¹⁵⁰ Alienation from and hostility towards the existing status quo seems to be a necessary – though certainly not a sufficient – precondition for the adoption of violence, including terrorist-style operational techniques, by *insurgents*, whether they be leftists, secular rightists, or religious radicals. It should be self-evident that if individuals are essentially satisfied or happy with the social and political status quo, they are unlikely to be attracted to extremist ideologies and movements that denounce and promote the overthrow of the system, to join violent insurgent organizations with seditious or revolutionary goals, to ruthlessly kill representatives and supporters of the system, or to risk their own lives engaging in such dangerous anti-system activities.

Conversely, although individuals who carry out violence for purely personal reasons may also believe their acts are justified, they do *not* justify those actions on the basis of specific belief systems.¹⁵¹ Rather, the people they target – e.g., bosses, co-workers, fellow students, teachers, neighborhood bullies, women who ignore them, neglectful or abusive parents – are usually

¹⁴⁹ See, e.g., John Horgan, “The Search for the Terrorist Personality,” in Andrew Silke, ed., *Terrorists, Victims and Society: Psychological Perspectives on Terrorism and Its Consequences* (Chichester, UK: Wiley, 2003), pp. 3-27, esp. p. 6: “The tendency to ascribe explanations of outright abnormality/mental illness owing to the savagery of the behaviour is noted by many, and even go as far as to suggest sadism....By and large, however, there remains little to support the argument that terrorists can or should be necessarily regarded as psychopathic owing to the nature of the offenses committed.” Cf. also the trenchant remarks by Andrew Silke, “Becoming a Terrorist,” in *ibid.*, p. 32: “Overall, writers who suggest that terrorists are psychologically abnormal tend to be those with the least amount of contact with actual terrorists. This is a very important point as they are by and large making this inference from research only on secondary sources. Rasch (1979) commented that this widespread habit was a scientific travesty....In contrast, those researchers who say that terrorists are not abnormal tend to be the ones who have had direct contact and experience with actual terrorists. The reality of close contact has displaced any comfortable notions of aberration that may have been harboured...Yet this seems to have been a remarkably slow lesson for others to learn....Quite simply, the best of the empirical work does not suggest, and never has suggested, that terrorists possess a distinct personality or that their psychology is somehow deviant from that of ‘normal’ people.” However, this does not mean that certain individual members of ideologically-motivated terrorist groups, or individuals who are motivated by extremist ideologies but not actually members of larger cells, groups, or networks, may not also have severe psychological disorders. For more on the potential psychological issues or traits involved, see Tom Reidy’s chapter in this report.

¹⁵⁰ Needless to say, alienation from the status quo is *not* usually a characteristic of perpetrators of political violence who are members of a) the state’s security forces or b) civilian paramilitary groups that are supportive of the status quo or collaborating with incumbent regimes. From a psychological standpoint, such people are perhaps more likely to be overly conformist and obedient to authority, so much so that they are willing to carry out acts of violence simply because they are ordered to by their superiors and/or because they consider their targets – rightly or wrongly – to be dangerous “subversives” who are threatening the status quo.

¹⁵¹ See also Max Taylor, *The Terrorist* (Washington, DC: Brassey’s, 1988), p. 88.

believed to have “wronged” them in some terrible but highly personal way, so much so that they feel justified in violently retaliating against them. Oftentimes, however, the “wrongs” supposedly done to them are more imaginary than real. And even when they are real, extreme violence on that level is almost never viewed by outsiders as an appropriate response (in contrast to various types of political and religio-political violence, which typically elicit broader sympathy from external circles of supporters). Moreover, as noted above, it seems clear that many individuals who carry out this type of personalized violence have acute psychological problems, and perhaps even display clinical symptoms of mental illness. One high-profile recent example is that of Nikolas Jacob Cruz, an emotionally troubled former student who, on 14 February 2018, murdered 17 people with an assault rifle at the Stoneman Douglas High School in Parkland, Florida. Therefore, such incidents should never be placed within the same motivational category as, say, acts of jihadist terrorism inspired by Islamist ideology, such as the 2 December 2015 attack carried out at the Inland Regional Center in San Bernardino, California by Syed Rizwan Farook and Tashfeen Malik, or the 12 June 2016 attack on the “Pulse” gay nightclub in Orlando, Florida by Omar Mateen.

In this study, the explicit focus is on the potential use, by jihadist organizations and networks inspired by various currents of Islamist ideology, of human vectors to carry out acts of bioterrorism by spreading diseases. Hence, despite the inclusion of a chapter devoted to the psychological dimensions or factors that might be involved in recruiting and motivating individuals to carry out such attacks, the primary concern herein is with *ideologically-motivated violence*. In order to assess the possible willingness of jihadists to carry out biological attacks of various types, including via the employment of human disease vectors, it is therefore necessary in this chapter to explain what ideologies are, identify the common characteristics of all forms of ideological extremism, clarify the core ideas associated with Islamist ideology, and assess whether certain intrinsic beliefs characteristic of that ideology could serve to motivate them to try and carry out biological attacks of this type.

This is all the more important given that ideological factors are too often downplayed or ignored by pundits and so-called “experts” who write about terrorism, including “WMD” terrorism. Since I have written about various problems afflicting the academic literature on terrorism elsewhere, it is only necessary to summarize some of those points here.¹⁵²

Disciplinary Biases and “Mirror Imaging”

The phrase “mirror imaging” is used, both within and outside of the intelligence community, to refer to a phenomenon in which analysts unconsciously project their own ways of thinking, their own values, their own frames of reference, and indeed their own fantasies onto their adversaries, including those emanating from very different cultures with very different histories

¹⁵² See Jeffrey M. Bale, “Introduction: Ideologies, Extremist Ideologies, and Terrorism,” in *The Darkest Sides of Politics* (New York: Routledge, 2018), volume 1, pp. 3-8.

and values, instead of trying to view the world from their adversaries' own perspectives and points of view. This sort of parochial approach is widely regarded – and rightly so – as problematic, counterproductive, harmful, and potentially catastrophic insofar as it can easily lead to serious misunderstandings about the nature of the adversary, which can in turn result in the adoption of misguided policies and ineffective responses. Yet this myopic, self-referential mirror imaging approach is nowadays practically the norm in the West, particularly in relation to the threat posed by jihadists, whose actions are undeniably and indeed explicitly inspired primarily by their Islamist interpretations of core Islamic doctrines.

The following factors all contribute to the problem of analytical “mirror imaging” in this context:

- first, people who grow up in materialistic Western societies tend to ascribe materialistic motives to other people, even those from other and quite different foreign cultures – i.e., they tend to believe that the “real” underlying motivations of human actors, which they identify as narrowly political goals, materialistic social or economic motives, a vulgar lust for power, etc., are either being intentionally concealed or unwittingly distorted in those actors' ideological statements and justifications;
- second, “social scientists” normally prefer to highlight various tangible supposed causal factors that they believe can be measured, quantified, and “tested,” as opposed to concerning themselves with intangible, messy, unquantifiable factors (such as the convoluted influence of beliefs, culture, and history – topics which, by the way, also require years of study to even begin to comprehend);
- third, academicians from different disciplines not surprisingly tend to over-emphasize the value of particular theories and methods deriving from their own disciplines, to minimize the importance of rival theories and methods from their own and other disciplines (especially supposedly “soft” disciplines in the humanities like political philosophy, history, and religious studies), and then to apply their favored theories and methods, sometimes carelessly and uncritically, even to topics that are quite removed from their own areas of specialization.¹⁵³

In short, what many people from these various disciplinary backgrounds all have in common is that they tend to overemphasize the importance of tangible, ostensibly measurable and quantifiable (i.e., economic, psychological, social psychological, sociological, or narrowly political) factors and to ignore or minimize the importance of less tangible (historical, cultural, and ideological) factors. This is the case even though the latter are often of decisive importance, especially when one is trying to understand groups inspired by extremist ideologies.

In practice, mirror imaging in the context of terrorism analysis normally takes four interrelated forms. First, there is the aforementioned penchant for ascribing narrowly materialistic

¹⁵³ For more specifics, see *ibid*, volume 1, p. 7.

motives, e.g., an atavistic desire for wealth and power, to violent ideological extremists.¹⁵⁴ Second, there is the tendency of “social scientists” to ascribe hyper-rationalistic motives to them, a byproduct of the cultural emphasis on human reason in the post-Enlightenment West and its acute deformation in today’s “rational choice” models of human behavior.¹⁵⁵ Third, there is the tendency, above all of military analysts, to project traditional Clausewitzian strategic thinking onto our extremist adversaries, thereby ignoring the fact that Clausewitz was primarily concerned with analyzing the behavior of nation states, not non-state actors who were waging asymmetric warfare.¹⁵⁶ Fourth, there is the widespread assumption that the actions carried out by violent

¹⁵⁴ To some extent, this type of interpretation is simply a new iteration and illustration of long-standing intellectual disputes about human motivations between vulgar “materialists” and their “idealist” opponents. Hence many Western analysts in the former camp continue to adopt an overly materialistic interpretation of events occurring in the Islamic world. As Bernard Lewis rightly argued decades ago, “[m]odern Western man, being unable for the most part to assign a dominant and central place to religion in his own affairs, found himself unable to conceive that any other peoples in any other place could have done so, and was therefore impelled to devise other explanations of what seemed to him only superficially religious phenomena.... To the modern Western mind, it is not conceivable that men would fight and die in such numbers over mere differences of religion; there have to be some other ‘genuine’ reasons underneath the religious veil. We are prepared to allow religiously defined conflicts to accredited eccentrics like the Northern Irish, but to admit that an entire civilization can have religion as its primary loyalty is too much.... This is reflected in the present inability, political, journalistic, and scholarly alike, to recognize the importance of the factor of religion in the current affairs of the Muslim world...” See Bernard Lewis, “The Return of Islam,” *Commentary*, January 1976, available at <https://www.commentarymagazine.com/articles/the-return-of-islam/> . Such delusions are particularly common amongst old-style Marxist and certain types of post-Marxist left-wing thinkers, who fail to recognize or acknowledge that millions of people throughout the Islamic world, including Islamists who are waging *jihad*, take their religious beliefs very seriously. For this, see esp. Jean Birnbaum, *Un silence religieux: La gauche face au djihadisme* (Paris: Seuil, 2016). However, this blinkered attitude is also a depressing reflection of the growing refusal to acknowledge reality, i.e., the political unwillingness of contemporary Western elites and policy advisors, most of whom know very little about Islamic history or religious tenets, to identify Islamist interpretations of core Islamic doctrines as a primary driver of jihadist terrorism. See further Jeffrey M. Bale, “Denying the Link between Islamist Ideology and Jihadist Terrorism: ‘Political Correctness’ and the Undermining of Counterterrorism,” in *Darkest Sides of Politics*, volume 2, chapter 7; and idem, “‘Nothing to Do with Islam’?: The Terrorism and Atrocities of the Islamic State are Inspired and Justified by its Interpretations of Islam,” in *ibid*, volume 2, chapter 8. Note that the jihadists themselves explicitly challenge and repudiate such materialistic explanations for their actions. See, e.g., the statement in a eulogy for Abu Mus‘ab al-Zarqawi, former leader of the al-Qa‘ida affiliate in Iraq: “They [the American military] think that we fight for money and prestige – and what they do not understand is that our arteries are filled with the ideology of jihad. Even if they managed to reach Zarqawi, praise be to Allah, we have a million more Zarqawis because our *umma* is the *umma* of jihad, and jihad is at the top of our religious hierarchy.” See “Biography of Abu Mus‘ab al-Zarqawi,” in Ansar al-Mujahidin Forum, at <http://ansar1.info/showthread.php?t=9579> .

¹⁵⁵ For a severe critique of these hyper-rationalistic interpretations of extremist behavior, specifically in the context of jihadist terrorist groups, see Jeffrey M. Bale, “Jihadist Ideology and Strategy and the Possible Employment of WMD,” in *Darkest Sides of Politics*, volume 2, pp. 157-72. More generally, in addition to the effects of embracing particular belief systems, which typically incorporate irrational components, powerful human emotions also interfere with the ability of individuals to be fully rational. See, e.g., the pertinent remarks of Douglas Massey: “...human decisions, behaviors, and social structures cannot be modeled solely as a function of rationality.... Emotionality remains a strong and independent force in human affairs, influencing perceptions, coloring memories, binding people together through attraction, keeping them apart through hatred, and regulating their behavior through guilt, shame, and pride.” See Douglas Massey, “Emotion and the History of Human Society,” *American Sociological Review* 64 (2002), p. 20.

¹⁵⁶ Even al-Qa‘ida military analysts have pointed out the shortcomings of Clausewitzian approaches. See, e.g., the comments of Abu ‘Ubayd al-Qurashi, which in this case concern the impact of al-Qa‘ida’s organizational structure on U.S. military analyses and actions: “America today is facing a huge problem with Clausewitz’s theories. The latter are premised on the existence of a centralized hostile power with a unified command. Assuredly, the

extremists are simply a response to misguided Western foreign policies or to deeper “root causes,” the implication being that if Western nations would only alter their policies and make serious efforts to address those purported causes, our adversaries’ motives for employing violence would miraculously disappear.¹⁵⁷ All of these approaches involve stubbornly projecting our own, culturally-bounded and somewhat solipsistic ways of thinking onto others, and in the process

mujahidin, with the al-Qa’ida organization in their vanguard, believe in decentralized organizations. Thus the enemy cannot ascertain [the mujahidin’s] center of gravity, let alone aim a mortal blow at it.” Abu ‘Ubayd al-Qurashi, “A Lesson in War,” *Al-Ansar*, 19 December 2002. Other Western analysts have instead characterized the strategy adopted by transnational groups like al-Qa’ida, on the basis of the writings of certain jihadist strategic thinkers, as being a recast of “protracted guerrilla warfare along Maoist lines using fourth-generation warfare principles...” rather than being based on Islamic concepts. See Michael W. S. Ryan, *Decoding Al-Qaeda’s Strategy: The Deep Battle against America* (New York: Columbia University, 2013), p. 265. While it is certainly true that these thinkers have carefully examined the writings of communist guerrilla warfare theorists as well as various Western counterinsurgency doctrines, that is because – like all sensible military analysts – they are willing to learn from, borrow, and adapt “best practices” from their enemies. It goes without saying that today’s jihadists, if they hope to defeat their powerful contemporary enemies, would be foolish to slavishly copy traditional principles and methods of warfare used by Muslim armies in earlier millennia or centuries. That does not mean, however, that they do not try to adapt these modern methods of combat in order to make them more compatible with the cultural and religious values that underlay traditional Islamic warfare doctrines. Even Ryan acknowledges (*ibid*) that although today’s jihadist strategists recognize that some of their military doctrines and methods do not derive originally from Islamic theological or legal principles, they nonetheless argue that those doctrines and methods are not incompatible with the *shari’a*. For Islamic warfare in earlier historical periods, see Hugh Kennedy, *The Armies of the Caliphs: Military and Society in the Early Islamic State* (New York: Routledge, 2001); and Rhoads Murphy, *Ottoman Warfare, 1500-1700* (London: University College of London, 1999). For modern analyses of traditional Islamic warfare, cf. [Pakistani] Brigadier S. K. Malik, *The Quranic Concept of War* (New Delhi: Himalayan Books, 2009); T. P. Schwartz-Barcott, *War, Terror & Peace in the Qur’an and Islam* (Carlisle, PA: Army War College Foundation Press, 2004); and Mark E. Stout, Jessica M. Huckabey, and John R. Schindler, with Jim Lowry, *The Terrorist Perspectives Project: Strategic and Operational Views of Al Qaida and Associated Movements* (Annapolis, MD: Naval Institute Press, 2008).

¹⁵⁷ This attitude was epitomized, e.g., by former Secretary of State John Kerry’s suggestion that a lack of economic opportunities was a primary causal factor in the recruitment of jihadists, as if the provision of more economic aid and the creation of more jobs would solve the jihadist terrorism problem. See Patrick Goodenough, “Kerry: Potential Terror Recruits Need ‘More Economic Opportunities,’” *CNS News*, 30 September 2013, at <https://www.cnsnews.com/news/article/patrick-goodenough/kerry-potential-terror-recruits-need-more-economic-opportunities>. In all of the years I have been studying jihadist terrorism, I have never seen jihadists carrying signs saying “We Want Jobs.” On the other hand, it is obvious that the Islamists and millions of other Muslims are unhappy with and indeed strongly opposed to many U.S. foreign policies, which have often been ill-conceived and rightly perceived as harmful. But many other people throughout the world, and indeed many American citizens, are also strongly opposed to particular U.S. foreign policies. Yet these latter are not hijacking airliners to use as flying bombs, carrying out suicidal “martyrdom” operations, deliberately carrying out acts of mass murder against civilians, and constantly blathering on about world conquest and domination. On the contrary, it is Muslims, above all Islamists, who are nowadays carrying out vastly disproportionate amounts of mass casualty terrorism, not only against the U.S., but against all of their designated “infidel” enemies (e.g., in Europe, Russia, China, India, Southeast Asia, and parts of Africa), as well as against “apostates” and other internal Muslim enemies. In fact, jihadists have killed many more Muslims than they dislike than they have “infidels.” Hence this ongoing pattern of ruthless, murderous behavior cannot be ascribed primarily to unhappiness with particular American and Western foreign policies, since it also directed against so many other nations and peoples, and it would not cease even if the West radically transformed its policies towards the Muslim world. Nor would it end if Muslim regimes, against all odds, were able to resolve most of the intractable but self-generated problems in their own countries. Cf. the remarks of Chetan Bhatt, “The Virtues of Violence: The Salafi-Jihadi Political Universe,” *Theory, Culture & Society* 31:1 (2014), p. 26, who critically rejects the arguments that seek to explain jihadist thinking and actions by reference to “largely exogenous factors, primarily ‘anti-imperialism’ or resistance to oppression or illegitimate occupation”, errors that are “symptomatic of the political left...”

inexplicably ignoring or dismissing what our extremist adversaries keep insistently telling us about their own motives. This is particularly true in the case of jihadist terrorists.

Surely it is both analytically and methodologically unsound to ignore the influence or deny the importance of the fervently-held beliefs of protagonists, all the more so when one is analyzing groups that *explicitly define themselves by their beliefs, generally act in accordance with those beliefs, and indeed feel compelled to justify all of their actions on the basis of those beliefs*. And it is even more foolish to contemptuously dismiss what the actual protagonists keep telling everyone about their own motivations, and instead to ascribe other preferred motivations to them in the absence of any verifiable evidence.

Unlike many blinkered Western analysts, ideological extremists themselves clearly recognize the vital importance of firm ideological convictions in motivating their actions and otherwise affecting their behavior. For example, a leading jihadist strategic thinker, Abu Mus‘ab al-Suri, drew a clear conceptual, moral, and behavioral distinction between “ideological fighters,” in this case Islamists, and ordinary fighters who lack such an all-encompassing belief system:

Whoever does not fight for an ideology and an idea is incapable of showing resistance to defeat and prolonged suffering, and might soon reach a state of submission of honor and conscience to the enemy, and possibly even crossing over to the enemy if his material desires are satisfied or fulfilled more than others have provided: possessions, women, high status, recognition, primacy, etc. He thus becomes an enemy or a traitor, or at least submits and retreats into his private life in order to be calm and safe, to make due with what he has attained or to be happy to be alive. By contrast, the ideological fighter stands firm, does not betray...does not collaborate with his enemy and does not submit unless forced to do so if surrounded...He shows resistance and assumes that his suffering will earn him recompense in the next world [i.e., in Paradise]. His peace of mind and his thoughts of his end constitute an incentive for him to show resistance and stand firm. His soul yearns for jihad and his conscience impels and stimulates him to carry out jihad for the sake of his lofty idealism. There is a huge difference between an ordinary fighter and an ideological fighter.¹⁵⁸

Other types of ideological extremists have made similar arguments extolling the value of their beliefs, perhaps above all in situations when they are engaged in life-or-death struggles against their designated enemies. Such statements lauding “ideological fighters” may involve some degree of idealization and exaggeration, but they are nonetheless essentially valid. That is, after all, precisely why extremist movements so often form elite vanguards, party cadres, or military units consisting of their most ideologically committed and fanatical members, such as the black-garbed Nazi Schutzstaffel (SS: Protection Squad) created by Adolf Hitler.

¹⁵⁸ See Abu Mus‘ab al-Suri’s 1600-page strategic treatise, *Da‘wa al-muqawwama al-islamiyya al-‘alamiyya [The Call for Global Islamic Resistance]*, p. 887. The author’s real name is Mustafa ‘Abd al-Qadir Sit Maryam Nasar.

This does not mean, however, that ideology or any other single factor is alone responsible for the behavior of violent ideological extremists, since all monocausal explanations for complex social phenomena are oversimplifications inasmuch as a multiplicity of intersecting factors are always at play.¹⁵⁹ But not all of those factors are equally important, no matter what the context, and *ideology is arguably the single most important factor in understanding the behavior of political and religious extremists*. That is why it is necessary at this point, before turning to Islamic doctrines and their interpretations by Islamists, to undertake a preliminary discussion of both ideologies in general and extremist ideologies in particular.

The Nature and Function of Ideologies

The exact meaning of the term “ideology” remains a contentious and much-debated one to this day. It is generally agreed, however, that ideologies should not be mistaken for or confused with the vague presuppositions or notions that most people hold, more or less unconsciously, about how the world operates, which are a normal product of their socialization. Rather, ideologies are *systematic, relatively coherent, well-articulated, and often all-encompassing sets of ideas about the nature of social reality, whether or not those ideas have a solid factual basis*.¹⁶⁰ In short, they are elaborate intellectual constructs that embody certain distinctive beliefs and fundamental principles. Once one fully adopts or embraces such an ideology, it thenceforth serves as a crucial perceptual lens through which all information from the outside world is filtered, and in the process refracted and distorted. In short, and virtually by definition, political ideologies provide an explanatory framework for interpreting and understanding human socio-political interaction. And like all intellectual constructs, including social science theories, mathematical models, and conspiracy theories, such ideologies invariably present only a partial picture of – and thereby inevitably oversimplify – reality. This is in fact one of the primary reasons for their appeal: they make the inordinately complex, extraordinarily fluid, seemingly incomprehensible, and often frightening external world seem more understandable, and thus potentially more manageable.¹⁶¹

¹⁵⁹ Cf. further the cautionary analysis of Jeroen Gunning, “Critical Reflections on the Relationship between Ideology and Behavior,” in Jeevan Deol and Zaheer Kazmi, eds., *Contextualising Jihadi Thought* (London: Hurst, 2012), pp. 219-42. Even so, however, Gunning rightly emphasizes (p. 220) the following: “That beliefs must be taken seriously has been emphasised across different disciplines, and this chapter too will start from the premise that ideas matter: we cannot explain, let alone understand, why people behave the way they do without studying their beliefs, and ideas are not merely derivative of other, supposedly more fundamental, factors such as material context.”

¹⁶⁰ This is my own definition. For a more extended discussion of the development of interpretations of the term “ideology,” see Bale, “Introduction,” in *Darkest Sides of Politics*, volume 1, pp. 11-23, where extensive citations to the literature are provided.

¹⁶¹ Indeed, some have made even harsher criticisms along this line. See, e.g., the remarks of Farhang Rajaee, *Islamism and Modernism: The Changing Discourse in Iran* (Austin: University of Texas, 2007), p. 4: “Any ism denotes an ideology – not a way of approaching the world as a thinking agent, but a seeming certitude that claims to possess all the answers. An ideology is a project with a clear blueprint that requires only mechanical implementation. It provides assurance because it offers easy answers to the most difficult and fundamental questions. Approaching the world through the lens of an ideology renders redundant the human processes of constantly thinking, evaluating, facing hard choices, and balancing.”

In addition to purporting to explain the world, political ideologies have other important functions and characteristics. First, they inevitably contain *normative* elements. They are not only formulated in such a way as to describe the world, but also in such a way as to evaluate, judge, and perhaps criticize it, implicitly if not explicitly. That does not mean, however, that all ideologies are oppositional in the sense that advocate resistance to the existing status quo. On the contrary, some ideologies aim to buttress the existing political and social order, others to reform it from within, and still others to overthrow and replace it.¹⁶² Second, political ideologies have an important *affective* dimension. Whether an ideology is seeking to promote the maintenance of the status quo or to justify its overthrow, it must appeal to the emotions of the individuals or social groups its exponents hope to influence, convince, or mobilize the support of. As Mostafa Rejai notes, “a most distinctive feature of all ideologies is an appeal to human passion, an eliciting of emotive response.”¹⁶³ Some analysts have gone so far as to claim that ideologies appeal mainly to the emotions rather than to the intellect.¹⁶⁴ However that may be, politically influential ideologies, past and present, are both psychologically seductive and emotionally resonant, which explains why they have so often been capable of inducing certain segments of particular communities to make extraordinary sacrifices on behalf of the causes they espouse. Finally, political ideologies function as a powerful source of *social solidarity*, since they effectively divide – intellectually, psychologically, and perhaps also socially and organizationally – the “righteous” group members from all of the “dark” or “alien” forces operating outside of and allegedly against the interests of the group. They therefore help to provide both a sense of collective identity to individual group members and to bond them socially and emotionally to each other, thus offering them a profound feeling of fellowship as “comrades” or “brothers” who are all ostensibly working together harmoniously and making common (and perhaps even at times extraordinary) sacrifices for a great and noble cause.

In any case, all political ideologies, extremist or otherwise, claim to provide the answers to three interrelated questions:

- first, what is wrong with the world?
- second, who is responsible for those wrongs?

¹⁶² Cf. Max J. Skidmore, *Ideologies: Politics in Action* (Fort Worth, TX: Harcourt Brace Jovanovich, 1993), p. 8; and Roy C. Macridis, *Contemporary Political Ideologies: Movements and Regimes* (New York: Harper Collins, 1992), pp. 16-17.

¹⁶³ Mostafa Rejai, *Political Ideologies: A Comparative Approach* (Armonk, NY, and London: M. E. Sharpe, 1995), p. 7. However, he also emphasizes (ibid, pp. 6-7) that, although “[i]n any ideology there are elements of emotionality alongside elements of rationality”, “the balance between the two...varies from ideology to ideology.” For his part, Michael Freeden makes a more interesting point in *Ideology: A Very Short Introduction* (New York: Oxford University, 2003), p. 120: “On a more profound level, ideologies are the main form of political thought to accept passion and sentiment as legitimate, indeed ineliminable, forms of political expression. Ideologies reflect the fact that socio-political conduct is not wholly or merely rational or calculating, but highly, centrally, and often healthily emotional.” Or, one must insist in many cases, unhealthily emotional.

¹⁶⁴ Daniel Bell, *The End of Ideology: On the Exhaustion of Political Ideas in the Fifties* (New York: Free Press, 1962), p. 400: “What gives ideology its force is its passion....One might say, in fact, that the most important, latent, function of ideology is to tap emotion.”

- third, what needs to be done to correct those wrongs?

This means, effectively, that political ideologies all contain both *diagnostic* elements – the answers they provide to the first and second questions – and *prescriptive* elements that are intended to serve as a guide for action – the answer they provide to the third question. The above is a shorthand way of formulating ideas that many other scholars have discussed at greater length. For example, Neil Smelser emphasizes these same three aspects of ideologies, among others. First, ideologies claim to “identify and explain what is wrong or threatened in the world of believers and hoped-for believers”, thereby structuring and making concrete “the more diffuse dissatisfactions experienced by a group and [lumping] the diverse reasons for these dissatisfactions into a single explanation.”¹⁶⁵ Second, they typically “identify one or more target groups who are responsible for the dangers to and suffering in a given group”, i.e., they tend to ascribe both the world’s and their own group’s problems to the actions supposedly initiated by certain designated villains.¹⁶⁶ Third, and more optimistically, they provide “an ideal vision of a better society and a better life.”¹⁶⁷

Here it needs to be emphasized that rank-and-file members of extremist political and religious movements and organizations do not need to have a sophisticated understanding of the complex ideological doctrines developed by intellectuals within their respective milieus in order to be inspired to take revolutionary, violent, or even self-sacrificial actions on the basis of those ideas. On the contrary, all they need to do is embrace a simplified, reductionist, and easily comprehensible version of those doctrines, one that is constantly reinforced by inspirational slogans, sound bites, repetitious ritualistic actions, elaborate ceremonies, and exhortatory hymns and songs (such as jihadist *anashid* [vocal chants]). All that is necessary is that they readily accept, internalize, and thence act upon the answers provided by their particular ideologies to the three aforementioned questions.

For example, all that would-be jihadists need to understand about Islamism is its explanation for what is wrong with the world (“unbelief” [*kufr*]), who its designated enemies are (“infidels” [*kuffar*], “pagans” [*mushrikun*], Muslim “apostates” [*murtaddun*], and Muslim “hypocrites” [*munafiqun*]), and what its simplistic, all-encompassing vision for creating a utopian *shari‘a*-dominated world order that is purportedly sanctioned by Allah is (for Sunni Islamists, the idealized image of a global Caliphate). Needless to say, jihadist recruits come to believe that Islam’s irremediably “evil” enemies must be fought against relentlessly, defeated decisively, and subjected thoroughly in order for the Islamists to be able to establish their imagined utopian world order, even though such a grandiose, imperialistic scheme for global Islamic domination is obviously unachievable in the real world given current Muslim military weaknesses. Understanding these basic principles does not require a detailed knowledge of the *Qur’an*, an awareness of the authenticity and reliability problems concerning the sources for early Islamic history, jurisprudential expertise in the interpretation of the *shari‘a*, or a full comprehension of the

¹⁶⁵ Neil J. Smelser, *The Faces of Terrorism: Social and Psychological Dimensions* (Princeton: Princeton University, 2007), p. 65.

¹⁶⁶ *Ibid.*

¹⁶⁷ *Ibid.*, p. 70.

philosophical ideas of brilliant past Islamic thinkers like al-Ghazali (ca. 1058-1111) and Ibn Khaldun (1332-1406). Similarly, only a naïve analyst would claim that the average communist militant could not really be inspired by communist ideological doctrines and slogans unless he or she had spent inordinate amounts of time and effort mastering the convoluted arguments presented in the three volumes of Karl Marx's opus, *Das Kapital (Capital)*. On the contrary, all communist militants really needed to know was that capitalism was "evil" and exploitive and had to be destroyed, that the "bourgeoisie" were the class enemy who must be fought and eliminated, and that the end goal was the creation of a utopian, worldwide "classless" society free of all exploitation and injustice. To understand those core ideas, it would have sufficed for them to listen to exhortatory speeches by charismatic revolutionary militants or read short polemical pamphlets like Marx's *Das Kommunistische Manifest (The Communist Manifesto)* or Vladimir Lenin's *Shto delat'?* (*What Is to Be Done?*).

The Common Characteristics of Extremist Political and Religious Ideologies

A good deal of the current conceptual confusion about the nature of extremism is attributable to a basic failure to distinguish between, or a misleading attempt to conflate or commingle, two distinct types of extremism. The first is *extremism of goals*, which is almost entirely the product of a group's political or religious ideology. The second is *extremism of means*, which may or may not be linked to ideological extremism. Extremism of means refers to the employment of methods, means, or techniques that are regarded as extraordinary, disproportionate, unnecessary under the circumstances, or morally beyond the pale within particular social and cultural contexts, such as the use of unconstrained, indiscriminate violence or the carrying out of otherwise violent, destructive, and harmful actions that explicitly or implicitly violate existing cultural taboos (as opposed to similar actions that do not violate such taboos because they are widely regarded as legitimate, such as committing acts of violence in self-defense, executing violent criminals, or carrying out military actions considered vital to national security). Among the types of means that might be considered extreme, at least in the West, would be the commission of war crimes or other atrocities in wartime, the use of torture involving severe physical mutilation (though not necessarily less damaging but nonetheless unpleasant and potentially humiliating "enhanced" interrogation techniques), the deliberate targeting of civilians, depriving people of their constitutional rights without justification, killing family members who are regarded as weak or without economic value, "honor killings," performing involuntary clitoradectomies, cannibalism, physically or sexually abusing children, and carrying out mass casualty attacks in non-wartime contexts. Note, however, that what is regarded as extreme can vary significantly in different cultural contexts – not that this should ever make such actions immune from criticism, as radical cultural relativists and hypocritical "multiculturalists" have all too often argued – and that these types of "extreme" methods need not be employed by people who have embraced an extremist ideology, although in practice they frequently are. For example, democratic governments have all too often sanctioned the creation of paramilitary "death squads" as well as their

employment of terrorist techniques against perceived “enemies of the state,” sometimes in their own homelands but much more often in other countries.¹⁶⁸ In such cases, “extreme means” are essentially authorized or utilized by political “centrists” rather than by ideological extremists.

However, the primary concern at this juncture is to identify the common characteristics of ideological extremism, which in turn often leads to the stubborn and destructive pursuit of delusional (in the non-clinical sense), utopian agendas or goals, rather than focusing on the use of extreme means to achieve those goals. The argument herein is that all forms of ideological extremism, irrespective of their specific, variable, and unique doctrinal contents, share certain common characteristics or features that are both identifiable and easily recognizable. Some of those specific features are of course applicable, in varying degrees, to many other kinds of beliefs and attitudes. However, it is the combination, interaction, and mutually reinforcing nature of all of these problematic individual characteristics that together serve to mark ideological extremism. These characteristics include the following:¹⁶⁹

- Manicheanism – viewing the world in stark black-and-white terms, devoid of shades of grey, wherein the extremists supposedly represent the “forces of righteousness” and their designated enemies supposedly represent the “forces of evil.” Given this “you’re either with us or against us” perspective, there can be no neutral parties or innocent bystanders.
- monism – in this context, the opposite of pluralism, the idea that there is only one correct interpretation of the world, one correct solution to transforming the world, and/or one correct form of action or behavior. Everything else is impermissible.
- collectivism – the thoroughgoing subordination of the rights of the individual to the proclaimed interests and supposedly “higher” goals pursued by the extremist movement.
- authoritarianism or totalitarianism – the first term refers to leaders and cadres whose aim is to exert heavy-handed control over the external behavior of others, the second to those whose aim is to exert control over both the external behavior and the inner thoughts of others by systematically “re-educating” them and thereby transforming their consciousness. In short, as the name implies, totalitarians aspire to attain a much more

¹⁶⁸ For more on “death squads,” see Bruce B. Campbell and Arthur D. Brenner, eds., *Death Squads in Comparative Perspective: Murder with Deniability* (New York: Palgrave Macmillan, 2002); Jeffrey A. Sluka, ed., *Death Squad: The Anthropology of State Terror* (Philadelphia: University of Pennsylvania, 2000); Marie-Monique Robin, *Escadrons de la mort, l'école française* (Paris: Découverte, 2004); Cecilia Menjivar and Néstor Rodríguez, eds., *When States Kill: Latin America, the U.S., and Technologies of Terror* (Austin: University of Texas, 2005); Paddy Woodworth, *Dirty War, Clean Hands: ETA, the GAL and Spanish Democracy* (New Haven: Yale University, 2003); and Scott Anderson and Jon Lee Anderson, *Inside the League: The Shocking Exposé of How Terrorists, Nazis, and Latin American Death Squads have Infiltrated the World Anti-Communist League* (New York: Dodd Mead, 1986).

¹⁶⁹ For a more extended treatment, see Jeffrey M. Bale, “Introduction,” in *Darkest Sides of Politics*, volume 1, pp. 26-30. Cf. also the characteristics of extremism or fanaticism enumerated by other authors, e.g., John George and Laird Wilcox, *American Extremists: Militias, Supremacists, Klansmen, Communists, and Others* (Amherst, NY: Prometheus Books, 1996), esp. chapter 2; Laird Wilcox, *The Hoaxer Project Report: Racist and Anti-Semitic Graffiti, Harassment and Violence. An Essay on Hoaxes and Fabricated Incidents* (Olathe, KS: Laird Wilcox Editorial Research Service, 1990), pp. 39-41; Maxwell Taylor, *The Fanatics: A Behavioural Approach to Political Violence* (London: Brassey’s UK, 1991), pp. 37-56.

comprehensive, totalistic, level of control over all aspects of life, first within their own movement and later, should they come to power, over everyone else they rule. The goal is usually to create a “new man” motivated by a spirit of loyalty, heroic self-sacrifice, and service to the group and its cause rather than by baser individual material interests and greed.

- utopianism – the pursuit of all-encompassing or world-transformative goals that are essentially impossible to achieve in the real world. Extremists aim to create “perfection” on Earth in the form of a restoring an imagined past “golden age” or building a “brave new world” in which all major existing problems will finally be overcome and everyone will thenceforth be cooperating harmoniously for the common good.
- hyper-moralistic puritanism – contrary to the claims of some outsiders, extremists are anything but “amoral” or unconcerned about morality. If anything, they are moralistic and self-righteous to a fault. They are firmly convinced of their own moral “goodness,” as well as that the achievement of their goals will lead to the creation of a kind of Paradise on Earth. Consequently, anyone and everyone who opposes them or does not enthusiastically support their actions must ipso facto represent the embodiment of “evil.” Hence the expression “the road to Hell is paved with good intentions.”
- conspiratorial (albeit non-clinical) paranoia – the belief that a vast array of “evil” forces, both within and without their movement, are conspiring to destroy them and prevent them from achieving their supposedly noble, utopian goals. “Enemies” are all around, and it is necessary for them to wage a continuous struggle until those enemies have been vanquished once and for all. Of course, it is not possible for them to completely eliminate opposition or totally defeat their foes, so this struggle can never end.
- dehumanization and demonization of dissenters and designated enemies – since extremists believe that they are heroically striving to create a better world, who could possibly wish to oppose them other than truly villainous enemies who continue to benefit from the existing “corrupt” and “unjust” world order they are fighting to overthrow? In the case of religious extremists, their opponents are literally demonized, i.e., viewed as the minions of Satan or other demonic forces. The result is usually the creation of mounds of corpses.

These, then, are the common characteristics of virtually all forms of ideological extremism, and it would be easy enough for anyone who was sufficiently motivated to find innumerable quotations from a diverse array of extremist ideologues or ideological treatises that would perfectly illustrate all of those characteristics. It should be apparent that extremist movements and organized groups that embrace such notions constitute a very severe danger to others.

The ultimate goal of most political and religio-political extremists is to establish some form or system of “political rule in the name of a monistic ideology”, i.e., an “ideocracy.” This term, which combines the ancient Greek root terms *kratía* (“[political] rule”) and *idéa* (“idea”), refers to a polity or society that is in theory ruled in accordance with various ideological tenets, in this context those that embody extremist characteristics, albeit in practice one that is actually ruled by

particular leaders who claim to adhere to those tenets. In the words of the American esoteric historian Arthur Versluis,

[a]n ideocracy is a form of government characterized by an inflexible adherence to a set of doctrines, or ideas, typically enforced by criminal penalties....An ideocracy is monistic and totalistic; it insists on the total application of ideology to every aspect of life, and in it, pluralism is anathema....In an ideocracy, the greatest criminal is imagined by ideocrats to be the dissenter, the one who by his very existence reveals the totalistic construct imposed on society to be a lie.¹⁷⁰

The proponents of such aims can thus be referred to generically as ideocrats, and the political systems they hope to establish can be referred to as ideocracies. Although most ideological extremists fortunately fail either to mobilize mass movements or to seize political power, those who do so typically endeavor to establish ideocratic political systems. That is precisely why one must always take the political or religio-political ideologies they espouse seriously, since those worldviews normally provide a blueprint, however vague and inconsistent it may be, for the regimes and societies they hope to establish should they succeed in coming to power.

Distinctive Features of Religious Extremism

Note, however, that although all forms of extremism share these particular characteristics, there are certain *qualitative differences* between secular and religious extremists that deserve to be highlighted herein because they arguably make the latter even more dangerous. First, religious extremists, unlike secular extremists, view conflicts between humans as the terrestrial manifestations of a larger cosmic struggle that is being waged between the supernatural forces of “good” and “evil.” Second, inasmuch as they tend to interpret mundane natural processes and cause-and-effect relationships as signs and portents of divine favor or disfavor, they live in a fundamentally different mental universe than secular extremists, no matter how utopian the latter may be.¹⁷¹ Third, since they are convinced that everything they do is divinely sanctioned or prescribed, including carrying out brutal and ruthless acts of violence against the “enemies of God,” and since “divine commands” necessarily take precedence over man-made laws and moral codes, religious extremists arguably operate under less moral or ethical constraints than other types of extremists.¹⁷² After all, once people fervently believe that invisible supernatural entities have enjoined them to wage war against and eradicate “evildoers,” there is virtually no way to dissuade

¹⁷⁰ Arthur Versluis, *The New Inquisitions: Heretic-Hunting and the Intellectual Origins of Modern Totalitarianism* (New York: Oxford University, 2006), pp. 7-8.

¹⁷¹ This is well illustrated by a former leader of the rural Christian Identity paramilitary group, The Covenant, the Sword, and the Arm of the Lord. See Kerry Noble, *Tabernacle of Hate: Seduction into Right-Wing Extremism* (Syracuse: Syracuse University, 2011).

¹⁷² See, e.g., Bruce Hoffman, *Inside Terrorism* (New York: Columbia University, 21994), pp. 94-5; and Magnus Ranstorp, “Terrorism in the Name of Religion,” *Journal of International Affairs* 50:1 (Summer 1996), pp. 51-4.

them and no limits on what actions they might be willing to carry out.¹⁷³ This is confirmed by actual statistics, which demonstrate that acts of terrorism carried out by religious extremists have a significantly higher body count than those perpetrated by secular revolutionary extremists.¹⁷⁴ For these and other reasons, once political conflicts have been sacralized or “religionized,” they usually become even more brutal and intractable.¹⁷⁵

Finally, it should be emphasized that there are two principal varieties of religious extremism. The first is what one might call *ultra-orthodox religious extremism*, i.e., a type of religious extremism that derives from a strict, literalist, puritanical interpretation of the “sacred scriptures” associated with various mainstream religious traditions. This type is exemplified by fundamentalist religious movements of most types, including Protestant Christian, Jewish, Islamic, and Hindu fundamentalism, as well as by Catholic ultratraditionalism (which the French call *intégrisme*). What makes this type extreme is precisely its rigid orthodoxy and insistence upon following core religious injunctions, whether prescriptions or proscriptions, to the letter. The second is *idiosyncratic religious extremism*, i.e., forms of religious extremism that derive from radical interpretations of religion that are heterodox and idiosyncratic rather than orthodox. This is exemplified, for example, by anti-Semitic and racist Christian Identity churches, eccentric syncretistic apocalyptic millenarian cults like Aum Shinrikyo (Aum Supreme Truth), occultist secret societies such as the Ordre du Temple Solaire (OTS: Order of the Solar Temple), and perhaps also certain intolerant and radical nationalist strains of Buddhism in Sri Lanka.¹⁷⁶ Alas, the type of religious extremism that concerns us in this study, Islamism, is a fundamentalist, ultra-orthodox interpretation of Islam. In that sense, far from “having nothing to do with Islam” or signifying the “hijacking” of a supposedly “peaceful” Islamic religion, as ill-informed or dissimulating “Islam apologists” insist, Islamism is far more appealing to and popular amongst

¹⁷³ Cf. Charles Selengut, *Sacred Fury: Understanding Religious Violence* (Lanham, MD: Altamira Press, 2003), pp. 6-7; and Neil J. Kressel, *Bad Faith: The Danger of Religious Extremism* (Amherst, NY: Prometheus Books, 2007), esp. chapter 1. Charles Kimball also touches upon these issues in *When Religion Becomes Evil: Five Warning Signs* (New York: HarperOne, 2008), wherein he identifies five indicators that are likely to cause religions to become dangerously dogmatic, increasingly intolerant, and potentially violent: a) making absolute and exclusionary truth claims; b) displaying blind obedience, either to religious leaders or theological doctrines; c) trying to precipitate an eschatological utopia (an “ideal” time); d) believing that the assumed divinely-inspired end justifies the use of any means; and e) declaring “holy wars” against religiously-defined enemies.

¹⁷⁴ Hoffman, *Inside Terrorism*, p. 95.

¹⁷⁵ As one can see with the conflicts in Israel, Kashmir, and Chechnya.

¹⁷⁶ See, respectively, Michael Barkun, *Religion and the Racist Right: The Origins of the Christian Identity Movement* (Chapel Hill, NC: University of North Carolina, 1996), esp. Part Two; Ian Reader, *Religious Violence in Contemporary Japan: The Case of Aum Shinrikyo* (Richmond, UK: Curzon Press, 2000); James R. Lewis, ed., *The Order of the Solar Temple: The Temple of Death* (New York: Routledge, 2016); and Neil DeVotta, *Sinhalese Buddhist Nationalist Ideology: Implications for Politics and Conflict Resolution in Sri Lanka* (Washington, DC: East-West Center Washington, 2007), who emphasizes its radically ethno-nationalist and statist orientation. Note, however, that the latter may also embody a politicized form of Buddhist fundamentalism rather than being wholly atypical. See Peter Schalk, “Operationalizing Buddhism for Political Ends in a Martial Context in Lanka: The Case of *Simhalatva*,” in John Hinnells and Richard King, eds., *Religion and Violence in South Asia: Theory and Practice* (New York: Routledge, 2007), p. 141.

Muslims than idiosyncratic fringe interpretations of Islam that are regarded by sectarian Sunnis as heretical – such as the Ahmadi or Alawi variants of Islam – could ever become.

Islam and Islamism

What, then, is the relationship between Islam in general, i.e., the Islamic religion, and Islamism? Islamism is an extremist ultra-orthodox and overtly politicized ideological interpretation of core Islamic religious doctrines. Although it is an ideology and movement that first appeared in the third decade of the 20th century, Islamism is also only the most recent iteration of a long series of reactionary Islamic revivalist movements that have appeared throughout Islamic history whose goal was to restore the imagined pure, pristine, uncorrupted form of Islam that allegedly existed at the time of Muhammad and his immediate successors. This means that Islam and Islamism are not identical and hence should not be confused or conflated with one another, since Islamism is only one of many possible interpretations of Islamic theological and legal tenets.¹⁷⁷ However, it also means that Islamist ideology is inconceivable without reference to Islam, in the same way that, say, the ideology of Christian Reconstructionism is inconceivable without reference to Christianity.

Unfortunately, delineating what Islamism is has become a more difficult task than it should be because Islamism has so often been sloppily defined or mistakenly used as a synonym for other concepts with which it is related but *not* identical. On the one hand, for example, the term “Islamism” has been used as a synonym for “political Islam.”¹⁷⁸ On the other, it has been used as a synonym for “Islamic fundamentalism.”¹⁷⁹ Neither of these all too common usages is sufficiently precise. In order to clarify these matters, all three terms need to be defined properly.

¹⁷⁷ As I have noted elsewhere, this is the primary mistake that less well-informed or more biased Islam critics, who I label “Islam bashers,” typically make. See Bale, “Islamism and Totalitarianism,” in *Darkest Sides of Politics*, volume 2, pp. 216-17. Others have argued that “Islamism” is a Western term, as with other political “isms,” not an authentic Arabic term, with the implication that is inapplicable in the Islamic context. Yet although the word “Islamism” and its other forms do have Western linguistic origins, the term “Islamists” is in fact comparable, if not exactly equivalent, to certain Arabic terminology. E.g., the word *islamiyyun* (“Islamic ones”), in contradistinction to standard terms like *muslimun* (“Muslims”) or *mu’minin* (“believers”), is used by both Islamists themselves (in a favorable sense meaning “only true Muslims”) and their Muslim opponents (in a pejorative sense meaning Islamic zealots or fanatics). One further comparable Arabic term might be *usuliyyun* (“foundationalists”). Still another potential cause of confusion is that in the past the terms “islamisme” or “islamismo” were, in Romance languages, used as synonyms for Islam in general. This still occurs sometimes. See, e.g., Claudio Lo Jacono, *Islamismo* (Florence: Giunti, 2001), a book about Islam, not Islamism.

¹⁷⁸ See, e.g., Joseph Morrison Skelly, “Political Islam from Muhammad to Ahmadinejad,” in idem, ed., *Political Islam from Muhammad to Ahmadinejad: Defenders, Detractors, and Definitions* (Santa Barbara, CA: Praeger Security International, 2010), p. 3, where it is simply asserted that “political Islam” is also called “Islamism.” Note also that the French title of the book by François Burgat, *L’islamisme en face* (Paris: Découverte, 1996), has been translated as *Face to Face with Political Islam* in its English-language version (New York: I. B. Tauris, 2003).

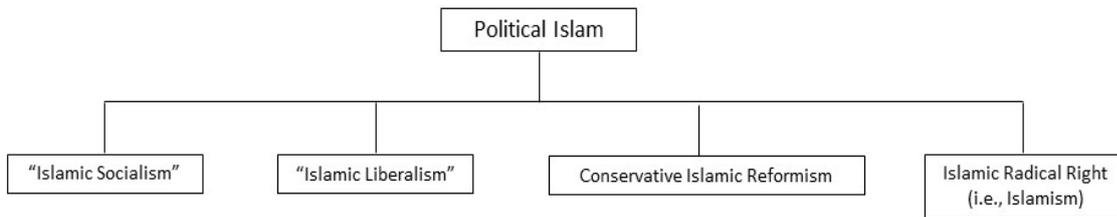
¹⁷⁹ See, e.g., Youssef M. Choueiri, *Islamic Fundamentalism: The Story of Islamist Movements* (London and New York: Continuum, 2010).

The term “political Islam” properly refers to all Islamic ideologies and movements that explicitly aim to “politicize Islam” or “Islamize politics.”¹⁸⁰ However, as is also the case with “political Christianity” and explicitly political interpretations of other religions, there are many different ways of, or approaches to, politicizing Islam or Islamizing politics, ranging on a spectrum from left to right (see figure 1).¹⁸¹ On the left side of the political Islam spectrum is “Islamic socialism.” This phrase does not refer to Marxism or other Western variants of socialism, but rather to attempts by some Muslim intellectuals to argue that certain traditional Islamic institutions are compatible with certain modern socialist ideas. Some examples would be the annual requirement of Muslims to pay alms to the poor (*zakat*), the prohibition against usury (*riba*), and a generic emphasis on social justice (*al-‘adalat al-ijtima‘iyya*). Moving rightward on the political Islam spectrum, there is “Islamic liberalism.” Again, this phrase should not be confused or conflated with Western liberal ideas, but instead represented an attempt to reconcile certain traditional Islamic customs with aspects of modern democracy. Among these were the pre-Islamic Arab tribal institution, the consultative assembly (*majlis al-shura*), which was later incorporated into Islamic practice, and the promotion of the idea of consensus (*ijma‘*) amongst leading Muslim scholars in matters of Islamic law not covered in the *Qur’an* or found among the customary practices (*sunna*) of Muhammad (as per accounts in the canonical *hadith* collections and prophetic biographies [*al-sira al-nabawiyya*]). Moving further rightward, one encounters various forms of “conservative Islamic reformism” with an explicit political orientation, which can perhaps be viewed as the most “mainstream” manifestation of political Islam. As the phrase implies, these tend to be very conservative political interpretations of Islamic doctrines, but ones that are not opposed to all change and adaptation. Finally, on the far right pole of the political Islam spectrum, one finds the Islamic radical right. The term Islamism should not be used a synonym for political Islam in general, but rather only for these highly politicized variants of the Islamic radical right.

¹⁸⁰ It should be emphasized, however, that Islam is a religion that is meant to encompass all aspects of the lives of its adherents, including in the political sphere. There is no scriptural or theological support for a separation of spheres, e.g., between the temporal/profane and the religious, between the public and the private, or between church and state, as there is in Christianity. In the latter, a key New Testament passage in the Gospel of Matthew (22:21) provides scriptural justification for just such a separation: “Render unto Caesar that which is Caesar’s, and unto God that which is God’s.” (This helps to explain why one of the leitmotifs of medieval European history was the ongoing rivalry and struggle for supremacy between Popes and political rulers, including Emperors.) Nor, alas, was Islam originally unconcerned with politics. As Shabbir Akhtar notes, “Islam did not suddenly acquire its political temper from the rivalries and intrigues of Medina [following the *hijra*]...[Its] early, pervasive and continuing stress on the only God’s exclusive sovereignty shows that even [the earlier] Meccan Islam can be understood as a political monotheism.” See *Islam as Political Religion: The Future of an Imperial Faith* (London and New York: Routledge, 2011), p. 99.

¹⁸¹ Yet oddly enough, most analysts who use the term “political Islam” as a synonym for “Islamism” usually end up dealing *only* with Islamism, as if there were not other, very different political interpretations of Islam. See, e.g., Mohammed Ayoob, *The Many Face of Political Islam: Religion and Politics in the Muslim World* (Ann Arbor: University of Michigan, 2007), which deals exclusively with Islamist movements and organizations. In any case, by analogy with the scheme used for “political Islam” herein, one could likewise create a “political Christianity” spectrum, in which the far left pole would be occupied by quasi-Marxist “liberation theology” proponents, the center-left by liberal “social Gospel” promoters, the center-right by relatively mainstream conservative Christian movements that advocate involvement in politics, and the right pole by the various components of the activist Christian right and radical right.

Figure 1: “Political Islam” Spectrum



In general, the term “fundamentalism” refers to attempts by pious believers within various religious movements to return to what they regard as the pure, pristine, uncorrupted foundational elements within their own religious traditions. In practice, this generally involves an ostensibly literalist interpretation of sacred religious texts and a strict adherence to the tenets supposedly laid down by divinities or the authoritative religious figures claiming to speak for them.¹⁸² In the Islamic context, this typically means adhering as strictly as possible to Qur’anic injunctions and emulating the example set by Islam’s prophet Muhammad during his life in the 7th-century Arabian peninsula, as recorded in the aforementioned canonical accounts of his reported statements and deeds. However, fundamentalists – Islamic and otherwise – fall into two broad categories: quietists and activists. *Quietist fundamentalists* typically seek to insulate or isolate themselves from the corrupt, “sinful” external societies they live in and, in their personal lives, to live in accordance with their strict, puritanical interpretations of their religions. In contrast, *activist fundamentalists* endeavor to impose their religious interpretations on outsiders, not only on their more moderate co-religionists but also often on “sinful” unbelievers. Hence one can say that Islamism is a type of activist Islamic fundamentalism, one that is explicitly and aggressively political in its orientation. This differentiates Islamists both from quietist Islamic fundamentalists and from activist Islamic

¹⁸² There is a vast and ever-growing literature on religious fundamentalism. Perhaps the best starting point for those who are interested in learning more about fundamentalism and its diverse manifestations can be found in the volumes published by a team of researchers under the rubric of the Fundamentalism Project. See Martin E. Marty and R. Scott Appleby, eds., *Fundamentalisms Observed* (Chicago: University of Chicago, 1991); eidem, *Fundamentalisms and the State: Remaking Polities, Economies, and Militance* (Chicago: University of Chicago, 1993); eidem, *Fundamentalisms and Society: Reclaiming the Sciences, the Family, and Education* (Chicago: University of Chicago, 1993); eidem, *Accounting for Fundamentalisms: The Dynamic Character of Movements* (Chicago: University of Chicago, 1994); and eidem, *Fundamentalisms Comprehended* (Chicago: University of Chicago, 1995). See also Bruce B. Lawrence, *Defenders of God: The Fundamentalist Revolt against the Modern Age* (San Francisco: Harper & Row, 1989); Gabriel A. Almond, R. Scott Appleby, and Emmanuel Sivan, *Strong Religion: The Rise of Fundamentalisms around the World* (Chicago: University of Chicago, 2003); Leonard Weinberg and Ami Pedahzur, eds., *Religious Fundamentalism and Political Extremism* (London: Frank Cass, 2003); David Zeidan, *The Resurgence of Religion: A Comparative Study of Selected Themes in Christian and Islamic Fundamentalist Discourses* (Leiden: E. J. Brill, 2003); Charles B. Strozier et al, eds., *The Fundamentalist Mindset: Psychological Perspectives on Religion, Violence, and History* (New York: Oxford University, 2010); Simon A. Wood and David Harrington Watt, eds., *Fundamentalism: Perspectives on a Contested History* (Columbia, SC: University of South Carolina, 2014); and Sathianathan Clarke, *Competing Fundamentalisms: Violent Extremism in Christianity, Islam, and Hinduism* (Louisville, KY: Westminster John Knox Press, 2017).

fundamentalists who claim to eschew or at least de-emphasize politics (e.g., the international Tabligh-i Jama'at [Association for the Propagation of the Faith] movement). In that sense, all Islamists are Islamic fundamentalists, but not all Islamic fundamentalists are Islamists.¹⁸³

Having clarified some of the terminological confusion that has marred so many analyses of Islamism, it is now possible to present a more explicit definition. Islamism is a right-wing, theocratic, totalitarian, and Islamic supremacist interpretation of core Islamic doctrines with both revivalist and revolutionary dimensions.¹⁸⁴ It is revivalist because it wishes to restore the supposedly pure, pristine form of Islam that existed at the time of Muhammad and his Companions (*sahaba*) and the two subsequent generations of Muslims – the so-called “pious forefathers” of the faith (*al-salaf al-salih*).¹⁸⁵ It is revolutionary because in order to achieve its undeniably utopian religio-political goals, it would have to overturn the entire existing world order. Like all extremist ideological milieus, the Islamist ideological milieu comprises numerous currents and subcurrents, beginning with the division between Sunni and Shi'i Islamism and continuing on with the many

¹⁸³ Some specialists have argued that Shi'i Islamists are not necessarily fundamentalists. E.g., Ervand Abrahamian has rightly noted that, based upon which definition one employs of the term “fundamentalism,” the Ayatallah Khomeyni was not a fundamentalist. See his *Khomeinism: Essays on the Islamic Republic* (Berkeley and Los Angeles: University of California, 1993), pp. 13-17. However, although it is certainly true that the relative lack of scriptural literalism, the emphasis on *ijtihad* (independent reasoning), the diversity and sophistication of Shi'i religious scholarship, the general absence of higher clerical control and discipline, the quite different interpretations that the Shi'a espouse of early Islamic history, and the resultant persecution of the Shi'a by the Sunnis, have all meant that the Shi'i clergy do not have the exact same idealized vision of the proper Islamic socio-political system, either as each other or as their Sunni counterparts do, they nonetheless want others to conform to whatever religio-political vision they do have, and are willing to punish other Muslims who supposedly behave in “Islamically incorrect” ways. In that sense, they are no less strict, puritanical, and intolerant in certain respects than Sunni Islamists. Moreover, Lynda Clarke has argued that Khomeyni and other Shi'i Islamists were increasingly influenced by Sunni Islamism, and thus became more fundamentalist than their clerical predecessors in earlier centuries generally were. See Lynda Clarke, “Fundamentalism and Shiism,” and idem, “Fundamentalism, Khomeinism, and the Islamic Republic of Iran,” in Wood and Watt, eds., *Fundamentalism*, pp. 163-98.

¹⁸⁴ See further Jeffrey M. Bale, “Islamism and Totalitarianism,” in *Darkest Sides of Politics*, volume 2, pp. 222-3. For more on Islamist doctrine(s), cf. Emmanuel Sivan, *Radical Islam: Medieval Theology and Modern Politics* (New Haven, CT: Yale University, 1990); Abderrahim Lamchichi, *L'islamisme politique* (Paris: Harmattan, 2001); Johannes J. G. Jansen, *The Dual Nature of Islamic Fundamentalism* (Ithaca, NY: Cornell University, 1997); and Ibrahim M. Abu-Rabi', *Intellectual Origins of Islamic Resurgence in the Modern Arab World* (Albany: SUNY, 1996). See also the contrasting interpretations found in Martin Kramer, ed., *The Islamism Debate* (Tel Aviv: Tel Aviv University/Moshe Dayan Center for Middle Eastern and African Studies, 1997). See also the Hudson Institute journal, *Current Trends in Islamist Ideology*, available at <https://www.hudson.org/policycenters/6-current-trends-in-islamist-ideology>. Like Sivan, Daniel Lav has rightly emphasized the medieval sources of modern Islamist doctrines, albeit in a more narrow theological context. See his *Radical Islam and the Revival of Medieval Theology* (Cambridge UK: Cambridge University, 2012).

¹⁸⁵ For an excellent short analysis of the precise meaning and broader significance of the term *salaf al-salih*, see Ali Merad, “Islāh,” *Encyclopedia of Islam: New Edition* [hereafter *EI2*], ed. by Bernard Lewis et al (Leiden: E. J. Brill, 1983 [1965]), volume 4, pp. 148-50. Essentially, this is a technical term for the first three generations of Muslims, the generation of Muhammad, the last of whom died around 690; the second generation (the *tabi'in*), the last of whom died around 750; and the third generation (the *tabi' tabi'in*), the last of whom died around 810. It stemmed from a statement attributed to Muhammad in a *hadith*: “‘A’isha reported that a person asked Allah’s Apostle (may peace be upon him) as to who amongst the people were the best. He said: Of the generation to which I belong, then of the second generation (generation adjacent to my generation), then of the third generation (generation adjacent to the second generation).” See *Sahih Muslim*, Book 31, no. 6159. This phrase is the basis for those Islamic revivalist and reform movements that later referred to themselves as Salafist. See further below.

distinct ideological subcurrents within those two broader categories. However that may be, all forms of Islamism share certain common core beliefs, or else they would not fall within the same ideological milieu. The principal ideological characteristics of Islamism in all of its forms are

- a radical rejection of Western secular values;
- intransigent opposition to all forms of “infidel” influence in the Muslim world, whether it be political, military, social, economic, cultural, or intellectual;
- extreme hostility towards less strict, puritanical, and militant Muslims; and
- a demand for the creation of a truly Islamic state (*al-dawla al-islamiyya*) or Islamic order (*al-nizam al-islami*) modeled on the strictest tenets of the *shari‘a*.

Since these are intrinsically radical and uncompromising ideas, both individually and collectively, it is misleading to speak of “moderate Islamism” and “radical Islamism,” and even more ridiculous to talk about “democratic Islamism” – the true distinction is between Islamists who are willing, for purely tactical reasons, to adopt accommodationist, pragmatic policies such as participating in elections and lobbying whilst retaining their intrinsically anti-democratic values, and the jihadists who unceasingly advocate the waging of armed *jihad* against Islam’s “enemies.”

Ideological Currents and Subcurrents of Sunni and Shi‘i Islamism

It is now time to identify the different currents and subcurrents of Islamist ideology. In the case of Sunni Islamism, one can identify its three main ideological currents as Wahhabism, Salafism, and Deobandism. Wahhabism was the name applied (by its enemies) to a puritanical revivalist movement that arose in the Arabian Peninsula in the 18th century that was headed by an itinerant cleric named Muhammad ibn ‘Abd al-Wahhab (1703-1792). This religious zealot was convinced that most Muslims living in the region had been corrupted and fallen away from the true path of Islam, most notably by venerating the tombs of saints, sacralizing natural objects, and believing in astrology and soothsayers, which he regarded as idolatry and polytheism in the form of *shirk* (i.e., “associating” other entities with the divinity of Allah), a major sin in Islam. He and his followers therefore took it upon themselves to “correct” and “purify” the degenerate practices of their fellow Muslims, if necessary by force, and went around violently attacking such scofflaws and destroying their shrines. These *muwahhidun* (fanatical supporters of *tawhid*) would probably have constituted only a minor footnote in history had Ibn ‘Abd al-Wahhab not forged a political alliance in 1744 with the tribal chief Muhammad ibn al-Sa‘ud, which eventually resulted in his particularly austere interpretation of Islam becoming the official religion of the 20th-century Saudi regime.¹⁸⁶ Among the many noxious effects of this alliance was that in the 1920s the Saudi regime

¹⁸⁶ The literature on Wahhabism is vast but often tendentious. For an overly sanitized if not blatantly apologetic interpretation of Wahhabism, see Natana Delong-Bas, *Wahhabi Islam: From Revival and Reform to Global Jihad* (New York: Oxford University, 2008). For a hostile but well-informed Shi‘i polemic against Wahhabism, see Hamid Algar, *Wahhabism: A Critical Essay* (Oneonta, NY: Islamic Publications International, 2002). For more balanced accounts, see David Commins, *The Wahhabi Mission and Saudi Arabia* (London: I. B. Tauris, 2006); Namira

institutionalized the earlier efforts by the Wahhabis to impose strict moral rectitude on the population and correct its “deviations” by creating the notorious religious police (*mutawwa’in*).¹⁸⁷ In any case, although predating the appearance of Islamism by almost two centuries, Wahhabism has since become one of the leading currents of 20th-century Sunni Islamism.

Turning now to Salafism, in the broadest sense, the term “Salafist” refers to all Muslims who are obsessed with emulating the example set by Muhammad, his Companions, and other early Muslims (*al-salaf al-salih*). Of course, all Muslims look to those earliest Muslims, above all Muhammad himself, as exemplary models for their own behavior, but Salafists carry this much further by making an effort to follow their example to the letter. That not only includes adopting stricter, more literalist interpretations of the *Qur’an*, but also trying to copy the customary behavior (*sunna*) of Muhammad and his earliest companions in all ways, including with respect to their clothing styles.¹⁸⁸ More narrowly, however, the appellation “Salafist” was specifically adopted by a number of late 19th-century and 20th-century Islamic movements. This was true of both relatively moderate and modernist reform movements, such as the Salafiyya movement in Egypt associated with Muhammad ‘Abduh (1849-1905), and also of some of the most regressive and puritanical movements, especially that associated with ‘Abduh’s intellectual associate, Muhammad Rashid Rida (1865-1935).¹⁸⁹ It is unfortunate that Rida, especially in response to the 1924 abolition of the Ottoman Caliphate by modernist Turkish ruler Mustafa Kemal Atatürk, ended up adopting a far more radical and intolerant interpretation of Salafism. Rida thence supported the House of Sa‘ud in its struggle with the Hashemites, and in the process there was a process of reciprocal intellectual and ideological borrowing between Rida and the Wahhabi religious establishment.¹⁹⁰ As a result, the latter increasingly referred to itself as Salafist, thereby explicitly signifying its supposed fidelity to the earliest Muslims. Some have referred to this Rida-Saudi variant of Salafism as Neo-

Nahouza, *Wahhabism and Rise of the New Salafists: Theology, Power and Sunni Islam* (London: I. B. Tauris, 2018); and Tarik Firro, *Wahhabism and the Rise of the House of Saud* (Sussex, UK: Sussex Academic Press, 2018).

¹⁸⁷ For a detailed historical account of the idea and application of *hisba* (accountability), i.e., “commanding right and forbidding wrong” (*al-amr bi al-ma‘ruf wa nahy ‘an al-munkar*), see Michael Cook, *Commanding Right and Forbidding Wrong in Islamic Thought* (Cambridge UK: Cambridge University, 2000). For the Saudi institutionalization of the earlier Wahhabi approach to *hisba*, see *ibid*, pp. 180-91; Commins, *Wahhabi Mission*, pp. 34-5.

¹⁸⁸ Different attempts have been made to distinguish between different categories of Salafists. Cf., e.g., Quintan Wicktorowicz, “Anatomy of the Salafi Movement,” *Studies in Conflict and Terrorism* 29:3 (2006), pp. 208, 216-28; Mohammed M. Hafez, *Suicide Bombers in Iraq: The Strategy and Ideology of Martyrdom* (Washington, DC: United States Institute of Peace, 2007), p. 65; and Shiraz Maher, *Salafi-Jihadism: The History of an Idea* (New York: Oxford University, 2016), pp. 8-13.

¹⁸⁹ See, e.g., Charles C. Adams, *Islam and Modernism in Egypt: A Study of the Modern Reform Movement Inaugurated by Muhammad ‘Abduh* (New York: Russell & Russell, 1968 [1933]); Malcolm H. Kerr, *Islamic Reform: The Political and Legal Theories of Muhammad ‘Abduh and Rashid Rida* (Berkeley: University of California, 1966); Albert Hourani, *Arabic Thought in the Liberal Age, 1798-1939* (Oxford: Oxford University, 1970), pp. 103-60; and Mark Sedgwick, *Muhammad Abduh* (London: Oneworld, 2010). There is, as one would expect, a vast Arabic-language literature on ‘Abduh, Rida, and this Salafiyya movement.

¹⁹⁰ Henri Lauzière, *The Making of Salafism: Islamic Reform in the Twentieth Century* (New York: Columbia University, 2015), chapter 2; Ana Belén Soage, “Rashid Rida’s Legacy,” *The Muslim World* 98:1 (January 2008), pp. 1-23; and Micah Ben David Naziri, *Neo-Salafism: Rashid Rida and the Wahhabification of Salafism* (no place: New Dawn, 2011).

Salafism. Nor was that all. In reaction against the corrupt Saudi royal family and regime, which had also allied with and become militarily dependent upon “infidel” Western powers, more radical Islamist elements associated with jihadist cells, like that of Juhayman al-‘Utaybi, leader of the neo-Ikhwan group that attacked and seized control of the Grand Mosque in Mecca in November 1979, embraced a far more militant *tafkiri* version of Salafism, which later became known as jihadist Salafism.¹⁹¹ This is precisely the ideology that is nowadays espoused by globally oriented jihadist networks and organizations, including Qa‘idat al-Jihad (the Base/Basis of the Jihad, better known as al-Qa‘ida) and al-Dawla al-Islamiyya (the Islamic State).¹⁹² Note, however, that there are also internal ideological subcurrents of, and subdivisions within, the jihadist Salafist current.¹⁹³

The third main current of contemporary Islamism is Deobandism. The origins of Deobandism are traceable to the response of 19th century South Asian Muslim intellectuals, such as Muhammad Qasim Nanotvi (1833-1880), to the impact of British colonialism, which they feared was corrupting the faith of believers. These religious scholars (*‘ulama*) established a seminary in 1867 in the northern Indian town of Deoband, the Dar al-‘Ulum Deoband, which later became a major Islamic educational center. Like the Salafiyya movement in Egypt, the seminary in Deoband originally sought to reconcile traditional aspects of Islamic theology and law, in this case those associated with the Hanafi *madhab*, one of the four official schools of Sunni Islamic law, with certain educational approaches adapted from the West. The ultimate goal was always the preservation and renewal (*tajdid*) of Islam, however, which resulted in an emphasis on political engagement, scriptural literalism, *hadith* study, and *taqlid*, i.e., conformity to accepted religious doctrines (in contrast to *bid‘a*, inappropriate religious innovation).¹⁹⁴ However, as time wore on, Deobandi doctrines became increasingly rigid, puritanical, and Islamist in their political orientation.¹⁹⁵ These developments arguably came to full fruition during the rule of Pakistani general Muhammad Zia-ul-Haq, who sought to make use of Deobandi *madrasas*, among other

¹⁹¹ For the armed attack in Mecca led by al-‘Utaybi, see Thomas Hegghammer and Stéphane Lacroix, *The Meccan Rebellion: The Story of Juhayman al-‘Utaybi Revisited* (Bristol UK: Amal, 2011). The best general scholarly introduction to contemporary Salafism is Roel Meijer, ed., *Global Salafism: Islam’s New Religious Movement* (New York: Oxford University, 2014). For jihadist Salafism, see esp. Maher, *Salafi-Jihadism*. Therein Maher identifies (p. 14) the “five essential and irreducible features” of the Salafi-Jihadi movement as *tawhid* (the oneness/unity of Allah), *hakimiyya* (sovereignty [of Allah]), *al-wala’ wa al-bara’* (loyalty and disavowal), *jihad* (warfare against Islam’s enemies), and *takfir* (labeling other Muslims as “infidels,” which means they can be targeted with violence). The rest of his book analyzes these concepts in detail. Left out of his list, however, is the phenomenon of *hisba*, which has been aggressively practiced by many Salafists.

¹⁹² The official name of al-Qa‘ida (the Base or Foundation) was changed to Qa‘idat al-Jihad in June 2001. The Arabic term *qa‘ida* can signify base, basis, foundation, principle, standard, etc. The Islamic State organization underwent a number of name changes over the years before adopting that more all-encompassing moniker.

¹⁹³ See, e.g., Jarret M. Brachman, *Global Jihadism: Theory and Practice* (Abingdon: Routledge, 2009), chapter 2, for one attempt to categorize those subcurrents.

¹⁹⁴ Barbara D. Metcalf, *Islamic Revival in British India: Deoband, 1860-1900* (Princeton, NJ: Princeton University, 1982), chapters 3-6.

¹⁹⁵ See, e.g., Muhammad Moj, *The Deobandi Madrassah Movement: Countercultural Trends and Tendencies* (London and New York: Anthem Press, 2015).

institutions and mechanisms, to radically “Islamize” or “Sharizize” his country from above.¹⁹⁶ The children of many Afghan refugees who had crossed the border into Pakistan in the wake of the Soviet invasion ended up being “educated” in just such *madrasas*, where they learned to recite the *Qur’an* by rote, were indoctrinated with very bellicose, anti-“infidel” interpretations of Islam, and sometimes even received basic weapons training.¹⁹⁷ The students who graduated from such schools later formed the backbone of the Islamist Taliban (“students”) movement. When such intolerant teachings were then intermingled with archaic Pashtun tribal customs and honor codes (*pashtunwali*), Deobandism became even more parochial, insular, and regressive.

In the case of Shi‘i Islam, the main currents of Islamism are all associated with particularly influential clerical figures. As with other religions, in both Sunni and Shi‘i Islam, certain individuals had to be specially trained to interpret and transmit core theological and legal doctrines. This broad class of teachers, religious scholars, and legal functionaries, collectively known as the *‘ulama*, first emerged during the Umayyad period (661-750 CE). In Islam, there has never been a hereditary priestly or clerical caste, as in certain ancient Near Eastern societies, or a centralized, elaborately organized hierarchical church, like the Catholic Church in the West. Instead, in Sunni Islam the *‘ulama* generally tended to be subservient to current Muslim political rulers and elites, in which case they were rewarded with patronage, whereas that stubborn minority of religious scholars who adopted an oppositional attitude towards the powers-that-be were usually marginalized if not persecuted. In either case, Sunni *‘ulama* were rarely able to establish an independent base of institutional and financial support that was separate from and thus not beholden to existing regimes.

In Shi‘i Islam, however, the *‘ulama* managed to attain more institutional and financial independence, and have therefore been able to play a much greater political role in particular eras. Qualified Shi‘i religious scholars are known as *mujtahids*, a term deriving from *ijtihad* or “independent reasoning” in the interpretation of Islamic law.¹⁹⁸ In Twelver (*ithna ‘ashariyya*)

¹⁹⁶ Cf. Surendra Nath Kaushik, *Politics of Islamization in Pakistan: A Study of the Zia Regime* (New Delhi: South Asian, 1993); Husain Haqqani, *Pakistan: Between Mosque and Military* (Washington, DC: Carnegie Endowment for International Peace, 2005), chapter 4; and Ahmed Rashid, *Taliban: Militant Islam, Oil and Fundamentalism in Central Asia* (New Haven, CT: Yale University, 2010), chapter 6.

¹⁹⁷ Arshi Saleem Hashmi, “Historical Roots of the Deobandi Version of Jihadism and Its Implications for Violence in Today’s Pakistan,” in Jawad Syed, Edwina Pio, Tahrir Kamran, and Abbas Zaidi, eds., *Faith-Based Violence and Deobandi Militancy in Pakistan* (London: Palgrave Macmillan, 2018), pp. 133-62.

¹⁹⁸ Apart from the *mujtahids*, a lower category of Shi‘i clerics are known as *muqallids* (those who emulate or follow the legal rulings of the *mujtahids*). See Abbas Amanat, *Apocalyptic Islam and Iranian Shi‘ism* (London and New York: I. B. Tauris, 2009), p. 149. In Twelver Shi‘ism, the four sources of Islamic law are the *Qur’an*, the *ahadith*, *ijma’*, and *‘aql* (“intellect,” meaning the use of dialectical reasoning and logic to interpret Islamic law), which replaced the Sunni concept of *qiyas* (analogical reasoning). In Shi‘i Islam, the “gate of *ijtihad*” was never closed, as it “officially” was in Sunni Islam. See Said Amir Arjomand, *The Shadow of God and the Hidden Imam: Religion, Political Order, and Societal Change in Shi‘ite Iran from the Beginning to 1890* (Chicago: University of Chicago, 1984), pp. 51-6, 137-44. In fact, it was never fully closed amongst the Sunnis either, although it was substantially narrowed or blocked at certain times. Cf. Joseph Schacht, *An Introduction to Islamic Law* (Oxford: Oxford University, 1982), chapter 10; W. Montgomery Watt, “The Closing of the Door of *Ijtihad*,” *Orientalia Hispanica* 1 (1974), pp. 675-8; and Wael B. Hallaq, “Was the Gate of *Ijtihad* Closed?,” *International Journal of Middle Eastern Studies* 16 (1984), pp. 3-41.

Shi‘ism, it has sometimes been argued since the early modern period that top scholars collectively functioned as the “general deputies” (*niyabat-i ‘amm*) of the “Hidden Imam” (*al-Imam al-Gha‘ib*).¹⁹⁹ That Hidden Imam was identified as Muhammad ibn al-Hasan al-‘Askari (al-Mahdi, born 868), the twelfth descendant in a line from ‘Ali ibn Abi Talib, the fourth Caliph that the Shi‘a believe was the rightful successor of Muhammad, until his anticipated return from “occultation” (*ghayba*) at the “end of time.”²⁰⁰ The most renowned of these Shi‘i religious scholars serve as a “source of inspiration” (*marja‘ al-taqlid*) to others, and for this reason they receive religious tithes as income as well as some property, which provide them with greater independence and more resources to exercise their authority.²⁰¹ In practice, they are often charismatic leaders who attract large followings and are venerated by significant segments of the populace. Yet even within this rarefied strata of Shi‘i ‘*ulama*, there are further hierarchical gradations. At the top of the pyramid is the “Grand” Ayatallah Uzma (Great Sign of Allah), then the Ayatallahs (Signs of Allah), then the Hujjat al-Islam (Proofs of Islam).

Since the establishment of the Islamic Republic of Iran by the Ayatallah Ruhullah Musawi Khumayni, there has been behind-the-scenes infighting between leading Shi‘i clerics and their factional supporters within seminaries, the government, the military, the intelligence services, and the Sipah-i Pasdaran-i Inqilab-i Islami (Army of the Guardians of the Islamic Revolution, better known as the Islamic Revolutionary Guard Corps [IRGC]), as well as amongst elements of the population such as the *bazari* (merchant class). This, coupled with the complex hybrid structure of the Islamist regime in Tehran, makes it extraordinarily difficult for outsiders to sort out the different currents within Shi‘i Islamism, not only in Iran but also in Iraq and other countries, in part because they periodically evolve over time in response to internal and external developments. Suffice to say that leading Iranian and Iraqi *mujtahids* espouse different variants of Shi‘i Islamist ideology, and that the influence of these different ideological currents and factions ebbs and flows over time.²⁰² Among the most influential of these recent and current *mujtahids* were, in Iran,

¹⁹⁹ Amanat, *Apocalyptic Islam and Iranian Shi‘ism*, p. 155; and idem, “Messianic Islam in Iran: A General Survey,” *Encyclopaedia Iranica*, volume 14, number 2, [April 2012], pp. 130-4, online version, at <http://www.iranicaonline.org/articles/islam-in-iran-v-messianic-islam-in-iran> .

²⁰⁰ For more on the Hidden Imam, see Abdulaziz Abdulhussein Sachedina, *Islamic Messianism: The Idea of the Mahdi in Twelver Shi‘ism* (Albany, NY: SUNY, 1981), chapters 2-5; Arjomand, *Shadow of God and the Hidden Imam*, pp. 39-45; Moojan Momen, *An Introduction to Shi‘i Islam: The History and Doctrines of Twelver Shi‘ism* (New Haven: Yale University, 1987), chapter 8; and Najad Haider, *Shi‘i Islam: An Introduction* (New York: Cambridge University, 2014), chapter 7.

²⁰¹ For aspects of the history of this institution, see Linda S. Walbridge, ed., *The Most Learned of the Shi‘a: The Institution of the Marja‘ Taqlid* (New York: Oxford University, 2001).

²⁰² For more on the convoluted factions within the Iranian regime, cf. Maziar Behrooz, “Factionalism in Iran under Khomeini,” *Middle Eastern Studies* 27:4 (October 1991), pp. 597-614; Wilfried Buchta, *Who Rules Iran? The Structure of Power in the Islamic Republic* (Washington, DC: Washington Institute for Near East Policy, 2000); Mehdi Moslem, *Factional Politics in Post-Khomeini Iran* (Syracuse, NY: Syracuse University, 2002); and Payam Mohseni, “Factionalism, Privatization, and the Political Economy of Regime Transformation,” in *Power and Change in Iran: Politics of Contention and Conciliation*, ed. by Daniel Brumberg and Farideh Farhi (Bloomington, IN: Indiana University, 2016), pp. 37-69. However, I have major problems with all of these categorizations of the currents and factions within the clerical establishment, since they mistakenly use terms like “left” (e.g., to characterize factions advocating state control over the economy) or “moderate” (e.g., to characterize those that are

Khumayni, Husayn ‘Ali Muntazari, Murtada Mutahhari, Muhammad-Taqi Misbah-Yazdi, and Muhammad Yazdi; in Iraq, Abu al-Qasim al-Khu’i, Muhammad Baqir al-Sadr (father of Muqtada al-Sadr), and ‘Ali al-Sistani; and, in Lebanon, Muhammad Husayn Fadlallah, ‘Abbas al-Musawi, and Hasan Nasrallah. Although Khumayni’s interpretations of Islam clearly exerted a disproportionate influence during his tenure as Supreme Leader of Iran (Rahbar-i Mu‘azzam-i Iran), since his death the ideological and political rivalries have become more contentious and fluid.

Analysis of the Main Features of Islamist Ideology

Lest anyone doubt that Islamism is a right-wing, theocratic, totalitarian, and Islamic supremacist ideology, some basic evidence should be presented. First, although it is theoretically possible that fundamentalist religious movements might espouse tenets and values that are compatible with those associated with the left, in practice this is almost never the case. As is well known, the political terms “left” and “right” stemmed from the period of the French Revolution, when supporters of the revolution against the Old Regime sat on the left side of the Estates-General/National Assembly, whereas its opponents sat on the right. If we consider the fundamental values associated with the French Revolution, which were the product of doctrines enunciated by intellectuals associated with Enlightenment movement, to be paradigmatic of the left, what were those values? To simplify a far more complex set of ideas, they were the following:

- rationalism – the idea that the application of human reason can enable humans to resolve fundamental societal problems;
- the belief that human nature is basically “good” – the idea that the innumerable barbarities and dysfunctionalities that are so readily observable in human behavior are attributable not to the intrinsically flawed nature of human beings, but rather to defects and imperfections in the larger society as well as improper socialization processes;
- optimism regarding inevitable human progress – if one believes that reprehensible human behavior is essentially attributable to structural flaws in the larger society, and that the application of human reason can correct those societal flaws, there is no reason not to be optimistic about the future;

less isolationist in their foreign policies) in a context in which *all of the currents are right-wing and extremist*. The most that can be said of some is that they are a) to the left *relative to* other factions, or b) more flexible and pragmatic than others. Similarly, one can speak of “left” and “right” factions within the Bolshevik party without erroneously concluding that any of those factions were really right-wing on the broader right-left political spectrum. E.g., the Ayatallah Mahmud Taliqani and non-clerical Iranian intellectual ‘Ali Shari‘ati tried to reconcile Islamist ideology with aspects of socialism. Hence they constituted the “left-wing” current within, and *relative to* the rest of, the Iranian Islamist milieu and movement. But they were not leftists in the Western sense of the term, and their ideas were in part formulated in order to fend off the potential appeal of Marxist ideals to “anti-imperialist” Iranians, as well as to make Islamism more attractive to the masses. See, e.g., ‘Ali Shari‘ati, *Marxism and Other Western Fallacies: An Islamic Critique* (Berkeley: Mizan Press, 1980).

- egalitarianism – in this context, the idea that all individuals have certain intrinsic “natural rights” that cannot be abridged by political authorities, which is arguably the most radical idea in the history of political thought inasmuch as it directly challenges the communitarian, collectivist ethos of all traditional societies;
- cosmopolitanism – the idea that all human beings, no matter how seemingly different their cultures, histories, and societies may be, nonetheless have more in common with each other than not, which means that humanity can be seen as one large family with different subdivisions;
- republicanism – in the 18th century context, this means being opposed to the monarchy, and especially to the idea that kings and royal dynasties rule by “divine right”;
- secularism – the idea that religion should be separated from the public sphere and consigned to the private sphere, and that there should be no official state religion

In response to these core Enlightenment ideas, intellectuals opposed to the French Revolution instead adopted concepts that were directly at variance with those ideas, including

- philosophical anti-rationalism – the idea that there are limits on human reason, and that human behavior is driven in large part by emotions and non-rational behavioral drivers, the implication being that applying rationality cannot resolve all fundamental societal problems;
- the belief that human nature is essentially “evil” – the idea that most of the reprehensible characteristics that are observable in human behavior are due to intrinsic flaws in human beings, and not primarily to structural defects in the larger society, which was to some extent derived from the Christian notion of “original sin” even when it was couched in non-religious, materialistic terms;
- pessimism regarding inevitable human progress – if one believes that observable human flaws are intrinsic to human nature, and that these cannot be radically altered through the application of human reason, there is no reason to be overly optimistic about the future;
- elitism – the idea that all human social organizations are marked by social and political hierarchies, and that those hierarchies – “natural” or otherwise – are necessary to maintain order and otherwise ensure that societies continue to exist and function properly;
- particularism – the idea that, even if all human beings are part of the same species, humans nonetheless owe their primary loyalties to their own particular communities (e.g., tribes, ethno-cultural groups, religious communities, or, later, nation-states);
- monarchism – the belief that societies should continue to be ruled by royal dynasties, a key cornerstone of *ancien régime* Europe;
- clericalism – the conviction that the Catholic Church – or, in other national and regional contexts, Protestant religious authorities – and its privileges must be defended as a necessary bulwark of society

Although these last two anti-Enlightenment or counter-Enlightenment ideas were specific to the 18th and 19th century historical context, the other ideas listed above are still generally associated

with the right. Of course, it is perfectly possible to support some ideas associated with the left and others associated with the right. One need not dogmatically accept all of these left- or right-wing ideas.

If one accepts the above summary of the key ideas associated with the left and right, at least as originally articulated, it is manifestly obvious that Islamism – like most other types of religious fundamentalism – is a thoroughly right-wing ideology. First and foremost, in both Islam in general and in Islamism, the emphasis is not primarily on the application of human reason by believers, but rather on their following supposedly divine injunctions, more or less to the letter. Since the *Qur'an* is viewed by all Muslims as the literal word of Allah, and Allah is regarded as both omniscient and omnipotent, no Muslim has the right to challenge His ostensible prescriptions and proscriptions.²⁰³ Faith in divine revelations is therefore paramount.²⁰⁴ In that sense, Islamists explicitly repudiate interpretations of Islam that they disapprove of which derive primarily from the application of human reasoning – even though they often engage in *ijtihad* themselves – and instead demand that other Muslims obey and rigorously follow the ostensibly divine injunctions in the *Qur'an* and the *sunna* of Islam's prophet Muhammad (as recorded in the *ahadith*). Indeed, most Islamists regard attempts by Muslim scholars to adjudicate theological and legal matters by relying too much on rationalist arguments – including at times in the traditionally accepted Islamic forms based on the consensus (*ijma'*) of leading religious scholars or the use of analogical reasoning (*qiyas*) – instead of relying primarily on the *Qur'an* and canonical *hadiths* for guidance

²⁰³ Cf. Tilman Nagel, *The History of Islamic Theology: From Muhammad to the Present* (Princeton, NJ: Markus Wiener, 2000), p. 1: "For the Muslim believer, the Koran contains the supreme knowledge accessible to humankind, the ultimate, final truth, for it contains God's own words. Quoting its verses equals proclaiming the unshakeable truth and being comforted in all adversities. Human reason will never be able to get to the bottom of God's word, whose turns of phrase, forever resisting any attempt at emulation, are distinguished by their amazing accuracy and beauty."

²⁰⁴ This does not mean, of course, that Muslim religious scholars did not employ rational argumentation in support of their theological interpretations, even those that discouraged intellectual innovation. Here one has to distinguish between a) Islamic traditionalists, who adopted a literalist understanding of revelation, promoted literalist interpretations of the *Qur'an*, and insisted on the conformity of laypeople to the teachings of recognized Muslim religious authorities (*taqlid*); b) exponents of the Ash'ari theological school, who embraced the traditionalist emphasis on the normative centrality of the revealed texts, but defended their views by means of rational theological discourse instead of abandoning rationalism outright; and c) the Mu'tazila, who believed that applying human reason could better help Muslims understand Allah's actions. As Najam Haider has put it, "It is important to bear in mind that the Ash'ari were as 'rational' as the Mu'tazila in that they utilized similar tools of dialectical theology to support their central principles. The difference between the two schools centered on the relationship between revelation and reason in ascertaining the divine will." See *Shi'i Islam: An Introduction* (Cambridge UK: Cambridge University, 2014), p. 15. In Twelver Shi'i Islam, which was influenced greatly by the Mu'tazila and generally adopted *ijtihad*, there was a similar division between the Akhbari traditionalists, who reject the use of *ijtihad*, and the Usuli, who promote *ijtihad* and consider it obligatory for Shi'i Muslims to obey a recognized *mujtahid* concerning "Islamically correct" behavior. For more on Islamic theological conceptions and disputes, see Ignaz Goldziher, *Introduction to Islamic Theology and Law* (Princeton, NJ: Princeton University, 1981), esp. chapter 3; W. Montgomery Watt, *Islamic Philosophy and Theology* (New York: Routledge, 2017 [1962]); Binyamin Abrahamov, *Islamic Theology: Traditionalism and Rationalism* (Edinburgh: Edinburgh University, 1998); Tim Winter, ed., *The Cambridge Companion to Classical Islamic Theology* (Cambridge UK: Cambridge University, 2008); Sabine Schmidtke, ed., *The Oxford Handbook of Islamic Theology* (Oxford UK: Oxford University, 2016); and John Renard, ed., *Islamic Theological Themes: A Primary Source Reader* (Oakland: University of California, 2014).

as not only as flawed, dangerous, and forbidden, but also see them as inevitably leading to the corruption of Allah’s authentic message. Such views are hardly compatible with the Enlightenment emphasis on the centrality and value of human reason.

Second, neither Muslims in general nor Islamists regard human nature as being basically good. Although there is no doctrine of “original sin” in Islam, as there is in Christianity, Muslims believe that humans can easily be tempted to do evil by Satan and his minions. For Islamists, this means that the only way to ensure that other Muslims remain on the “straight path” (*al-sirat al-mustaqim*) and avoid such temptations is for them to follow Allah’s commands to the letter.²⁰⁵ Islam is a religion that is obsessively concerned with orthopraxy, which means that Muslims must carry out certain prescribed practices and ritual duties to demonstrate their commitment to the faith, above all the so-called five “pillars” (*arkan*) of Islam: the declaration of faith (*shahada*), engaging in (at times communal) prayer (*salah*) five times per day, the annual giving of alms (*zakat*), fasting (*sawm*) during Ramadan, and making a pilgrimage (*hajj*) to Mecca at least once. Conversely, they must assiduously avoid certain behaviors that are regarded as forbidden (*haram*), i.e., proscribed by Islamic law, which includes everything from apostasy and homosexuality to seemingly trivial matters related to personal hygiene. These ideas are characteristic of Islam in general, but are especially emphasized by Muslim traditionalists and fundamentalists (including Islamists).

Third, Muslims (including Islamists) tend to be fatalistic, since they believe that an all-powerful Allah has already determined a life course and fate for all of his followers (and, of course, also for “infidels”). In short, although they may be optimistic that Islam will eventually triumph over “infidelity” and its other enemies, as proclaimed in the *Qur’an*, they are not necessarily optimistic about their own personal futures. They certainly do not believe that applying human reason can solve all of the man-made problems in their societies. Quite the contrary. Yet even so, the Islamists often display an optimistic faith that their *jihad* will ultimately be successful, since Islam is supposedly destined to rule the entire world and Allah has therefore guaranteed them final victory if they remain steadfast.

Fourth, although most Muslims and all Islamists may be egalitarians in the sense that they profess to believe, in theory, that all Muslims are equal, they are most certainly not egalitarian in the Western Enlightenment sense of that term.²⁰⁶ In other words, they do not accept the idea that

²⁰⁵ See, e.g., the comments made by two Islamists encountered by journalist Graeme Wood, whose views epitomized such a perspective. One told him that “[w]ithout Islam, you are like an animal”, since you will make decisions based on instincts and be ruled by base pleasures. Another said that a human being was potentially “worse than an animal”, since “[a]n animal has to obey Allah. It has no soul, no will. You can disobey. You can be worse.” Cited in Graeme Wood, *The Way of the Strangers: Encounters with the Islamic State* (New York: Random House, 2017), p. 5.

²⁰⁶ In practice, many Muslims regard other Muslim believers as unequal and inferior to themselves. For example, many Arabs consider Arabs to be superior to other Muslims because the *Qur’an* was revealed in Arabic and because Muhammad, the last Islamic prophet, was an Arab. Many Persian Muslims, the heirs to a great Iranian civilization that predates Islam, tend to look down on Arabs as uncivilized barbarians. Many Turks, who provided the military muscle for many Muslim empires in the medieval and early modern periods, view themselves as tougher and more “manly” than other Muslims. The same goes for the many Pashtuns in South Asia, who tend to view Muslims

individuals have certain intrinsic rights that cannot be abridged. Not only are their rights as individuals subordinated to the will of Allah, to which they must meekly submit – here it must be recalled that the Arabic word “Islam” means “submission,” specifically to the will of Allah – but also to the collective interests of the *umma* (the Muslim community of believers). The idea that Muslims, as autonomous individuals, have certain rights that take precedence over the interests of their larger community, whether it be their own tribal groups or the entire *umma*, is only supported by a tiny handful of Westernized intellectuals. Such an “infidel” notion is, not surprisingly, totally rejected by the Islamists as being “un-Islamic.” Moreover, like all types of ideological extremists, the Islamists believe that individual rights must be subordinated, both to the collective interests of their own organizations and to the fanatical pursuit of their supposedly higher cause.

Fifth, both Muslims in general and especially the Islamists are extremely particularistic. Their primary loyalty must be to Allah, to Islam, and to fellow believers, not to “humanity” in a wider sense. Passages in the *Qur’an* explicitly enjoin Muslims to offer their primary loyalty and feelings of solidarity to other Muslims, instead of to non-believers.²⁰⁷ And this scriptural injunction has led Islamists to develop a particular doctrine known as *al-wala’ wa al-bara’* (loyalty and disavowal) to further enshrine and operationalize it, a doctrine that enjoins eternal enmity towards, as well as disassociation from, unbelievers.²⁰⁸

Finally, a radical opposition to any and all forms of secularism is a characteristic feature of all variants of Islamism. Hence, to the extent that secularism is regarded as a key aspect of Enlightenment and most subsequent Western leftist thought, the Islamist belief that the sovereignty of Allah (*hakimiyyat Allah*) supersedes human sovereignty, i.e., all man-made customs and laws, and indeed that the two systems cannot permanently be allowed co-exist together on earth, marks Islamism as an intrinsically right-wing, anti-modernist, and anti-Western ideology.

Moving on to the characterization of Islamism as theocratic, this should be self-evident. The term “theocracy” derives from the ancient Greek terms θεός (*theos*), meaning “god,” and κρατέω (*krateo*), meaning “to rule.” Hence it literally means the “rule of God.” In practice, of

associated other ethnic groups in their region to be weaklings. Finally, many Muslims exhibit racially biased and discriminatory attitudes towards black Muslims from sub-Saharan Africa. These kinds of non-egalitarian attitudes have caused fissures within jihadist groups with a multi-ethnic and multi-national composition.

²⁰⁷ *Qur’an* 3:28: “Let not believers take disbelievers as allies rather than believers. And whoever [of you] does that has nothing with Allah, except when taking precaution against them in prudence. And Allah warns you of Himself, and to Allah is the [final] destination.” See Quran.com, at <https://quran.com/3/28?translations=20>. *Qur’an* 5:51: “O you who have believed, do not take the Jews and the Christians as allies. They are [in fact] allies of one another. And whoever is an ally to them among you - then indeed, he is [one] of them. Indeed, Allah guides not the wrongdoing people.” See Quran.com, at <https://quran.com/5/51?translations=20>.

²⁰⁸ See, e.g., Ayman al-Zawahiri, “Loyalty and Enmity: An Inherited Doctrine and a Lost Reality,” in Raymond Ibrahim, ed., *The Al Qaeda Reader* (New York: Broadway, 2007), pp. 66-115. Cf. [Usama b. Ladin], “Moderate Islam is a Prostration to the West,” in *ibid*, pp. 31-2, where he makes an implicit allusion to that doctrine when criticizing Muslims who advocate peaceful co-existence with non-Muslims. See further Muhammad al-Qahtani, *Al-Wala’ Wa’l-Bara’ According to the ‘Aqeedah of the Salaf* (London: Al-Firdous, 1999), in three parts. For a scholarly analysis, see Mohamed Bin Ali, *The Roots of Religious Extremism: Understanding the Salafi Doctrine of Al-Wala’ wal-Bara’* (London: Imperial College, 2016). See further Menad Abdurrahmani, *Aimer et détester pour Allah, dogme d’Al-Wala et Bara’a* (No place: Zinky, 2016).

course, it refers to political systems in which the rulers claim to be governing strictly in accordance with specific religious tenets, or sometimes even on the basis of direct commands they claim to be receiving from divinities. The human leaders of theocratic regimes are effectively trying to establish an ideocratic state derived from particular theological-legal religious doctrines. This is undeniably the aim of the Islamists, whose goal is to establish a puritanical Islamic state in which the *shari‘a* is made to be all-encompassing and is strictly and rigorously applied, a state where violations of *shari‘a*-compliant measures and ordinances are severely punished. As the Ayatollah Khomeini (1902-1989) himself put it, in an Islamic government,

the laws are not made by the will of the people, but only by the Qur’an and the Sunnah of the Prophet. The constitution, the civil code, and the criminal code should be inspired only by Islamic laws contained in the Qur’an and transcribed by the Prophet. Islamic government is the government of divine right, and its laws cannot be changed, modified, or contested....The Islamic government is subject to the law of Islam, which comes neither from the people nor from its representatives, but directly from Allah and His divine will. Qur’anic law, which is nothing other than divine law, constitutes the essence of any Islamic government and unfailingly governs all individuals who are a part of it. The Prophet, the Caliphs, and the people all owe absolute obedience to these eternal laws of the Almighty...which remain immutable until the end of time.²⁰⁹

Yet the exact form of such an Islamic state can vary considerably, ranging from a regime ruled by a self-proclaimed Caliph (like the Islamic State headed – until his death on 26 October 2019 – by Abu Bakr al-Baghdadi), by an *‘amir* (like Mullah ‘Umar, former head of the Taliban regime in Afghanistan), by an official but factionalized clerical establishment (like the one ruling the hybrid regime in the Shi‘i Islamic Republic of Iran), or by a member of a royal family supported by a powerful Wahhabi clerical establishment (like in Saudi Arabia [although this may be changing under the reformer Muhammad b. Salman] and certain other Gulf states). Whatever its precise

²⁰⁹ *The Little Green Book: Selected Fatawah and Sayings of the Ayatollah Mosavi Khomeini* (New York: Bantam Books, 1985), p. 7. Oddly enough, despite these unequivocal statements to the contrary, Khomeini also claims (ibid) that an Islamic government “cannot be totalitarian or despotic, but must be constitutional and democratic.” Such claims can hardly be taken seriously, given the pseudo-constitutional and pseudo-democratic nature of the regime. Others have tried to argue that the populist dimensions of the Iranian Revolution undermined or subverted its theocratic tendencies. See, e.g., Amr G. E. Sabat, “*Wilayat al-Faqih* and the Meaning of Islamic Government,” in Arshin Adib-Moghaddam, ed., *A Critical Introduction to Khomeini* (New York: Cambridge University, 2014), pp. 82-5. I do not find this argument convincing, however, any more than, say, an argument that Nazism had populist elements and a “polycentric” state system, which was the case, signified that it was not totalitarian in its character. Similarly, although a hybrid political system, clerical factionalism, and popular resistance may have undermined the theocratic totalism of the regime in practice, in essence it was theocratic since the system was under the effective authority and control of a regressive, puritanical clerical establishment whose rule was supposedly sanctioned by Allah.

form – and the ideal Sunni variant would be a newly-reestablished Caliphate – regimes established by Islamists are theocracies.²¹⁰

Much has already been written, including by myself, on Islamism as a totalitarian ideology.²¹¹ Hence I will confine myself herein to citing two revelatory statements. The first is by one of the leading Islamist ideologues of the 20th century, the South Asian Sayyid Abu al-A‘la Mawdudi (1903-1979):

A state of [the Islamist] sort cannot evidently restrict the scope of its activities. Its approach is universal and all-embracing. Its sphere of activity is coextensive with the whole of human life. It seeks to mould every aspect of life and activity in consonance with its moral norm and programmes of social reform. In such a state, no one can regard any field of his affairs as personal and private. Considered from

²¹⁰ For earlier notions and versions of an Islamic state, see Abu al-‘Abbas al-Baladhuri, *The Origins of the Islamic State: Kitab Futuh al-Buldan* (New York: Columbia University, 1916); Thomas W. Arnold, *The Caliphate* (London: Routledge & Kegan Paul, 1965); Patricia Crone, *God’s Caliph: Religious Authority in the First Centuries of Islam* (New York: Cambridge University, 2003 [1986]); and Hugh Kennedy, *Caliphate: The History of an Idea* (New York: Basic Books, 2016). See further E. I. J. Rosenthal, *Political Thought in Medieval Islam: An Introductory Outline* (Cambridge: Cambridge University, 1958); and Patricia Crone, *God’s Rule – Islam and Politics: Six Centuries of Islamic Political Thought* (New York: Columbia University, 2004). For varying attitudes towards the Caliphate, past and present, see Mona Hassan, *Longing for the Lost Caliphate: A Transregional History* (Princeton, NJ: Princeton University, 2016); Madawi al-Rasheed, Carool Kersten, and Marat Shterin, eds., *Demystifying the Caliphate* (London: Hurst, 2013); and Reza Pankhurst, *The Inevitable Caliphate?: A History of the Struggle for Global Islamic Union, 1924 to the Present* (London: C. Hurst & Co., 2014). For Shi‘i religio-political doctrines, see Abdelaziz Abdulhussein Sachedina, *The Just Ruler in Shi‘ite Islam: The Comprehensive Authority of the Jurist in Imamite Jurisprudence* (New York: Oxford University, 1988); and Hamid Mavani, *Religious Authority and Political Thought in Twelver Shi‘ism: From Ali to Post-Khomeini* (New York: Routledge, 2015). Today’s Sunni Islamists want to restore an idealized, hopelessly nostalgic image of the early Islamic Caliphate, whereas their Shi‘i Islamist counterparts seek to create and maintain an Islamic revolutionary regime that will lay the groundwork for the eventual establishment of an idealized Imamate under the aegis of the Hidden Imam. Cf., e.g., Hamid Enayat, *Modern Islamic Political Thought* (New York: Palgrave Macmillan, 2005 [1982]), chapters 2-3; Abdellilah Belkaziz, *The State in Contemporary Islamic Thought: A Historical Survey of the Major Muslim Political Thinkers of the Modern Era* (New York: I. B. Tauris, 2009), chapters 4-7, 9-11; Haider, *Shi‘i Islam*, chapter 2; Hamid Dabashi, *Theology of Discontent: The Ideological Foundation of the Islamic Revolution in Iran* (New Brunswick, NJ: Transaction, 2006); Najibullah Lafraie, *Revolutionary Ideology and Islamic Militancy: The Iranian Revolution and Interpretations of the Qur‘an* (London and New York: I. B. Tauris, 2009); and Imam Khomeini, *Islam and Revolution I: Writings and Declarations of Imam Khomeini, 1941-1980* (Berkeley: Mizan Press, 1981). Khumayni’s main ideological innovation was the *wilayat al-faqih/velayet-i faqih* (Guardianship of the Faqih, i.e., Islamic Jurist) doctrine, for which see *ibid.*, pp. 27-149; Amanat, *Apocalyptic Islam and Iranian Shi‘ism*, pp. 189-96; and Adib-Moghaddam, ed., *Critical Introduction to Khomeini*, chapters by Amr G. E. Sabet, Ali Rahnama, and Behrooz Ghamari-Tabrizi. He essentially argued that the leading figure in the Iranian Shi‘i clerical regime functioned as the deputy (*na‘ib*) of the Hidden Imam until his return.

²¹¹ Bale, “Islamism and Totalitarianism,” volume 2, chapter 6; Bassam Tibi, *Die neue Totalitarismus: “Heiliger Krieg” und westliche Sicherheit* (Darmstadt: Primus, 2004); *ibid.*, “The Totalitarianism of Jihadist Islamism and its Challenge to Europe and to Islam,” *Totalitarian Movements and Political Religions* 8:1 (2007), pp. 35-54; Alexandre del Valle, *Le totalitarisme islamiste à l’assaut des démocraties* (Paris: Syrtes, 2002); Amir Jahanchahi, *Vaincre le IIIe totalitarisme* (Paris: Ramsay, 2001); Fouad Laroui, *De l’islamisme: Un réfutation personnelle de totalitarisme religieux* (Paris: Robert Laffont, 2006); Thomas Vollmer, *Der militante Islamismus als neuer Totalitarismus: Dschihadistischer Terrorismus und westliche Sicherheitsarchitektur* (Saarbrücken: AV Akademiker, 2012); Michaël Prazan, *Frères musulmans: Enquête sur la dernière idéologie totalitaire* (Paris: Grasset, 2014); and Mehdi Mozaffari, *Islamism: A New Totalitarianism* (Boulder, CO: Lynne Rienner, 2017).

this perspective the Islamic state [i.e., the Islamist state] bears a kind of resemblance to the fascist or communist states.²¹²

The second is by Taqi al-Din al-Nabhani (1909-1977), founder of the Islamist group Hizb al-Tahrir al-Islami (the Islamic Liberation Party), who insisted that Islam was “a complete and comprehensive regime for the totality of human life, which Muslims are obligated to implement and execute completely.”²¹³ These quotes alone, together with many others that could be cited by different Islamist ideologues, makes it clear that the “pure” Islamic state that the Islamists envision creating is totalitarian in its very essence. Indeed, Islamism can be described as the last of an influential triad of destructive totalitarian ideologies and movements that arose in the early decades of the 20th century, following in the wake of the Marxist-Leninist variant of communism and diverse national manifestations of fascism.

Finally, there is abundant evidence that Islamism is an Islamic supremacist and imperialistic ideology, i.e., an ideology that aggressively promotes the conquest, subordination, and conversion of unbelievers until the entire world is brought under the rule of Islam. This is hardly surprising, given that Islam is a missionary monotheistic religion whose followers are explicitly enjoined to spread their faith throughout the world.²¹⁴ It is also enshrined in the classical medieval Islamic doctrine of international relations, which sharply divides the world into those portions ruled by the *shari‘a* (the *dar al-Islam*, or “abode of Islam”) and those portions that are

²¹² Abul A‘la Maududi, *Islamic Law and Constitution* (Delhi: Taj Company, 1986 [1960]), pp. 144-5. He then adds, unconvincingly, that “despite its all-inclusiveness, it is something vastly and basically different than totalitarian and authoritarian states. Individual liberty is not suppressed under it nor is there any trace of dictatorship in it.” One may well ask, however, how a state that intrudes itself into every aspect of life and that must “be run only by those who believe in the ideology on which it is based and in the Divine Law which it is assigned to administer” can avoid suppressing individual liberty. See *ibid*, pp. 146-7.

²¹³ See Taqi al-Din al-Nabhani in ‘Abd al-Qadim Zallum’s expanded and revised 2002 online version of *Nizam al-hukm fi al-islam [The System of Rule in Islam]*, pp. 13-14. This book was originally published in the early 1950s, then updated in 1990 by the Beirut publisher Dar al-Umma. For an English translation, see Taqiuddin an-Nabahani, *The System of Islam*, available at https://www.cia.gov/library/abbottabad-compound/39/3953224645A52EE1867998C77B303BBB_The_System_of_Islam.pdf. For more on Hizb al-Tahrir, an international Islamist organization founded in Jerusalem in 1953 by al-Nabhani, which was thence transferred to Jordan before establishing its headquarters in Britain, see Suha Taki-Farouki, *A Fundamental Quest: Hizb al-Tahrir and the Search for the Islamic Caliphate* (London: Grey Seal, 1996).

²¹⁴ Cf. Akhtar, *Islam as Political Religion*, p. 167: “...Muslims interpreted this finalized universality [of Islam] to be a divine mandate for imperial expansion (Q[ur’]an 48:28). The theological foundations for Arabo-Islamic imperialism are contained in Islam’s self-image as a religion perfected.” This is precisely why so few Muslim thinkers have ever “wondered...about the legitimacy of Islamic imperialism. Muslim apologists have never felt obligated to justify the use of force in the service of extending the witness to Allah’s dominion beyond the confines of the Arabian peninsula.” See *ibid*, p. 171. Muhammad himself was reported to have said, in a *hadith* that is considered reliable, that “I have been commanded [by Allah] to fight against people till they testify that there is no god but Allah, that Muhammad is the messenger of Allah, and they establish prayer, and pay Zakat and if they do it, their blood and property are guaranteed protection on my behalf except when justified by law, and their affairs rest with Allah.” In short, to fight against non-Muslims until they convert to Islam. See, e.g., *Sahih Muslim*, book 1, hadith 33, University of Southern California, Center for Muslim-Jewish Engagement website, at <http://cmje.usc.edu/religious-texts/hadith/muslim/001-smt.php>; *Sahih Bukhari*, volume 1, book 2, hadith 25, in *ibid*, at <http://cmje.usc.edu/religious-texts/hadith/bukhari/002-sbt.php>.

not under Islamic rule (the *dar al-harb*, or “abode of war”).²¹⁵ Muslim missionaries and religio-political rulers alike therefore have a religious duty to expand the boundaries of the *dar al-Islam*, the former by means of proselytization (*da‘wa*) and the latter by waging offensive armed *jihad* “in the path of Allah” (*jihad [al-talab] fi sabil Allah*).²¹⁶

In this context, however, one must distinguish between the propaganda and public relations statements made by the major spokesmen for jihadist groups, which are typically misleading and

²¹⁵ See, respectively, A[rm]and Abel, “Dār al-Islām,” *Encyclopedia of Islam: New Edition* [hereafter *EI2*], ed. by Bernard Lewis et al (Leiden: E.J. Brill, 1983 [1965]), volume 2, p. 127; and idem, “Dār al-Harb,” *EI2*, volume 2, p. 126. This bipartite division of the world seems to have first emerged during the ‘Abbasid period, specifically in the later 8th century. See Roy Parviz Mottahedeh and Ridwan al-Sayyid, “The Idea of Jihad before the Crusades,” in Angeliki E. Laiou and Roy Parviz Mottahedeh, eds., *The Crusades from the Perspective of Byzantium and the Muslim World* (Washington, DC: Dumbarton Oaks Research Library and Collection, 2001), p. 28. Later, Muslim scholars developed other concepts – such as the *dar al-sulh* (Abode of Truce) and the *dar al-‘ahd* (Abode of the Covenant), that allowed Muslims to temporarily co-exist without fighting with non-Muslims, although these were in theory meant to last for a maximum of ten years. For these notions, see D. B. McDonald and Armand Abel, “Dār al-Sulh,” *EI2*, volume 2, p. 131; and Halil Inalcik, “Dār al-‘Ahd,” *EI2*, volume 2, p. 116.

²¹⁶ For a scholarly analysis of the “call to Islam” (*da‘wa*) in the *Qur’an*, the *hadith* collections, the *sira*, early Islamic history, and finally in the present, see Matthew J. Kuiper, *Da‘wa and Other Religions: Indian Muslims and the Resurgence of Global Islamic Activism* (New York: Routledge, 2018), part I. For a more critical account of the role of *da‘wa* in the contemporary context, see Patrick Sookhdeo, *Da‘wa: The Islamic Strategy for Reshaping the Modern World* (McLean, VA: Isaac Publishing, 2015). As for *jihad*, the claim that the term *jihad* does not refer, among other things, to offensive warfare against the enemies of Islam with the goal of expanding the *dar al-Islam* until the entire world is brought under the aegis of Islam is blatantly false. Such a sanitized definition of *jihad*, a noun deriving from the verb *jahada*, meaning “to struggle” or “to exert oneself,” conveniently ignores the fact that *jihad bi-al-sayf* (“jihad of the sword”) has always been the most commonplace meaning of the term, both historically and at the present time. See E[m]ile Tyan, “Djihād,” *EI2*, volume 2, p. 538: “In law, according to general doctrine and in historical tradition, the djihād consists of military action with the object of the expansion of Islam and, if need be, of its defence... The notion stems from the fundamental principle of the universality of Islam: this religion, along with the temporal power which it implies, ought to embrace the whole universe, if necessary by force.” Cf. further Michael Bonner, *Jihad in Islamic History: Doctrines and Practice* (Princeton, NJ: Princeton University, 2006); David Cook, *Understanding Jihad* (Berkeley and Los Angeles: University of California, 2005); Reuven Firestone, *Jihad: The Origin of Holy War in Islam* (New York and Oxford: Oxford University, 1999); Rudolph Peters, *Jihad in Classical and Modern Islam* (Princeton, NJ: Marcus Weiner, 1996); Alfred Morabia, *Le gihād dans l’Islam médiéval* (Paris: Albin Michel, 1993); and Lahoud, *Jihadists’ Path to Self-Destruction*, pp. 182–91. For scholarly but far more apologetic analyses, see Ahmed al-Dawoody, *The Islamic Law of War: Justifications and Regulations* (New York: Palgrave Macmillan, 2011); and Asma Afsaruddin, *Striving in the Path of God: Jihād and Martyrdom in Islamic Thought* (New York: Oxford University, 2013). For a more forthright and bellicose analysis by other Muslims, see “The Reason Why Jihaad is Prescribed,” *Islam Question & Answer* website, undated, at <http://islamqa.info/en/34647>, wherein the following reasons are elucidated (and supported by relevant citations from the *Qur’an* and *hadith*): 1) “The main goal of jihad is to make the people worship Allaah alone and to bring them forth from servitude to people to servitude to the Lord of people...”; 2) “Repelling the aggression of those who attack Muslims”; 3) “Removing fitnah (tribulation)” [i.e., internal strife]; 4) “Protecting the Islamic state from the evil of the kuffaar” [infidels]; 5) “Frightening the kuffaar, humiliating them and putting them to shame”; 6) “Exposing the hypocrites” [i.e., those who feign support for Islam]; 7) Purifying the believers of their sins and ridding them thereof; 8) “Acquiring booty”; and 9) “Taking martyrs” [i.e., producing martyrs]. This particular website is supervised by Riyadh-born Salafist Muhammad al-Munajjid, but was later banned in 2010 by the Saudi government for issuing independent *fatwas*. Cf. also the analysis of the radical pro-*jihad* Saudi cleric, Shaykh Yusuf al-‘Uyayri, “The Ruling on Jihad and Its Divisions,” reprinted and translated for al-Tawhid Publications, undated, at http://www.e-prism.org/images/The_Ruling_on_Jihad_and_its_Divisions_-_Yousef_Uyery.pdf. As Akhtar sums things up, “Jihad [i.e., offensive jihad] permanently remains a collective duty when Islam is ascendant and reaching for imperial extension; it [i.e., defensive jihad] becomes an individual duty only when an existing Islamic territory is threatened by non-Muslims.” See *Islam as Political Religion*, p. 172.

“sanitized” and thus cannot be taken at face value, and their underlying bellicose, imperialistic agendas, which are revealed in other statements as well as in internal documents. For example, in his public statements, Bin Ladin often sought to divert attention from or otherwise disguise his aggressive and expansionist underlying designs by continually harping on seemingly more reasonable and legitimate grievances in an effort to both rally support from the Muslim masses and foment divisions within “infidel” ranks in order to prevent the formation of a common anti-jihadist front.²¹⁷ However, even in his own public propaganda statements, Bin Ladin regularly juxtaposed seemingly rational and morally justifiable objectives with expressions of outright religious hatred and bizarre theological imperatives that could only be said to “make sense” within an Islamic cultural and historical context that has long since been superseded.²¹⁸ Indeed, even the most restrained and *proximate* demands of al-Qa’ida and other global jihadist groups – the complete withdrawal of foreign military forces from “Muslim lands,” the abandonment of all Western support for “apostate” Muslim regimes and Israel, the elimination of all “corrupting” Western cultural influences from the *dar al-islam*, and the end of Western “exploitation” of Muslim resources, above all the paying of artificially low prices for oil – are in large part non-negotiable and therefore virtually impossible to achieve, whatever their moral merits or demerits might be.

Worse still, when one considers jihadist *long-term* objectives, one has truly entered the realm of total unreality. These long-term goals can be divided into three categories: minimal, intermediate, and maximal. The *minimal* objective of the jihadists is to “liberate” all Muslim-majority territories that are currently “occupied” by hostile “infidel” military forces, including Palestine, Iraq, Chechnya, Kashmir, southern Thailand, the southern Philippines, and “Eastern Turkestan,” which effectively brings them into direct conflict with Israel, the United States, Russia, India, the Thai and Philippine governments, and China.²¹⁹ The *intermediate* long-term objective

²¹⁷ The more seemingly reasonable grievances expressed by Bin Ladin have been usefully categorized and summarized by Michael Scheuer in *Imperial Hubris: Why the West is Losing the War on Terrorism* (Washington, DC: Potomac, 2004), pp. 11-14.

²¹⁸ Examples of Bin Ladin’s religious hatred and perception of a religious war between “infidels” and Muslims can be clearly seen, e.g., in his 23 August 1996 “Declaration of Jihad,” where he identified his foes as the “Judeo-Christian alliance,” i.e., described his designated enemies in explicitly religious terms. See his “Declaration of Jihad,” in Bruce B. Lawrence, ed., *Messages to the World: The Statements of Osama Bin Laden* (London: Verso, 2005), p. 25. In the 23 February 1998 statement of the World Islamic Front, the signatories insisted (“The World Islamic Front,” in *ibid*, p. 61) that Allah authorized the killing of Americans and the “soldiers of Satan” because they were waging a de facto “war against God, his Messenger, and the Muslims”. In his December 1998 interview with al-Jazira, Bin Ladin proclaimed (“A Muslim Bomb,” in *ibid*, pp. 71, 89-90) that Muslims would never let “dirty pestering Jews and Christians”, “infidel asses”, or “American and Jewish whores” into the Ka’ba in Mecca. In his 21 October 2001 interview with al-Jazira (“Terror for Terror,” in *ibid*, pp. 111-12, 124-5, 121), he praised the 9/11 attacks, argued that the “clash of civilizations” was a reality “proven in the Qur’an” and *hadiths* of Muhammad, in contrast to the “fairytale” of “world peace” promoted by the Jews and Americans, which has “no substance whatever”, and promoted the unification of the umma and establishment of a “righteous Caliphate” as prophesied by Muhammad. See further below, p. 183, for some other examples.

²¹⁹ This was essentially the objective of ‘Abdallah ‘Azzam, who sought to form a jihadist “rapid deployment force” that could come to the aid of Muslims being subjected to “infidel” military control. See Fawaz A. Gerges, *The Far Enemy: Why Jihad Went Global* (New York: Cambridge University, 2005), pp. 135-8. Compare also the key texts of ‘Azzam himself, such as *Ilhaq bi al-qafila [Join the Caravan]* (London: ‘Azzam, 2001); and *idem, Al-difa’ ‘an ard*

of the global jihadists is to recover all of the territory that was once under Muslim control but then subsequently lost to “infidel” powers, including Spain, Sicily and parts of southern Italy, a substantial portion of the Balkans, huge swaths of territory in Turkic Central Asia, all of northern India, and large segments of northwestern China, which adds Spain, Italy, Croatia, Serbia, Bulgaria, and Greece to their list of enemies.²²⁰ Their *maximal* long-term goal, of course, is the very same one promoted by both the “rightly-guided” Caliphs and several later Umayyad, ‘Abbasid, and Ottoman rulers – to spread the word of Allah to the “unbelievers” (*kuffar*), by force if necessary, and ultimately to Islamize every corner of the globe at the expense of both the *ahl al-kitab* (“People of the Book,” i.e., Jews, Christians, and Zoroastrians) and the “polytheists,” which in practice would nowadays amount to completely overturning and transforming the existing world order. As Walid Phares sums it up, al-Qa‘ida and other such groups aim to humiliate and ultimately destroy America, the military and economic bastion of the *dar al-harb*, in order to lay the groundwork for Islam’s final triumph over the West and other non-Muslims.²²¹

Nevertheless, many jihadists recognize that this envisioned process of ultimate world conquest can only occur in successive stages.²²² See, e.g., the following remarks by jihadist strategic thinker Abu Bakr Naji:

If Allah were to grant [the *mujahidin* victory in Saudi Arabia], on the following day (by the permission of Allah) they must prepare immediately to begin conquering the smaller states which these paltry regimes in Jordan and the Gulf rule. By the permission of Allah, with the exit of America from Iraq, what remains of its deceptive media halo will collapse and every regime which supports it will fall. The noble people in [these] states will renounce [the regimes] and restore the rights of the *umma* which these collaborating regimes had snatched away. The masses of

al-muslimin, aham furud al-‘ayn [*The Defense of Muslim Lands: The Most Important of the Individual Duties*] (Jedda: Al-Mujtama’, 1987). Both can also be found online, with partial English translations, on the Islamist Watch website: www.islamistwatch.org.

²²⁰ For one illustrative example, note the Islamist obsession to recover control over al-Andalus, i.e., Spain. See Gustavo de Aristegui, *La Yihad en España: La obsesión por reconquistar Al-Andalus* (Madrid: Esfera de los Libros, 2003), especially pp. 119–55. Compare Bin Ladin’s remarks in his December 1994 letter to Saudi religious scholar ‘Abd al-‘Aziz ibn Baz, head of the pro-regime “palace ‘ulama,” which he closes by asking Allah to help the *umma* re-establish *tawhid* (belief in the unity of God) in “stolen” Islamic lands such as Palestine and Spain. Cited in Lawrence, ed., *Messages to the World*, p. 14.

²²¹ Walid Phares, *Future Jihad: Terrorist Strategies against America* (New York: St. Martin’s, 2005), pp. 134-5, 161-9.

²²² See, e.g., the schematic, unrealistic – and in part numerologically-based – successive strategic phases outlined by Abu Bakr Naji, Muhammad Ibrahim Makkawi, and other al-Qa‘ida leaders. Cf., respectively, Abu Bakr Naji, *Idarat al-tawahhush: Akhtar marhala satamurru biha al-umma* [*The Management of Savagery: The Most Critical Stage through which the Umma Will Pass*], translated by William McCants (Cambridge, MA: Harvard University/John M. Olin Institute for Strategic Studies, 2006), pp. 36ff, available at <https://azelin.files.wordpress.com/2010/08/abu-bakr-naji-the-management-of-savagery-the-most-critical-stage-through-which-the-umma-will-pass.pdf>; Abdel Bari Atwan, *The Secret History of al-Qa‘ida* (London: Saqi, 2006), pp. 221-2; and Fu‘ad Husayn, *Al-Zarqawi, al-jil al-thani li-al-Qa‘ida* [*Al-Qa‘ida’s Second Generation*] (Beirut: Dar al-Khayyal, 2005), parts 14 and 15. See further Bale, “Jihadist Ideology and Strategy,” *Darkest Sides of Politics*, volume 2, pp. 179-81; and, more comprehensively, Brian Fishman, *The Master Plan: ISIS, al-Qaeda, and the Jihadi Strategy for Final Victory* (New Haven: Yale University, 2016).

these states will open their arms to the conquerors, by Allah's grace and beneficence....the throngs will apply themselves (with the aid of Allah) to liberating Jerusalem and that which surrounds it and liberating Bukhara, Samarkand, Andalusia, and all of the lands of the Muslims. Then we will begin liberating the earth and humanity from the hegemony of unbelief and tyranny through the power of Allah. This is a prophecy of His messenger [Muhammad].²²³

The key strategic bone of contention between jihadists, however, was which targets they should prioritize attacking. Earlier Islamist organizations that had resorted to armed *jihad* mainly focused on attacking local incumbent regimes, whether these were nominally Muslim (as, e.g., in Egypt, Saudi Arabia, Algeria, and Chechnya) or non-Muslim (as, e.g., in Kashmir, the Philippines, and Thailand). However, a long history of jihadist defeats and their almost complete failure to unseat those regimes, most of which were highly authoritarian, caused several *mujahid* leaders and Islamist ideologues to reconsider their targeting priorities. Increasingly, they concluded that the alleged "apostate" local Muslim regimes could not be ousted because they received extensive support from, and thus effectively acted as the "puppets" of, imperialist "infidel" powers such as the U.S., France, and Russia. This analysis eventually led to a shift in targeting away from that so-called "near enemy" (*al-'adu al-qarib*) and against the "far enemy" (*al-'adu al-ba'id*), the alleged "puppet masters" operating behind the scenes. Indeed, this new focus on directly attacking the U.S. and other distant powers constituted Bin Ladin's and Ayman al-Zawahiri's chief strategic innovation, one which has already had incalculable geopolitical implications.²²⁴ Since the 2001 invasion of Afghanistan and the 2003 invasion of Iraq, however, many jihadist groups have adopted what Steven Brooke has referred to as a "hybrid strategy," i.e., attacking their "infidel" enemies both in "occupied" Muslim countries and in their own countries.²²⁵

Be that as it may, it must be emphasized that it is not only Islamist organizations relying upon armed *jihad* and a violent "Islamization from above" strategy, e.g., jihadist groups such as al-Qa'ida and the Islamic State, that have explicitly promoted Islamic supremacist goals. So too have larger and more influential Islamist organizations that, for purely pragmatic and tactical rather than principled moral reasons, have generally preferred to employ a gradualist "Islamization from below" strategy, such as the Jama'at al-Ikhwān al-Muslimūn (Society of the Muslim Brothers, better known as the Muslim Brotherhood). Note, e.g., the official motto or slogan of the Muslim Brotherhood:

Allah is Our Objective (*Allah ghayatuna*)

²²³ Abu Bakr Naji, *Idarat al-tawahhush*, pp. 144-5. Note that I have modified McCants' translation slightly.

²²⁴ For analyses of this crucial reorientation of jihadist objectives, based primarily upon internal jihadist sources, compare Gerges, *Far Enemy*, esp. pp. 143-50; and Montasser al-Zayyat, *The Road to Al Qaeda: The Story of Bin Ladin's Right-Hand Man* (London: Pluto, 2004), 68-70.

²²⁵ Steven Brooke, "The Near and Far Enemy Debate," in Assaf Moghadam and Brian Fishman, eds., *Fault Lines in Global Jihad: Organizational, Strategic, and Ideological Fissures* (London and New York: Routledge, 2011), pp. 53-60.

The Prophet is Our Leader (*Al-rasul za'imuna*)

The Qur'an is Our Law (*Al-Qur'an dusturuna*)

Jihad is Our Way (*Al-jihad sabiluna*)

Dying in the Way of Allah is Our Highest Hope (*Al-mawt fi sabil Allah asma amanina*)²²⁶

Therein one can clearly note the emphasis on waging armed *jihad* and becoming a “martyr” for Allah. The founder of the Brotherhood, Hasan al-Banna (1906-1949), also wrote a treatise extolling armed *jihad*, and made the following telling remark (which underscores one of the most important rationales for waging *jihad*): “It is the nature of Islam to dominate, not to be dominated, to impose its law on all nations and to extend its power to the entire planet.”²²⁷ Equally revealing is the official seal of the Brotherhood, which depicts a *Qur'an*, a pair of crossed swords (not, nota bene, crossed olive branches), and the first word of *sura* 8:60 of the Qur'an, *wa a'iduwwa*, which reads “And prepare against them whatever you are able of power and of steeds of war by which you may terrify [or terrorize] the enemy of Allah and your enemy and others besides them whom you do not know [but] whom Allah knows. And whatever you spend in the cause of Allah will be fully repaid to you, and you will not be wronged.”²²⁸ This the very same Muslim Brotherhood that Islam apologists and Islamist apologists have often characterized, naively and erroneously, as “moderate” or “democratic.”²²⁹

Moving on to another key Islamist thinker, the aforementioned Mawdudi, here is an excerpt from his important and highly influential 1939 speech, which was later republished as *Jihad in Islam*:

Islam [i.e., Islamism] is a revolutionary ideology which seeks to alter the social order of the entire world and rebuild it in conformity with its own tenets and ideals....Islam wishes to do away with all states and governments which are opposed to the ideology and programme of Islam....Islam requires the earth – not just a portion, but the entire planet – because the whole of mankind should benefit

²²⁶ Richard Mitchell, *The Society of the Muslim Brothers* (New York: Oxford University, 1969), pp. 193-4. This motto sounds much catchier in Arabic than it does in English translation.

²²⁷ This statement has been cited in a number of sources, although I have not been able to locate the original source for it. See, e.g., Fereydoun Hoveyda, *The Broken Crescent* (Westport, CT: Praeger, 2002), p. 56; Amir Taheri, *Holy Terror: Inside the World of Islamic Terrorism* (Bethesda, MD: Adler & Adler, 1987), unnumbered page directly before introduction; and Neil MacFarquhar, “Egyptian Group Patiently Pursues Dream of Islamic State,” *New York Times*, 20 January 2002. For al-Banna’s treatise, “On Jihād,” see Charles Wendell, ed., *Five Tracts of Hasan al-Banna (1906-1949): A Selection from the Majmu'at rasa'il al-Imam al-shahid Hasan al-Banna* (Berkeley: University of California, 1978), chapter 6. For the Brotherhood’s positive attitude towards military *jihad*, see Mitchell, *Society of the Muslim Brothers*, pp. 206-8.

²²⁸ Quran.com, at <https://quran.com/8/60>. This is the very same passage that has so often been cited by jihadists to justify their use of violence to terrorize their enemies. See, e.g., Usama b. Ladin, “Moderate Islam is a Prostration to the West,” in Ibrahim, ed., *Al Qaeda Reader*, p. 54.

²²⁹ See the final references in note 102 for examples of “Islamist apologism” in connection with the Brotherhood. For a critical analysis of standard Islamist apologist arguments, see Bale, “Islamism and Totalitarianism,” pp. 220-2.

from Islam, and its ideology and welfare programme....Islam is not merely a religious creed... but a comprehensive system which seeks to annihilate all tyrannical and evil systems in the world and enforce its own programme for reform which it deems best for the well-being of mankind....The objective of Islamic jihad is to eliminate the rule of an un-Islamic system and establish in its stead an Islamic system of rule. Islam does not intend to confine this revolution to a single state or a few countries; the aim of Islam is to bring about universal revolution.²³⁰

Such an explicit statement of Islamist goals needs no further elaboration.

Nor should one forget Sayyid Qutub (1906-1966), another leading Muslim Brother who was later imprisoned and thence executed by President Jamal ‘Abd al-Nasir but has since become – perhaps in part because of his martyrdom – the single most important ideological influence on contemporary Sunni global jihadist groups. Qutub, whose views inspired more radical elements within the Brotherhood, contemptuously rejected the concept of “defensive jihad” and repeatedly chastised those who sought to limit the meaning of *jihad* in this way as “defeatists”²³¹:

Islam is a general declaration of the liberation of man on earth from subjugation to other creatures, including his own desires, through the acknowledgement of Allah’s lordship over the universe and all creation...this declaration signifies a total revolution against assigning sovereignty to human beings, whatever forms, systems and situations such sovereignty may take [i.e., against all non-Islamic political systems].²³²

From this it follows that *jihad bi-al-sayf* (“jihad of the sword”) must be waged to

establish Allah’s authority and to remove tyranny. It liberates mankind from submission to any authority other than Allah....It wants the system laid down by Allah to replace the [other] systems established by his creatures.²³³

Moreover, as far as Qutub and his contemporary jihadist disciples are concerned, this armed struggle against worldwide unbelief (*kufir*) or *jahiliyya* (pre- and un-Islamic ignorance and barbarism) “is not a temporary phase but an eternal state – an eternal state, as truth and falsehood cannot co-exist on this earth.”²³⁴ Such a conception, which is consistent with the medieval Islamic notions of international relations developed during the era of spectacular Muslim conquests, is explicitly intolerant and bellicose.

²³⁰ Syed Abul A’la Maudoodi, *Jihad in Islam* (Lahore: Islamic Publications, 2001 [1939]), pp. 8, 9, 19, 24.

²³¹ See, e.g., Sayyid Qutb, *In the Shade of the Qur’an*, translated and edited by Adili Salahi (Leicester: Islamic Foundation, 2003), volume viii, p. 266.

²³² Qutb, *In the Shade of the Qur’an*, volume vii, pp. 133-4.

²³³ *Ibid*, volume viii, p. 306.

²³⁴ Sayyid Qutb, *Milestones* (Beirut and Damascus: International Islamic Federation of Student Organizations, 1978), p. 139.

If anyone still doubts that defeating and destroying “infidel” powers and spreading Islam throughout the world is the global jihadists’ ultimate objective, one can cite many similar statements. Consider these remarks from Bin Ladin himself, who bitterly criticizes Muslims who believe that Islam should engage in a dialogue with “infidel” civilizations and promote peaceful coexistence with them:

As for this atmosphere of shared understandings, what evidence is there for Muslims to strive for this? What did the Prophet, the Companions after him, and the righteous forebears [*al-salaf al-salih*] do? Did they wage *jihad* against the infidels, attacking them all over the earth, in order to place them under the suzerainty of Islam in great humility and submission? Or did they send messages to discover “shared understandings” between themselves and the infidels in order that they may reach an understanding whereby universal peace, security, and natural relations would spread – in such a satanic manner as this? We never thought that such words [promoting dialogue and understanding] would ever appear from those who consider themselves adherents of this religion. Such expressions, and more like them, would lead the reader to believe that those who wrote them are Western intellectuals, not Muslims! Those previous expressions are true only by tearing down the wall of enmity from the infidels [an allusion to *al-wala‘ wa al-bara‘*]...and by rejecting *jihad* – especially Offensive *Jihad*. The problem, however, is that Offensive *Jihad* is an established and basic tenet of this religion. It is a religious duty rejected only by the most deluded. So how can they call off this religious obligation [offensive *jihad*], while imploring the West to understandings and talks “under the umbrella of justice, morality, and rights”? The essence of all this comes from right inside the halls of the United Nations, instead of the Divine Foundations that are built upon hating the infidels, repudiating them with tongue and teeth until they embrace Islam or pay the *jizya* with willing submission and humility.²³⁵

See also the inflammatory, unequivocal remarks of Abu Qatada al-Filistini, a jihadist Salafist cleric who was an open supporter of the brutal Algerian jihadist terrorist group, al-Jama‘a al-Islamiyya al-Musallaha/Groupe Islamique Armé (GIA: Armed Islamic Group) and has been characterized by many observers as the “spiritual leader” of al-Qa‘ida in Europe:

Muslims’ target is the West. We will split Rome open. The destruction must be carried out by sword. Those who will destroy Rome are already preparing their swords. Rome will not be conquered with the word but with the force of arms.²³⁶

²³⁵ Usama b. Ladin, “Offensive Jihad is a Prostration to the West,” pp. 31-2.

²³⁶ Abu Qatada, as cited in Philip Webster and Richard Ford, “Extremist clerics face prosecution for backing terror,” [*London*] *Times*, 14 July 2005, at <https://www.thetimes.co.uk/article/extremist-clerics-face-prosecution-for-backing-terror-cf6jbqhrd9f>. In this passage the term “Rome,” although based upon an alleged prediction of Muhammad concerning the Muslim seizure of the city of Rome, refers not simply to the capital of Italy and the locale of the

Once again, the imperialistic rhetoric is unambiguous.

Such ideas have been expressed by numerous other groups that are open supporters of or active participants in the global *jihad*. One organization in the former category is the UK-based group al-Muhajirun (the Émigrés or Exiles), an offshoot of Hizb al-Tahrir.²³⁷ In June 2003, its spokesman Anjem Choudary made the following militaristic remarks:

One day the black flag of Islam will be flying over [Number 10] Downing Street. Lands will not be liberated by individuals, but by an army. It's just a matter of time before it happens.²³⁸

World Islamic domination is also, not surprisingly, explicitly advocated by the Islamic State. For example, issue 5 of the IS' earlier English-language magazine *Dabiq* is devoted to the theme of "Remaining and Expanding," which signifies that the Caliphate will remain in control of the lands it has seized and will continue to expand by conquering new territories. Therein it is argued that the IS intends to "expand" its territorial control until the shade of its "blessed flag...covers all eastern and western extents of the Earth, filling the world with the truth and justice of Islam and putting an end to the falsehood and tyranny of *jahiliyya*..."²³⁹ To illustrate this goal, the IS has even produced various maps that display its black *jihad* battle flags covering the entire world.²⁴⁰ How anyone can mischaracterize such extreme expansionist views as "limited" in their focus or "defensive" in their aims is beyond comprehension.

Papal States, but to Christendom as a whole, i.e., the West. Similar sentiments concerning the coming "opening" (*fath*), i.e., conquest, of the West appear frequently on jihadist websites.

²³⁷ For al-Muhajirun, which was named after the 70 Companions who accompanied Muhammad on his *hijra* from Mecca to Medina in 622, and its leader 'Umar Bakri Muhammad, see Irene Favalli, "Il caso al-Muhajiroun: L'opportunismo come mezzo di indottrinamento jihadista" (Unpublished Thesis: Università Ca'Foscari Venezia, 2017), available at <http://dspace.unive.it/bitstream/handle/10579/12527/841700-1213565.pdf?sequence=2>; Maureen Cofflard, *L'émir: La peur aura-t-elle le dessus?* (Paris: Fayard, 2004); Dominique Thomas, *Le Londonistan: La voie du djihad* (Paris: Michalon, 2003), pp. 97-100; and Quintan Wiktorowicz, *Radical Islam Rising: Muslim Extremism in the West* (London: Rowman & Littlefield, 2005), an ethnographic study.

²³⁸ Cited by Oni Golan, "One Day the Black Flag of Islam will be Flying over Downing Street," *Jerusalem Post*, 2 July 2003. Al-Muhajirun is the very same group that organized demonstrations in Britain in early 2006, ostensibly to protest the Danish cartoons satirizing Muhammad, at which marchers carried signs with messages such as "Islam Will Dominate the World," "Exterminate Those Who Slander Islam," "Be Prepared for the Real Holocaust," "Freedom Go to Hell," "Europe is the Cancer, Islam is the Answer," and "Europe You Will Pay, Your 9/11 is on Its Way!" The group is named after the early Muslims who migrated together with Muhammad from Mecca to Medina in 622. Note, however, that other jihadists have expressed the same goals. See the statement made by Abu Usama, a Briton fighting in Syria with the Jabhat al-Nusra li-Ahl al-Sham (Support Front for the Syrian People): "If and when I come back to Britain it will be when this *khilafah* [Caliphate] – this Islamic state – comes to conquer Britain and I come to raise the black flag of Islam over Downing Street, over Buckingham Palace, over Tower Bridge and over Big Ben." See "British jihadist warns of 'black flag' of Islam over Downing Street," *[London] Guardian*, 4 July 2014, at <https://www.theguardian.com/uk-news/2014/jul/04/british-jihadi-black-flag-islam-downing-street>.

²³⁹ "Foreword," in *Dabiq* 5 (October-November 2014), p. 3.

²⁴⁰ See, e.g., Aymenn [Ayman] Jawad al-Tamimi's useful "Comprehensive Reference Guide to Sunni Militant Groups in Iraq," Aymenn Jawad al-Tamimi website, 23 January 2014, figure 2, at www.aymennjawad.org/14350/comprehensive-reference-guide-to-sunni-militant.

Nor, contrary to the claims of some analysts, who fail to distinguish between proximate and long term jihadist goals, is it only globally-oriented jihadist networks and organizations that espouse these Islamic supremacist goals. For example, in an 11 April 2008 Friday sermon broadcast on the al-Aqsa television channel of the Harakat al-Muqawwama al-Islamiyya (HAMAS: Islamic Resistance Movement), Yunis al-Astal, a cleric and Hamas Minister of Parliament, made the following remarks to his congregation:

Allah has chosen you for Himself and for His religion, so that you will serve as the engine pulling this nation [*umma*] to the phase of succession, security, and consolidation of power, and even to conquests through *da'wa* and military conquests of the capitals of the entire world....Very soon, Allah willing, Rome will be conquered, just like Constantinople was, as was prophesized by our Prophet Muhammad....Today, Rome is the capital of the Catholics, or the Crusader capital, which has declared its hostility to Islam, and has planted the brothers of pigs and apes [i.e., the Jews] in Palestine in order to prevent the reawakening of Islam. This capital of theirs will be an advanced post for the Islamic conquests, which will spread throughout Europe in its entirety, and then will turn to the two Americas, and even Eastern Europe....I believe that our children, or our grandchildren, will inherit our jihad and our sacrifices, and, Allah willing, [that] the commanders of the conquest [of the world] will come from among them.²⁴¹

Another example can be seen in the August 2011 interview response by Shaykh 'Adil Shihatu, a senior official of the Egyptian Tanzim al-Jihad (Jihad Organization) group:

Of course we will launch a campaign of Islamic conquest throughout the world. As soon as the Muslims and Islam control Egypt and implement the *shari'a* [there], we will turn to the neighboring regions, [such as] Libya [to the west] and Sudan to the south. All the Muslims in the world who wish to see the *shari'a* implemented worldwide will join the Egyptian army in order to form Islamic battalions, whose task will be to bring about the victory of [our] faith. We hope that, with Allah's help, Egypt will be the spark [that sets off this process]...²⁴²

So much for the misleading notion, expressed by many academicians, that Islamist and jihadist groups with a seemingly local or "nationalist" focus have no wider global ambitions.²⁴³

²⁴¹ Cited in "Hamas MP/Cleric's Friday Sermon: We Will Conquer Rome, the two Americas, and Eastern Europe," MEMRI, 14 April 2008, at www.memri.org/bin/articles/cgi?Page=countries&Area=Palestinian&ID=SP189508 .

²⁴² "Senior Official in Egyptian Islamic Jihad: If We Come to Power, We will Launch a Campaign of Islamic Conquests to Instate Shari'a Worldwide....," MEMRI, 29 August 2011, at <http://www.memri.org/report/en/0/0/0/0/0/5601/htm> .

²⁴³ Here I must respectfully disagree with those specialists who characterize various jihadist groups that focus on targeting the "near enemy" or neighboring adversaries as "nationalists," or who argue that they do not have more expansive Islamic supremacist long term goals. Although there is no doubt that Hamas, e.g., is focused above all on eliminating rival Palestinian groups, "liberating" Palestinian territories, and destroying the "Zionist entity" (Israel), that does not mean, as the late Reuven Paz has argued, that the group "has not wavered from its narrow geographic

Furthermore, as noted above, it is a serious mistake to believe that only those Islamist groups that prioritize the use of armed *jihad* aim to establish the suzerainty of Islam over the entire world. Before citing some examples, it is first necessary to note that there are bitter disputes between Islamist groups concerning what methods are best suited to achieve their Islamic supremacist goals. One is the violent “Islamization from above” strategy that is the focus in this report. This is the strategy employed by jihadist groups that aim to seize power by force and then impose a rigid, *shari‘a*-compliant Islamic order, first upon the Muslim nations and societies they gain control of and then, ultimately, upon the entire world. The second main Islamist method is best characterized as a gradualist “Islamization from below” strategy.²⁴⁴ As the name implies, this is a much longer-term strategy whose goal is the attainment of Islamist ideological and cultural “hegemony” over Muslim civil society. This is to be accomplished by means of preaching (*da‘wa*), providing social services to the poor, creating a host of sectoral organizations for different segments of society (e.g., women, students, engineers, teachers, laborers, etc.), establishing front organizations to lure unwary people into their orbit, employing modern techniques of mass mobilization and agitation and propaganda (which they borrowed in large part from communist and fascist movements), and infiltrating other Islamic organizations, student and labor unions, and the state apparatus, above all the military and security forces.²⁴⁵ The aim is to transform the consciousness and behavior of believers, both individually and collectively, so much so that the best organized groups, if not outright majorities, within particular societies will reach a critical pro-Islamist mass, at which point they will work assiduously to transform those societies in the desired Islamist direction. When the Islamist organizations pursuing this approach obtain a large

focus...” See Reuven Paz, “Jihadists and Nationalist Islamists: Al-Qa‘ida and Hamas,” in *Fault Lines in Global Jihad*, p. 203. First, Islamist groups do not, in the final analysis, recognize the legitimacy of national borders or separate Islamic nations, since these have created unnecessary divisions within the *umma* that have undermined Muslim efforts to establish a pan-Islamic Caliphate or Imamate. Even so, they are understandably focused, at least initially, on “liberating” their own countries from apostate or “infidel” enemies. If that task is ever accomplished, however, there is no reason to believe that they would not promote the further geographic extension of the *shari‘a*-compliant Islamic order they have created in their own territories, or that they would not be willing to cooperate with other jihadist groups in such an endeavor.

²⁴⁴ For reasons that I do not fully understand, Nelly Lahoud makes a distinction between “jihadists,” i.e., those who employ violent methods, and “Islamists,” i.e., those who employ the gradualist approach. This would imply that the former are not Islamists, as they have been defined herein, simply because they promote the use of different methods. See Nelly Lahoud, *The Jihadis’ Path to Self-Destruction* (New York: Columbia University, 2010), chapters 3 and 4. The essence of her argument (*ibid*, p. 98) seems to be that “unlike [gradualist] Islamist groups that hold on to a profound sense of commitment to the unity of the community (*jamā‘a*), jihadism is individualistically driven, even if it claims a commitment to a distant (and unattainable) global *umma*.” If she is arguing here that the jihadists are philosophical – or even generally behavioral – individualists rather than collectivists, I honestly cannot agree.

²⁴⁵ One major example of efforts by the Brotherhood to infiltrate, establish cells, and proselytize within the Egyptian military was the establishment of the Tanzim al-Dubbat al-Ikhwan (Organization of Brotherhood Officers). In 1949, during the period when the Brotherhood was cooperating with Nasir’s Free Officers Movement, the group’s leader Major Mahmud Labib provided a secret list of the names, ranks, and divisions of those officers to Nasir, and members of the group even coordinated actions with Nasir in 1952. See further Omar Ashour, *Collusion to Crackdown: Islamist-Military Relations in Egypt* (Washington, CD and Doha, Qatar: Brookings Institution, 2015), pp. 10-11, at <https://www.brookings.edu/wp-content/uploads/2016/06/en-collusion-to-crackdown.pdf>. Later, after he had a falling out with the Brotherhood, Nasir arrested many of its leaders and cadres.

enough base of popular support, they will sometimes even create electoral parties and run their own candidates in elections. By applying this strategy, the Islamists may actually eventually be able to triumph without resorting to violence at all.²⁴⁶ This is the strategy that has mainly been employed over the decades, both at home and abroad, by groups like the Muslim Brotherhood and the Mawdudist Jama‘at-i Islami (Islamic Association) party in Pakistan.²⁴⁷

²⁴⁶ This does not mean, however, that such groups are pacifistic or are otherwise philosophically opposed to the use of violence. It is well-known, e.g., that the Brotherhood not only created various secret paramilitary squads, above all al-Nizam al-Khass (the Special Apparatus) in the 1940s, but also that members of the group carried out a series of assassinations and other acts of violence against officials and other enemies. See Mitchell, *Society of the Muslim Brothers*, pp. 30-2, 54-5, 62, 73-9, 133-4, 147-50, 205-8. After such acts of violence and insurrection caused the Egyptian regime to crack down heavily on the Brotherhood, the latter’s leaders abandoned violence and primarily embraced the gradualist strategy outlined above. However, many radicals within the organization then left to establish or join jihadist terrorist groups such as the Tanzim al-Jihad (the Jihad Organization, also known as Egyptian Islamic Jihad) and al-Jama‘a al-Islamiyya (the Islamic Group). Some hotheads remained within the Brotherhood, however, and periodically challenged its more cautious leadership group, albeit without success. However, in the wake of the 2013 ousting of Muhammad Mursi from power by the Egyptian military, elements of the Brotherhood again began advocating, organizing for, and carrying out acts of violence, both against the regime and the Copts. See, e.g., Mokhtar Awad, “The Rise of the Violent Muslim Brotherhood,” *Current Trends in Islamist Ideology* 22 (November 2017), pp. 5-40. This indicates that the adoption of the gradualist strategy for pragmatic, tactical reasons does not preclude Islamist groups from having recourse to armed *jihad*. Moreover, the gradualist and violent strategies have often been promoted simultaneously within the same organization. For example, groups like Hamas, an offshoot of the Palestinian branch of the Brotherhood, and Hizballah (the [Shi‘i] Party of Allah) in Lebanon have both pursued the gradualist strategy and engaged in *jihad*. In both cases, the “political wing” of these organizations made use of the gradualist strategy, whereas their “military wings” waged *jihad*. On the Islamic legal justifications for the renewed use of violence by the Brotherhood, see the text prepared by Abu al-‘Izz Diya’ al-Din Asad, *Fiqh al-muqawwama al-sha‘abiyya li-al-inqilab [The Jurisprudence of Popular Resistance to the Coup]*, 2015, at

<https://cchs.gwu.edu/sites/g/files/zaxdzs2371/f/downloads/The%20Jurisprudence%20of%20Popular%20Resistance%20to%20the%20Coup.pdf>. For a good analysis of this text, as well as some excerpts translated into English, see Awad, “Rise of the Violent Muslim Brotherhood,” pp. 14-34.

²⁴⁷ There is a vast literature analyzing and describing the history, agenda, and activities of these two movements. For the Brotherhood in Egypt, see Mitchell, *Society of the Muslim Brothers*; Brynjar Lia, *The Society of the Muslim Brothers in Egypt* (London: Ithaca Press, 1998); Xavier Ternisien, *Les Frères musulmans* (Paris: Fayard, 2011); Barbara H. E. Zollner, *The Muslim Brotherhood: Hasan al-Hudaybi and Ideology* (New York: Routledge, 2011), although she unfortunately mischaracterizes al-Hudaybi’s cautious pragmatism as “moderation”; Mariz Tadros, *The Muslim Brotherhood in Contemporary Egypt: Democracy Redefined or Confined?* (New York: Routledge, 2014); Annette Ranko, *Die Muslimbruderschaft: Porträt einer mächtigen Verbindung* (Hamburg: Körber-Stiftung, 2014); Hazem Kandil, *Inside the Brotherhood* (Malden, MA and Cambridge UK: Polity Press, 2015); Chérif Amir, *Histoire secrète des Frères musulmans* (Paris: Ellipses, 2015); Marie Vannetzel, *Les Frères musulmans égyptiens: Enquête sur un secret public* (Paris: Karthala, 2016); Khalil al-Anani, *Inside the Muslim Brotherhood: Religion, Identity, and Politics* (New York: Oxford University, 2016). Cf. also the useful recent contribution of Jeffrey R. Halverson, *Theology and Creed in Sunni Islam: The Muslim Brotherhood, Ash‘arism, and Political Sunnism* (New York: Palgrave Macmillan, 2010), esp. chapters 3-4. For the international spread and implantation of the Brotherhood, see Barry Rubin, ed., *The Muslim Brotherhood: The Organization and Policies of a Global Islamist Movement* (New York: Palgrave Macmillan, 2010), chapters 7-11; Alison Pargeter, *The Muslim Brotherhood: From Opposition to Power* (London: Saqi, 2013), chapter 3; and Johannes Grundmann, *Islamische Internationalisten: Strukturen und Aktivitäten der Muslimbruderschaft und der Islamischen Weltliga* (Wiesbaden: Reichert, 2005), pp. 15-74. For more detailed studies of the Brotherhood in other Arab countries, see, e.g., Marion Boulby, *The Muslim Brotherhood and the Kings of Jordan, 1945-1993* (Atlanta, GA: Scholar’s Press, 1999); and Raphaël Lefèvre, *Ashes of Hama: The Muslim Brotherhood in Syria* (New York: Oxford University, 2013). For the Jama‘at-i Islami, see Kalim Bahadur, *The Jama‘at-i Islami of Pakistan: Political Thought and Political Action* (New Delhi: Chetana, 1977); Seyyed Vali Reza Nasr, *The Vanguard of the Islamic Revolution: The Jama‘at-i Islami of Pakistan* (Berkeley and Los Angeles:

In non-Muslim countries, a similar “civilization jihad” strategy has been advocated and initiated by Muslim Brotherhood and Mawdudist activists to enable their array of vanguard and front organizations to slowly transform the existing host societies into becoming *shari‘a*-compliant (ostensibly in the name of “diversity” and the protection of minority and religious rights).²⁴⁸ In the end, unfortunately, they fantasize about transforming current “infidel” Western countries into fully Islamic societies. This has been made clear not only in several incautious statements made by Islamist leaders and spokesmen, but also in secret internal documents that have been uncovered in the course of police raids in connection with legal prosecutions initiated against Islamist entities. One revealing document, entitled “Nahwa istratijiyya ‘alamiyya li-al-siyasat al-islamiyya” (“Towards a Worldwide Strategy for Islamic Policy”), was discovered in the wake of November 2001 Swiss raids on the Bank al-Taqwa (founded by Muslim Brotherhood activists) and its Ikhwani directors’ homes. In this 14-page document, dated 1 December 1982, a multifaceted 12-point strategy was promoted whose aim was to “establish an Islamic government on Earth.”²⁴⁹ The second was a 16-page strategy document discovered during raids conducted in connection with the case of the Holy Land Foundation, a Hamas front based in the U.S. In this 22 May 1991 document authored by Muhammad Akram, which was entitled “Mudhakkara tafsiriyya al-hadaf al-istratijiyya al-‘amm li-al-jama‘at fi amrika al-shamaliyya” (“An Explanatory Memorandum On

University of California, 1994); and Maidul Islam, *Limits of Islamism: Jamaat-e-Islami in Contemporary India and Bangladesh* (Delhi: Cambridge University, 2015). See also Anne Wolf, *Political Islam in Tunisia: The History of Ennahda* (New York: Oxford University, 2017), for the al-Nahda (Renaissance) Party of Rashid al-Ghannushi, another gradualist Islamist movement. Sadly, but all too predictably, many newer academic works on the first two of these organization (or their founders) have tended to be overly solicitous and apologetic. See, e.g., Raymond William Baker, *Islam Without Fear: Egypt and the New Islamists* (Cambridge, MA: Harvard University, 2006); Christian Wolfe, *Die ägyptische Muslimbruderschaft: Von der Utopie zur Realpolitik* (Hamburg: Diplomica, 2008); Brigitte Maréchal, *The Muslim Brothers in Europe: Roots and Discourse* (Leiden: E. J. Brill, 2008); Irfan Ahmad, *Islamism and Democracy in India: The Transformation of the Jamaat-e-Islami* (Princeton, NJ: Princeton University, 2009); Muhammad Sameer Murtaza, *Die ägyptische Muslimbruderschaft: Geschichte und Ideologie* (Berlin: Rotation, 2011); Bruce K. Rutherford, *Egypt After Mubarak: Liberalism, Islam, and Democracy in the Arab World* (Princeton, NJ: Princeton University, 2013), chapter 3; Carrie Rosefsky Wickham, *The Muslim Brotherhood: Evolution of an Islamist Movement* (Princeton, NJ: Princeton University, 2015); and Gudrun Krämer, *Hasan al-Banna* (Oxford: Oneworld, 2009).

²⁴⁸ For the Brotherhood and its complex interactions with the U.S. and other Western countries, see Martyn Frampton, *The Muslim Brotherhood and the West: A History of Enmity and Engagement* (Cambridge, MA: Harvard University, 2018). For the organization’s activities and galaxy of organizations operating in Western countries, cf. Abdelrahim Ali, *L’Etat des Frères musulmans: L’Europe et la expansion de l’Organisation internationale* (Paris: Harmattan, 2017); Lorenzo Vidino, *The New Muslim Brotherhood in the West* (New York: Columbia University, 2010); Nina Nowar, *Ramadans Erben: Die Islamische Gemeinschaft in Deutschland e.V. (IGD)* (Hamburg: Diplomica, 2012), esp. chapter 4; Udo Ulfkotte, *Heiliger Krieg in Europa: Wie die radikale Muslimbruderschaft unsere Gesellschaft bedroht* (Frankfurt am Main: Eichborn, 2007); Fiammetta Venner, *OPA sur l’Islam de France: Les ambitions de l’UOIF* (Paris: Calmann-Lévy, 2005); and Lhaj Thami Breze, *Qu’est-ce que l’UOIF?* (Paris: L’Archipel, 2006).

²⁴⁹ For this document, see Sylvain Besson, *Le conquête de l’occident: Le projet secret des islamistes* (Paris: Seuil, 2005), pp. 191-205 (in French translation). It was subsequently summarized and republished in English translation in Patrick Poole, “The Muslim Brotherhood ‘Project,’” *Front Page Magazine*, 11 May 2006, available at <http://www.onthewing.org/user/Islam%20-%20Muslim%20Brotherhood%20Project.pdf>. See further Vidino, *New Muslim Brotherhood in the West*, pp. 79-80.

the General Strategic Goal of the Group in North America”), one finds the following eye-opening passage:

The process of [Muslim Brotherhood] settlement [in Western homelands] is a ‘Civilization-Jihadist Process’ with all the word means. The Ikhwan must understand that their work in America is a kind of grand Jihad in eliminating and destroying Western civilization from within and ‘sabotaging’ its miserable house by their hands and the hands of the believers so that it is eliminated and Allah’s religion is made victorious over all other religions. Without this level of understanding, we are not up to this challenge and have not prepared ourselves for Jihad yet. It is a Muslim’s destiny to perform Jihad and work wherever he is and wherever he lands until the final hour comes...²⁵⁰

Moreover, in addition to the aforementioned methods, in Western countries such groups are willing to support gullible or sympathetic non-Muslim political candidates and to engage in standard forms of political lobbying in order to promote their agendas.

None of this signifies that these Islamists have embraced genuinely democratic values, however. On the contrary, like many other types of anti-democratic extremists (e.g., Marxist-Leninists and fascists), they are all too often happy to exploit democratic freedoms in an effort to promote their own intrinsically anti-democratic agendas. In short, Islamists pursuing a gradualist “Islamization from below” strategy have often opted to participate in “infidel” democratic processes, both in Muslim and in non-Muslim countries, for purely tactical and instrumental reasons.²⁵¹ Yet this participation does not alter their Islamic supremacist goals one iota, as has been made clear by many leading Islamist ideologues. For example, according to the Brotherhood’s purportedly “moderate” spiritual guide, Yusuf al-Qaradawi,

Islam will return once more to Europe as a conqueror and as a victorious power after it was expelled twice from the continent...I assume that next time the conquest will not be achieved by the sword but by preaching [*da‘wa*] and spreading the ideology [of Islam]....The conquest of Rome and the expansion of Islam will reach all the areas where the sun shines and the moon appears [i.e., the entire world]....That will be the result of a planted seed and the beginning of the righteous

²⁵⁰ See “Explanatory Memorandum,” p. 7. This document, firstly in the original Arabic, and then in English translation, can be found on the Investigative Project’s website at www.investigativeproject.org/documents/misc/20/pdf. For good analyses of this document, cf. Frampton, *Muslim Brotherhood and the West*, pp. 407-9; and Vidino, *New Muslim Brotherhood in the West*, pp. 90-2. Frampton also notes that “Muhammad Akram” was probably Muhammad Adluni. According to former U.S. prosecutor Andrew C. McCarthy, Adluni was an “intimate associate” of Yusuf al-Qaradawi. See *The Grand Jihad: How Islam and the West Sabotage America* (New York: Encounter Books, 2011), p. 58. If so, that would indicate that he was a significant rather than a minor Brotherhood figure, and that his strategic suggestions cannot be casually dismissed, as certain Islam and Islamist apologists have sought to do.

²⁵¹ Cf. Bale, “Islamism and Totalitarianism,” in *Darkest Sides of Politics*, volume 2, pp. 223-4.

Caliphate's return....[The Islamic Caliphate] deserves to lead the *umma* to the plains of victory.²⁵²

This, then, is what “moderation” signifies for those Islamists that eschew armed *jihad* for pragmatic reasons – eventual world domination via the utilization of mainly non-violent means such as migration (*hijra*), missionary activity, conversion, infiltration, subversion, and ultimately sedition.

Yet despite sharing the same long term supremacist goals, the Islamist organizations pursuing a gradualist strategy have been repeatedly accused by jihadists of heresy or apostasy for not waging *jihad bi-al-sayf* and for participating in “infidel” activities like elections. Indeed, for many decades there have been bitter back-and-forth polemics raging between these gradualist Islamist organizations and their jihadist rivals. A few examples of the arguments from both camps should be sufficient to illustrate this phenomenon.²⁵³

Starting with jihadist criticisms of the gradualist Islamists, many years before the 9/11 attacks were launched, al-Qa'ida “singled out” its main transnational rivals, “the *da'wa* movements in the Middle East, especially the Muslim Brethren, as its primary target for polemic and attack...”²⁵⁴ For example, in his pamphlet *Al-Hisad al-murr li-al-Ikhwān al-muslimin fi sittin aman* (*The Bitter Harvest of the Muslim Brotherhood for Sixty Years*), al-Zawahiri bitterly attacked the Muslim Brotherhood. Therein he insisted that the rejection of Sayyid Qutub and his ideas by General Guide Hasan al-Hudaybi (1891-1973) and other members of the leadership group within the Brotherhood had led it seriously astray, causing it to abandon armed *jihad*, to make repeated compromises with corrupt, “heretical” Muslim regimes in Egypt and Jordan, to align itself with similar regimes against jihadist groups in Afghanistan, Algeria, Iraq, Malaysia, and Palestine, and to actively participate in democratic elections, thereby effectively favoring “infidel” institutions that enshrine the sovereignty of humans instead of authentically Islamic notions based upon the complete sovereignty of Allah.²⁵⁵ Similar complaints have since been leveled by al-Zawahiri and many other jihadist ideologues.²⁵⁶ In 2007, on the al-Ikhlās (Purity or Sincerity) jihadist forum, a primary disseminator of videos from al-Qa'ida's al-Sahab (the Cloud) media production company,

²⁵² Cited by Jonathan D. Halevi, “Al-Qaeda's Intellectual Legacy: New Radical Islamic Thinking Justifying the Genocide of Infidels,” *Jerusalem Viewpoints* #508, 1 December 2003, Jerusalem Center for Public Affairs, at <http://www.jcpa.org/jl/vp508.htm>. In fact, al-Qaradawi is anything but moderate. [add info]

²⁵³ For an excellent overview, see Lahoud, *Jihadists' Path to Self-Destruction*, pp. 150-82.

²⁵⁴ Meir Hatina, “Redeeming Sunni Islam: Al-Qa'ida's Polemic against the Muslim Brethren,” *British Journal of Middle Eastern Studies* 39:1 (April 2002), p. 102. As Marc Lynch rightly notes, “[l]ike al-Qa'ida, the MB is a global organization with a genuinely transnational scope and a universalizing mission. It competes with al-Qa'ida at the global level in a way that few other Islamist movements can, commanding Arab media attention and a political presence that more than rivals its violent competitor.” See Marc Lynch, “Islam Divided between Jihad and the Muslim Brotherhood,” in *Fault Lines in Global Jihad*, p. 162.

²⁵⁵ Ayman al-Zawahiri, *al-Hisad al-murr li-al-Ikhwān al-muslimin fi sittin aman* (no place: Matbu'at Jama'a al-Jihad, 1991). For an analysis of al-Zawahiri's arguments therein, see Hatina, “Redeeming Sunni Islam,” pp. 103-11.

²⁵⁶ See, e.g., Ayman al-Zawahiri, *Fursan tahta rayat al-nabi' [Knights under the Prophet's Banner]*, serialized in *Al-Sharq al-Awsat* in December 2001, part 9. For other examples, see Lynch, “Islam Divided between Jihad and the Muslim Brotherhood,” pp. 165-6.

‘Abd al-Majid ‘Abd al-Karim Hazin complained about the Brotherhood’s supposed “conspiracies” against Islam, including its innumerable ideological deviations and its alleged alliances with “Crusaders, Communists, Jews, [and] Freemasons.”²⁵⁷ Nor were members of al-Qa’ida the only jihadist Salafists who harshly criticized Sunni gradualist Islamists. In 2007, influential Jordanian cleric Akram Hijazi argued that Brotherhood anti-jihadist rhetoric “mirror[ed] the propaganda campaign of the Zionist-Crusaders” and asked the following exasperated question:

What remains of *hakimiyya* or *jihad* when the [Iraqi] Islamic Party [i.e., the Hizb al-Islamiyya al-‘Iraqiyya, a Brotherhood offshoot in Iraq] participates in the occupation of Muslim lands...[and when other Brotherhood branches] participate in governments not based on *shari‘a*...deny that *jihad* is an individual obligation...attack the *jihad* and the jihadist program...[and] deny the doctrine of *takfir*?²⁵⁸

Spokesmen for the Islamic State have launched similar thematic – and no less severe – attacks on the Brotherhood. For example, the IS has criticized both deposed Egyptian MB Prime Minister Mursi and Hamas leader Isma‘il Haniyya as *tawaghit* (i.e., rebels against Allah, idolators, or tyrants) for employing “deviant methodologies,” thereby alluding to their participation (however tactical and cynical) in “infidel” institutions like elections, as well as their corrupt behavior in power and their general abandonment of armed *jihad*.²⁵⁹

For their part, more cautious and pragmatic elements within the Brotherhood have been highly critical of jihadist actions for some time. In the wake of the Egyptian government’s crackdown on the Brotherhood and execution of Sayyid Qutub, Hasan al-Hudaybi and other imprisoned MB leaders wrote a book, *Du‘at la quda: Abhath fi al-‘aqida al-islamiyya wa manhaj al-da‘wa ila Allah (Preachers, Not Judges: Examining the Islamic Creed and Method of Da‘wa)*, which argued for a shift away from the use of violence and the resumption of the gradualist strategy that al-Banna himself had mainly employed. This book was not only highly critical of what al-Hudaybi, who had advocated the disbanding of the Special Apparatus decades earlier, regarded as the disastrous advocacy of and resort to armed *jihad*, but also laid down non-violent guidelines that the bulk of the Brotherhood would subsequently follow for many decades – at least until the ouster of Mursi.²⁶⁰ Moreover, leading Brotherhood figures had openly criticized al-Qa’ida for

²⁵⁷ ‘Abd al-Majid ‘Abd al-Karim Hazin, “Mu’amirat Jama‘at al-Ikhwan al-Muslimin ala al-islam wa ahlihi,” *al-Ikhlās*, 4 August 2007, at www.alekhlaas.net/forum/showthread.php?t=73101.

²⁵⁸ Cited by Lynch, “Islam Divided between Jihad and the Muslim Brotherhood,” pp. 165-6.

²⁵⁹ “From Hijrah to Khilafah,” *Dabiq* 1 (July 2014), pp. 38-9.

²⁶⁰ Hasan al-Hudaybi, *Du‘at la quda: Abhath fi al-‘aqida al-islamiyya wa manhaj al-da‘wa ila Allah* (Cairo: Dar al-Tiba‘a wa al-Nashr al-Islamiyya, 1977). See esp. Zollner, *Muslim Brotherhood*, part 3, for a detailed analysis of this text. Note that this book was above all a criticism of radicals within the Brotherhood, in particular the Qutbist current. See Lav, *Radical Islam and the Revival of Medieval Theology*, pp. 61-73. In response, the Qutbists – and various other jihadist radicals – derisively characterized the Brotherhood as proponents of Murji‘ite doctrines. See, e.g., *ibid*, pp. 73-85, on the arguments of Qutub acolyte Tariq ‘Abd al-Halim. The key doctrine of the classical Murji‘ites (*Murji‘un*) in the medieval era, which was radically opposed to that of the sectarian, *takfiri* view of the Kharijites (*Khawarij*), was that only Allah, as opposed to other Muslims, could judge whether someone was a true Muslim, and that this determination would be postponed until later, on the Day of Judgment. They also argued that

launching the 9/11 attacks, repeatedly condemned brutal acts of “terrorism” (especially actions targeting Muslims in Muslim countries) by jihadist groups, argued that prioritizing the waging of “offensive jihad” would lead to failure and repression, and strongly opposed the IS’ attempt to re-establish the Caliphate.²⁶¹ Yet this by no means signifies that the gradualist groups are inherently “peaceful,” genuinely “democratic,” or “moderate” with respect to their ultimate goals, which remain the Islamization of the entire world.

What these polemical disagreements reveal is that there have long been significant disagreements amongst Sunni Islamists over the best *means and methods* to adopt in order to achieve their underlying Islamic supremacist agendas. The most important division is between Islamist organizations that have adopted the gradualist “Islamization from below” strategy, and the jihadist groups that are prosecuting the violent “Islamization from above” strategy. It should also be emphasized, however, that – as within other extremist milieus – there are some very serious schisms within the global jihadist milieu, and also internal factional divisions and disputes within particular jihadist organizations.

At this juncture, then, it may be useful to undertake a short digression to clarify this point further. It should already be apparent that the Islamist milieu is internally divided and subdivided in manifold ways.²⁶² One obvious major division is between Sunni Islamists and Shi‘i Islamists. The latter have tended to adopt a more inclusive, non-denominational perspective towards their Sunni “brothers,” and have often endeavored to collaborate with Sunni Islamists in order to forge a united Islamist front against their “infidel” enemies.²⁶³ In contrast, Sunni Islamists tend to view

what made one a Muslim was saying the *shahada* and maintaining fealty to core Muslim beliefs, not one’s actual actions, even if they were “sinful.” See further *ibid*, chapter 1. The Sunni mainstream rejected the “extreme” positions of both the “overly” tolerant Murji‘ites and the highly intolerant Kharijites. For more on the debate between Islamist gradualists and jihadists in this context, see Joas Wagemakers, “‘Seceders’ or ‘Postponers’?: An Analysis of the ‘Khawarij’ and ‘Murji’a’ Labels in Polemical Debates between Quietists and Jihadi Salafis,” in Deol and Kazmi, eds., *Contextualising Jihadi Thought*, pp. 143-65.

²⁶¹ Cf., e.g., the examples cited by Lynch, “Islam Divided between Jihad and the Muslim Brotherhood,” p. 165; and various anti-IS statements made by Yusuf al-Qaradawi: “Qaradawi Says ‘Jihadist Caliphate’ Violates Sharia,” *Al-Arabiyya*, 5 July 2014, at <http://english.alarabiya.net/en/News/middle-east/2014/07/05/Qaradawi-says-jihadist-caliphate-violates-sharia.html>, although the article does not specify what al-Qaradawi’s theological or legal arguments actually are – elsewhere, however, he is reported to have said that it is “religiously invalid” and “does not serve the Islamic project”, cited in “Al-Qaradawi Considers ‘Baghdadi Succession’ in Iraq as Religiously Invalid,” *Shafaq News* [Iraq], 6 July 2014, at <http://english.shafaq.com/index.php/politics/10411-al-qaradawi-considers-baghdadi-succession-in-iraq-as-religiously-invalid>; and Jonathan Miller, “Al Qaeda Spiritual Leader: Islamic State are ‘Deviants,’” *Channel 4 News* [UK], 1 July 2014, at <http://www.channel4.com/news/sheikh-abu-muhammad-al-maqdis-salafist-islam-islamic-state>.

²⁶² The only volume devoted exclusively to the fault lines within the Islamist milieu is that of Moghadam and Fishman, eds., *Fault Lines in the Global Jihad*. Much more information can be gleaned about these internal divisions in primary source materials, especially the testimonies of insiders in memoirs and at trials, and detailed case studies of particular jihadist organizations.

²⁶³ To cite some illustrative examples, Iranian clerics met with al-Qa‘ida leaders in the Sudan in the mid-1990s to discuss the formation of a common Islamist front, some al-Qa‘ida operatives received training from Hizballah fighters during that period, both Iran and Hizballah have long collaborated with Hamas and other Sunni Palestinian rejectionist groups, and the Iranian regime provided a safe haven for key al-Qa‘ida figures after the American invasion of Afghanistan. Cf., e.g., U.S. Government, National Commission on Terrorist Attacks on the United States, *The 9/11 Commission Report: Final Report* (Washington, DC: GPO, 2004), pp. 60-1, 240-1; Associated

all Shi‘a as “Islamically incorrect,” if not as “heretical.” Indeed, the most sectarian Sunni jihadists pejoratively label the Shi‘a as *rawafid* (“rejectors”), and some even go so far as to prioritize targeting them with violence because, by “falsely” claiming to be Muslims, they are viewed as more dangerous than non-Muslim “infidels.”²⁶⁴ So it was that the al-Qa‘ida-affiliated jihadist leader in Iraq, Abu Mus‘ab al-Zarqawi, devoted much of his efforts – like no less sectarian South Asian Sunnis in groups like the Sipah-i Sahaba Pakistan (SSP: Soldiers of the Companions in Pakistan) and Lashkar-i Jhangvi (Army of Jhangvi) – to carrying out mass casualty attacks against Shi‘i civilians rather than non-Muslim enemies. This was viewed as so counterproductive by Bin Ladin and al-Zawahiri that the latter sent a highly critical letter to al-Zarqawi urging him to stop targeting other Muslims, however misguided they may be, advice that al-Zarqawi largely ignored.²⁶⁵ Since that period, the extreme anti-Shi‘a violence carried out by Sunni jihadists in Iraq and Syria, including those linked to the Islamic State, soon led to the creation of new anti-Sunni Shi‘i paramilitary groups and “death squads,” which have responded in kind by deliberately targeting and perpetrating atrocities against Sunni civilians. This, together with the growing geopolitical rivalry between Saudi Arabia and Iran, has fortunately acted to inhibit operational cooperation between Sunni and Shi‘i Islamists.

However, as has been noted, there are also bitter divisions and rivalries between Sunni Islamists. In addition to the aforementioned conflicts over the best *means* to employ between “gradualist” and jihadist Islamists, there are also many other conflicts that have erupted, both between and within different Sunni jihadist organizations.²⁶⁶ These internal conflicts are attributable to a number of intersecting factors, including

- bitter personality conflicts between narcissistic, egomaniacal jihadist leaders;
- ideological divisions between jihadist Salafists, Wahhabis, and Deobandis, which may seem trivial to outsiders but can sometimes be matters of life-or-death between extremists;

Press, “CIA Docs from Osama bin Laden Raid Suggest Iran-al Qaeda Link,” CBS News, 2 November 2017, at <https://www.cbsnews.com/news/iran-osama-bin-laden-al-qaeda-before-september-11-terror-attacks-cia-documents/>; Adrien Levy and Cathy Scott-Clark, “Al Qaeda has Rebuilt Itself – with Iran’s Help,” *The Atlantic*, 11 November 2017, at <https://www.theatlantic.com/international/archive/2017/11/al-qaeda-iran-cia/545576/>; and Mary Kay Linge, “Iran Official: We Protected al-Qaeda Terrorists before 9/11,” *New York Post*, 9 June 2018, at <https://nypost.com/2018/06/09/iran-admits-it-protected-al-qaeda-terrorists-before-9-11/>.

²⁶⁴ See, e.g., Bernard Haykal, “Al-Qa‘ida and Shiism,” in Moghadam and Fishman, eds., *Fault Lines of Global Jihad*, chapter 8. The term *rawafid* was originally applied to those Muslims who supported ‘Ali as the political successor of Muhammad and thus did not accept the legitimacy of the first three “rightly guided” Caliphs, Abu Bakr, ‘Umar, and ‘Uthman, but it was later used in a more general sense of rejectors of the “true” Islam.

²⁶⁵ Ibid, pp. 195-8.

²⁶⁶ See esp. the fine recent study by Tore Refslund Hamming, *Polemical and Fratricidal Jihadists: A Historical Examination of Debates, Contestation and Infighting within the Sunni Jihadist Movement* (London: International Centre for the Study of Radicalisation, King’s College, 2019), available at <https://icsr.info/2019/08/13/polemical-and-fratricidal-jihadists-a-historical-examination-of-debates-contestation-and-infighting-within-the-sunni-jihadi-movement/>.

- disputes over sectarianism, e.g., how justified it is for jihadists to target other Muslims who are regarded as “heretical” or “Islamically-incorrect” (such as the Shi‘a, the Alawis, the Ahmadis, etc.);²⁶⁷
- disputes over organization, e.g., whether to rely on centralized hierarchical structures, loose horizontal networks, entirely autonomous cells, or “lone wolves”;
- disputes over strategy, e.g., whether to keep focusing on targeting the “near enemy,” to prioritize targeting the “far enemy” (like the 9/11 attacks), or to do both simultaneously;²⁶⁸
- disputes over tactics, e.g., whether to rely heavily on martyrdom operations, i.e., suicide attacks;
- disputes over weaponry, e.g., whether to continue relying on tried and true conventional weapons or invest time and resources in acquiring, developing, and deploying CBRN weapons;
- ethnic conflicts between jihadists, e.g., between Arabs and non-Arabs (especially black Africans), or Pashtuns and non-Pashtuns, within particular jihadist groups;²⁶⁹
- nationality conflicts between jihadists, e.g., between Saudis, Egyptians, and Algerians within particular jihadist groups;
- conflicts between rival jihadist groups for hegemony, e.g., between the al-Qa‘ida and Islamic State networks for leadership of the global *jihad* since their falling out in Syria;²⁷⁰ and

²⁶⁷ For the divisions between less sectarian jihadist groups, and the extreme *takfiri* jihadist groups that have no qualms about carrying out the mass murder of other Muslims, see V. G. Julie Rajan, *Al Qaeda’s Global Crisis: The Islamic State, takfir, and the Genocide of Muslims* (London and New York: Routledge, 2015). Other authors have also employed the term “genocide” when analyzing the behavior of jihadist groups, albeit more generally and in the context of the use of violence against non-Muslims rather than Muslim minorities, such as Richard L. Rubenstein, *Jihad and Genocide* (Lanham, MD: Rowman & Littlefield, 2010). Although religious extermination is also included in, say, the United Nations’ definition of genocide, a better term for what the jihadists are doing is “religiocide,” since the word “genocide” stems from the Greek words γένος (race, stock, kin), coupled with *-cide* (act of killing). Technically, then, the term “genocide” should be restricted to deliberate attempts to eradicate entire ethno-cultural groups.

²⁶⁸ See, e.g., Brynjar Lia, “Jihadis Divided between Strategists and Doctrinarians,” in Moghadam and Fishman, eds., *Fault Lines of Global Jihad*, chapter 3.

²⁶⁹ See, e.g., Anne Stenersen, “Arab and Non-Arab Jihadis,” in *ibid*, chapter 5.

²⁷⁰ See, e.g., Fawaz A. Gerges, *ISIS: A History* (Princeton, NJ: Princeton University, 2016), chapter 8; and Aaron Y. Zelin, “The War between ISIS and al-Qaeda for Supremacy of the Global Jihadist Movement,” Washington Institute for Near East Policy, *Research Notes* 20 (June 2014), available at

https://www.washingtoninstitute.org/uploads/Documents/pubs/ResearchNote_20_Zelin.pdf. For the long-germinating and increasingly bitter polemics and conflicts between al-Qa‘ida, the Jabhat al-Nusra li-Ahl al-Sham (Support Front for the Syrian People), and the Islamic State, which eventually led to the break between the latter and those two other organizations, cf. Cole Bunzel, *From Paper State to Caliphate: The Ideology of the Islamic State* (Washington, DC: Brookings Institution/Center for Middle East Policy, [March] 2015), pp. 20-2, 25-35; William McCants, *The ISIS Apocalypse: The History, Strategy, and Doomsday Vision of the Islamic State* (New York: St. Martin’s, 2015), pp. 33-45, 89-98, 126-31; and Charles R. Lister, *The Syrian Jihad: Al Qaeda, the Islamic State and the Evolution of an Insurgency* (New York: Oxford University, 2015), parts 3 and 4.

- “turf fights” over territorial control between local jihadist groups and global interlopers, e.g., between Hamas and rival jihadist groups in Gaza.²⁷¹

In short, it would be a terrible blunder to view the Islamist extremist milieu as in any way monolithic, just as it would be to characterize the communist, fascist, anarchist, and eco-radical extremist milieus in that way. On the contrary, recognizing where the manifold fault lines are within the Islamist milieu in general, and between and within jihadist groups in particular, would better enable counterterrorist operatives to parry, manipulate, confuse, and destabilize the diverse organizational components within that milieu. In some cases, for example, it might be preferable to increase schismatic tendencies or precipitate purges within such organizations in order to further fragment and ultimately dissolve them, whereas in other contexts it might be better to maintain them in being but keep them internally fractious in order to disrupt their ongoing ability to function smoothly and harmoniously.²⁷²

Returning to the main topic, here is a revealing quote from the Ayatallah Khomeini concerning the waging of *jihad* and its purposes that will complete this section on the Islamic supremacist goals of the Islamists:

Islam makes it incumbent on all adult males, provided they are not disabled or incapacitated, to prepare themselves for the conquest of [other] countries so that the writ of Islam is obeyed in every country in the world....But those who study Islamic *jihad* will understand why Islam wants to conquer the whole world....Those who know nothing of Islam pretend that Islam counsels against war. Those [who say this] are witless. Islam says: ‘Kill all the unbelievers just as they would kill you all’! Does this mean that Muslims should sit back until they are devoured by [the unbelievers]? Islam says: ‘Kill them [the non-Muslims], put them to the sword and scatter [their armies].’ Does this mean sitting back until [non-Muslims] overcome us? Islam says: ‘Kill in the service of Allah those who may want to kill you’! Does this mean that we should surrender [to the enemy]? Islam says: ‘Whatever good there is exists thanks to the sword and in the shadow of the sword! People cannot be made obedient except with the sword! The sword is the key to Paradise, which can be opened only for the mujahidin! There are hundreds of other [Qur’anic] psalms and hadiths [reported sayings of the Prophet] urging Muslims to value war and to fight. Does all this mean that Islam is a religion that prevents men from waging war? I spit upon those foolish souls who make such a claim.’²⁷³

²⁷¹ See, e.g., Paz, “Jihadists and Nationalist Islamists,” in Moghadam and Fishman, eds. *Fault Lines in Global Jihad*, chapter 9.

²⁷² Cf. Brian Fishman and Assaf Moghadam, “Conclusion: Jihadi Fault Lines and Counterterrorism Policy,” in *ibid.*, pp. 247-53.

²⁷³ Cited by Amir Taheri, *Holy Terror: Inside the World of Islamic Terrorism* (Bethesda, MD: Adler & Adler, 1987), pp. 241-3. Khomeini’s quoted passages therein are from the *Qur’an*. I have not found the original source for this statement, but there are several other Khomeini quotes that express the same goal of Islamic world domination. See, e.g., the triumphant 11 February 1979 statement by Khomeini cited by Dilip Hiro, *The Longest War: The Iran-*

Since this and other similar statements expressed the beliefs of the instigator and most influential figure behind the Iranian Revolution and the subsequent creation of the Islamic Republic of Iran, they can hardly be dismissed as irrelevant or trivial in this context. Moreover, they clearly reflect the underlying Islamic supremacist goals of many other leading Shi'i Islamist thinkers.²⁷⁴ Such expansionist goals are clearly not confined, then, exclusively to Sunni Islamists.

In any case, the key point that all of the statements quoted above illustrate is that, far from accepting modern Western conceptions of international law, which presuppose “the existence of a family of nations composed of a community of states enjoying full sovereign rights and equality of status,” the leaders of today’s globally-oriented Islamist and jihadist groups instead adhere to what they rightly consider to be authentically Islamic conceptions.²⁷⁵ These conceptions, which were first laid down by Islamic scholars in the era of Muhammad’s caliphal successors in order to manage the relations between the rapidly expanding Islamic community and non-Muslims, do not involve the recognition of other sovereign states, since “the ultimate goal of Islam was the subordination of the whole world to one [universal] system of law and religion.”²⁷⁶ This “classical” medieval notion has been fully accepted rather than abandoned by today’s jihadists, who regard modern nation-states as artificial creations that the “enemies of Islam” intentionally designed to prevent the restoration of a unified Muslim *umma*.

To sum up this section, Islamism is an extremist, right-wing, theocratic, totalitarian religio-political ideology whose ultimate goal is Islamic world domination. This is the case for both Sunni and Shi'i Islamists, and for those who employ a gradualist Islamization strategy as well as for those who advocate and wage military *jihad*. Indeed, in order to accomplish their grandiose, utopian

Iraq Military Conflict (New York: Routledge, 1991), pp. 32-3: “We will export our revolution to the four corners of the world because our revolution is Islamic; and the struggle will continue until the cry ‘There’s no God but Allah, and Muhammad is the Messenger of Allah’ prevails throughout the world.” See also the Khomeini quote in Asghar Schirazi, *The Constitution of Iran: Politics and the State in the Islamic Republic* (London and New York: I. B. Tauris, 1997), p. 69, citing the 25 March 1988 issue of the daily newspaper *Risalat [The Prophecy]*: “Establishing the Islamic state world-wide belongs to the great goals of the [Iranian] revolution.”

²⁷⁴ See, e.g., the comments of the Ayatollah Khamenei’s representative in Fars Province during a sermon in Shiraz: “With our hopes high, we are fighting and awaiting the day when the banner of ‘There is no god but Allah and Muhammad is His Messenger’ will fly all over planet Earth and the one global and just rule of the Mahdi will be established. Who says that the time for these things has passed?...Until we turn the White House into a Hussainiya [Shi'i Islamic center], we will all continue to shout: ‘Death to America!’” See “Ayatollah Lotfollah Dezhkham, Khamenei’s Representative in Fars Province: We Will Shout ‘Death to America’ until We Turn the White House into a Shiite Islamic Center,” MEMRI website, 25 January 2019, available at <https://www.memri.org/tv/iran-ayatollah-lotfollah-dezhkham-fars-province-sermon-death-america-until-white-house-islamic-center/transcript> .

²⁷⁵ For the general Muslim rejection of Western and other non-Islamic international laws, norms, and institutions, see Majid Khadduri, *War and Peace in the Law of Islam* (Baltimore: Johns Hopkins University, 1955), pp. 44–6. Furthermore, in theory, Muslims also reject standard Western conceptions of international relations, including notions such as the balance of power and *Realpolitik*. That this is also the Islamist and jihadist view is apparent. See Mary Habeck, *Knowing the Enemy: Jihadist Ideology and the War on Terror* (New Haven: Yale University, 2006), pp. 74–5. This is confirmed by the bitter comments of Bin Ladin himself, who stated that “no sane Muslim should take his grievances to the United Nations” or any other international bodies, which are “infidel, man-made organizations.” See his December 1998 interview for al-Jazira, cited in Lawrence, ed., *Messages to the World*, pp. 67–8.

²⁷⁶ Khadduri, *War and Peace*, p. 45.

goals, those jihadists must decisively defeat, subjugate, or exterminate their enemies at home and abroad, above all “infidel” great powers like the American “Great Satan.” Given this uncompromisingly intolerant and bellicose worldview, coupled with such extravagant and imperialistic aims, there are unlikely to be significant ideological limits on the range of military methods and weapons that jihadists might be willing to adopt. This will become clearer below, in the section on jihadist attitudes toward so-called WMDs.

Apocalyptic Millenarian Aspects of Islam and Islamism

In the section on general factors in bioterrorism threat analysis in the introductory chapter of this report, it was noted that, along with global jihadist networks, various types of non-state groups with apocalyptic millenarian ideologies were amongst the most likely to be *motivated* to acquire, weaponize, and deploy biological agents in mass casualty attacks. This raises the question of whether, capabilities permitting, jihadist organizations with such apocalyptic worldviews might present the most dangerous potential bioterrorist threats to the U.S. and its allies. In order to answer this question, it is necessary to define apocalyptic millenarianism, identify different categories of apocalyptic believers, and examine basic apocalyptic conceptions associated with Sunni and Shi‘i Islam. In this way, it may be possible to delineate which types of global jihadist organizations would be most likely to resort to biological attacks upon their Muslim and “infidel” enemies.

It is perhaps best to begin by defining apocalyptic millenarianism, which necessitates a brief discussion of its two linguistic components. The English term “millenarianism” (also sometimes referred to as “millennialism”) derives etymologically from the term “millennium,” i.e., a word that itself stems from the Latin phrase for a period of one thousand years. Although this etymological association was originally formed on the basis of the thousand-year “Kingdom of God” on earth described in the New Testament Book of Revelation, the term “millenarianism” has since been broadened to such a degree that it now refers not only to this and other Christian eschatological visions, but also to a vast array of other religious and non-religious beliefs about the end of the world as we know it. Essentially, the noun “millenarianism” and its adjectival form “millenarian” nowadays are used for all doctrines that not only predict but also look forward to a fundamental transformation of the existing, unacceptably corrupt, unjust, “sinful,” and “evil” world order, followed by a complete transition to a “glorious” and paradisiacal new world order free of all of the problems and conflicts that afflict the current world. Moreover, whatever fate may be thought to befall the bulk of humanity, this transformative process will supposedly result in the earthly “salvation” or “redemption” of those who are regarded as especially “righteous” or deserving.²⁷⁷ As Catherine Wessinger has rightly noted, such millenarian worldviews are likely to

²⁷⁷ Cf., e.g., Catherine Wessinger, “Introduction: The Interacting Dynamics of Millennial Beliefs, Persecution, and Violence,” in idem, ed., *Millennialism, Persecution, and Violence: Historical Cases* (Syracuse, NY: Syracuse University, 2000), pp. 4-11; Richard Landes, “Millenarianism and the Dynamics of Apocalyptic Time,” in Kenneth G. C. Newport and Crawford Gribbens, eds., *Expecting the End: Millennialism in Social and Historical Context* (Waco, TX: Baylor University, 2006), esp. pp. 2-16.

“persist indefinitely into the future, because millennial beliefs address the perennial human hope that the limitations of the human condition – conflicted relations, suffering, illness, death – will be overcome once and for all.”²⁷⁸

For certain millenarian religious groups, this process of earthly salvation for the self-styled “elect” is also viewed as a precursor to the eventual divine judgment of their individual “souls” at the “End of Days,” which will determine whether they enter a heavenly paradise or a hellish realm for all of eternity. Indeed, one must distinguish analytically between different types and levels of eschatological, or “end times,” notions of salvation:²⁷⁹

- individual eschatology – the fate of individuals and/or their “souls” on the so-called “Day of Judgment”;
- collective eschatology – the fate of members of particular religious or political communities, above all those regarded by their members as “chosen” or “elected,” in the “end times”;
- terrestrial eschatology – the fate of the whole world in those “last days”; and
- cosmic eschatology – the fate of the entire cosmos in the “end times.”

These diverse levels of eschatological conceptions are generally combined in complex ways by the members of millenarian religious groups, although the types that are of primary interest in this context – an assessment of the potential for mass casualty violence using biological agents – are collective eschatology and terrestrial eschatology. For secular millenarians, of course, supernatural forces are not involved in any way in their “end times” scenarios, and there is no belief in a true “afterlife,” i.e., another phase of existence in a divine realm that follows death on the terrestrial plane.

The English term “apocalypse,” as well as most of its western European counterparts, derives from the classical Greek term *apokálypsis*, which means the “unveiling” of that which is hidden. As time passed, this word was increasingly applied in the context of hard-to-decipher clues found in various prophetic texts, especially those that foretold the coming destruction of the current “evil” world order. Hence the term “apocalypticism” refers to “a pattern of thought or a world view dominated by the kinds of ideas and motifs found in apocalypses”, i.e., texts containing these kinds of revelations or prophecies.²⁸⁰ Originally, such texts constituted “a genre of revelatory literature with a narrative framework, in which a revelation is mediated by an otherworldly being to a human recipient, disclosing a transcendent reality which is both temporal, insofar as it

²⁷⁸ Wessinger, “Introduction,” in idem, ed., *Millennialism, Persecution, and Violence*, p. 6. For that very reason, many scholars have emphasized that crisis conditions are most likely to engender millenarian fantasies and movements. See, e.g., Michael Barkun, *Disaster and the Millennium* (Syracuse: Syracuse University, 1986 [1974]).

²⁷⁹ The English term “eschatology” derives from the ancient Greek word *eskhatos* (“last”), and refers to ideas about the so-called “end times” or “last days,” i.e., the final events in history or ultimate destiny of humans, and more specifically to the end of the world as we know it. This could refer to the end of the present era rather than the actual destruction of the world.

²⁸⁰ Mitchell G. Reddish, “Introduction,” in idem, ed., *Apocalyptic Literature: A Reader* (Peabody, MA: Hendrickson Publishers, 1995 [1990]), p. 23.

envisages eschatological salvation, and spatial insofar as it involves another, supernatural world.”²⁸¹ Although in antiquity it was commonly believed that such a cataclysmic destructive process was to be carried out exclusively by, or at least in conjunction with, supernatural entities, similar themes later appeared in secularized versions which envisioned that “righteous” humans with special destinies, insights, or abilities would alone act to destroy that unjust, reprehensible world and its “evil” masters.²⁸²

The term “apocalyptic millenarianism” simply combines those two concepts. In other words, it refers to diverse beliefs which insist that the predicted forthcoming transition from the current “evil” world to a “righteous” new world free of problems will be a cataclysmic or catastrophic one, i.e., one that will be “apocalyptic” in its levels of violence and destructiveness rather than peaceful, and sudden and disruptive rather than gradual. According to Norman Cohn, a leading scholar of medieval millenarian movements, apocalyptic millenarianism has several characteristics: the destruction of the existing world order, and the subsequent transition to a paradise on earth (if only for the “elect”) is envisioned as 1) collective, 2) terrestrial, 3) imminent, 4) total, and – in its religious variants – 5) “miraculous,” or brought on by a recognized supernatural agency.²⁸³ To put it another way, there are four principal beliefs associated with apocalyptic millenarianism:²⁸⁴

- that the thoroughly corrupt, “evil” world order that now exists will soon be destroyed;
- that most people will die or suffer horrendously in the course of this cataclysmic process;
- that a select group of very special people – variously known as the “elect,” the “chosen people,” those who follow the “true path,” those who are “pure at heart,” those who have achieved elevated levels of spiritual awareness, those who are especially “oppressed,” those who obey a messianic savior who supposedly possesses divine inspiration or the embodies the correct ideology, etc. – will survive this cataclysm, and may even have a special role to play in it; and

²⁸¹ John J. Collins, ed., *Apocalypse: The Morphology of a Genre* (Atlanta, GA: Society of Biblical Literature, 1979), p. 9. This was a special edition (#14) of the journal *Semeia*.

²⁸² Cf., e.g., Robert Ellwood, “Nazism as a Millennialist Movement,” in Wessinger, ed., *Millennialism, Persecution, and Violence*, pp. 241-60; Richard C. Salter, “Time, Authority, and Ethics in the Khmer Rouge: Elements of the Millennial Vision in Year Zero,” in *ibid*, pp. 281-98; Philip Lamy, “Secularizing the Millennium: Survivalists, Militias, and the New World Order,” in Thomas Robbins and Susan J. Palmer, eds., *Millennium, Messiahs, and Mayhem: Contemporary Apocalyptic Movements* (New York: Routledge, 1997), pp. 93-118; Martha F. Lee, “Environmental Apocalypse: The Millennial Ideology of Earth First!,” in *ibid*, pp. 119-37; and Ted Daniels, ed., *A Doomsday Reader: Prophets, Predictors, and Hucksters of Salvation* (New York: New York University, 1999), Part 1 on “Enlightenment and Secular Millenarianism.” For an interesting recent historical overview of diverse views on the afterlife, see John Casey, *After Lives: A Guide to Heaven, Hell, and Purgatory* (New York: Oxford University, 2009).

²⁸³ Norman Cohn, *The Pursuit of the Millennium: Revolutionary Millenarians and Mystical Anarchists of the Middle Ages* (New York: Oxford University, 1970), p. 15. A virtually identical scheme was previously developed by Yonina Talmon, “Millennial Movements,” *Archives Européennes de Sociologie* 7 (1966), pp. 159-200 (and conveniently summarized on p. 166), but minus the emphasis on supernatural agency.

²⁸⁴ Cf. Ted Daniels, “Introduction,” in *idem*, ed., *Doomsday Reader*, pp. 1-3.

- that, after the destruction of the corrupt existing world order, an “earthly paradise” will be created by or for those very special people, which will be free of want, hardship, suffering, strife, oppression, immorality, and everything else that is regarded as “evil.”

The adoption of apocalyptic millenarian worldviews is thus one important factor, amongst many other possible factors, that may predispose particular religious, political, or “psychotherapy” groups to resort to violence against outsiders. Indeed, as I have argued elsewhere, the espousal of such doctrines may be one of the most important ideological indicators of a potential bioterrorism threat.²⁸⁵

Yet not all forms of apocalypticism are equally likely to increase the likelihood of violence. There are a number of factors that bear upon this issue, which effectively means that the potential security threats posed by apocalypticism, i.e., beliefs in catastrophic or cataclysmic “end times” scenarios, are likely to be much less acute or widespread than is often supposed. First, the majority of the people who adhere to religions with apocalyptic doctrines do not dwell inordinately on those particular aspects of their religion. For example, most Christians do not seem to devote too much time and energy thinking about the apocalyptic scenarios found in the Book of Revelation, though if pressed they generally profess to believe that the scenarios described therein will unfold in some fashion during the “end times.” In the meantime, however, they are mainly focused on their own mundane career and family responsibilities, typically spend only a few hours in church every Sunday, and, if and when they consciously think about their religion, are probably worried more about how to apply the tenets and values reportedly espoused by and embodied in the behavior of Jesus, as they interpret them, in their daily lives. Similarly selective, partial, and wide-ranging approaches to applying religious beliefs, and the tangible but divergent effects thereby exerted by those beliefs on the behavior of individual believers, are surely characteristic of most Jews, Muslims, and Hindus as well.

In this context, the historian of American apocalypticism Paul Boyer has made some trenchant and highly relevant observations. He rightly notes that most Christians, past and present, “have believed in God’s providential oversight of history and in a final eschatological consummation.”²⁸⁶ This is true, almost by definition, for those who take their religious beliefs at all seriously. On the other hand, he draws useful distinctions between different levels of Christian concern for apocalyptic themes by arguing that the world of prophecy belief can be visualized as

a series of concentric circles, at the center of which is a core group of devotees who spend much time thinking about the Bible’s apocalyptic passages and trying to organize them into a coherent scenario....Next in this concentric series one finds those believers who may be hazy about the details of biblical eschatology, but who nevertheless believe that the Bible provides clues to future events...This group,

²⁸⁵ See Jeffrey M. Bale, “Apocalyptic Millenarian Groups: Assessing the Threat of Biological Terrorism,” in *Darkest Sides of Politics*, volume 2, esp. pp. 113-17.

²⁸⁶ Paul Boyer, *When Time Shall Be No More: Prophecy Belief in Modern American Culture* (Cambridge, MA and London: Harvard University, 1991), p. ix.

comprising many millions of Americans, is susceptible to popularizers who confidently weave Biblical passages into highly imaginative end-times scenarios, or who promulgate particular schemes of prophetic interpretation....In the outer circle are those superficially secular individuals who exhibit little overt prophecy interest, but whose worldview is nevertheless shaped to some degree by residual or latent concepts of eschatology, the theology of last things. One may hypothesize that in times of crisis, or when confronted by particularly troubling world events, members of this group may listen with more than passing attentiveness to those who offer the Bible as a guide to events, or be particularly receptive to ostensibly secular works that are nevertheless apocalyptic in structure and rhetoric.²⁸⁷

As noted above, the same sorts of distinctions are often observable amongst the believers in other popular mainstream faiths with explicit eschatological narratives. On the other hand, in the case of certain small, sectarian, and/or cult-like groups, every single member may be situated inside the first of the three concentric circles delineated by Boyer.

Second, even those religious believers who are particularly obsessed with or concerned about apocalyptic scenarios may interpret this process quite differently. For this very reason, Catherine Wessinger and other scholars have sought to distinguish between what they refer to as “progressive millenarianism,” on the one hand, and “catastrophic millenarianism,” on the other. “Progressive millenarianism,” a relatively recent, post-Enlightenment phenomenon, is the “optimistic belief that the collective earthly salvation will be accomplished by humans working in harmony with a divine (or superhuman) plan”, and thus that the longed-for and anticipated just new world will be established gradually and non-catastrophically, i.e., without the outbreak of widespread destruction and violence and the resulting death of millions.²⁸⁸ “Catastrophic millenarianism” is the much older, far more widespread, and indeed “historically predominant” form of millenarianism, one which foresees the imminent catastrophic destruction of the existing world, marked by widespread suffering and death, followed by the creation of an “earthly paradise” for “the elect.”²⁸⁹ Hence “catastrophic millenarianism” is essentially identical to “apocalyptic millenarianism,” and is obviously the type of millenarianism that is of concern herein.

However, even fervent apocalyptic millenarians can view their own roles in this coming process, if any, in very different ways. Indeed, one must differentiate between two distinct forms of apocalyptic millenarianism: *passive* apocalyptic millenarianism and *active* apocalyptic

²⁸⁷ Ibid, pp. 2-3.

²⁸⁸ Catherine Wessinger, “Millennialism With and Without the Mayhem,” in Robbins and Palmer, eds., *Millennium, Messiahs, and Mayhem*, pp. 50-1. For more on the historical background of “progressive millenarianism,” compare also Ernest Lee Tuveson, *Millennium and Utopia: A Study of the Background of the Idea of Progress* (Berkeley: University of California, 1949); and Theodore Olson, *Millennialism, Utopianism, and Progress* (Toronto: University of Toronto, 1982).

²⁸⁹ Wessinger, “Millennialism With and Without the Mayhem,” pp. 49-50.

millenarianism.²⁹⁰ In the former case, the holders of apocalyptic beliefs do not believe that they themselves must carry out certain actions, perform prescribed duties, or fulfill particular responsibilities, since they are convinced that prophesied apocalyptic scenarios are not only divinely predestined, but also that it is the responsibility of supernatural entities operating in both the cosmic and terrestrial spheres to take actions, first to initiate those processes and then to bring them to fruition. For all practical purposes, then, they are essentially little more than passive spectators in an essentially cosmic struggle between the forces of “good” and “evil,” even though that struggle will eventually have catastrophic effects on the terrestrial sphere, at least for most people.

Yet even those who are active apocalypticists, i.e., those who believe that they must take certain concrete actions in advance to assure their own salvation, perhaps in order to become members of the aforementioned small select group of “very special people” who are destined to be spared from the coming terrestrial tribulations, do not necessarily believe that they must personally initiate violent actions against designated “evil-doers” on Earth. Here one can identify *a spectrum ranging from peaceful to violent forms of active apocalyptic behavior*. On the peaceful end of the spectrum, some may simply believe that behaving in a more consistently moralistic or puritanical fashion on the basis of strict interpretations of their religious principles is sufficient to guarantee their salvation, a form of active personal behavior that does not require them to commit any acts of violence and may even involve the adoption of a pacifistic attitude. Others may feel that they must physically isolate and thereby protect themselves from the “corrupt” outside world by forming their own small, self-contained communities, instead of taking action to try and forcibly change that “evil” external world. Nearer the middle of this spectrum of active apocalypticism, though leaning more towards the pole of violence, many believers may feel that they have a right to, or even that they must actually make preparations to, defend themselves against possible attacks by these external “forces of darkness.” On the furthest, most violent pole of the activist apocalyptic spectrum, certain believers may feel it necessary to *commit corporeal suicide* in order to escape from earthly corruption by “freeing” their souls or inner spirits or making some sort of “transition” to a higher plane of existence. Still others may at some point become convinced that they must *employ extreme violence against outsiders* in order to help “purify” the Earth of evil or otherwise play a vital role in laying the groundwork for the unfolding of eschatological scenarios. In the latter case, obviously, there would be a much higher likelihood that such apocalyptic believers will actually be motivated or driven to carry out acts of brutal violence, since their main goal is to eliminate “evil-doers,” whether they are non-believers, “apostates,” or simply less committed believers, who are thought to embody sinfulness and corruption and/or are believed to be the human agents of demonic supernatural forces.

²⁹⁰ See further Landes, “Millenarianism and the Dynamics of Apocalyptic Time,” pp. 7-9, 14-16, who likewise emphasizes the distinction between passive and active millenarianism, and specifically relates that to the question of just how imminent the anticipated transformation is expected to be.

In practice, this means that only a relatively small subset of apocalyptic millenarian groups is ever likely to cross the threshold of violence. An even smaller subset of those violent apocalyptic groups is likely to be fixated on committing acts of mass casualty terrorism, still fewer will be obsessed with the idea of deploying “high-tech” weapons (such as biological weapons) in such mass casualty attacks, and of these an even tinier subset might actually possess or be able to obtain the resources and technical capabilities necessary to turn their apocalyptic fantasies of destruction into reality. That is the good news, and it is very good news indeed. The difficulty, of course, lies in identifying the tiny subset of apocalyptic groups which fall into that rarified category *in advance*, before they are able to initiate destructive actions in pursuit of their world-transformative goals. The bad news is that this may not always be an easy task.

There are several reasons why this task can be difficult. First of all, there are a large number of groups with millenarian worldviews, apocalyptic or otherwise, in various parts of the world. Not even specialists know the exact number, but it is likely to be in the thousands. Second, many of these groups are relatively obscure, if not intentionally secretive, and are thus often hard to identify and investigate. Third, the beliefs and behavior of these types of groups often change over time, sometimes abruptly and dramatically. For example, as a result of changing internal dynamics and/or shifting external circumstances, “progressive” millenarianism can be transformed into “apocalyptic millenarianism,” passive forms of the latter can evolve over time into active apocalypticism, and peaceful forms of the latter may be transmogrified into more violent forms.²⁹¹ Or, in each of these situations, the shifts could conceivably be in the other direction, although this is perhaps less likely.²⁹² Hence it would be very unwise for observers to assume that a condition of stasis exists within these types of religious or political milieus, or that the attitudes and behavior of particular groups will remain fixed or unchanged in perpetuity. Moreover, it may well be that efforts initiated by governments to monitor, regulate, or crack down on such groups, even if they are entirely warranted and handled with appropriate sensitivity, will inadvertently serve to precipitate or at least hasten the kinds of internal attitudinal and behavioral transformations that may end up resulting in violent confrontations.²⁹³

²⁹¹ Cf. Wessinger, “Introduction,” in idem, ed., *Millennialism, Persecution, and Violence*, pp. 10-11.

²⁹² Note, however, that some have emphasized the willingness of certain groups of this type to adopt a less provocative pattern of behavior in relation to the authorities, or even to attempt to collaborate with them. See, e.g., J. Gordon Melton and David G. Bromley, “Challenging Misconceptions About the New Religions-Violence Connection,” in idem, eds., *Cults, Religion and Violence* (Cambridge UK: Cambridge University, 2002), pp. 51-2, in reference to the Church Universal and Triumphant (CUT).

²⁹³ This is, indeed, a very common argument amongst so-called New Religious Movements (NRM) scholars, who are often ideologically predisposed to blame the actions taken by the authorities for causing apocalyptic groups to cross the threshold of violence. This was especially true in the wake of the tragedy at Waco. See, e.g., James D. Tabor and Eugene V. Gallagher, *Why Waco?: Cults and the Battle for Religious Freedom in America* (Berkeley: University of California, 1995); and Dick J. Reavis, *The Ashes of Waco: An Investigation* (Syracuse, NY: Syracuse University, 1998). Others have foolishly extended that argument to other apocalyptic millenarian groups, including even Aum Shinrikyo, despite the fact that this is a case which illustrates precisely the opposite, i.e., that official neglect of dangerous indicators of an escalation of violent actions by apocalyptic groups, rationalized on the basis of “religious freedom,” can itself potentially lead to catastrophe.

In view of the above, it should be reiterated that the focus of this bioterrorist threat assessment is not on the mainstream members of particular religious communities who hold casual apocalyptic beliefs – rather, it is on those highly committed apocalyptic millenarians who form the core of the first circle described by Boyer. Earlier in his book, he described such committed Christian believers in America in a more explicit way:

[they] represent [only] a subset of that vast host of [garden-variety] believers. These are individuals who are deeply preoccupied with eschatology, who place it at the center of their theological speculations, and who teach that God at the beginning of time determined a specific, detailed plan for history’s last days – a plan revealed in the Bible with minute particularity, though in symbolic language and veiled images. They are committed (sometimes obsessively so) to elucidating these prophetic mysteries and using them to illuminate and explain the course of contemporary history.²⁹⁴

Yet even this relatively select group of fervent millenarians is far larger than the protagonists that concern us herein, for the latter constitute a much smaller subset of committed apocalyptic millenarians who are strongly motivated to perpetrate acts of violence against designated “evil-doers” in order to initiate the prophesied “end times,” the even tinier subset of fanatics who are determined to attack their enemies with biological weapons, and the even more miniscule subset that may actually have the ability to do so.

Fortunately, most Muslims, like the majority of the adherents of the world’s other major religions, are not overly obsessed with the apocalyptic notions that have become associated with their faith. Nor do most pay much heed to the burgeoning apocalyptic “end times” fringe literature.²⁹⁵ The good news, then, is that most Muslims are passive millenarians who do not feel that they have to take any actions themselves in order to bring on end times scenarios, and that even most active Muslim millenarians may not believe they have to initiate violence against the “forces of evil” in order to precipitate the end of days. However, there are three pieces of potentially bad news. First, there has been a dramatic increase in the amount of histrionic apocalyptic literature published in the Islamic world in recent decades, especially in the wake of various traumatic events such as the decisive defeat of Arab armies by Israel in 1967; the Iranian Revolution, jihadist attack in Mecca, and Soviet invasion of Afghanistan in 1979; the successful al-Qa’ida 9/11 attacks on the U.S. and American invasion of Afghanistan in 2001; the invasion of Iraq in 2003; the “Arab Spring” revolts from 2010 to 2012; and the rise of the Islamic State.²⁹⁶ This delirious and fearful apocalyptic and conspiratorial material is now readily available in

²⁹⁴ Boyer, *When Time Shall Be No More*, pp. ix-x.

²⁹⁵ According to Jean-Pierre Filiu, *Apocalypse in Islam* (Berkeley and Los Angeles: University of California, 2011), p. xxi.

²⁹⁶ Cf. e.g., David Cook, *Contemporary Muslim Apocalyptic Literature* (Syracuse, NY: Syracuse University, 2005), passim; Filiu, *Apocalypse in Islam*, part 2. For bibliographies of these recent apocalyptic texts, see pp. 237-55 of the former work, and pp. 241-50 of the latter work. Alas, the profusion of this type of literature has undoubtedly increased since those two bibliographies were compiled.

bookstalls and marketplaces all over the Arab world – and beyond. Second, during various eras of Islamic history, violent apocalyptic movements have emerged, usually on the margins of the Muslim world, which have precipitated bloody conflicts that caused immense suffering and destabilized the political order.²⁹⁷ Third, as will become clear below, some of today’s Sunni and Shi‘i jihadist organizations actively embrace and indeed aim to precipitate violent apocalyptic scenarios. In order to assess what effects this might have on their willingness to carry out bioterrorism attacks, a brief overview of Muslim apocalyptic ideas must be presented.

It has long been argued, most recently by Stephen J. Shoemaker, that the earliest Muslims believed that the end times were imminent, and thus that Islam was a religious movement driven to conquer the Holy Land and other territories in part by eschatological and apocalyptic beliefs.²⁹⁸ As one might imagine, then, eschatological themes were prominent in a number of passages in the *Qur’an*, and those themes were then explicitly wedded to apocalyptic scenarios in the canonical *hadith* collections. Thus the two most fundamental and important of all Islamic sources constitute the basis of the apocalyptic tradition in Islam. The eschatological Qur’anic *suras* often focus on the Day of Resurrection (*al-yawm al-qiyama*), when all of humanity, by then deceased, will supposedly be summoned to appear before Allah for judgment. At that time all unbelievers and those Muslims who have egregiously sinned will be consigned to eternal damnation and suffer infinite torment in Hell (*Jahannam*), whereas the upright Muslim faithful, including those martyrs who have fallen *fi sabil Allah*, will ascend to Paradise (*Janna*, literally “garden”). This is described, among others, in *suras* 25:22-26 of the *Qur’an*:

The Day they see the angels - no good tidings will there be that day for the criminals, and [the angels] will say, “You cannot enter.” And We [Allah] will regard what they have done of deeds and disperse them like dust. The companions of Paradise, that Day, will have a better settlement and a better resting place. And on that Day when the heavens will split open with clouds, and the angels will be sent down in streams, True sovereignty, that Day, is for the Most Merciful [Allah]. And it will be upon the disbelievers a difficult Day.²⁹⁹

²⁹⁷ See Timothy R. Furnish, *Holiest Wars: Islamic Mahdis, Their Jihads, and Osama bin Laden* (Westport, CT and London: Praeger, 2005), chapter 2.

²⁹⁸ Stephen J. Shoemaker, *The Apocalypse of Empire: Imperial Eschatology in Late Antiquity and Early Islam* (Philadelphia: University of Pennsylvania, 2018). Many other scholars have made similar arguments since the late 19th century (though others disputed that interpretation), e.g., Paul Casanova, *Mohammed et la fin du monde: Étude critique sur l’Islam primitif* (Paris: P. Geuthner, 1911). When the anticipated end times did not materialize, the enthusiasm for them waned and Muslim elites increasingly busied themselves with practical affairs like establishing stable political regimes and elaborating legal doctrines whilst continuing their offensive military operations to conquer more territory.

²⁹⁹ *Qur’an* 25:22-26, at <https://quran.com/25/22-26>. I have made some minor alterations to the wording of the translation, since this particular online source often has awkward translations. Cf. *Qur’an* 75:1-40, at <https://quran.com/75>; 88:1-26, at <https://quran.com/88>; and 89:1-30, at <https://quran.com/89>.

Note, however, that there is no information in the *Qur'an* about when this judgement day will occur, since the exact moment is known only to Allah.³⁰⁰ There are also *suras* in the *Qur'an* that describe certain “signs” which will indicate the onset of the end times, signs that are of both a supernatural and natural nature. What is of most concern herein, however, is the tumultuous succession of events that will supposedly unfold leading up to this final Day of Judgment. One must therefore briefly summarize material found in the relevant *hadiths*, and thence further elaborated by medieval apocalyptic writers, to better understand those prophesied events.

According to those accounts, which differ from each other concerning specific details, this is essentially how the apocalyptic scenario will unfold. As noted in the *Qur'an*, the onset of the end times will be marked by many so-called “signs of the hour.”³⁰¹ The “minor signs of the hour” (*ashrat al-sa‘at al-sughra*), of which there are dozens, will begin to occur long before the Day of Judgment, and include events that have already happened, events that are ongoing, and events that will happen sometime in the future. Conversely, the “major signs of the hour” (*ashrat al-sa‘at al-kubra*), when they materialize, will indicate that the end times are nigh.³⁰² The former are mainly the kinds of negative events and social maladies that are characteristic of human societies at all times and places, e.g., increases in corruption, ignorance, immorality, sexual license, drunkenness, usury, injustice, social and economic inequality, apostasy, divisiveness, and conflict until only the “worst” people are in charge. In short, most of these “minor signs” are always present to some degree or other in the really-existing world, and thus can be easily “divined” by people with an apocalyptic mindset at all times and places. Others, however, are key incidents in the unfolding of the coming time of tribulation, such as the appearance of thirty false messiahs and the Sufyani, which will signal the onset of the “major signs.” These “major signs,” however, are far more extraordinary and catastrophic events, whether they occur in the natural world or have supernatural dimensions. “Natural” environmental disasters will include colossal earthquakes, the covering of the earth by a huge black cloud of smoke, the sun rising in the West, and, right before the Day of Judgment, the rise of a cold wind that will kill all of the Muslims.³⁰³ The most important “human” event is the appearance of the Mahdi (“[Rightly] Guided One”), a descendant of Muhammad and eschatological savior of Islam sent by Allah who will, after many trials, rid the world of evil and restore Islamic justice before the resurrection.³⁰⁴ Supernatural events include the appearance of the Beast of the Earth (*Dabbat al-Ard*), the depredations of the “Deceiving/False Messiah” or

³⁰⁰ Cf. *Qur'an* 7:187; 31:34; and 33:63. See also David Cook, *Studies in Muslim Apocalyptic* (Princeton, NJ: Darwin Press, 2002), pp. 18-19.

³⁰¹ David Cook (ibid, pp. 13-14) has justly placed these “signs” into three main categories: a) moral decay, b) physical signs of decline in the society (e.g., a paucity of men, women employing men, civil wars, abandonment of *jihad*, etc.), and c) natural and supernatural disasters.

³⁰² As Furnish justly notes (*Holiest Wars*, p. 95), paraphrasing Winston Churchill, “the minor signs are tantamount to ‘the end of the beginning,’ whereas the major signs truly mark ‘the beginning of the End.’”

³⁰³ See, e.g., *Qur'an* 21:104; 44:10-11; 50:44; 52:9-10; 54:1-3; 69:13-16; 70:8-9; 81:1-2; 81:6; and 84:1-5.

³⁰⁴ For more on the Mahdi, see W[ilferd] Madelung, “Al-Mahdī,” *EI2*, volume 5, pp. 1230-8; and Jan-Olaf Blichfeldt, *Early Mahdism: Politics and Religion in the Formative Period of Islam* (Leiden: Brill, 1985). In *Holiest Wars*, Furnish provides the best overview of the Mahdist apocalyptic tradition and various historical Mahdist movements, from earlier periods up until the early 2000s.

Antichrist (*al-Masih al-Dajjal*), the return to earth of the penultimate Islamic prophet Jesus ('Isa), and the second burst of the trumpet by the archangel Israfil (i.e., Rafael in the Bible), which will signal the resurrection of the dead and the Day of Judgment.

What, then, is the basic sequence of events during this period of tribulation prior to the end? The kinds of societal problems enumerated above will get worse and worse. Finally, an evil leader known as the Sufyani, supposedly a descendant of Abu Sufyan ibn Harb (560-650), a Meccan leader, staunch early opponent of Muhammad, and father of Umayyad dynasty founder Mu'awiyya, will take power in Damascus and begin to expand his control over more and more territory.³⁰⁵ In response to his aggression, a Muslim army will arise in Khurasan, which refers to the northeastern region of Iran and adjoining areas of Central Asia and Afghanistan, carrying black *jihad* banners – not unlike the 'Abbasids – and engage in a bloody but indecisive battle with the Sufyani. At that point, the Mahdi will make his appearance in Mecca, where he will be given perfect Islamic knowledge in a single day by Allah. This event will clearly threaten the power of the Sufyani, who will march on Mecca to kill the Mahdi. However, during this march, most of his army will be swallowed up by the desert. Muslims from around the world, including the army of the black banners, will then head to Mecca to swear allegiance to the Mahdi at the Ka'ba, the holiest shrine in Islam. Meanwhile, the remnants of the Sufyani's forces will retreat to Jerusalem, where they will kill half of the Jewish population there. The Mahdi's army will then defeat and kill the Sufyani, and finish killing the remaining Jews in Jerusalem.³⁰⁶ It is at this moment that the hideous, one-eyed Dajjal, who promotes unbelief, generates strife and chaos, and declares his own divinity but also performs miracles so as to mislead people into following him, will take center stage for a period of 40 days or 40 years. His followers, including 70,000 Jews from Isfahan wearing Persian shawls as well as non-Jewish women, will join together with the army of the Byzantines to fight the Mahdi. Although the Dajjal will be unable to enter Mecca and Medina due to angelic barriers, the Mahdi alone, despite defeating the Byzantines at Dabiq and then conquering all of Europe, will be unable to prevail in battle against the Dajjal's forces in the Holy Land, in part because the warlike hordes known as Yajuj and Majuj (Arabic terms for Gog and Magog) will have also escaped from their prison and rampaged across the earth, killing Muslims. It is at this critical juncture that Allah will order 'Isa to return to earth, publicly renounce his Christian followers, kill all pigs, and fight alongside the forces of the Mahdi. 'Isa will kill the Dajjal in Lod, and the latter's armies will be destroyed.³⁰⁷ Allah will then answer the prayers of 'Isa and the Mahdi and destroy the forces of Yajuj and Majuj.³⁰⁸ Finally, the Mahdi will reestablish the Caliphate in Jerusalem, convert the entire world to Islam, and usher in a short golden age until the

³⁰⁵ This probably reflected the anti-Umayyad biases of both the victorious 'Abbasids and of older Muslim elites in Iraq and the Arabian peninsula. For the Sufyani metahistorical apocalyptic cycle, see Cook, *Studies in Muslim Apocalyptic*, pp. 122-36.

³⁰⁶ For the Mahdist and other messianic cycles, see *ibid.*, pp. 137-82.

³⁰⁷ For the Dajjal-'Isa metahistorical cycle(s), see *ibid.*, pp. 93-120. See further A[rmann] Abel, "Al-Dadjdjal," *EI2*, volume 2, pp. 76-7.

³⁰⁸ For Yajuj-Majuj, see Cook, *Studies in Muslim Apocalyptic*, pp. 182-8.

Day of Judgment arrives. This is, broadly speaking, the traditional Sunni account of the end times.³⁰⁹

In the Twelver Shi‘i variant, the awaited Mahdi is none other than the twelfth ‘Alid Imam, Muhammad al-Mahdi, who will eventually return from his “greater occultation” (*al-ghayba al-kubra*) to restore peace and justice to the world.³¹⁰ As Wilferd Madelung has noted, amongst radical Shi‘a, the Muslim “longing for a restorer of justice and religion has usually been most intense”, perhaps because Shi‘i Muslims have regularly been subjected to discrimination and persecution by Sunnis.³¹¹ The Shi‘i imamate was thus “raised to the level of prophecy.”³¹² Indeed, to ignore or disobey this “divinely invested Imam”, who was “fully immune from sin and error and...entitled to political leadership as much as religious authority”, was regarded by the Shi‘a as “infidelity equal to ignoring or disobeying the prophet [Muhammad].”³¹³ Although the year of the Hidden Imam’s return is not known, the date is: it will supposedly occur on the 10th of Muharram of the Islamic lunar calendar, the anniversary of ‘Ali’s son Husayn’s martyrdom at Karbala in 680. As in the Sunni version, however, this Mahdi will be the “lord of the sword and rule the world”, and after the defeat of his fearsome enemies, he will force all Muslims to accept Shi‘i belief and thereby enable Allah to “fill the world with justice as it was filled with injustice.”³¹⁴ He will effectively create an earthly paradise, in which “no people of any other religions will remain without being shown Islam and confessing faith in it.”³¹⁵

However, this traditional corpus of apocalyptic Muslim texts has been both adapted to later historical conditions and greatly augmented by modern Islamic apocalyptic authors. On the one hand, the “signs of the hour” have to be constantly reinterpreted and related to current events that

³⁰⁹ For a brief summary, see R. Don Deal, “Apocalypticism and War, Muslim,” in *War and Religion: An Encyclopedia of Faith and Conflict*, ed. by Jeffrey M. Shaw and Timothy J. Demy (Santa Barbara, CA: ABC-CLIO, 2017), volume 1, pp. 62-3.

³¹⁰ For Shi‘i apocalyptic interpretations, see Cook, *Studies in Muslim Apocalyptic*, chapter 4. In the more radical Shi‘i currents of the 8th century, there also emerged the belief in the Qa’im (“the one who rises up”), a member of Muhammad’s family who would eventually overthrow tyrannical governments and establish just rule. Many Twelvers ended up characterizing the Hidden Imam/Mahdi in this way. See Sachedina, *Islamic Messianism*, esp. chapter 2; Haider, *Shi‘i Islam*, pp. 91, 96-7, 99. See further W[ilferd] Madelung, “Kā’im al-Muhammad,” *EI2*, volume 4, pp. 456-7, who notes that the Qa’im was expected to “rise up against the illegitimate regime and restore justice on earth.” Hence it not surprising that the term Qa’im al-Zaman (Riser of the [Final] Age) became a synonym for another term used for the Hidden Imam, Sahib al-Zaman (Lord of the [Final] Age). The Qa’im was also sometimes qualified as al-Qa’im bi-al-Sayf (“the one who rises up with sword”). The Qa’im/Hidden Imam was expected, after defeating the Dajjal and his minions, to reside in and rule the world from Mecca. His reign will last for 19 or 70 years, and there will be 40 days of turmoil between his death and the Day of Resurrection and Judgment.

³¹¹ Madelung, “Al-Mahdī,” p. 1235.

³¹² Idem, “Imāma,” *EI2*, volume 3, p. 1166.

³¹³ Ibid. The “official” Twelver doctrine of the Imamate, and the character of the imams, was first elaborated by the sixth ‘Alid Imam, Ja‘far al-Sadiq (702-765), founder of the Shi‘i Ja‘fari legal school, and his follower Hisham ibn al-Hakam. See the brief summary by Arjomand, *Shadow of God and the Hidden Imam*, p. 35.

³¹⁴ See Madelung, “Al-Mahdī,” p. 1236.

³¹⁵ See, e.g., Shaykh [Muhammad ibn Muhammad] al-Mufid, *Kitab al-Irshad: The Book of Guidance into the Lives of the Twelve Imams* (Elmhurst, NY: Tahrike Tarsile Quran, 1981), pp. 548, 551-3.

are perceived to be especially threatening. This has, not surprisingly, always been the case.³¹⁶ On the other hand, apocalyptic traditions from many other sources (Jewish, Zoroastrian, Christian, Nostradamus, secular apocalyptic, etc.), as well as information excerpted from conspiratorial anti-Jewish, anti-masonic, and anti-American modern tracts, books on alleged UFO appearances and abductions, and other fringe occult, paranormal, and pseudo-scientific literature, have in recent decades all been grafted onto the material found in the *Qur'an*, the *hadith* collections, and the earlier interpretations and additions by medieval authors.³¹⁷ So it is that the Islamic apocalyptic tradition, like those of other religions, is continually being renewed, refined, revised, and further supplemented in order to make it relevant and applicable to the present-day political, social, and historical context. The aforementioned series of traumatic historical events occurring in or otherwise profoundly affecting the *dar al-islam* since 1967 has led to a veritable explosion of new apocalyptic interpretations, visions, and scenarios whose aim is to relate traditional Muslim apocalyptic ideas to fast-changing modern developments. Today's imagined enemies of Islam, internal and external – the Shi'a, the 'Alawiyya, but above all the Jews, secret societies, "Crusader" Americans and their allies, and "Godless" Russian and Chinese communists – are therefore associated in this literature with the "evil" human, beastly, and supernatural entities found in the Islamic apocalyptic tradition, such as the Sufyani, Yajuj and Majuj, and the Dajjal. This is important, since it has caused certain contemporary pro-jihadist clerics and jihadist leaders to reframe apocalyptic ideas in such a way as to further justify their adoption of expansionist and imperialistic policies, as well as to sanction the brutal, violent methods they regularly employ against their designated enemies.

However, not all global jihadist groups are equally obsessed with carrying out concrete actions, including those involving the use of extreme violence, that are consciously and explicitly designed to initiate or at least hasten the onset of Muslim apocalyptic scenarios, even if most of them are at times tempted to interpret larger world events through an apocalyptic prism. Here one can draw a meaningful contrast between al-Qa'ida and the Islamic State. Perhaps predictably, there had been a rise in apocalyptic interpretations within jihadist circles in the wake of dramatic events like the 9/11 attacks and the American invasions of Afghanistan and Iraq.³¹⁸ Indeed, such notions

³¹⁶ See esp. Cook, *Studies in Muslim Apocalyptic*, chapter 1, for earlier Islamic historical apocalyptic interpretations.

³¹⁷ For specifics concerning the themes, tropes, and fantastic and ingenious scenarios found in contemporary Muslim apocalyptic literature, cf. esp. Filiu, *Apocalypse in Islam*, part 2; and Cook, *Contemporary Muslim Apocalyptic Literature*, chapters 2-10. This is yet another illustration, in a different cultural context, of Michael Barkun's argument that different conspiratorial, apocalyptic, and other forms of what he calls "stigmatized knowledge" are increasingly becoming conjoined and intermingled, creating a host of new hybridized narratives and scenarios. See Michael Barkun, *A Culture of Conspiracy: Apocalyptic Visions in Contemporary America* (Berkeley and Los Angeles: University of California, 2013).

³¹⁸ See, e.g., the quotes cited by Reuven Paz, "Global Jihad and the Sense of Crisis: Al-Qa'idah's Other Front," undated [but 2003] report, Intelligence and Terrorism Information Center at the Center for Special Studies, pp. 1-2, available at: www.intelligence.org.il/g_j/rp_d_11_03.html. Perhaps even more tellingly, one of the most "rational," "pragmatic," and "secularized" of the jihadist military analysts linked to al-Qa'ida, Abu Mus'ab al-Suri, devoted the entire final chapter of his strategic treatise to apocalyptic Islamic prophecies concerning the return of the Mahdi and the cataclysmic "end of days." See Al-Suri, *Da'wa al-muqawwama*, pp. 1517-99. Just prior to that chapter, he wrote another section concerning "omens" that forecast the eventual triumph of Islam, including the West's abandonment

had become so widespread, along with the idea that Bin Ladin himself was the Mahdi, that certain al-Qa'ida spokesmen felt compelled to openly criticize these ecstatic apocalyptic expectations. In part, this was because they were afraid that overly optimistic prognostications of Islam's looming final triumph might induce jihadists and their supporters to lose focus, become more passive, and thus fail to take necessary actions to achieve their goals.³¹⁹ It may also have been because Bin Ladin had never publicly claimed to be the Mahdi and did not seem to believe that he was.³²⁰ Thus in February 2003, on the website of the Markaz al-Dirasat wa al-Buhuth al-Islamiyya (Center for Islamic Studies and Research), a Saudi-based entity closely linked to al-Qa'ida, an anonymous author leveled the following attack on such apocalyptic ideas. First, he claimed that the *ahadith* concerning "the black banners that will appear in the East" were very weak (*da'if*). Second, he advised his readers to "support the *jihad* against Allah's enemies rather than harm the *jihad* and the *mujahidin* with nonsensical ideas."³²¹

In contrast to al-Qa'ida Central, which periodically sought to dampen both intra-Muslim sectarian conflict and jihadist rank-and-file enthusiasm for apocalyptic ideas, the Islamic State has instead actively fostered both.³²² In part this was a reflection of very real ideological and strategic differences within different components of the jihadist milieu, but in part it was also due to the rapid growth of apocalyptic end times expectations amongst Muslims, especially Arabs, from 2011 on. In a Pew survey conducted in 2012, over half of the Muslims in many countries surveyed believed that they would personally witness the appearance of both the Mahdi and 'Isa in their

of God and all of the spiritual ills that had allegedly resulted therefrom: intellectual alienation, mental illness, rampant sexuality, alcohol and drug use, high suicide and crime rates, "rebellion in phenomena like the Beatles and the hippies," and "sexually deviant individuals [homosexuals]." See *ibid*, pp. 1502-16 [quoted passages from p. 1507]. Note that in these sections, al-Suri was influenced by and indeed cited Nu'aym ibn Hammad's *Kitab al-Fitan [Book of Tribulations]*, the earliest extant complete Muslim apocalyptic text, which contained numerous apocalyptic prophecies that some regard as spurious. Fortunately, this important work has recently been translated by David Cook, "*The Book of Tribulations*": *The Syrian Apocalyptic Tradition. An Annotated Translation by Nu'aym b. Hammad al-Marwazi* (Edinburgh: Edinburgh University, 2017).

³¹⁹ See, e.g., the statement from an al-Qa'ida propaganda website cited by McCants, *ISIS Apocalypse*, p. 28: "Many people think that the State of Islam will not be established until the Mahdi appears. They neglect to take action, instead raising their hands in prayer that Allah will hasten his appearance."

³²⁰ It should be pointed out, however, that according to Islamic tradition it is only false Mahdis, as opposed to the authentic Mahdi, who openly proclaim themselves as the Mahdi. This is something Bin Ladin surely knew. In any case, one work that openly discusses whether Bin Ladin might in fact be the Mahdi is by Ihyab al-Badawi and Hasan al-Zawami, *Usama bin Ladin: Al-Mahdi al-muntazar am al-masih al-dajjal? Harb al-fana' wa barunat al-CIA [Usama bin Ladin: The Awaited Mahdi or the Dajjal? The War of Extermination and the Barons of the CIA]* (Cairo: Madbuli al-Saghir, 2002). Furnish argues that Bin Ladin was not only perceived by many Sunnis to be the Mahdi, but that he may even have viewed himself in this way. See Furnish, *Holiest Wars*, pp. 156-60; and idem, "Bin Ladin: The Man Who Would Be Mahdi," *Middle East Quarterly* 9:2 (Spring 2002), esp. pp. 56-9.

³²¹ "Allah has not assigned our *umma* to know the person of the Mahdi prior to his Appearance," Markaz al-Dirasat wa al-Buhuth al-Islamiyya website, February 2003, previously available at: www.conrado.net/vit_inf/print.php?id=989&ty=pr&img=no. Cited in Paz, "Global Jihad and the Sense of Crisis," pp. 2-3.

³²² Cf. McCants, *ISIS Apocalypse*, p. 3: "Bin Laden tamped down messianic fervor and sought popular Muslim support; the caliphate was a distant dream. In contrast, the Islamic State's members....stir messianic fervor rather than suppress it. They want God's kingdom now rather than later."

lifetimes.³²³ More importantly, the key figures in the IS and its organizational forerunners – Abu Mus‘ab al-Zarqawi, Abu ‘Umar al-Baghdadi, Abu Ayyub al-Masri (also known as Abu Hamza al-Muhajir), self-styled Caliph Abu Bakr al-Baghdadi (Caliph Ibrahim), and IS spokesman Abu Muhammad al-‘Adnani – all embraced radical apocalyptic ideas. The purpose herein is not to discuss all of the apocalyptic aspects of the IS’ ideology, but simply to highlight a few interrelated apocalyptic themes promoted by the IS.

The first was an initial geographical focus on the northern Syrian town of Dabiq, where many Muslims believe that apocalyptic “epic battles” (*malahim*) will take place. The pronounced IS emphasis on the “end times” in connection with Dabiq apparently began with Abu Mus‘ab al-Zarqawi, founder of the Jama‘at al-Tawhid wa al-Jihad (Monotheism and Jihad Group), the original organizational iteration of the IS. In 2004, he cited a prophecy from a *hadith* in *Sahih Muslim* that predicted the arrival of the “last days” after the Muslims defeated the “Romans” near Dabiq, and was quoted as saying that “the spark has been lit here in Iraq, and its heat will continue to intensify – by Allah’s permission – until it burns the Crusader armies in Dabiq.”³²⁴ The A‘maq valley region where Dabiq is situated was “a frequently fought over land between the two warring empires during the first centuries of Islam”, i.e., between the Muslims and the “infidel” Byzantines, and thus was also “a transitional area between the Muslim world and the non-Muslim world.”³²⁵ Hence this location has loomed large in IS statements, publications, and actions, so much so that the group’s first English-language publication was entitled *Dabiq*. That is precisely why the IS made an effort in the summer of 2014 to seize this militarily unimportant town, and why IS spokesmen have repeatedly sought to bait the U.S. and its allies into coming to Dabiq to fight them, imagining that such an action would precipitate the unfolding of the end times and eventually

³²³ Pew Research Center, *The World’s Muslims: Unity and Diversity* (Washington, DC: Pew Forum on Religion and Public Life, [9 August] 2012), pp. 65-6. This expectation for the Mahdi’s imminent return was most common in Afghanistan (83%) and Iraq (72%), perhaps not surprisingly, but also in Turkey (68%), Tunisia (67%), and Malaysia (62%). Those same countries also had high expectations concerning the imminent return of ‘Isa.

³²⁴ See, respectively, *Sahih Muslim*, book 41, hadith 6924; and, among many other places in the IS’ magazine, “Until It Burns the Crusader Armies in Dabiq,” *Dabiq* 1 (June-July 2014), p. 5. The *hadith* in question has been translated as follows: “Abu Hurayra reported Allah’s Messenger (may peace be upon him) as saying: The Last Hour would not come until the Romans would land at al-A‘maq or in Dabiq. An army consisting of the best (soldiers) of the people of the earth at that time will come from Medina (to counteract them). When they will arrange themselves in ranks, the Romans would say: Do not stand between us and those (Muslims) who took prisoners from amongst us. Let us fight with them; and the Muslims would say: Nay, by Allah, we would never get aside from you and from our brethren that you may fight them. They will then fight and a third (part) of the army would run away, whom Allah will never forgive. A third (part of the army). which would be constituted of excellent martyrs in Allah’s eye, would be killed and the third who would never be put to trial would win and they would be conquerors of Constantinople. And as they would be busy in distributing the spoils of war (amongst themselves) after hanging their swords by the olive trees, then Satan would cry: The Dajjal has taken your place among your family. They would then come out, but it would be of no avail. And when they would come to Syria, he would come out while they would be still preparing themselves for battle drawing up the ranks. Certainly, the time of prayer shall come and then Jesus (peace be upon him) son of Mary would descend and would lead them in prayer. When the enemy of Allah would see him, it would (disappear) just as the salt dissolves itself in water and if he (Jesus) were not to confront them at all, even then it would dissolve completely, but Allah would kill them by his hand and he would show them their blood on his lance (the lance of Jesus).” I made some minor modifications to that translation.

³²⁵ Cook, *Studies in Muslim Apocalyptic*, pp. 49, 54.

lead to a Muslim triumph.³²⁶ Therefore, even though IS *mujahidin* were later forced to withdraw from the town by Turkish-backed fighters in October 2016, that military reverse did not undermine the group's apocalyptic vision, since a prophesied series of Muslim defeats would also ultimately lead to the return of 'Isa, the defeat of the Dajjal, an Islamic reign of justice, and the onset of the Day of Judgment. It did, however, temporarily lessen the importance of Dabiq itself, and led to the renaming of the English-language IS magazine to *Rumiyah*.

The second was the IS' long-standing emphasis on establishing the Caliphate, according to "the prophetic method," as soon as it was possible rather than waiting, as al-Qa'ida had generally argued, for more favorable geopolitical conditions to arise. As early as April 2014, IS spokesman Abu Muhammad al-'Adnani hinted that the group was about to make a major announcement about the appearance of a state ruled as per the *Qur'an* and the *sunna* of Muhammad, and urged its supporters to help them make it a "caliphate in accordance with the prophetic method."³²⁷ That last line alluded to a prophetic *hadith* concerning the Caliphate's return:

Narrated by Hudhayfa ibn al-Yaman...that Allah's Messenger (PBUH) said, 'Prophethood will remain among you as long as Allah wishes it to remain, then Allah Most High will remove it. Then there will be a caliphate according to the prophetic method as long as Allah wishes it to remain, then Allah Most High will remove it. Then there will be a distressed kingdom which will remain as long as Allah wishes it to remain, then Allah Most High will remove it. Then there will be a tyrannical kingdom which will remain as long as Allah wishes it to remain, then Allah Most High will remove it. Then there will [again] be a caliphate according to the prophetic method.' Then he fell silent.³²⁸

Two months later, after the fall of Mosul to the IS, al-'Adnani issued the following proclamation:

The sun of jihad has risen....Triumph looms on the horizon, and the signs of victory have appeared....It is a hope that flutters in the heart of every mujahid monotheist....It is the Caliphate – the abandoned obligation of the era...Now the Caliphate has returned. We ask Allah the exalted to make it in accordance with the prophetic method.³²⁹

³²⁶ See Graeme Wood, "What ISIS Really Wants," *The Atlantic* (March 2015), at <https://www.theatlantic.com/magazine/archive/2015/03/what-isis-really-wants/384980/> .

³²⁷ For an English translation, see Pieter Van Ostaeyen, "Message by ISIS Shaykh Abu Muhammad al-'Adnani as-Shami," *PieterVanOstaeyen* website, 18 April 2014, at <https://pietervanostaeyen.wordpress.com/2014/04/18/message-by-isis-shaykh-abu-muhammad-al-'adnani-as-shami/> .

³²⁸ *Sunan al-Tirmidhi*, hadith 5378, at <http://hadithprophesies.blogspot.com/2009/05/khilafahcaliphate.html/> . With some modifications.

³²⁹ Cited in McCants, *ISIS Apocalypse*, pp. 121-2.

This was followed by Abu Bakr al-Baghdadi's 1 July 2014 declaration at the pulpit of Nuri mosque in Mosul, in which he announced himself as the IS' Caliph.³³⁰ In doing so, the implication was that this act had end times significance because the new Caliphate represented the fulfillment of Islamic prophecy.³³¹ Not surprisingly, this fired the imagination of jihadists throughout the world and caused many to flock to join the new IS Caliphate State.

The third was the belief, often alluded to, that IS *mujahidin* constituted the "saved sect" (*al-firqat al-najiyya*) or "victorious group" (*al-ta'ifa al-mansura*) whose appearance was supposedly foretold by Muhammad.³³² In order to understand these terms, one must first refer to representative *ahadith* about this prophecy, e.g., two from the *Sunan Abi Dawud*:

Narrated Abu Hurayra: The Prophet (PBUH) said: The Jews were split up into seventy-one or seventy-two sects; and the Christians were split up into seventy one or seventy-two sects; and my community will be split up into seventy-three sects.

Abu 'Amir al-Hawdhani said: Mu'awiya b. Abi Sufyan stood among us and said: Beware! The Apostle of Allah (PBUH) stood among us and said: Beware! The people of the Book before were split up into seventy two sects, and this community will be split into seventy three: seventy two of them will go to Hell and one of them will go to Paradise, and it is the majority group.³³³

The idea here was that, according to what Muhammad reportedly said, the Muslim community will eventually be divided into 73 sects, only one of which – the "saved sect" – will continue following the "straight path" of Islam and thus be able to enter Paradise. All of the others will have either deviated from or abandoned the true Islam, and hence will be consigned to Hellfire. This saved group is also generally identified as the Ahl al-Sunna wa al-Jama'a (People of the Sunna and the [United Muslim] Community). For most Sunnis, therefore, the "saved sect" refers to the majority within their own group, whereas the Salafists identify that sect solely with themselves, i.e., those who follow the example of *al-salaf al-salih*. Indeed, the more extreme and sectarian the

³³⁰ Ibid, pp. 123-4. For a full English translation of this declaration, see Abu Bakr al-Husayni al-Qura[y]shi al-Baghdadi, "A Message to the Mujahidin and the Muslim Umma in the Month of Ramadan," al-Hayat Media Center, [1 July 2014], at <http://www.gatestoneinstitute.org/documents/baghdadi-caliph.pdf>.

³³¹ It is generally believed that the arrival of the Mahdi will be preceded by the establishment of some sort of Islamic state. See, e.g., Jawad Bahr al-Natsha, *Al-Mahdi masbuq bi-dawla islamiyya [The Mahdi is Preceded by an Islamic State]* (Hebron: Markaz Dirasat al-Mustaqbal, 2009). The link between the IS' utopian view of its Caliphate state and its "eschatological urgency" is emphasized by Jeu Delemarre, "Dabiq: Framing the Islamic State. A Utopian Roadmap to the New Caliphate (M.A. Thesis: Radboud University [Nijmegen, Holland], 2017), pp. 30-4, available at https://theses.uibn.ru.nl/bitstream/handle/123456789/4718/Delemarre%2C_J.F.M._1.pdf?sequence=1.

³³² It is no accident that offshoots of the UK-based Salafist pro-jihadist group al-Muhajirun later adopted the name Al-Firqat al-Najiyya. Another name it embraced was al-Ghuraba' (the Strangers), a term deriving from a hadith that likewise has significance in this context inasmuch as, among other things, it can refer to Muslims who travel to wage *jihād* in foreign countries. See McCants, *ISIS Apocalypse*, pp. 100-2. For the hadith, see *Sunan Ibn Majah*, book 36, hadith 63, at <https://sunnah.com/ibnmajah/36/63>: "It was narrated from 'Abdullah that the Messenger of Allah (PBUH) said: 'Islam began as something strange and will go back to being strange, so glad tidings to the strangers.' It was said: 'Who are the strangers?' He said: 'Strangers who have left their families and tribes.'"

³³³ *Sunan Abi Dawud*, hadith 4596-4597, at <https://sunnah.com/abudawud/42>.

Salafist group, the less the number of other Muslims who are believed to belong to their sect.³³⁴ The most radical, violent, and *takfiri* jihadist Salafist groups, like the IS, tend to view most other Muslims as “apostates,” “polytheists,” “hypocrites,” “tyrants,” “innovators,” or “secularists,” which is why they so often target them with violence.³³⁵ In any case, this very same “saved” group is likewise identified as the “victorious group.” The latter term has undeniable apocalyptic significance, since that group’s task is to fight “infidels” and corrupted Muslims until the arrival of the end times and the defeat of the Dajjal and his minions.³³⁶ According to prophecy, this victorious group of dedicated *mujahidin* will conquer Rome, reconquer Constantinople a second time, defeat the Jews, establish a “rightly-guided” Caliphate, and conquer the entire world for Islam before Judgment Day.³³⁷

The fourth was a change in focus that has been justifiably highlighted by William McCants: the shift from overt messianism in the eras of al-Zarqawi and Abu ‘Umar al-Baghdadi to continued apocalypticism but attenuated messianism in the era of Abu Bakr al-Baghdadi. The main indicator of this shift was the emphasis on the Mahdi earlier and the lack of emphasis on this messianic figure later. According to disgruntled IS chief judge Abu Sulayman al-‘Utaybi, for example, Abu Ayyub al-Masri had rushed to establish an Islamic state in 2006 because he believed that the Mahdi would appear within a year, had ordered his men to build pulpits for the Mahdi to ascend in the Prophet’s Mosque in Medina, the Umayyad Mosque in Damascus, and the al-Aqsa Mosque in Jerusalem, had ordered his men to conquer the whole of Iraq to prepare for the Mahdi’s coming, and had replied – to those who criticized him for making strategic decisions on an “apocalyptic timetable” – that “[t]he Mahdi will come any day.”³³⁸ In a 13 June 2006 proclamation, al-Masri stated that this apocalyptic war was in its early stages, but insisted that “[w]e are the army that shall hand over the [IS battle] flag to the servant of Allah, the Mahdi...If the first of us is killed, the last of us will deliver it.”³³⁹ In April 2007, apparently referring to a prophecy from Nu‘aymi

³³⁴ As Bhatt argues in “The Virtues of Violence,” p. 41, citing a 2005 lecture of al-Qa‘ida’s Anwar al-Awlaqi, “[c]entral...to salafi-jihadi political ideology is a virtuous vanguardism...that is “unaccountable to anyone....a belligerent group that is wholly immune to criticism and accountability” by outsiders.

³³⁵ See, e.g., Mohammed M. Hafez, “*Takfir* and Violence against Muslims,” in Moghadem and Fishman, eds., *Fault Lines in Global Jihad*, p. 44, note 11.

³³⁶ For an example of a “strong” *hadith* concerning this “victorious group,” see *Sunan Abi Dawud*, book 14, hadith 2478, at <http://quranmalayalam.com/hadees/abudawud/014.sat.html> : “Narrated Imran ibn Husayn: the Prophet (PBUH) said: ‘A group [*ta’ifa*] of my community [*umma*] will continue fighting for the truth, and will prevail over those who oppose them, until the last of them will kill al-Dajjal.’ I have reworded the translation a bit.

³³⁷ See, e.g., Abu Basir al-Tartusi, “Sifat al-*ta’ifa* al-mansura...,” *Minbar al-Tawhid wa al-Jihad* website, 6 February 2002. Cf. also this publication of Shaykh Abu Qatada al-Filistini, *Characteristics of the Victorious Party in the Founding of the State of the Believers (the Land of al-Sham)* (No place: al-Tibyan, no date), at

<https://ia802702.us.archive.org/26/items/CharacteristicsOfTheVictoriousParty/Characteristics-AbuQatada.pdf> , which consists of *fatwa*-style questions and answers concerning *al-ta’ifa al-mansura*, *jihad*, and the “end times”

(some provided by al-Tartusi). Note that both authors were later bitter opponents of the IS. For more on al-Tartusi, see Joas Wagemakers, “Between Purity and Pragmatism?: Abu Basir al-Tartusi’s Nuanced Radicalism,” in Rüdiger Lohlker and Tamara Abu-Hamdeh, eds., *Jihadi Thought and Ideology* (Berlin: Logos, 2013), pp. 16-37.

³³⁸ Al-‘Utaybi made these charges in a letter to al-Qa‘ida’s leadership, “Risalat al-shaykh Abu Sulayman al-‘Utaybi li-al-qiyada fi Khurasan,” cited in McCants, *ISIS Apocalypse*, p. 32. Cf. *ibid.*, pp. 39-41

³³⁹ See his statement cited in *ibid.*

ibn al-Hammad's *Kitab al-fitan*, Abu 'Umar al-Baghdadi stated that he hoped to lead his troops from Iraq to "aid the Mahdi clinging to the curtains of the Ka'ba" in Mecca.³⁴⁰ Such overwrought rhetoric alarmed the al-Qa'ida leadership, causing Bin Ladin and al-Zawahiri to complain, in a January 2008 letter, that this kind of "apocalyptic thinking" was "very dangerous."³⁴¹ Indeed, these fantasies about the imminent appearance of the Mahdi and onset of the end times failed to materialize prior to the April 2010 deaths of both Abu Ayyub and Abu 'Umar in a joint American-Iraqi military raid.

Having learned some lessons from the failure of his rasher and less competent predecessors, Abu Bakr al-Baghdadi adopted a rather different approach. He portrayed himself as one of twelve "just" Caliphs who would rule before the end times rather than claiming that he himself was the Mahdi or that the latter would soon appear. The exact reasons for this shift in rhetorical and strategic emphasis is difficult for outsiders to discern, but McCants has accurately summed up the situation as follows:

Caliph [al-]Baghdadi watched the first incarnation of the Islamic State nearly destroy itself because its leaders made hasty strategic decisions in the belief that the Mahdi would appear any day. Perhaps chastened by this experience, he has made the caliphate the locus of the group's apocalyptic imagination rather than the Mahdi. That does not mean the Mahdi will not appear soon – only a handful of just caliphs need to rule before the Mahdi arrives. But for the moment, the caliphate is a greater priority than doomsday. The shift of eschatological emphasis from the person of the Mahdi to the institution of the caliphate buys the group time to govern while sustaining the apocalyptic moment that has so captivated his supporters.³⁴²

As McCants also rightly noted, earlier messianic Caliphates had made the same shift over time as they moved from "apocalypse now" anticipation towards long term institutionalization. This does not mean, however, that there has been a lessening of apocalyptic IS rhetoric, as its own proclamations and publications continue to illustrate clearly. Indeed, if anything, its apocalyptic rhetoric has arguably only intensified. However, it will be interesting to watch what effects the rapid destruction of the IS' Caliphate State in 2017 and early 2018 will have. Will these catastrophic defeats signal a return to greater messianic fervor and even more "urgent" apocalypticism, or will they lead to a shift in the other direction, towards greater rhetorical sobriety and the "languid" apocalypticism" of al-Qa'ida Central's leaders? Time will tell.³⁴³

Finally, it should be pointed out that the tumultuous and bloody events in Iraq and Syria during this new millennium likewise fueled renewed Shi'i apocalypticism, especially of the active and violent sort. On the one hand, increased sectarian violence against the Shi'i population in Iraq

³⁴⁰ Cited in *ibid*, pp. 142-3. For that particular prophecy, see Cook, *Studies in Muslim Apocalyptic*, p. 156.

³⁴¹ Cited in McCants, *ISIS Apocalypse*, p. 41.

³⁴² *Ibid*, p. 143. As he also noted (*ibid*, p. 147), this was a "clever way to prolong the apocalyptic expectations of the Islamic State's followers while focusing them on the immediate task of state building."

³⁴³ See *ibid*, p. 146, for those contrasting terms.

and beyond enraged fellow Shi'a, and increasingly caused them to volunteer for and serve in Shi'i militias that were fighting Sunni jihadists in Iraq and Syria. It also increased their messianic and apocalyptic fervor and expectations. For example, a former leader of the Kata'ib Hizballah (Hizballah Brigades) militia in Iraq insisted that "[w]hat is happening in al-Sham is the beginning of the tribulation and is the beginning of the appearance of the army of the Sufyani", which he identified as the anti-Asad Jaysh al-Suri al-Hurr (Free Syrian Army).³⁴⁴ Similarly, a member of the Iranian Parliament and former deputy intelligence minister, Ruhullah Husaynian, opined that the fighting between Sunnis and Shi'a in Syria may be "the event that promises the appearance of his holiness [the Hidden Imam]..."³⁴⁵

On the other, sectarian violence in Iraq and later Syria may have strengthened active apocalyptic factions within the Iranian clerical establishment and the intelligence and security forces of the Iranian regime. This was seemingly reflected in the messianic and chiliastic beliefs and rhetoric of former Iranian President Mahmud Ahmadinezhad, who frequently made allusions to preparing the way for the return of the Hidden Imam in his speeches, including those at the United Nations.³⁴⁶ His official encouragement of expectations concerning the Hidden Imam's forthcoming Advent (*zuhur*) represented a break with the stance of most earlier Iranian regimes, which had relegated the Mahdi's reappearance to a "distant and unspecified future", discouraged speculations about his return, and condemned any disruptive attempts to hasten it.³⁴⁷ It also represented a break with the attempts by the clerical leaders and others who had laid the groundwork for the Iranian Revolution to reinterpret Shi'i messianic religious traditions by interpreting the Hidden Imam's return as "an all-embracing revolution (*inqilab*) with this-worldly causes and consequences", thereby reducing the Hidden Imam's place to a "purely nominal one."³⁴⁸ In short, Iranian rulers had traditionally used messianic and apocalyptic themes to "authenticate and enhance clerical authority as the legitimate agent of the Mahdi." However,

³⁴⁴ Cited in McCants, *ISIS Apocalypse*, p. 108. Earlier, some Shi'i apocalyptic literature had identified al-Zarqawi himself as the Sufyani. See the sources cited by David Cook, "Iraq as the Focus for Apocalyptic Scenarios," *CTC [Combating Terrorism Center] Sentinel* 1:11 (October 2008), p. 22, note 7. It was also no coincidence that the Iraqi Shi'i militia group of Muqtada al-Sadr was known as the Jaysh al-Mahdi (Army of the Mahdi), which was later revived and renamed the Saraya al-Salam (Peace Companies).

³⁴⁵ Cited in McCants, *ISIS Apocalypse*, p. 110. Cf. also other statements by Husaynian, cited by Mariam Karouny, "Apocalyptic Prophecies Drive Both Sides to Syrian Battle for End of Time," Reuters, 1 April 2014, at <https://www.reuters.com/article/us-syria-crisis-prophecy-insight/apocalyptic-prophecies-drive-both-sides-to-syrian-battle-for-end-of-time-idUSBREA3013420140401?irpc=932> : "As Imam [Ja'far al-] Sadiq has stated, when the (forces) with yellow flags fight anti-Shi'ites in Damascus and Iranian forces join them, this is a prelude and a sign of the coming of his holiness."

³⁴⁶ See, e.g., Amanat, *Apocalyptic Islam and Iranian Shi'ism*, pp. 239-44, on the radical nature and impact of Ahmadinezhad's pronouncements. In fact, he seems to have believed that the Mahdi's return was imminent, and indeed that he himself would hand Iran over to the Mahdi at the end of his tenure as president. See Kasra Naji, *Ahmadinejad: The Secret History of Iran's Radical Leader* (Berkeley and Los Angeles: University of California, 2008), p. 93, citing a 4 May 2007 Iranian newspaper article. See also this statement Ahmadinezhad made on 19 December 2006: "Let me enlighten all Christians that hardship, threats and wars will come to an end soon, and let there be no doubt that in the not-too-distant future the [Muslim] prophet Jesus will rise again alongside the Mahdi to put an end to injustice in the world." Cited in *ibid.*, p. 91.

³⁴⁷ Amanat, *Apocalyptic Islam and Iranian Shi'ism*, p. 244.

³⁴⁸ *Ibid.*, pp. 62-5. Among those figures were 'Ali Sharia'ti, Murtaza Mutahhari, and Khumayni himself.

Ahmadinezhad had the backing of former members of the banned Anjumani-i Hujjatiyya (Hujjatiyya Society), Iran-Iraq war veteran organizations, the burgeoning cult associated with the mosque of Jamkaran, new apocalyptic websites and journals, and very powerful elements within the Iranian establishment, including key components within the IRGC, the paramilitary Sazman-i Basij-i Mustaz'afin (Organization for the Mobilization of the Oppressed), and a number of hardline and/or apocalyptic clerical figures such as the Ayatallah Misbah-Yazdi.³⁴⁹

Furthermore, despite his replacement as President by the supposed “pragmatist” Hasan Ruhani in 2011, growing chaos and sectarian fighting in both Iraq and Syria also caused the regime to augment the number of elite IRGC military and paramilitary units operating in those countries, along with those of Hizballah fighters from Lebanon, in order to protect the besieged regimes in Baghdad and Damascus. Such actions, even if taken in large part for geopolitical reasons, could easily be interpreted by those with an apocalyptic mindset as further signs of the arrival of the “end times.” Even Abbas Amanat, who expressed hope in 2009 that these dangerous apocalyptic trends would have a “limited shelf life,” noted then that “the Iran of today is still rife with messianic aspirations...more, arguably, than at any time in recent Shi'i history.”³⁵⁰ If anything, subsequent dramatic and tumultuous events in the region have only further fueled such apocalyptic expectations. Nevertheless, Western experts continue to disagree about whether the pronounced apocalyptic thinking within certain competing factions of the Iranian leadership constitutes a significant threat to the region and the world, especially if Iran manages to develop nuclear weapons.³⁵¹ Be that as it may, those who have overly optimistic views about the “rationality” and “normalcy” of the clerical regime seem to be engaged in wishful thinking.

³⁴⁹ Ibid, pp. 222-39, 240, 244-8. For more on the IRGC, see Afshon Ostovar, *Vanguard of the Imam: Religion, Politics, and Iran's Revolutionary Guard* (New York: Oxford University, 2016). For the Basij, see Saeid Golkar, *Captive Society: The Basij Militia and Social Control in Iran* (Washington, DC and New York: Woodrow Wilson Center/Columbia University, 2015). The Basij was originally an independent volunteer militia established in April 1980 by Khumayni, but in February 1981 it was officially incorporated into, and thereby subordinated to, the IRGC. It is fiercely loyal to the Supreme Leader and has local branches throughout Iran to help monitor and control the population.

³⁵⁰ Amanat, *Apocalyptic Islam and Iranian Shi'ism*, pp. 250-1, 221.

³⁵¹ Cf., e.g., Mehdi Khalaji, *Apocalyptic Politics: On the Rationality of Iranian Policy* (Washington, DC: Washington Institute for Near East Policy, [January] 2008); and Timothy R. Furnish, *A Western View on Iran's WMD Goal: Nuclearizing the Eschaton, or Pre-Stocking the Mahdi's Arsenal?* (Dubai, UAE: Institute for Near East and Gulf Military Analysis, [January] 2011); Naji, *Ahmadinejad*, esp. chapter 3; and Yossi Melman and Meri Javedanfar, *The Nuclear Sphinx of Tehran: Mahmoud Ahmadinejad and the State of Iran* (New York: Carroll & Graf, 2007), chapter 3. In my opinion, the first two authors underestimate the potential dangers of Shi'i apocalypticism in Iran, the first by exaggerating the extent of the Iranian regime's “rationality,” the latter by assuming that such apocalypticism will remain passive. Conversely, the latter book seems overly alarmist. From the information in Naji's book, moreover, it seems as though during Ahmadinezhad's tenure as president, there was a definite shift in certain ruling circles from passive to active apocalypticism. Moreover, in early 2006 one of the president's major spiritual advisors, Ayatallah Misbah-Yazdi, reportedly emphasized the crucial importance of violence to the Shi'i Islamist project: “We must wipe away the shameful stain whereby some people maintain that violence has no place in Islam.... We have decided and are determined to argue and prove that violence is at the heart of Islam.” See *ibid*, p. 98, citing a 9 March 2006 TV interview with Iranian reformist intellectual 'Abd al-Karim Surush. This suggests that, amongst certain leading clerical hardliners and their followers in Iran, there has been a recent move towards violent active apocalypticism.

Martyrdom in Islam and Suicide Attacks

One other very important factor that has considerable relevance to the question of whether jihadists might be interested in carrying out a bioterrorism attack using human vectors has to do with Islamic notions of martyrdom. Hence it is important to clarify what those notions are and how they have developed, as well as to explain how contemporary jihadist groups have interpreted them – and in some cases reinterpreted them – in order to justify carrying out “martyrdom operations,” i.e., suicide attacks. This is all the more important given that too many Western analyses of the motivational factors that induce Islamists to commit suicide attacks have downplayed their religious inspiration and justifications, as well as the broader cultural appeal of self-sacrifice on behalf of the *umma* within core regions of the *dar al-Islam*, and have thereby misconstrued their significance by ignoring, minimizing, or obscuring one of their primary behavioral drivers.

Indeed, there is now a large and ever-growing literature on suicide terrorism and the purported motives of suicide terrorists. Unfortunately, the value of much of that literature is undermined or vitiated because of the aforementioned problems of Western “mirror imaging,” including the intrinsic and at times myopic biases associated with particular disciplinary perspectives, the uncritical adoption of overly rationalist analytical approaches by “social scientists,” and widespread ignorance about the specific historical, cultural, religious, and national contexts within which such methods have become disproportionately and depressingly commonplace. A second major problem has to do with the less-than-representative nature of the historical cases that have been subjected to analysis. In trying to assess the contemporary security threats posed by suicide terrorism, which are nowadays attributable overwhelmingly to Islamists waging armed *jihad*, there has been far too much focus on earlier and non-Islamic examples of the perpetrators of such attacks, e.g., a handful carried out by secular Arab nationalists and socialists (mainly in connection with the conflict with Israel), and a much larger number carried out by members of two ethno-nationalist groups with a quasi-Marxist ideology, the Partiya Karkeren Kurdistan (PKK: Kurdish Workers’ Party) in Turkey and the Liberation Tigers of Tamil Eelam (LTTE, better known as the Tamil Tigers) in Sri Lanka. In all three contexts, however, both the organizers and perpetrators of these types of attacks were the products of particular social environments with a pronounced religio-cultural emphasis on self-sacrifice, respectively Muslim and Hindu, as well as of communitarian “us-versus-them” tribal societies with “honor-shame” cultures.³⁵² In short, even members of those two societies who may later have embraced secular

³⁵² Several years ago I discussed, in a series of emails, certain Hindu religio-cultural factors that affected the behavior of the Tamil Tigers with one of the world’s leading experts on the group, Australia-based historian and anthropologist Michael Roberts, who agreed that such factors were of crucial importance in understanding the group’s actions, including its large-scale adoption of suicide attacks. For more on honor-shame cultures, see the important work of John G. Peristiany, ed., *Honour and Shame: The Values of Mediterranean Society* (Chicago: University of Chicago, 1966). In cultural anthropology, a tripartite distinction has long been drawn between a) guilt-innocence societies/cultures, b) honor-shame societies/cultures, and c) fear-power societies/cultures. In honor-shame societies/cultures, which are common in much of North Africa, the Middle East, South Asia, and East Asia,

political ideologies were nonetheless raised and socialized within cultural complexes that valued self-sacrifice for both religious and sociological reasons. These same factors likewise affect Islamists, who in addition explicitly embrace Islamic religious beliefs that – as will soon become clear – sanction and indeed promote military forms of martyrdom. Hence these three examples of ostensibly non-religious suicide terrorism do not, contrary to the claims of some, demonstrate that the overtly religious dimensions of Islamist “martyrdom operations” are not of crucial importance.

It is not the purpose of this section to explicate and assess the multiplicity of perspectives on suicide terrorism that one encounters in this literature, but rather to focus more narrowly on the ideological factors that underlie and often serve to precipitate jihadist “martyrdom operations.” This is all the more necessary because many analysts have largely avoided discussing religious and ideological motivational factors, preferring instead to concentrate on operational and/or strategic military matters.³⁵³ Others have instead highlighted a diverse array of political, social,

Peristiany argued (ibid, p. 10) that honor, whether ascribed generally to one’s group or acquired personally, is at “the apex of the social pyramid of temporal social values and it conditions their hierarchical order.” It follows, as many observers have noted, that an individual who failed to protect his own, his family’s, or his group’s honor was dishonored and made to feel ashamed, and therefore that one had to constantly prove and assert oneself, and if necessary – with, if the violators were outsiders, the collective help of his kinsmen and/or community – restore that honor by getting revenge on those who had besmirched it. Needless to say, such an attitude easily lends itself to the use of aggression and violence to restore real or imagined insults to honor. As one Christian missionary writer has put it, “[w]hen honor is life’s most important commodity, then any insult to one’s honor must be vigorously defended. Most honor-shame cultures are antagonistic, which means they compete for their honor. When a woman is shamed, her male relatives appear weak for failing to protect her. The cultural response is to defend the family’s name with aggression, either against the woman herself or against the aggressor.” See “The 5 (Unwritten) Rules of Honor-Shame Cultures,” HonorShame website, 11 January 2017, at <http://honorshame.com/the-5-unwritten-rules-of-honor-shame-cultures/>. Note that all of the geographical regions in which suicide attacks became disproportionately common – Japan (for World War II *kamikazes*), Sri Lanka, and much of the Muslim world – are characterized by honor-shame cultures that provide significant amounts of collective social support for such behavior. This is surely not coincidental, even if these underlying cultural factors have been inexplicably ignored by many writers on suicide terrorism.

³⁵³ For examples of works focusing primarily on the practical operational aspects, advantages, or disadvantages of suicide attacks, see Bruce Hoffman and Gordon H. McCormick, “Terrorism, Signaling, and Suicide Attack,” *Studies in Conflict and Terrorism* 27 (2004), pp. 243-81; Diego Gambetta, ed., *Making Sense of Suicide Missions* (Oxford: Oxford University, 2005); Andrea Beccaro and Claudio Bertolotti, “Suicide Attacks: Strategic Perspective and Afghan War,” *ISPI Analysis* 283, March 2015, available at https://www.ispionline.it/sites/default/files/pubblicazioni/analysis_283_beccaro.bertolotti_2015.pdf; Charlie Winter, *War By Suicide: A Statistical Analysis of the Islamic State’s Martyrdom Industry* (The Hague: International Center for Counter-Terrorism [ICCT], [February] 2017), available at <https://icct.nl/wp-content/uploads/2017/02/ICCT-Winter-War-by-Suicide-Feb2017.pdf> (even though Winter relies primarily on Arabic-language sources and understands their religious doctrines); Jason Warner and Hilary Matfess, *Exploding Stereotypes: The Unexpected Operational and Demographic Characteristics of Boko Haram’s Suicide Bombers* (West Point, NY: Combating Terrorism Center, [August] 2017), available at <https://ctc.usma.edu/app/uploads/2017/08/Exploding-Stereotypes-1.pdf>; and Jason Warner and Ellen Chapin, *Targeted Terror: The Suicide Bombers of al-Shabaab* (West Point, NY: Combating Terrorism Center, [February] 2018), available at <https://ctc.usma.edu/app/uploads/2018/02/Targeted-Terror-3.pdf>. The late Ehud Sprinzak accurately summarized the operational advantages of the use of this particular method: “suicide terrorism has inherent tactical advantages over ‘conventional’ terrorism: It is a simple and low-cost operation (requiring no escape routes or complicated rescue operations); it guarantees mass casualties and extensive damage (since the suicide bomber can choose the exact time, location, and circumstances of the attack); there is no fear that interrogated terrorists will surrender important information (because their deaths are certain); and it has an immense

economic, organizational, or psychological factors as being of crucial importance in motivating certain individuals to carry out suicide attacks.³⁵⁴ Some have even gone so far as to explicitly reject claims that Islamic religious beliefs are paramount causal factors in the disproportionate number of suicide attacks that are nowadays being carried out by jihadists. For example, Robert Pape and his acolytes have argued that the growing prevalence of such operations in recent decades is the result of a strategy adopted by “nationalist” insurgents to resist foreign invasion, occupation, or domination, and is thus not mainly attributable to Islamic religious beliefs.³⁵⁵ However, without denying that a multiplicity of other factors may also have some significance in particular historical, cultural, and regional cases, it is absurd to preemptively, cavalierly, or categorically dismiss the key role played by religious motivations given the ever-growing number of cases where Islamists, in the process of waging *jihad*, are aggressively promoting, organizing, and carrying out what they regard as religiously-sanctioned “martyrdom operations.”³⁵⁶ Perhaps not surprisingly, most of

[psychological] impact on the public and the media (due to the overwhelming sense of helplessness)... The prevalence of suicide terrorism during the last two decades testifies to its gruesome effectiveness.” See Ehud Sprinzak, “Rational Fanatics” in *Foreign Policy*, 20 November 2009, available at <https://foreignpolicy.com/2009/11/20/rational-fanatics/>.

³⁵⁴ For examples of studies that emphasize multiple causal factors, see Assaf Moghadam, “The Roots of Suicide Terrorism: A Multi-Causal Approach,” in Ami Pedahzur, ed., *Root Causes of Suicide Terrorism: The Globalization of Martyrdom* (London and New York: Routledge, 2006), pp. 81-107; and Rashmi Singh, *Hamas and Suicide Terrorism: Multi-Causal and Multi-Level Approaches* (London and New York: Routledge, 2011). For illustrations of divergent (but not necessarily incompatible) interpretations, cf., e.g., Mia Bloom, *Dying to Kill: The Allure of Suicide Terror* (New York: Columbia University, 2005), who emphasizes (pp. 29-31, 94-6) the importance of group competition and “outbidding” between rivals; Lankford, *Myth of Martyrdom*, esp. chapter 3, who claims that suicide terrorists, unlike other terrorists, are actually suicidal; and Mohammed M. Hafez, *Manufacturing Human Bombs: The Making of Palestinian Suicide Bombers* (Washington, DC: United States Institute of Peace, 2006), chapters 3-5, who (rightly) argues, based on the application of certain social movement theories, that one has to consider the organizational, individual, and societal motives that are operative in order to assess suicide terrorism properly. See also idem, *Suicide Bombers in Iraq: The Strategy and Ideology of Martyrdom* (Washington, DC: United States Institute of Peace, 2007).

³⁵⁵ Robert Pape, *Dying to Win: The Strategic Logic of Suicide Terrorism* (New York: Random House, 2006), p. 23: “...modern suicide terrorism is best understood as an extreme strategy for national liberation against democracies with troops that pose an imminent threat to control the territory the terrorists view as their homeland.” See further *ibid.*, pp. 105-25, where he insists that American military occupation is more important in catalyzing al-Qa‘ida suicide attacks than “Salafist” religious beliefs. It should be emphasized that Pape is a social scientist who previously wrote about air power and coercion, not a historian, religious studies, or area studies specialist with any expertise on Islamic history, Islamic religious doctrines, or the Islamic world. Moreover, despite receiving a good deal of criticism for many of his arguments by scholars with expertise in those areas, he unfortunately proceeded to double down on those arguments in a second book devoted to the subject. See idem and James K. Feldman, *Cutting the Fuse: The Explosion of Global Suicide Terrorism and How to Stop It* (Chicago: University of Chicago, 2010). For a good critical analysis of Pape’s first book, see Assaf Moghadam, “Suicide Terrorism, Occupation, and the Globalization of Martyrdom: A Critique of *Dying to Win*,” *Studies in Conflict and Terrorism* 29 (2006), pp. 707-29.

³⁵⁶ See the trenchant criticism of such myopic Western analyses by Shi‘i cleric and Hizballah Deputy Secretary-General Na‘im Qasim, published in English as Naim Qassem, *Hizballah: The Story from Within* (London: Saqi, 2005), p. 44 (italics added): “The West was astonished at the level of sacrifice demonstrated among Hizballah’s ranks and resorted to such invalid explanations as the submission of youth to the influence of chemicals, their subjugation to peculiar ways of life or complicated psychological training or, alternatively, their enticement through material reward in compensation for their deprivation and in encouragement of martyrdom. Western thinking sanctifies life and attempts to affix the individual to it at all costs. *It was therefore only natural for the West to grasp the meaning of martyrdom by resorting to a material explanation for these fighters’ religious attachment.* Westerners have every right not to understand the spiritual and developmental results of following the Islamic

those who have dismissed the importance of such religious motivations have very little expertise about Islam.

Before turning to martyrdom per se, it is worth briefly considering the relationship between “normal” suicide and the voluntary and heroic self-sacrifice of the self-styled martyr. Here one can usefully begin with the categorical distinctions that French sociologist Émile Durkheim sought to make between different forms of suicide in his classic study of the subject. The first was “egoistic suicide,” his term for the standard type in which individuals are so emotionally distressed that they opt to end their own lives to escape from pain and suffering. His argument was that individuals who were less well integrated into society because they had lost crucial social bonds, such as older men, were the most likely to commit egoistic suicide.³⁵⁷ The second was “anomic suicide,” which was closely related to egoistic suicide inasmuch as it was an extreme response by individuals who felt acutely disconnected from society, especially in times of social, economic, or political upheaval.³⁵⁸ These two types were thus sharply distinguished from the third and fourth types identified by Durkheim, which he argued were both attributable to an excessively high degree of integration into particular social groups.³⁵⁹ The third was “fatalistic suicide,” which occurred under conditions of excessive social regulation that created feelings of overwhelming hopelessness, such as political despotism, harsh foreign occupation, economic exploitation, or extreme levels of discipline imposed by certain societal groups on their members.³⁶⁰ In the words of Steven Stack, in overregulated, repressive, or highly controlled conditions of this type, which most acutely afflict people who are incarcerated in prisons, already unhappy individuals “have an additional reason for viewing life as meaningless and are more apt to commit suicide.”³⁶¹

However, it was the fourth type of suicide identified by Durkheim that is most relevant to our particular topic: “altruistic suicide.” According to his analysis, however, this type is “a species with several varieties.”³⁶² One such species is “obligatory” altruistic suicide, which occurs in societies in which certain categories of people are pressured to end their lives in order to avoid dishonor, e.g., elderly or infirm men who kill themselves so as to die with dignity rather than become a burden on society, wives who kill themselves when their husbands die, and retainers, servants, or slaves who likewise kill themselves when their masters die. In these circumstances, people kill themselves because it is their societal *duty*, and if they fail to do so, they are “dishonored

order...[and many of those] who have accepted the fact of *jihad* have done so only due to the impossibility of negating it, but partial explanations still reign and the core reasons for *jihad* are still misunderstood...The essence – that which springs from commitment to religion – lies in launching towards martyrdom and not escaping from it.”

³⁵⁷ Émile Durkheim, *Suicide: A Study in Sociology* (New York: Free Press, 1951 [1897]), esp. pp. 208-216.

³⁵⁸ *Ibid*, pp. 241-76.

³⁵⁹ *Ibid*, p. 217: “If...excessive individuation leads to suicide, insufficient individuation has the same effects. When a man has become detached from society, he encounters less resistance to suicide in himself, and he does so likewise when social integration is too strong.”

³⁶⁰ *Ibid*, p. 276, note 25. Note that Durkheim himself believed that “fatalistic suicide” had much more historical than contemporary importance.

³⁶¹ Steven Stack, “Durkheim’s Theory of Fatalistic Suicide: A Cross-National Approach,” *Journal of Social Psychology* 107 (1979), p. 162.

³⁶² *Ibid*, p. 222.

and also punished, usually by religious sanctions.”³⁶³ The second species is “optional” altruistic suicide, in which an individual voluntarily renounces life and seeks out death for an ostensibly “higher” purpose.³⁶⁴ Such purposes could include saving or benefiting others, promoting the interests of the larger collective group, preserving the traditions and honor of a society, or appeasing the gods. Since this type of self-sacrifice springs from hope, enthusiasm, or even joy, not from despair or external pressure, no other type “has a more definitely altruistic character.”³⁶⁵ Would-be martyrs of all kinds would clearly fall into this category, since “they sought death with all their power and behaved so as to make it inevitable.”³⁶⁶

The most common meaning of the term “martyr” in various religious and non-religious contexts nowadays refers to someone who, by refusing to renounce his or her most cherished beliefs in the face of external pressure and coercion, is made to suffer terribly and/or is killed as a result. When defined in the broadest sense, one can find many examples of both non-religious and religious martyrs, i.e., individuals who were willing to suffer or even sacrifice their own lives for their principles or causes, in a wide variety of historical and cultural contexts. One of the most famous such persons was the ancient Athenian philosopher Socrates (c. 470-399 BCE), who was willing to die for what he believed in rather than try to escape when he had the opportunity.³⁶⁷ However, the term took on an increasingly religious connotation in the West, given its prominence in the Jewish and especially the canonical Christian traditions.³⁶⁸ This raises the question of

³⁶³ Ibid, p. 219. Of course, one may well argue that these kinds of obligatory suicides are often not really voluntary or altruistic at all, but rather the product of societal coercion, since (p. 220) they were “imposed by society for social ends.” How many upper caste wives in India really wanted to throw themselves into their husbands’ or their own funeral pyres in the archaic and now banned Indian custom known as *sati* (named after the Indian goddess of marital felicity and longevity, and the consort of Shiva)? For more on this custom, see John Stratton Hawley, ed., *Sati, the Blessing and the Curse: The Burning of Wives in India* (New York: Oxford University, 1994). And how many slaves really wanted to die following their masters’ deaths? To the extent that these actions were coerced, they cannot be justly characterized as “altruistic.”

³⁶⁴ Ibid, pp. 221-3. Note, however, that Durkheim distinguishes between optional altruistic suicide, whereby individuals are not forced to give up their lives but do so for their honor and to gain social prestige, and acute altruistic suicide, whereby individuals “kill themselves purely for the joy of sacrifice, because, even with no particular reason [!!!], renunciation is considered praiseworthy.” Ibid, pp. 223-8. To me, this additional distinction only muddies the conceptual water. (He then follows this up with a bizarre section [pp. 228-39] concerning high rates of military suicide that seem not to be related to bravely sacrificing oneself in combat, in which case they would hardly fall into the category of “altruistic.”) Hence in the body of this chapter, I will not adopt such a confusing formulation.

³⁶⁵ Ibid, p. 225.

³⁶⁶ Ibid, p. 227.

³⁶⁷ Nor was Socrates the only such pagan philosopher-martyr. For some other examples illustrated by excerpts from primary sources, see Friedrich Avemarie and Jan Willem van Henten, eds., *Martyrdom and Noble Deaths: Selected Texts from Graeco-Roman, Jewish and Christian Antiquity* (London and New York: Routledge, 2002), chapter 1.

³⁶⁸ Cf. *ibid*, chapters 2-4, for selections from primary sources; Shmuel Shepkaru, *Jewish Martyrs in the Pagan and Christian Worlds* (New York: Cambridge University, 2006), chapters 1-3, who argues that Hellenistic Jewish notions of martyrdom reflected the borrowing and reinterpretation of the Roman concept of voluntary death; Arthur J. Droge and James D. Tabor, *A Noble Death: Suicide and Martyrdom Among Christians and Jews in Antiquity* (New York: HarperCollins, 1992), who argue that early Jews and Christians did not generally condemn voluntary death, whether simple suicide or acts of martyrdom, as sinful until St. Augustine decisively did so (unless God commanded it); Daniel Boyarin, *Dying for God: Martyrdom and the Making of Christianity and Judaism* (Stanford, CA: Stanford University, 1999), who emphasizes that nascent Judaism and nascent Christianity were deeply

whether there was a fundamental difference between Christian notions of martyrdom, which thereafter became more commonplace in the West, and earlier pre-Christian examples of heroic self-sacrifice, which G. W. Bowersock answers in the affirmative.³⁶⁹ In such religious contexts, then, the word was applied to those unusually devout, courageous individuals who were willing to “bear witness” for their faiths, even in the face of severe punishment, torture, or death, and thereby sacrifice themselves for an ostensibly higher divine cause.³⁷⁰ For this very reason, many of these heroic individual acts of martyrdom – if they were recorded and given appropriately hagiographical treatment – thenceforth came to serve as models of meritorious conduct for other believers, and have thus often had “far-reaching social, political, and cultural ramifications.”³⁷¹

However, there are significant differences between the historical contexts within which martyrdom concepts and narratives developed in Judaism and Christianity, on the one hand, and that within which such ideas developed in Islam, on the other. The key distinction is that for centuries both Jews – apart from those living within the ancient Jewish-ruled kingdoms of Israel and Judah in the 1st millennium BCE – and the early Christians generally constituted small, vulnerable minority religious communities within the bosom of much larger imperial states ruled by peoples with different beliefs and religious faiths. Hence their members were periodically subjected to discrimination, and at times dispossession and severe persecution, whenever they

intertwined, including with respect to the development of martyrology discourses; and Candida R. Moss, *Ancient Christian Martyrdom: Diverse Practices, Theologies, and Traditions* (New Haven, CT: Yale University, 2012), who likewise interprets Christian martyrdom within its broader ancient context.

³⁶⁹ G. W. Bowersock, *Martyrdom and Rome* (Cambridge, UK: Cambridge University, 1995), p. 5: “Martyrdom was not something that the ancient world had seen from the beginning. What we can observe in the second, third, and fourth centuries of our era is something entirely new. Of course, in earlier ages principled and courageous persons, such as Socrates in Athens or the three Jews in the fiery furnace of Nebuchadnezzar, had provided glorious examples of resistance to tyrannical authority and painful suffering before unjust judges. But never before had such courage been absorbed into a conceptual system of posthumous recognition and anticipated reward, nor had the very word martyrdom existed as the name for this system.” In various ways, the authors cited in the previous note have sought to challenge such a sharp distinction between Christian and earlier types of voluntary death.

³⁷⁰ The English word “martyr” derives from the Greek *martyrs* (μάρτυς), meaning “witness,” originally in the sense of someone who provides legal testimony based on personal observation. Hence being a martyr in the sense of a witness or testifier did not necessarily involve suffering or dying, but during the early Christian centuries the term increasingly came to be associated with those who suffered or died as a result of “witnessing” for their God. Thenceforth the act of witnessing and suffering or dying for one’s beliefs was increasingly known as martyrdom. In Arabic, the word that has become synonymous with “martyr” is *shahid*, although originally it mainly referred to a legal witness or eyewitness, a meaning it still retains to this day. See Rudolf Peters, “Shahīd,” *EI2*, volume 9, pp. 207-8. Asma Afsaruddin insists that in the *Qur’an* itself (e.g., in *sura* 3:98) the singular form of that term referred solely to such a witness (either a human or Allah, as in *sura* 6:19), and also notes that “the Qur’anic locution most commonly understood to refer to the martyr was *man qatila fī sabīl Allāh* (‘one who is slain in the path of God’), along with its variants.” See Afsaruddin, *Striving in the Path of God*, p. 95. She further claims (ibid) that “it is only in the post-Qur’anic literature – exegetical, *hadīth*, juridical, and literary hortatory works – that the term *shahīd* explicitly acquires the specific meaning of “one who bears witness for the faith,” particularly by laying down his or her life”, a shift that was almost certainly due to Christian influences. Yet she herself points out that the plural form *shuhada’* in *sura* 4:69 could mean either “witness” or “martyr,” and that it was often interpreted by later authors as a reference to martyrdom. See ibid, pp. 109-115. The same is true of *suras* 3:140 and 57:19. See Eton Kohlberg, “Shahīd,” *EI2*, volume 9, p. 204. Hence it is clear that variants of the verbal root *shahida* could refer either to witnesses or martyrs in the *Qur’an*.

³⁷¹ Meir Hatina and Meir Litvak, “Introduction,” in idem, eds., *Martyrdom and Sacrifice in Islam: Theological, Political, and Social Contexts* (London: I. B. Tauris, 2017), p. 2.

were perceived as threats by the ruling political authorities. It is therefore hardly surprising that most of those two communities' religious martyrs were brave, devout Jews or Christians who thereafter became famous for refusing to renounce their faith in the face of persecution, coercion, and death. This remained the situation for Jews throughout much of the world until the establishment of the state of Israel, and for most Christians until certain Roman Emperors adopted more favorable attitudes towards, or themselves converted to, Christianity.³⁷² In short, both Jews and Christians were subject to persecution for several centuries, and many were therefore "martyred" by powerful enemies who embraced other beliefs and faiths.³⁷³

In marked contrast, Muhammad and the early Muslim community were only subjected to discrimination and relatively minor acts of persecution for a period of twelve or so years, from the moment when Muhammad first began preaching his religion in Mecca in 610 until his "emigration" (*hijra*), along with seventy of his companions (*sahaba*), to Medina in 622. Muhammad himself, a member of a minor branch of the ruling Quraysh tribe in Mecca, did not suffer personal persecution at the hands of the pagan Meccans. Indeed, although he and his earliest followers may have been rejected, mocked, socially isolated, ostracized, and sometimes threatened in response to his uncompromising preaching, reactions that the *Qur'an* depicts as mistreatment of the weak and "oppressed" (*mustad'afun*) by arrogant pagan "oppressors" (*mustakbirun*), very few of them were physically attacked or harmed since they were protected by their (non-Muslim) family and tribal members.³⁷⁴ The main exceptions were some early converts to Islam who had low social status and/or no local Arab tribal protection, the most famous of whom was the Ethiopian slave Bilal.³⁷⁵ In sum, as David Cook rightly notes, "the outside observer is struck by the comparatively minor level of the persecution against the emerging Muslim community."³⁷⁶ Moreover, this type of harassment largely ended when Muhammad and his followers left for Medina, where he quickly assumed a position of political and military leadership. From that point on, it was mostly Muslims who were doing the attacking, converting, and subjugating of "infidels,"

³⁷² To be more specific, the Emperor Constantine officially enshrined legal religious tolerance for Christians in the 313 Edict of Milan, and the Emperors Theodosius I, Gratian, and Valentinian II then jointly made Nicene Christianity into the official state religion of the Empire in the 380 Edict of Thessalonica. Note, however, that this standard narrative concerning the persecution of the early Christians has been challenged by revisionist historian Candida Moss in *The Myth of Persecution: How Early Christians Invented a Story of Martyrdom* (New York: HarperCollins, 2014), esp. chapters 3-8.

³⁷³ This resulted in the development of Jewish and Christian martyrdom concepts that involved "defying the oppressor." See Meir Hatina, *Martyrdom in Modern Islam: Piety, Power, and Politics* (New York: Cambridge University, 2014), chapter 1.

³⁷⁴ Cf., e.g., *Qur'an* 4:75, 8:26, 35:43, 37:35, and 63:5. This distinction between the "oppressed" and the "oppressors" later became a key theme in Shi'i Islamism, both in Iran and Lebanon.

³⁷⁵ David Cook, *Martyrdom in Islam* (Cambridge UK: Cambridge University, 2007), pp. 12-14. Moreover, even those tortures (ibid, p. 14) were "individual rather than institutional in nature and were not sustained over a lengthy period of time." Other Muslim martyrs in this unprotected category included Sumayya bint Khayyat (the very first Muslim martyr, in fact), her husband Yasir, and their son 'Ammar.

³⁷⁶ Ibid.

not vice versa. Therefore, the Muslim paradigm of martyrdom soon “departed radically” from those of other, more heavily persecuted faiths, such as Judaism, Christianity, and Buddhism.³⁷⁷

Indeed, the most common type of Muslim martyrs were those known as “battlefield martyrs” (*shuhada’ al-ma’raka*), i.e., those who died in battle while waging *jihad fi sabil Allah*.³⁷⁸ In other words, this type of martyr *dies in the course of fighting and killing his enemies*, not while stoically albeit defiantly allowing himself to be tortured and/or murdered by supposedly unjust tyrants. Therefore, as Meir Hatina justly notes,

...in contrast to Christianity and Judaism, Islam sanctified martyrdom in the battle against infidels. It had none of the tenacious passivism of early Christianity. Instead of metaphorical soldiers of God, it called for actual soldiers who bore arms and used them.³⁷⁹

In short, Islamic “martyrdom (*shahada*) was directly associated with wartime jihad, with its parameters defined in the context of war guided by a religious imperative: to make God’s word supreme, or, alternatively, to block external aggression against His believers.”³⁸⁰ The inextricable link between battlefield martyrdom and being rewarded by Allah is described in *sura* 9:111 of the *Qur’an*: “Allah has bought from the believers their lives and their wealth in return for paradise: they fight in the way of Allah, kill and get killed...”³⁸¹ That reward is further specified, among other places, in *sura* 3:169: “And do not think of those who have been killed in the way of Allah as dead. They are rather living with their Lord, well provided for.”³⁸²

³⁷⁷ Ibid.

³⁷⁸ Kohlberg, “Shahīd,” p. 204.

³⁷⁹ Hatina, *Martyrdom in Modern Islam*, p. 36.

³⁸⁰ Ibid, p. 37.

³⁸¹ See Quran.com website, available at <https://quran.com/9/111-121> . I have employed the modified translation of this *sura* by David Cook, in *Martyrdom in Islam*, p. 19. Cf. also *Qur’an* 4:74 in *ibid*, available at <https://quran.com/4/74?translations=20> : “So let those fight in the cause of Allah who sell the life of this world for the Hereafter. And he who fights in the cause of Allah and is killed or achieves victory - We will bestow upon him a great reward.”

³⁸² See further the following two *suras*, 3: 170-171, in *ibid*, available at <https://quran.com/3/169-179> , as well as *suras* 47:4-6, in *ibid*, available at <https://quran.com/47/1-11> . There are nearly 150 *suras* describing or referring to the Heavenly Eden-like garden (*al-janna*) in the *Qur’an*, and nearly 180 referring to either Hell itself (*jahannam*) or “the Fire” (*al-nar*) that awaits those who end up there. See Reuven Firestone, “Martyrdom in Islam,” in the “Theology of Martyrdom” chapter in Rona M. Fields, ed., *Martyrdom: The Psychology, Theology, and Politics of Self-Sacrifice* (Westport, CT and London: Praeger, 2004), p. 145, notes 42 and 43. This indicates, as Firestone notes (*ibid*, p. 140), that the “afterlife is one of the most ubiquitous themes in the *Qur’an*”, and that these strenuous efforts to “implant the concept of heaven and hell” were in large part related to trying to induce the Muslims in Medina to fight their enemies and risk dying. Meanwhile, David Cook points out that the popular *jihad* literature on Paradise, in striking contrast to the formal legal literature, stresses not only the verdancy of the garden that awaits them, but above all the lurid sexual dimensions and benefits that martyrs will accrue. See Cook, *Martyrdom in Islam*, pp. 37-40, with some illustrative citations. For an Islamic discussion of these aspects of Paradise, see Maulana Abdullah Nana, *The Maidens of Jannat* (Karachi: Zam Zam, 2004), available at <https://www.kalamullah.com/Books/maidens.pdf> . The most comprehensive study of various aspects of the Islamic Paradise is that of Sebastian Günther and Todd Lawson, eds., *Roads to Paradise: Eschatology and Concepts of the Hereafter in Islam* (Leiden: E. J. Brill, 2016), 2 volumes. Several of the entries in volume 1 are particularly relevant.

Moreover, despite the subsequent expansion of the categories of Muslims who could potentially become martyrs after the period of the early Muslim conquests, dying while waging *jihad* was normally regarded as the most sublime way of leaving this world, since those who died as a direct result of the wounds they received in battle were considered martyrs who would be rewarded both “in this world and the next” (*shuhada’ al-dunya wa al-akhira*), i.e., both by their fellow Muslims on earth after their deaths and by Allah in Paradise.³⁸³ In the words of David Cook,

The Muslim ideal for a martyr became that person – usually a man – who through his active choice sought out a violent situation...with pure intentions, and was killed as a result of that choice. Ideally his actions expressed courage and defiance of the enemy, loyalty towards Islam and the pure intention to please God...³⁸⁴

In contrast, other categories of martyrs – e.g., those who die violently and prematurely but not in battle, those who are killed for their beliefs (like most Jewish and Christian martyrs), those who die from diseases or by accident, those who are chaste but secretly in love (the “martyrs of love”), those who die far from home, those who die a natural death whilst performing meritorious acts or leading a virtuous life, those who successfully fight against the evil in their souls, etc. – are only “martyrs in the next world” (*shuhada’ al-akhira*).³⁸⁵ A third category, to which we shall return, is constituted by Muslims who died in battle, but either a) for the wrong reasons, i.e., not primarily to make Allah’s word triumphant, but rather to show off their martial prowess or partake of spoils, or b) without truly embracing a belief in Islam (the category of Muslim enemies known contemptuously as “hypocrites” [*munafiqun*]). Such people are referred to as “martyrs in this world only” (*shuhada’ al-dunya*), since although they may be unjustly accorded the status of martyrs by fellow Muslims, they will be punished by Allah on the Day of Judgement.³⁸⁶

Hence in Islam the key criterion for becoming a battlefield martyr is fighting to the death for the most righteous of all reasons – waging *jihad* “in the path of Allah” in order to ensure the triumph of Islam over its enemies, whether in the course of expanding the territory of the *dar al-islam* or of defending it from hostile incursions or uprisings. As Eton Kohlberg has justly summarized the consensus of Islamic scholars over the centuries, “[a] genuine battlefield martyr is one whose actions proceed from the right intention (*niyya*).”³⁸⁷ However, those scholars have often disagreed with each other about whether it is necessary for the martyr to die fighting against non-Muslim “infidels” (*kuffar* or *kafirun*), including pagan “idolaters” (*mushrikun*, i.e., those who have committed the sin of “associationism” [*shirk*]), or whether a Muslim can also be martyred if he dies fighting against other traditional Muslim enemies: pseudo-Muslim “hypocrites,” ex-Muslim “apostates” (*murtaddun*), sectarian “rejectors” of Sunni orthodoxy, Muslim “rebels” (*bughat*) against legitimate rulers who initiate fighting against their co-religionists, common

³⁸³ Kohlberg, “Shahīd,” pp. 204-5.

³⁸⁴ Cook, *Martyrdom in Islam*, p. 30, citing *Qur’an* 9:41.

³⁸⁵ Kohlberg, “Shahīd,” pp. 205-6. For more on this process of expanding the categories of Muslim martyrs, and the nature of those categories, see Cook, *Martyrdom in Islam*, pp. 33-6.

³⁸⁶ Kohlberg, “Shahīd,” p. 206.

³⁸⁷ *Ibid.*

bandits or brigands (*muharibun*), and so forth.³⁸⁸ There is no need to cite illustrative arguments and counterarguments herein concerning this convoluted religio-legal matter, since virtually all Islamic scholars agree that dying while waging *jihad fi sabil Allah* against unbelievers makes one a martyr and guarantees one entry into Paradise.

Thus far the discussion has concerned Muslim martyrs that fall into different behavioral categories, above all battlefield martyrs. However, as many experts have also noted, there are other distinctions between martyred Muslims, both historical and geographical in nature. First, there were Muslim martyrs who are considered martyrs by all Muslims, which Cook refers to as “pan-Islamic” martyrs.³⁸⁹ These are the individuals, from different behavioral categories, who were martyred during the eras of Muhammad and his companions and the first four “rightly guided” Caliphs. These pan-Islamic martyrs included both individuals who were persecuted for their religious beliefs or identification with the Muslim community, such as Bilal and Khubayb b. ‘Adi,³⁹⁰ and the many battlefield martyrs who died while waging *jihad* during the wars of Muhammad and the earliest Islamic conquests of non-Muslim territories, such as ‘Umayr b. al-Humam, who was killed at the battle of Badr (624); many who fell at the battle of Uhud (625), including Muhammad’s relatives, Hamza ibn ‘Abd al-Muttalib and Mus‘ab ibn ‘Umayr; ‘Ali ibn Abi Talib’s younger brother Ja‘afar al-Tayyar, who was killed during the raid on Mu’ta in southern Jordan (629); and perhaps also Muhammad’s close companion Abu Ayyub al-Ansari, who later became ill and died after participating in raids against Byzantine territory, but not before arguing for the martyrdom of a Muslim soldier who died while single-handedly attacking the enemy under the walls of Constantinople (ca. 670).³⁹¹ These individuals, then, are amongst the paradigmatic early martyrs whose valorous travails and sacrifices are admired by all Muslims. The overwhelming majority of these pan-Islamic martyrs were battlefield martyrs.

³⁸⁸ For more on the nature of and proper response to Muslim “rebels,” see Khalid Abou El Fadl, *Rebellion and Violence in Islamic Law* (Cambridge UK: Cambridge University, 2001). Cf. John Kelsay, *Islam and War: A Study in Comparative Ethics* (Louisville, KY: Westminster John Knox, 1993), especially chapter 5. The term *muharibun* refers to those who commit *hiraba* (i.e., unlawfully “wage war against society”). In recent decades, Islam apologists have sought to use those two terms, which traditionally referred mainly to armed highway robbers, to refer to contemporary Muslim terrorists, sometimes sincerely in order to better discredit them, but often disingenuously in order to falsely draw a hard and fast juridical distinction between terrorism (*irhab*, deriving from the verb *rahhaba*, meaning “to frighten”) and military *jihad*. Cf., e.g., Nesrine Badawi, “Sunni Islam: Part I, Classical Sources,” in Gregory M. Reichberg and Henrik Syse, with Nicole M. Hartwell, eds., *Religion, War, and Ethics: A Sourcebook of Textual Traditions* (New York: Cambridge University, 2014), p. 309, who emphasizes the two terms’ original meaning; and ElSayed M. A. Amin, *Reclaiming Jihad: A Qur’anic Critique of Terrorism* (Markfield, UK: Islamic Foundation, 2014), chapter 5, who adopts an apologetic perspective. (It should be noted that the Islamic Foundation is an Islamist organization controlled by Mawdudists.) The inappropriateness of applying a term that long referred to bandits, who by definition have mercenary motives, to ideologically-motivated religious extremists who are waging *jihad* should be self-evident. Yet that is precisely what Abou El Fadl and others have done. See, e.g., Khalid Abou El Fadl, *The Great Theft: Wrestling Islam from the Extremists* (New York: HarperCollins, 2005), pp. 242-5.

³⁸⁹ Cook, *Martyrdom in Islam*, p. 27.

³⁹⁰ For the case of Khubayb, who was captured and killed while on a spying mission by the Banu Lihyan clan of the Hudhayl tribe in 625, see *ibid.*, pp. 21-2.

³⁹¹ *Ibid.*, pp. 23-30. The case of Abu Ayyub al-Ansari is related to the exegetical interpretation of *Qur’an* 2:195.

Note, however, that since Abu Ayyub did not die directly and immediately from his wounds on the battlefield, some Islamic scholars would deny that he met the strictest criteria for battlefield martyrdom.

Second, and very importantly, there were “sectarian martyrs,” i.e., persons associated with minority Muslim sects who were discriminated against, persecuted, tortured, or killed by the majoritarian Sunnis. Although the latter do not regard themselves as a Muslim sect, the Sunnis nevertheless have their own martyrs, such as the third rightly-guided Caliph ‘Uthman, who was killed by rival Muslims, and Ahmad ibn Hanbal, founder of Hanbali legal school of jurisprudence (*madhhab*), who was persecuted by pro-Mu’tazila ‘Abbasid Caliphs.³⁹² Not surprisingly, non-Sunni martyrs were not recognized as martyrs by all Muslims, but generally only by the members of the sects they became associated with.³⁹³ The most important of these were the Shi‘a, those Muslims who supported ‘Ali and his descendants, first as Caliphal successors to Muhammad, and later, after the murder of Husayn b. ‘Ali by the Umayyad Caliph Yazid at Karbala (680), as the sole legitimate line of Shi‘i Imams.³⁹⁴ Indeed, because of the centrality of the martyrdoms of both ‘Ali and Husayn, martyrdom has been a fundamental feature of Shi‘i Islam from the very beginning, and it remains so up to the present day. In this context, it is therefore no accident that both the Shi‘i Islamist regime established by the Ayatollah Khomeini in Iran and the Shi‘i Islamist Hizballah movement in Lebanon obsessively and indeed systematically promote both sacrificial and battlefield martyrdom as core values. Other sectarian martyrs were those associated with the Kharijites, a radical, puritanical group opposed by both proto-Sunnis and proto-Shi‘a.³⁹⁵

Third, there were martyrs associated with various Sufi brotherhoods.³⁹⁶ Such martyrs were relatively atypical in Islam inasmuch as they were “so overwhelmed with love for God and humanity that they were willing and in some cases even anxious to demonstrate that love through death.”³⁹⁷ Sufism is a mystical, ascetic form of “folk Islam” that, from the standpoint of ultra-orthodox Sunnis with more intolerant and sectarian interpretations of their faith, has certain heterodox and impermissible “un-Islamic” features, e.g., the use of music and dancing to enter a trance-like state and thereby achieve a mystical union with Allah, the adoration of saints, and the building of shrines to saints. Hence these Sufi martyrs were periodically persecuted or killed, both at the hands of conservative Muslim political and religious elites and at the hands of infidels, and were thus comparable to persecuted Jewish and Christian martyrs. This persecutory form of Sufi martyrdom was of two types, an antinomian type that resulted in the persecution of Sufis unconcerned about legal strictures by Muslim regimes, as figures like Husayn b. al-Mansur al-Hallaj, ‘Ayn al-Qudat al-Hamadani, and Shihab al-Din al-Suhrawardi illustrate, and a missionary

³⁹² Ibid, pp. 47-52.

³⁹³ The only exception is the martyrdom of ‘Ali’s son Husayn, who all Muslims regard as a tragic figure who was wrongly killed.

³⁹⁴ Ibid, pp. 52-62.

³⁹⁵ Ibid, pp. 62-3.

³⁹⁶ Ibid, pp. 63-73 and chapter 5. For more on Sufism, cf. Annemarie Schimmel, *Mystical Dimensions of Islam* (Chapel Hill: University of North Carolina, 1975); Alexander Knysh, *Sufism: A New History of Islamic Mysticism* (Princeton, NJ: Princeton University, 2017); Nile Green, *Sufism: A Global History* (Malden, MA: Wiley-Blackwell, 2012); Carl W. Ernst, *Sufism: An Introduction to the Mystical Tradition of Islam* (Boston: Shambhala, 1997); Jamil M. Abun-Nasr, *Muslim Communities of Grace: The Sufi Brotherhoods in Islamic Religious Life* (New York: Columbia University, 2007); and Barbara Degorge, *From Piety to Politics: The Evolution of Sufi Brotherhoods* (Washington, DC: New Academia, 2006).

³⁹⁷ Cook, *Martyrdom in Islam*, p. 63.

type in which Sufis who were engaged in *da'wa* in hostile, dangerous portions of the *dar al-harb* were killed by infidels.³⁹⁸ However, there were also many Sufi “warrior ascetics” who became battlefield martyrs while waging *jihad*, especially along the Byzantine and Central Asian frontiers of the medieval Muslim world and, in more modern times, in the course of resisting “infidel” armies that were invading the *dar al-islam* in regions such as the North Caucasus, the Sudan, and North Africa.³⁹⁹ Despite this, the fates of many Sufi battlefield martyrs only ended up being recorded and celebrated in the local areas where they died, and their sacrifices were therefore often unknown in the wider Muslim world.

With this background, it becomes possible to highlight the views of certain major Islamist thinkers and jihadist leaders concerning the centrality of and criteria for battlefield martyrdom, as well as to note the extension, by some, of the traditional Islamic concept of martyrdom to justify the planning and carrying out of suicide attacks. In this context, one must consider the views of both Sunni and Shi'i Islamists, all the more so since the latter pioneered the late 20th century promotion of martyrdom by means of carrying out suicide attacks and bombings to terrorize the enemies of Islam. Such tactics were then increasingly adopted by Sunni jihadists, initially by those anti-Israel Palestinian Islamist organizations that were directly influenced and trained by Hizballah, such as al-Jihad al-Islami al-Filastini (Palestinian Islamic Jihad), which openly supported the Iranian Revolution and helped to arrange the translation of the works of Khomeini into Arabic, and Hamas.

Before proceeding, however, it should first be emphasized that what Durkheim referred to as “egoistic suicide,” i.e., killing oneself to escape from personal suffering, is considered a grave sin in Islam. As Hatina has justly summarized the situation,

The prohibition of self-immolation (*tahluka, intihar*) is ingrained in the Islamic ethic, which, like Judaism and Christianity, preaches the duty to bear suffering and pain, since life is a gift bestowed by God, with continuity in the hereafter. Because God is the sole authority over human affairs, self-immolation by his creatures

³⁹⁸ See, respectively, *ibid*, pp. 67-70, and *ibid*, chapter 5, for examples. Ironically, the devotion of Sufi missionary martyrs to Allah and their willingness to sacrifice their lives often impressed non-Muslims from the communities that had killed them, and indeed inspired many to convert to Islam themselves.

³⁹⁹ These include early proto-Sufi “warrior ascetics” such as Ibrahim b. Adham and Shaiq al-Balki, for whom see *ibid*, pp. 64-6. Many members of different Sufi brotherhoods were later martyred while waging *jihad* against invading infidels, e.g., during Imam Shamil’s 1834-1859 war of resistance against invading Russians in the Caucasus, during the revolt of the self-proclaimed Mahdi Muhammad Ahmad ibn ‘Abdallah in the Sudan in the 1870s and 1880s, and during the Sanusiyya campaigns against French, Italian, and British colonial forces in the Sahara, Libya, Sudan, and Egypt between 1903 and 1917. See, respectively, Moshe Gammer, *Muslim Resistance to the Tsar: Shamil and the Conquest of Chechnia and Dagestan* (Abingdon: Frank Cass, 2004 [1994]); P. M. Holt, *The Mahdist State in the Sudan, 1881-98: A Study of Its Origins, Development and Overthrow* (Oxford: Oxford University, 1970); and E. E. Evans-Pritchard, *The Sanusi of Cyrenaica* (Oxford: Clarendon Press, 1963), for the Sanusiyya Sufi order’s wars against the Italians.

constitutes a blatant violation of that authority, punishable by excommunication from the Muslim community.⁴⁰⁰

Although the few Qur'anic passages on this subject contained strictures against taking one's own life, the prohibition of suicide became even more explicit in the *hadith* literature, since Muslims were both enjoined and expected to display patience or endurance (*sabr*) in the face of life's manifold trials and difficulties.⁴⁰¹ Those who failed to do so and took their own lives were "condemned to be among the last Muslims to leave Hell."⁴⁰² In marked contrast to this form of "condemned" death, martyrdom was regarded as an "exalted" form of death. Hence the sharp distinction in Islam between garden-variety suicide (*intihariyya*), which is forbidden, and martyrdom (*istishhadiyya*), which is praised.⁴⁰³

It was precisely this all-important distinction that generated convoluted theological and legal arguments between Islamic scholars about what, exactly, the criteria for martyrdom were. And this was why so much emphasis was placed on the motives, righteous or otherwise, of the Muslim whose actions had led to his or her death. When we examine the debates among modern Islamists about these matters, it soon becomes clear that these long-standing arguments remained unresolved. Herein the adoption of a roughly chronological approach should help to illustrate the shift towards less restrained criteria for the ascription of battlefield martyrdom, and above all the increasing rationalization of suicide attacks, between the 1970s and the present day.

Not surprisingly, like most medieval Islamic scholars, all of the seminal Islamist ideologues of the 20th century praised battlefield martyrdom in certain contexts. According to Hasan al-Banna, for example, some Muslims "know how to die an honorable death and how to choose an honorable venue and the appropriate time for their death, and then sell their drop of

⁴⁰⁰ Hatina, *Martyrdom in Modern Islam*, p. 39.

⁴⁰¹ Ibid, pp. 39-42. The most important passages in the *Qur'an* in this regard are the following. First, 4:29: "O you who have believed, do not consume one another's wealth unjustly but only [in lawful] business by mutual consent. And do not kill yourselves [or one another]. Indeed, Allah is to you ever Merciful." See Quran.com, available at <https://quran.com/4/29-39>. Second, 2:195: "And spend in the way of Allah and do not throw [yourselves] with your [own] hands into destruction [by refraining]. And do good; indeed, Allah loves the doers of good." For a representative *hadith* strongly condemning suicide, see *Sahih Bukhari*, Book 71, Hadith 670: "Narrated Abu Hurayra: The Prophet said, 'Whoever purposely throws himself from a mountain and kills himself, will be in the (Hell) Fire falling down into it and abiding therein perpetually forever; and whoever drinks poison and kills himself with it, he will be carrying his poison in his hand and drinking it in the (Hell) Fire wherein he will abide eternally forever; and whoever kills himself with an iron weapon, will be carrying that weapon in his hand and stabbing his abdomen with it in the (Hell) Fire wherein he will abide eternally forever.'" See Muflihun.com, available at <https://muflihun.com/bukhari/71/670>.

⁴⁰² Hatina, *Martyrdom in Modern Islam*, p. 42.

⁴⁰³ See, e.g., the comments of Yusuf al-'Uyayri, a key Saudi al-Qa'ida member, in his pamphlet "The Islamic Ruling on the Permissibility of Martyrdom Operations: Did Hawa Barayev Commit Suicide or Achieve Martyrdom?," p. 2, available at <https://www.religioscope.com/pdf/martyrdom.pdf>: "The name 'suicide-operations' used by some is inaccurate, and in fact this name was chosen by the Jews to discourage people from such endeavors. How great is the difference between one who commits suicide – because of his unhappiness, lack of patience and weakness or absence of iman [faith in Islamic theology, including its metaphysical aspects] and has been threatened with Hell-Fire – and...the self-sacrificer who embarks on the operation out of strength of faith and conviction, and to bring victory to Islam, by sacrificing his life for the upliftment [sic] of Allah's word!"

blood at the highest price and profit greatly by all that is imaginable – they profit by the happiness of the present world and the reward of the world to come...”⁴⁰⁴ For his part, in his exegesis on *Qur'an* 9.111, Abu al-A‘la Mawdudi argued that

faith is not just the affirmation of a set of metaphysical propositions. It is in fact a contract according to which man places all that he has – his life, his wealth – at the disposal of God; he “sells” them to God. In return, he accepts God’s promise of Paradise in the Next Life...when someone refuses to make this transaction...then this person is an unbeliever.⁴⁰⁵

Sayyid Qutub, the most influential Sunni jihadist theorist, opined that

The chosen martyrs are those whom God selects from among the *mujahidin* and takes them for himself. Therefore, there is no tragedy or loss when someone falls in sanctifying the name of God. On the contrary, the fallen person has been carefully chosen by God and is thus honored. Indeed, God has granted martyrdom especially to them when He has chosen them for himself and grants his proximity especially to them.⁴⁰⁶

Nor did leading Shi‘i Islamists hesitate to praise martyrdom, as will soon become clear. Nevertheless, at times modern Islamist thinkers disagreed vehemently with one another about exactly what the precise criteria for martyrdom were.

In particular, they had very different albeit evolving attitudes about suicide attacks. In this context, it is worth highlighting Nasser Abufarha’s attempt to distinguish between three distinct types of self-sacrificial actions that have often been carelessly conflated by Western analysts, especially since these have often generated debates amongst Islamic scholars about precisely which types of actions legitimately fall into the category of battlefield martyrdom:⁴⁰⁷

⁴⁰⁴ Cited by *ibid*, pp. 62-3, from a 1938 al-Banna essay on self-sacrifice entitled “Sina‘at al-mawt [The Profession of Death].” In contrast to those Muslims who die a martyr’s death fighting for Islam, there are those “frightened and wretched people” who die “a thousand despicable deaths every single day...until the great death comes, despicable as well – without honor or elevation, in a wretched field of nothingness – and dying without honor, their blood spilled without resurrection.”

⁴⁰⁵ Cited by *ibid*, p. 67, from Mawdudi, *Towards Understanding the Qur’an* (Leicester: Islamic Foundation, 1990), volume 3, pp. 254-7.

⁴⁰⁶ Cited by *ibid*, p. 69, from Qutub, *Fi zilal al-Qur’an [In the Shade of the Qur’an]* (Leicester: Islamic Foundation, 2015), volume 1, p. 481.

⁴⁰⁷ Nasser Abufarha, *The Making of a Human Bomb: An Ethnography of Palestinian Resistance* (Durham and London: Duke University, 2009), pp. 187-8. Here it should be pointed out that there are terminological distinctions in Arabic between “no-escape” military operations and suicide attacks proper: the former are often referred to as ‘*amaliyyat inghimasiyya*, whereas the standard term for the latter is ‘*amaliyyat istishhadiyya*. The former term derives from the root *ghamasa*, meaning “to submerge,” and thus refers to those who “plunge into” the ranks of the enemy (singular *inghimasi*). See Winter, *War By Suicide*, pp. 4-5. The notion of *inghimas [fi al-saf]* can be traced at least as far back as the important works by medieval scholars Ahmad ibn Taymiyya (1263-1328) and Ibn al-Nahhas al-Dumyati (died 1411), both of which have often been cited by contemporary jihadist scholars, including Sayyid Qutub and ‘Abdallah ‘Azzam. Indeed, several of those scholars subsequently reinterpreted the ideas of their medieval forebears in order to justify suicide attacks. Ibn Taymiyya wrote an entire treatise on *inghimas*, *Qa‘ida fi*

- “no-escape” operations, i.e., regular or irregular military operations against the enemy from which the participants have little or no chance of returning alive;
- suicide attacks carried out against the armed forces, officials, or institutions of enemy nation states; and
- suicide attacks carried out against noncombatant or civilian targets in enemy territories

For example, unlike their successors who more or less enthusiastically justified the suicide bombings of al-Qa’ida and/or the Islamic State as long as they targeted what they regarded as the right “enemies of Islam,” certain Sunni jihadist ideologues and clerics from earlier decades had argued against bestowing the status of martyr on those *mujahidin* who lacked the proper religious motivations or who had *intentionally* sought to kill themselves in attacks on the enemy.⁴⁰⁸ This can be illustrated by the remarks of Muhammad ‘Abd al-Salam Faraj, the author of the radical 1981 pro-*jihad* treatise *Al-Farida al-gha’iba (The Neglected Duty)*, who insisted that carrying out an attack that would willingly or necessarily result in the death of the attacker did not meet the requirements for martyrdom.⁴⁰⁹ Yet even as they made such arguments, other Islamists were already beginning to adopt more expansive interpretations of martyrdom that would allow them to promote suicide attacks.

Perhaps ironically, given the extreme religious sectarianism of so many Sunni jihadists, it was the Khomeyni regime in Iran and its allies in Lebanon that played the most crucial role in encouraging the systematic use of suicide attacks by Islamist *mujahidin*. They did this in three ways. First, leading Shi‘i clerics and intellectuals subtly altered the criteria for Islamic martyrdom by de-emphasizing long-standing tendencies, whether Islamic and/or specifically Shi‘a, towards political passivity, the fatalistic acceptance of predestination, and Shi‘i self-preservation by means of *taqiyya* (concealment and dissimulation), in favor of glorifying voluntary self-sacrifice.⁴¹⁰ So it

al-inghimas fi al-‘aduww wa-hal yubah fiha? [A Principle Regarding Plunging into the Enemy, and is it Permitted?], whereas al-Dumyati wrote a book on *jihad*, *Mashari‘ al-ashwaq ila masari‘ al-‘ushshaq [Thorny Pathways to the Lovers’ Struggling-Places – thanks to David Cook for help with that translation]*, but usually translated as the *Book of Jihad*, with a chapter on *inghimas*. For the former, cf. Rebecca Molloy, “Deconstructing Ibn Taymiyya’s Views on Suicidal Missions,” *CTC Sentinel* 2:3 (March 2009), pp. 16-19; and Hatina, *Martyrdom in Modern Islam*, pp. 48-9. For an abridged English translation of al-Dumyati’s treatise – by key al-Qa’ida operative Anwar al-Awlaqi, no less – see Imam Ibn Nuhaas, *Mashari‘ al-ashwaq ila masari‘ al-Ushaaq* (Birmingham, UK: Maktabah, no date), available at <https://islamfuture.files.wordpress.com/2009/11/mashari-al-ashwaq-ila-masari-al-ushaaq.pdf>. In that book, chapter 8 is specifically devoted to *inghimas*, and chapter 12 to martyrdom.

⁴⁰⁸ Ibid, pp. 71-2. Among the Islamist ideologues he refers to in this context were Sa‘id Hawwa and Marwan Hadid, both members of the Syrian branch of the Muslim Brotherhood, and Fathi Yakan, a key figure in Lebanon’s al-Jama‘a al-Islamiyya (Islamic Association). The latter two men were disciples of Sayyid Qutub. Yet their precise views on this matter are not entirely clear from Hatina’s analysis.

⁴⁰⁹ Ibid, pp. 75-6. For a fuller analysis and translation of this important text, see Johannes J. G. Jansen, *The Neglected Duty: The Creed of Sadat’s Assassins and Islamic Resurgence in the Middle East* (New York: Macmillan, 1986). Faraj was a key organizational and ideological leader of the Egyptian jihadist group, the Tanzim al-Jihad (TJ: Jihad Organization), and his treatise served to rationalize and justify the October 1981 assassination of President Anwar al-Sadat, during a military parade, by Khalid al-Islambuli, a TJ member who was also a lieutenant in the Egyptian Army. The “neglected duty” about which Faraj harped was, perhaps not surprisingly, the waging of military *jihad* against supposedly tyrannical, unjust, and “apostate” Muslim regimes.

⁴¹⁰ Hatina, *Martyrdom in Modern Islam*, pp. 80-1. On the subject of traditional Shi‘i passivity, Christoph Reuter has noted that “the Shi‘ite tradition does not naturally lend itself to revolutionary politics. The prototypical Shi‘ite was

was that the Ayatallah Khumayni explicitly characterized those killed during the protests against the Shah as “martyrs.” As he argued in an 11 October 1978 declaration in the wake of the 8 September “Black Friday” massacre in Tehran’s Jalih Square,

Today’s primary school children of seven or eight stand ready to sacrifice themselves and shed their blood for the sake of Islam and the nation; when has anything like that been seen? Our lion-hearted women snatch up their infants and go to confront the machine guns and tanks of the regime; where in history has such valiant and heroic behavior by women been recorded?...Beloved sisters and brothers! Be steadfast; do not weaken or slacken your efforts. Your path is the path of God and His elect. Your blood is being shed for the same cause as the blood of the prophets and the Imams and the righteous. You will join them, and you have no cause to grieve, therefore, but every reason for joy.⁴¹¹

Such exhortations to fight for Allah and become martyrs were later systematized and institutionalized by the Iranian revolutionary regime.

Second, these and other influential Shi‘i leaders openly encouraged would-be battlefield martyrs to seek out death, as long as it was *fi sabil Allah*, by carrying out suicidal actions. Thus Iranian Ayatallah Murtada Mutahhari, while predictably condemning “self-murder” as the “worst kind of death”, argued that *shahadat* (martyrdom), which is “the death of a person who, in spite of being fully conscious of the risks involved, willingly faces them for a sacred [religious] cause”, “is the only type of death which is higher, greater and holier than life itself.”⁴¹² Hence, the *shahid* – following the example of the Imam Husayn, the Sayyid al-Shuhada’ (Lord of the Martyrs) – “can be compared to a candle whose job it is to burn out and get extinguished in order to shed light for the benefit of others.”⁴¹³ For his part, Ayatallah Mahmud Taliqani insisted that a discussion of *jihad* “cannot be complete without an elaboration of the meaning of *shahād*”, who chooses “self-annihilation” for “the sake of establishing [Islam’s] truth” and thereby “die[s] in the cause” of Allah and who, once martyred, has “been guaranteed the sure gift of eternity” by Him.⁴¹⁴ Finally,

the silently enduring martyr rather than the armed rebel.” See Christoph Reuter, *My Life as a Weapon: A Modern History of Suicide Bombing* (Princeton, NJ: Princeton University, 2004), p. 41. In other words, Shi‘i martyrs were traditionally martyrs in the sense of “witnesses” rather than battlefield martyrs. This long-standing Shi‘i historical understanding of martyrdom, which was associated with both the fourth Caliph ‘Ali and his youngest son Husayn, would be radically transformed by the clerical ideologues and rulers of the Iranian Islamist regime.

⁴¹¹ Khomeini, “In Commemoration of the Martyrs of Tehran,” in *Islam and Revolution*, p. 240.

⁴¹² Ayatallah Murtada Mutahhari, “Shahād,” in Mehdi Abedi and Gary Lengenhausen, eds., *Jihād and Shahādat: Struggle and Martyrdom in Islam* (Houston: Institute for Research and Islamic Studies, 1986), p. 128. He also rightly notes (*ibid*, p. 129) that “the sacred cause that leads to *shahādat*” is none other than battlefield *jihad*.

⁴¹³ *Ibid*, pp. 126, 128-9.

⁴¹⁴ Ayatallah Mahmud Taliqani, “Jihād and Shahādat,” in *ibid*, pp. 67, 68. This view was not, however, shared by another, non-clerical ideologue of the Iranian Revolution, ‘Ali Shari‘ati, who instead sought to distinguish the incidental military martyrdom of Hamza at the battle of Uhud from the willing sacrificial martyrdom of Husayn at Karbala, which he considered more sublime. Hence, while certainly supportive of heroic battlefield martyrs, conceptually he sought to separate *shahadat* from *jihad*. See, e.g., ‘Ali Shari‘ati, “A Discussion of Shahād,” in *ibid*, pp. 234-7.

according to Khumayni's successor as Iran's Supreme Leader, 'Ali Husayni Khamina'i, "martyrdom constitutes the highest level of jihad in the name of Allah."⁴¹⁵

Third, the Iranian regime created an elaborate institutional infrastructure to recruit, deploy, and thence glorify and commemorate battlefield martyrs who carried out suicide attacks. To some extent this should not be surprising, given the centrality of martyrdom within the Shi'i religious and historical traditions. Yet it should be noted that, just as the millenarian tradition in Shi'i Islam was mainly passive rather than active until the 1970s, so too was the Shi'i martyrdom tradition primarily ceremonial and rhetorical rather than militarized and operational in nature.⁴¹⁶ This rapidly changed during the growing mass protests against the Shah's regime in 1978, which led to the deaths of many protesters, and especially after Saddam Husayn invaded Iran in 1980, which initiated a brutal eight-year "imposed war" (*jang-i tahmili*) between the Ba'hist regime in Iraq and the new revolutionary Islamist government in Tehran.⁴¹⁷

During an early phase in the conflict, when it seemed like the Iraqis would successfully seize control over some crucial oil-rich portions of Iranian territory, Khumayni and his lieutenants initiated a bold new strategic approach that involved the explicit official promotion of battlefield martyrdom and the systematic recruitment of tens of thousands of youths to serve as martyrs, who were then sent to sacrifice their own lives by carrying out "human wave" attacks against Iraqi positions or selflessly clearing Iraqi minefields for Iranian regular troops.⁴¹⁸ The overwhelming majority of these young battlefield martyrs, many of whom carried their own burial shroud and hung a Taiwan-made plastic "key to [the gates of] Paradise" around their necks, were members of

⁴¹⁵ Al-Imam al-Khamina'i, *Itr al-Shahada [The Perfume of Martyrdom]* (Beirut: Dar al-Islamiyya, 2001), pp. 16-17. This work is composed of a series of lectures given by Khamina'i before and after the Iranian Revolution.

⁴¹⁶ Hatina, *Martyrdom in Modern Islam*, pp. 81 and esp. 91.

⁴¹⁷ For the Iran-Iraq War, see Shahram Chubin and Charles Tripp, *Iran and Iraq at War* (Boulder, CO: Westview Press, 1988); Dilip Hiro, *The Longest War: The Iran-Iraq Military Conflict* (Abingdon, UK: Routledge, 1991); Williamson Murray and Kevin M. Woods, *The Iran-Iraq War: A Military and Strategic History* (New York: Cambridge University, 2014); and Pierre Razoux, *The Iran-Iraq War* (Cambridge, MA: Harvard University, 2015). Note that in 1979, even before the outbreak of the Iran-Iraq War, Khumayni had issued a religious ruling allowing boys over the age of 12 to volunteer to fight without parental permission. These *basiji* volunteers thereby became "Children of the Imam," and were promised a place in Paradise if they died in battle. See Hatina, *Martyrdom in Modern Islam*, p. 86. Indeed, Khumayni aimed to recruit as many as 20 million youths to serve as soldiers defending the regime at home and abroad. See Golkar, *Captive Society*, p. 13. For a good general account of the transformation and Islamization of the Iranian military, see Sepehr Zabih, *The Iranian Military in Revolution and War* (London: Routledge, 2011), esp. chapters 6-9.

⁴¹⁸ See Peter I. Martonosi, "The Basij: A Major Factor in Iranian Security," *Academic and Applied Research in Military Science* 11:1 (2012), p. 14. For more on the role of these youthful *basiji* volunteers during the Iran-Iraq War, see Jordan Cassway, *The Role of Youth in Conflict in the Middle East: An Analysis and Comparison of Iranian "Basij-e Mustazafin" Youth in the Iran-Iraq War and Palestinian "Harakat al-Shabiba" Youth in the Intifada* (Tel Aviv: no publisher, 1997), chapter 2. The gruesome effects of sacrificing one's life by clearing minefields, which resulted in the dismembered body parts of the would-be martyr being strewn all over, eventually caused them to wrap themselves in blankets and then roll around in the minefields "so that their body parts stay together after the explosion of the mines and one can carry them to the graves." See Matthias Küntzel, "Ahmadinejad's Demons," *New Republic*, 24 April 2006, p. 15, available at www.matthiaskuentzel.de/contents/file_download/107, citing an issue of the Iranian daily *Ittela'at [Information]*.

the newly-organized Basij militia.⁴¹⁹ As Khumayni himself put it, the *basiji* “must understand that he is a soldier of God for whom it is not so much the outcome of the conflict as the mere participation in it that provides fulfillment and gratification” – and, of course, that would supposedly allow him to enter Paradise directly if he died as a battlefield martyr.⁴²⁰ In support of this strategy, leading figures and components of the Iranian government, especially the Vizarat-i Farhang va Irshad-i Islami (Ministry of Islamic Culture and Guidance), systematically glorified and supported battlefield martyrdom via the production of non-stop oral and visual propaganda, the provision of financial subsidies and other perks to the families of dead martyrs, the official sponsorship and wide dissemination of the last wills and testaments of those martyrs, the reorganization of public *ta'ziya* (Shi'i passion play) ceremonies in order to portray the death of Imam Husayn at Karbala as the exemplary embodiment of intentional, heroic martyrdom in the face of implacably evil enemies, the attempted transformation of classical themes of Persian mysticism so as to glorify war, the naming of city streets after deceased martyrs, the building of an official museum in Tehran to commemorate those martyrs, etc.⁴²¹

All of this had the effect, intentionally or otherwise, of stimulating the subsequent adoption and spread of suicide attacks or “martyrdom operations” (*amaliyyat istishhadiyya*), occasionally by Islamist regimes but mostly by non-state Islamist groups waging *jihad*, as an operational method throughout the Islamic world. For its part, Hizballah tended to follow the Iranian example, not only with respect to its core ideological principles of belief in a) an activist form of Shi'i Islam, b) Khumayni's *wilayat al-faqih* doctrine, and c) the central importance of both “esoteric” internal (i.e., the “greater jihad” [*jihad al-akbar*]) and “exoteric” military (i.e., the “lesser jihad” [*jihad al-asghar*]) and persuasive forms of *jihad*, but also with respect to its religious rhetoric about, theological justifications for, and institutional support for martyrdom and martyrdom

⁴¹⁹ Martonosi, “The Basij,” p. 14. According to one analyst, the Basij deployed over 2 million people to the battlefield during the Iran-Iraq War, which meant that over 75% of the Iranian fighters in the Iran-Iraq War were *basiji*. See Kenneth Katzman, “The Pasdaran: Institutionalization of Revolutionary Armed Force,” *Iranian Studies* 26:3-4 (Summer-Autumn 1993), p. 396. Not all of them were children and/or students slated to deliberately sacrifice themselves as martyrs, however. These *basiji* units, though semi-autonomous, were under the military command of the Pasdaran.

⁴²⁰ Golkar, *Captive Society*, p. 13.

⁴²¹ Hatina, *Martyrdom in Modern Islam*, pp. 86-9. Cf. also Roxanne Varzi, *Warring Souls: Youth, Media, and Martyrdom in Post-Revolution Iran* (Durham, NC: Duke University, 2006), esp. chapters 1-4. For a deeper analysis, with illustrative excerpts, of the last wills and testaments of Iranian battlefield martyrs, see esp. Werner Schmucker, “Iranische Märtyrertestamente,” *Die Welt des Islams* 27 (1987), pp. 185-249; and Nader Nazemi, “Sacrifice and Authorship: A Compendium of the Wills of Iranian War Martyrs,” *Iranian Studies* 30 (1997), pp. 263-71. For the warlike transformation of Persian mystical themes, see Asghar Seyed-Goharb, “Martyrdom as Piety: Mysticism and National Identity in Iran-Iraq War Poetry,” *Der Islam* 87 (2010), pp. 248-73. For the performance aspects of traditional *ta'ziya* ceremonies, see Peter J. Chelkowski, ed., *Ta'ziyeh, Ritual and Drama in Iran* (New York: New York University, 1979); and idem, ed., *Eternal Performance: Ta'ziyeh and Other Shi'ite Rituals* (London: Seagull Books, 2010). For the evolution and adaptation of the Karbala motif over time, see Kamran Scot Aghaie, *The Martyrs of Karbala: Shi'i Symbols and Rituals in Modern Iran* (Seattle: University of Washington, 2004), esp. chapters 6 and 8 for the period since the 1960s. For the revolutionary visual propaganda and symbolism adopted and used by the Iranian Islamist regime, much of which celebrated martyrdom, see idem and Hamid Dabashi, *Staging a Revolution: The Art of Persuasion in the Islamic Republic of Iran* (New York: New York University, 1999).

operations.⁴²² For example, the perpetrators of such attacks were “commemorated in extensive hagiographical literature, which, like the Iranian version, glorified that martyrdom and linked it to the death of Imam Husayn”, *ta‘ziya* mourners were encouraged to “direct their self-flagellation at the enemy”, and the families of martyrs were not only esteemed but provided with material and educational support via the Iran-funded Mu‘assat al-Shahid (Institution of the Martyr).⁴²³ Such ideas glorifying martyrs, apart from the specifically Shi‘i components, increasingly influenced the neighboring Sunni Islamist milieu. As Hatina has justly summarized the situation,

The shifts of “suicide” acts from the Shi‘a to the Sunni milieu reflected a decisive influence by revolutionary Iran on Islamist thought...the ethos of self-sacrifice, intensely nurtured in Shi‘i rhetoric and practice in Iran and Lebanon, penetrated the Sunni discourse, which until then had displayed restraint on this issue by

⁴²² For Hizballah’s core religious ideology, in theory and application, see Joseph Alagha, *The Shifts in Hizballah’s Ideology: Religious Ideology, Political Ideology, and Political Program* (Amsterdam: Amsterdam University/ISIM Dissertations, 2006), chapters 2-3. Cf. further Qassem, *Hizballah: The Story from Within*, chapter 1.

⁴²³ Hatina, *Martyrdom in Modern Islam*, pp. 91-4. However, he points out (ibid, pp. 94-5) that not all Shi‘i religious scholars in Lebanon supported the expanded employment of suicide attacks, e.g., Muhammad Mahdi Shams al-Din. But the most influential Hizballah and Shi‘i leaders did, including Muhammad Husayn Fadlallah, Hasan Nasrallah, Shaykh Yusuf Da‘mush, Na‘im Qasim, etc. For more on Hizballah’s views on martyrdom, see Alagha, *Shifts in Hizballah’s Ideology: Religious Ideology*, pp. 101-11. Therein Alagha notes (p. 113) that Hizballah “regarded martyrdom operations launched by freely willed individual self-sacrificial martyrs against the Israeli occupation forces in the early 1980s as legitimate and religiously sanctioned operations against a superior military ‘aggressive’ army, where conventional means of smaller military *jihad* proved futile. However, Hizballah stressed that there should always be a *fatwa* – religious justification or legitimisation – behind every martyrdom operation or else it would be regarded as suicide.” Moreover (p. 114), building on the ideas of Khumayni and Fadlallah, Hizballah looked to the example of Imam Husayn for martyrdom inspiration and argued that there was “no distinction between dying while fighting in the battlefield and blowing up oneself...”, a notion that “shattered the commonly held theological view that regards giving one’s life for the faith to die as a martyr as not the same thing as not the same thing as blowing up oneself.” Cf. further idem, *Hizballah’s Identity Construction* (Amsterdam: Amsterdam University, 2011), chapter 4; and *Al-Jihad wa khisal al-mujahidin [Jihad and the Traits of the Mujahidin]* (Beirut: Markaz Baqiyyat Allah, 1999), a Hizballah manual on *jihad* and martyrdom. Alagha distinguishes between four senses or levels of martyrdom in *Hizballah’s Identity Construction*, pp. 97-8: 1) *al-istishhadi al-mujahid* – an altruistic jihadist martyr who “intentionally and willingly blows himself up on the battlefield...in order to inflict the highest amount of damage and fatalities on the enemy”; 2) *al-shahid al-mujahid* – an altruistic Muslim who, “in performing *jihad*, falls in the battlefield while facing the enemy”; 3) *al-shahid* – an innocent Muslim civilian “who die[s] without taking part in the fighting”; and 4) *al-shahid al-watan* or *al-shahid al-qadiyya*, an altruistic *non-Muslim* “who dies in the battlefield fighting for his country or the cause he believes in”. The latter status is accorded to nationalists or secularists who die fighting to defend a Muslim nation from invaders. Needless to say, such individuals may be viewed as heroic in this life, but they will nonetheless not go to the Muslim Paradise. The distinction between categories 1 and 2 above illustrates Hatina’s point that, unlike the term *shahid*, the term *istishhad* refers to those who are actively seeking martyrdom, which is also referred to as *talab al-shahada*. See Hatina, *Martyrdom in Modern Islam*, pp. 90, 43. Conversely, the term *shahid* was at times extended to refer to even passive Muslim victims of military attacks by Israel or other “infidels.” Cf., in the Palestinian context, Abufarha, *Making of a Human Bomb*, pp. 8-9; and Laleh Khalili, *Heroes and Martyrs of Palestine: The Politics of National Commemoration* (Cambridge UK: Cambridge University, 2007), p. 147. Note also the terminological distinction between the self-sacrificial cross-border guerrilla operations launched by secularized Muslim groups like the PLO, which were known as *‘amaliyyat fida’iyya*, and “martyrdom operations” proper (*‘amaliyyat istishhadiyya*).

emphasizing the goal of survival and victory over deliberate death, which was viewed as tantamount to self-immolation.⁴²⁴

As a result, the suicide attack methods that were initially adopted by the Iranian regime and its surrogate Hizballah were mythologized and thence borrowed, first by rejectionist Sunni Palestinian Islamist groups (such as Palestinian Islamic Jihad and Hamas) which had collaborated closely with Iran and/or Hizballah, and thereafter by Sunni Islamist organizations elsewhere.⁴²⁵

However, it is important to point out that both the Iranian regime and its Lebanese protégé Hizballah originally only used suicide operations in efforts to target enemy military forces that were invading and occupying portions of their own territory. For example, the former deployed them against the Iraqi military and the latter deployed them against American, French, and Israeli troops that were operating in Lebanon.⁴²⁶ In that sense, they were mainly employing them to wage an ostensibly defensive *jihad* and, moreover, were broadly conforming to traditional Islamic “just war” doctrines by avoiding deliberately targeting protected categories of people, including non-combatants and civilians.⁴²⁷ Indeed, according to Hizballah Secretary-General Hasan Nasrallah,

...we never carry out indiscriminate martyrdom operations; we have hundreds of would-be martyrs, and I come under pressure, every day, from young men eager to go out on martyrdom operations. I could easily tell any of them: take this explosive device inside the [Israeli] occupied zone, and when you meet two individuals from [Major General Antoine] Lahd’s group [the “collaborationist” South Lebanon Army], or an Israeli, detonate it. We do not execute operations of this kind; if the operation is not productive and effective, and [doesn’t] cause the enemy to bleed, we cannot legally, religiously, morally or humanely justify giving an explosive device to our brothers...⁴²⁸

Over time, alas, this restraint gave way to the targeting of political enemies in Lebanon, Argentina, and – by its Sunni understudies in the Palestinian territories – Israel, using car bombs or vest-wearing suicide bombers, and thereafter to the organizing of attacks on Israeli civilians by using vehicles to run them down, firearms to shoot them, or edged weapons to stab or slash them.⁴²⁹

⁴²⁴ Hatina, *Martyrdom in Modern Islam*, p. 99.

⁴²⁵ *Ibid.*, pp. 80-129.

⁴²⁶ For the earliest Hizballah martyrdom operations directed against the Israeli military headquarters in Tyre, the U.S. embassy, and the U.S. Marine and French paratrooper bases, see Ahmed Nizar Hamesh, *In the Path of Hizballah* (Syracuse, NY: Syracuse University, 2004), pp. 81-4.

⁴²⁷ For the insistence that Hizballah martyrdom was then part of defensive *jihad* rather than offensive *jihad*, since the latter had to be authorized by either Muhammad or an infallible imam (i.e., the Shi‘i Hidden Imam), see *ibid.*, p. 38, citing Hasan Nasrallah, “Al-Jihad,” a 6 May 1998 lecture he gave in Beirut on the seventh night of ‘Ashura.

⁴²⁸ See Nasrallah’s 30 April 1996 interview with *Al-Safir* concerning the “April Understanding,” cited in Nicholas Noe, ed., *Voice of Hezbollah: The Statements of Sayyed Hassan Nasrallah* (London and New York: Verso, 2007), p. 157.

⁴²⁹ The employment of car bombs to commit acts of terrorism was certainly not a new technique, since it had previously been used by lone individuals with idiosyncratic personal motives, organized criminal groups, or ideological extremists (including American anarchists and Catalan anarcho-syndicalists, Cuban opponents of the

The main organization that facilitated the adoption of these suicide attack methods by Sunni jihadists was the pro-Iranian Sunni group, Palestinian Islamic Jihad.⁴³⁰ Perhaps not surprisingly, then, its attitudes towards the value and importance of battlefield martyrdom were influenced by those of new Shi'i Islamist regime in Iran, but thence adapted for Sunni audiences as well as to fit the context of the Palestinian "liberation struggle" against the "Zionist entity."⁴³¹ After all, the ethos of self-sacrifice had long been present in Palestinian discourse, even amongst mainly ethno-nationalist groups like the PLO, who conjoined more secular rhetoric about "revolution" (*thawra*) and sacrifice (*fida'*) with religious terminology like *jihad*, *mujahid*, and *shahid* in order to promote it.⁴³² Conversely, the Islamist organizations in Palestine gave primacy to the overtly religious themes, without completely ignoring generic liberationist rhetoric. As PIJ leader Fathi al-Shiqaqi put it, "[w]ithout the [battlefield] martyrs we have no life or history, no past, no glory or value. It is they who pave the way for us for the future, and not the cowards who keep silent, defeatists who trade the homeland and sell off Jerusalem."⁴³³ Another important PIJ document, published in a June 1988 edition of its journal *Al-Islam wa Filastin (Islam and Palestine)*, highlighted the following point:

He who charges forward [to carry out a martyrdom operation] does so not to escape life in desperation in the face of difficulties, or to kill himself. On the contrary, he is a devoted warrior...who sells his soul to God and earns martyrdom for the victory of Islam and the defeat of its enemies on earth.⁴³⁴

Gerardo Machado regime, the Zionist Lohamei Herut Israel (Lehi: Fighters for the Freedom of Israel, better known as the Stern Gang), U.S.-supported Vietnamese groups and their Viet Cong enemies, the right-wing Organisation de l'Armée Secrète (OAS: Secret Army Organization) in Algeria and Metropolitan France, Corsican ethno-nationalist separatists, the Wisconsin chapter of the leftist Students for a Democratic Society (SDS), both the Catholic Irish Republican Army (IRA) and the Protestant Ulster Volunteer Force (UVF), MOSSAD, etc. See Mike Davis, *Buda's Wagon: A Brief History of the Car Bomb* (London and New York: Verso, 2007), chapters 1-11. What was new was the aiming of those bombs by drivers who would voluntarily die when the vehicle crashed and/or the bomb went off, as opposed to stationary, unoccupied vehicles rigged with bombs that were remotely detonated, either via preset timers or by humans from afar.

⁴³⁰ It should also be noted that, after the outbreak of the 1987 Palestinian *intifada*, key leaders of PIJ were expelled by Israel to Lebanon, where they were able to forge close links with Hizballah and its Iranian mentors. See Hatina, *Martyrdom in Modern Islam*, pp. 103-4. The best study of PIJ in English is that of idem, *Islam and Salvation in Palestine: The Islamic Jihad Movement* (Tel Aviv: Moshe Dayan Center for Middle Eastern and African Studies, 2001). See also the sections on PIJ in Ziyad Abu 'Amr, *Islamic Fundamentalism in the West Bank and Gaza: Hamas and Islamic Jihad* (Bloomington, IN: Indiana University, 1994).

⁴³¹ According to the list of suicide attacks in the "Occupied Palestinian Territory" in the Suicide Attack Database, found on the [University of] Chicago Project on Security and Terrorism (CPOST) website, at http://cpostdata.uchicago.edu/search_results_new/php, p. 6, PIJ carried out 16 suicide attacks, killing 15 and wounding 71, up through 2016. This is surely an underestimate, both of the number of attacks and casualties caused. Note also that PIJ and Hamas jointly claimed responsibility for a number of such attacks in 1993, 1994, and 1996, and that PIJ was the first Palestinian Islamist group to carry out such an attack, the 16 July 1989 attack on Bus 405 near Kiryat Yearim.

⁴³² Hatina, *Martyrdom in Modern Islam*, pp. 100-2.

⁴³³ Cited in *ibid*, p. 100.

⁴³⁴ *Ibid*, p. 116, citing *Qira'a fi fiqh al-shahada [Readings in the Law of Martyrdom]*, p. 14.

Furthermore, it was argued therein that the intention to become a martyr was the definitive test for pleasing Allah, that this kind of self-sacrifice was necessary to enable the *umma* to recapture the holy land and ultimately triumph over its Christian and Jewish enemies, that refusing to support the *jihad* against Israel by risking one's life was tantamount to self-immolation, and indeed – in contrast to the PLO, which is harshly criticized for using only “conventional bombs” – that primacy should, depending on the circumstances, be given to suicide attacks such as driving booby-trapped cars, opening fire on people in public buildings, and strapping on suicide vests to become “human bombs.”⁴³⁵

Although PIJ was the first Sunni jihadist organization to cross a “theological and moral threshold by internalizing martyrdom as a social norm”, in the end it was Hamas that “took the lead in ‘suicide’ attacks by virtue of its organizational ability and its claim to Palestinian leadership.”⁴³⁶ This process commenced in 1993, after the Israel-PLO Oslo Accords were signed and the expulsion of 400 Hamas cadres to Marj al-Zuhur in southern Lebanon brought them into the orbit of Hizballah and the Pasdaran, and the adoption of martyrdom operations was thence further justified in response to the 25 February 1994 murder of 29 Arab worshippers in Hebron by *haredi* extremist Baruch Goldstein.⁴³⁷ Thereafter Hamas, as has since become increasingly common amongst Sunni jihadists, began to systematically praise martyrdom and/or commemorate suicide attackers in its Charter, its publications, its leaflets, its public statements, its sermons, its graffiti, its educational materials, and its martyrs' testimonies.⁴³⁸ Khalid Mashal, Hamas' political leader from 2004 until 2017, argued that there was “no path except that of martyrdom – armed resistance and martyrdom operations”, and in its very first communiqué, dated 14 December 1987, Hamas proudly proclaimed that

⁴³⁵ Ibid, pp. 106, 108-11, citing sections of *Qira'a*.

⁴³⁶ Ibid, pp. 117, 119. For diverse perspectives on Hamas, an offshoot of the Palestinian branch of the Muslim Brotherhood established in 1987, cf. Meir Litvak, *The Islamization of Palestinian Identity: The Case of Hamas* (Tel Aviv: Moshe Dayan Center for Middle Eastern and African Studies, 1996); Khalid Hroub, *Hamas: Political Thought and Practice* (Washington, DC: Institute for Palestine Studies, 2000); Shaul Mishal and Avraham Sela, *The Palestinian Hamas: Vision, Violence, and Coexistence* (New York: Columbia University, 2006); Zaki Chehab, *Inside Hamas: The Untold Story of the Militant Islamic Movement* (New York: Nation Books, 2007); Matthew Levitt, *Hamas: Politics, Charity, and Terrorism in the Service of Jihad* (Washington, DC: Washington Institute for Near East Policy, 2007); Joeroen Gunning, *Hamas in Politics: Democracy, Religion, Violence* (New York: Columbia University, 2008); Michael Irving Jensen, *The Political Ideology of Hamas: A Grassroots Perspective* (London and New York: I. B. Tauris, 2009); Beverly Milton-Edwards and Stephen Farrell, *Hamas: The Islamic Resistance Movement* (Cambridge UK and Malden, MA: Polity Press, 2010); Azzam Tamimi, *Hamas: A History from Within* (Northampton, MA: Olive Branch Press, 2011); and Jennifer Jefferis, *Hamas: Terrorism, Governance, and Its Future in Middle East Politics* (Santa Barbara, CA: Praeger, 2016).

⁴³⁷ Hatina, *Martyrdom in Modern Islam*, p. 119.

⁴³⁸ Cf., e.g., Article Eight of its Charter, where Hamas repeats the slogan of the Muslim Brotherhood, including the fourth and fifth lines promoting *jihad* and martyrdom, at http://avalon.law.yale.edu/20th_century/hamas.asp; Hamas communiqués following the outbreak of the first *intifada*, translated in Shaul Mishal and Reuven Aharoni, *Speaking Stones: Communiqués from the Intifada Underground* (Syracuse, NY: Syracuse University, 1994), pp. 199-285; and illustrative Hamas martyr testimonies cited by Hafez, *Manufacturing Human Bombs*, passim. More generally, see Milton-Edwards and Farrell, *Hamas*, chapter 8.

[d]uring one week, hundreds of wounded and tens of martyrs offered their lives in the path of Allah to uphold their nation’s glory and honour, to restore our rights in our homeland, and to elevate Allah’s banner in the land. This is the true expression of the spirit of sacrifice and redemption that characterizes our people. This spirit has robbed the Zionists of their sleep and rocked their foundations, even as it proved to the whole world that a people that welcomes death shall never die.⁴³⁹

Moreover, the somewhat generic appeals to martyrdom in the early days of Hamas “developed into a sophisticated narrative” that “further extended legitimacy to suicide operations” by the mid-1990s.⁴⁴⁰ Thus later communiqués emphasized that that Hamas’ *jihad* would be waged “until either victory or martyrdom”, Hamas spiritual leader Shaykh Ahmad Yasin argued in 2002 that Palestinians had “the right to use all their weapons against [the Zionists], including the martyr death attacks”, and one Hamas martyr testified in his last will that “[l]ove for jihad and martyrdom has come to possess my life, my being, my feelings, my heart, and my senses.”⁴⁴¹ For that reason, even though the leaders of Hamas focused on a much wider range of methods of struggle than did small clandestine paramilitary organizations like PIJ (including, like its Muslim Brotherhood parent organization, providing social services, *da’wa*, political action, and diverse forms of unconventional warfare), stressed that such operations should be carried out only when necessary, and initially sought – reflecting both traditional Muslim and puritanical Islamist attitudes toward women – to discourage women from doing so,⁴⁴² as time wore on, Hamas became the Palestinian organization that sponsored and launched the largest number of suicide attacks, including on Israeli civilians.⁴⁴³

Nevertheless, the increasing reliance on martyrdom operations to carry out attacks by Hamas, as well as other regional Sunni jihadist groups in places like Chechnya and Kashmir, was soon overshadowed in the wake of their wholesale adoption and utilization to generate mass casualties by transnational jihadist Salafist organizations such as al-Qa’ida and the Islamic State.⁴⁴⁴

⁴³⁹ Cited in, respectively, *ibid*, p. 134; and Singh, *Hamas and Suicide Terrorism*, p. 107.

⁴⁴⁰ *Ibid*, p. 108.

⁴⁴¹ Cited in *ibid*, pp. 109-11. See further Nawaf Hayil Takruri, ed. *Al-‘Amaliyyat al-istishhadiyya fi al-mizan al-fiqhi [Martyrdom Operations in the Balance of Jurisprudence]* (Damascus: Dar al-Fikr, 1997), for the attempts by Hamas’ scholars to refute other Islamic scholars (including the former Grand Mufti of al-Azhar in Cairo, Shaykh Muhammad al-Sayyid al-Tantawi) who argued that such operations were forbidden in Islam. Leading Brotherhood scholar Yusuf al-Qaradawi also supported and religiously justified Palestinian suicide attacks against Israeli civilians. For more, cf. Reuter, *My Life as a Weapon*, p. 122; the analysis by Islamist author Tamimi, *Hamas: A History from Within*, pp. 180-6; and Shaul Bartal and Nesya Rubinsten-Shemer, *Hamas and Ideology: Sheikh Yūsuf al-Qaradāwī on the Jews, Zionism and Israel* (Abingdon UK and New York: Routledge, 2018), esp. chapters 5 and 6.

⁴⁴² Hatina, *Martyrdom in Modern Islam*, pp. 118-22.

⁴⁴³ See the list of suicide attacks in the “Occupied Palestinian Territory” in the Suicide Attack Database, found on the CPOST website, at http://cpostdata.uchicago.edu/search_results_new/php, p. 5, which attributes 28 such attacks to Hamas, killing 43 and wounding 205, up through 2016. These figures are not only underestimates, but are also obviously not up to date.

⁴⁴⁴ Note, however, that Asaf Maliach argues that ‘Abdullah ‘Azzam was a key Islamist thinker who influenced both Hamas and al-Qa’ida, including his ideas about *jihad* and martyrdom, in support of which Maliach cites a February 1990 memorial tribute to the recently assassinated ‘Azzam. See Asaf Maliach, “Abdullah Azzam, al-Qaeda, and

As Hatina notes, the former groups were at first “careful to emphasize that this ‘suicide’ weapon does not constitute a systematic or mass *modus operandi* but is implemented in emergency situations only and within defined Islamic parameters.”⁴⁴⁵ Alas, that relative restraint was soon abandoned, including by many of those regional jihadist groups themselves. Indeed, following the rise to prominence of al-Qa’ida, the resulting globalization of *jihad* “stimulated the creation of new symbols and a new collective identity, a redefinition of moral standards, the establishment of a rigid system of codes for normative behavior, and a legitimation of radical violence and the readiness to pay the ultimate price in the form of self-sacrifice.”⁴⁴⁶

Given all of the bloody mass casualty terrorist attacks that have been sponsored, organized, and carried out by al-Qa’ida Central and its affiliated organizations since the late 1990s, most notably the spectacular and devastating 9/11 attacks, there is little need to devote much attention

Hamas: Concepts of Jihad and Isthishhad,” *Military and Strategic Affairs* 2:2 (October 2010), esp. pp. 85-90 (p. 88 for the memorial), available at [http://www.inss.org.il/wp-content/uploads/sites/2/systemfiles/\(FILE\)1298359986.pdf](http://www.inss.org.il/wp-content/uploads/sites/2/systemfiles/(FILE)1298359986.pdf). He thus presents a somewhat different, albeit less convincing, causal argument than Hatina for the increasing adoption of martyrdom operations by Hamas. For more on the impact of the Palestinian conflict on ‘Azzam’s ideological development, see Thomas Hegghammer, “‘Abdallāh ‘Azzām and Palestine,” *Die Welt des Islam* 53:3-4 (2013), pp. 353-87.

⁴⁴⁵ Hatina, *Martyrdom in Modern Islam*, p. 136. However, I strongly disagree with his follow-up point (ibid) that those local and/or regional jihadist groups intended to limit their martyrdom actions to the enemies within their own “geographic borders”, as well as with Farhad Khosrokhavar’s claim that they “sought to define their nation’s place in a world of nations” rather than “create a new world order.” See Khosrokhavar, *Suicide Bombers*, pp. 225-6. This raises a much larger question concerning the validity of the categorization schemes for jihadist groups that have been adopted by various scholars. Not only have most scholars rightly distinguished between jihadist groups and Islamist groups employing a “gradual Islamization from below” strategy, but many have also sought to distinguish between jihadist groups with a “national” agenda and those with a global agenda. See, e.g., Gerges, *Far Enemy*, pp. 1-2, who draws a distinction between what he calls irredentist jihadists (like Hamas), those who target the “near enemy” (like al-Jama’a al-Islamiyya in Egypt), and global jihadists who target the “far enemy” (like al-Qa’ida). Cf. also Barry Rubin, “Islamic Radicalism in the Middle East: A Survey and Balance Sheet,” *Middle East Review of International Affairs* 2:1 (1998), pp. 17-24. There are two major problems with these tripartite divisions, and especially with those that make hard and fast distinctions between supposedly “nationalist” jihadist groups and their transnational counterparts. The first is that many local, national, or regional jihadist groups that originally targeted the “near enemy,” whether non-Muslim invaders, non-Muslim regimes, or “apostate” Muslim regimes, ended up embracing the global jihadist agenda from the mid-1990s on. Hence most of those ostensibly local or “nationalist” conflicts involving Muslims – e.g., in Chechnya and the North Caucasus, in the Philippines, in parts of Central Asia, in Kashmir, in Thailand, in China’s Xinjiang province, in several North African countries, in Somalia, in Nigeria, in Mali, etc. – were soon transformed into fronts in a worldwide *jihad*. Indeed, this type of transformation was arguably al-Qa’ida’s biggest strategic success, given that one nowadays finds jihadists from all over the world moving around from one foreign battle front to another to fight. Hence these local conflicts were no longer primarily irredentist or ethno-nationalist conflicts. The second is that even ostensibly local or national Islamist groups generally espouse broader transnational, Islamic supremacist agendas. Not surprisingly, such groups usually prioritize defeating foreign occupiers or local “un-Islamic” regimes that are directly “oppressing” them, but they also typically have longer term global goals. By definition, Islamists promote world transformative pan-Islamic goals, however distant they may be, and indeed many explicitly view nation-states as artificial territorial creations that were imposed on Muslims by hostile “infidel” powers in order to divide and weaken the *umma*. In short, if they somehow ever manage to defeat their local enemies, elements within these “national” groups are likely to begin fighting against “apostate” or “infidel” enemies further afield.

⁴⁴⁶ Hatina, *Martyrdom in Modern Islam*, p. 137. Jeffrey William Lewis, in his book *The Business of Martyrdom: A History of Suicide Bombing* (Annapolis, MD: Naval Institute Press, 2012), p. 197, characterizes this more succinctly as “[r]eligiously sanctioned jihad emphasizing altruistic self-sacrifice...”

to the group's obvious and long-standing encouragement and employment of martyrdom operations, including against civilians. For that reason, only a few examples of the justifications for such operations by figures associated with al-Qa'ida will be highlighted herein. One is provided by 'Abdallah 'Azzam, the key jihadist scholar and leader who worked with Bin Ladin to recruit and provide logistics to Arabs who wished to join the Afghan *jihad* against the Soviets, the crucible from which al-Qa'ida emerged.⁴⁴⁷ In a 2002 treatise authored by 'Azzam, he argued that the Muslim *umma* can only continue to exist because of

a divine ideology and the blood which flows as a result of spreading this divine ideology and implanting it into the real World...What is more beautiful than the writing of the Ummah's history with both the ink of the scholar and his blood[?]....The extent to which the number of martyred scholars increases is the extent to which nations are delivered from their slumber, rescued from their decline and awoken from their sleep...History does not write its lines except with blood. Glory does not build its lofty edifice except with skulls. Honour and respect cannot be established except on the foundation of cripples and corpses. Empires, distinguished peoples, states and societies cannot be established without examples. Indeed those who think that they can change reality, or change societies, without blood, sacrifices and invalids, without pure, innocent souls, then they do not understand the essence of this Deen [*din*, i.e., religion] and they do not know the method of the best of the Messengers [i.e., Muhammad]...[T]he goal [of the Muslim martyrs who flocked to and fought and died in Afghanistan] was one: that the Word of Allah is raised the highest and that this Deen is made victorious on the Earth.⁴⁴⁸

In sum, the key to Islam's ultimate triumph is the willing battlefield martyrdom of the cream of that small, elite group of committed *mujahidin*, those who not only "carry convictions and ambitions" and "flee from the worldly life in order to...act upon these ambitions", but who "sacrifice their souls and their blood in order to bring victory..."⁴⁴⁹

Such themes were also emphasized by many other key figures within al-Qa'ida, including Bin Ladin himself and his lieutenant al-Zawahiri, as well as in the last wills and testaments of various martyrs who carried out attacks on behalf of the group or its affiliates. For example, in a 26 December 2001 statement recorded and then broadcast on *al-Jazira*, Bin Ladin – who had not

⁴⁴⁷ For an excellent study of the early history of these "Afghan Arabs," see Anne Stenersen, *Al-Qaida in Afghanistan* (Cambridge, UK: Cambridge University, 2017). Indeed, according to Maliach ("Abdullah Azzam, al-Qaeda, and Hamas," p. 90), "Azzam was the one who gave Bin Laden his understanding of jihad and *istishhad*, which has continued to guide him and al-Qaeda for over the decades."

⁴⁴⁸ 'Abdallah 'Azzam, "Martyrs: The Building Blocks on Nations," 1 February 2002, Religioscope website, pp. 1-2, 3, available at <https://english.religion.info/2002/02/01/document-martyrs-the-building-blocks-of-nations/>. For a slightly different translation of portions of this text, see Maliach, "Abdullah Azzam, al-Qaeda, and Hamas," p. 81. See further the analysis of Hatina, *Martyrdom in Modern Islam*, pp. 140-1.

⁴⁴⁹ 'Azzam, "Martyrs," p. 2.

yet publicly claimed responsibility for the 9/11 attacks – described these attacks as “blessed strikes against global unbelief” and insisted that the nineteen hijackers

performed a very great and heroic deed....May Allah receive them as martyrs. By their very deeds, they produced a great sign, demonstrating that it was the belief in their hearts that urged them to do such things, giving their souls to [the core affirmation in Islam,] ‘There is no God but Allah.’⁴⁵⁰

Similarly, in a treatise apparently written prior to the 9/11 attacks, al-Zawahiri, after citing various *ahadith*, argued that

[a]ll of the above demonstrates the greatness of martyrdom and the obligation to fight the imams of infidelity and their aides. Thus, abandoning *jihad* and becoming caught up with this world lead to humiliation and the loss of property, honor, and land, whereas loving martyrdom and engaging in battle lead to glory and strength....The best of people, then, are those who are prepared for *jihad* in the path of Allah Most High, requesting martyrdom at any time or place. Whenever he hears the call to *jihad* he flies to it until Allah’s authority is established.⁴⁵¹

He then goes on to justify the launching of suicide attacks and the killing of infidels even in situations where Muslims and other ostensibly protected categories of people are present amongst them.⁴⁵²

Finally, one can point to the last statements, wills, and testaments of the “great” al-Qa’ida battlefield martyrs.⁴⁵³ See, for example, the document produced on the eve of the 9/11 attacks by leading hijacker Muhammad ‘Ata, entitled “The Last Night,” wherein he urges his collaborating “brothers” to

[r]ead the al-Tawbah and Anfal [Qur’anic *suras* 9 and 8] and reflect on their meaning and what Allah has prepared for the believers and the martyrs in Paradise....Forget and ignore what is of this world, for the time of play has gone and the time of truth is nigh!....Be cheerful because you have only moments

⁴⁵⁰ Usama b. Ladin, “Nineteen Students,” cited in Lawrence, ed., *Messages to the World*, pp. 146, 153; and Ibrahim, ed., *Al Qaeda Reader*, pp. 267-8.

⁴⁵¹ Ayman al-Zawahiri, “Jihad, Martyrdom, and the Killing of Innocents,” cited in Ibrahim, ed., *Al Qaeda Reader*, pp. 145-6. For a more detailed analysis of al-Zawahiri’s views on martyrdom, see Tim Huffman, “You Have Atomic Bombs, We Have Martyrdom Seekers: Ayman al-Zawahiri’s Narrative Arc of the Martyr,” *Peace and Conflict Studies* 23:1 (2016), available at <https://nsuworks.nova.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1299&context=pcs>. Therein his views on the virtues of martyrs, and the “arc” of their progression from belief to death and entry into Paradise, are discussed.

⁴⁵² See, respectively, al-Zawahiri, “Jihad, Martyrdom, and the Killing of Innocents,” pp. 146-61 and 161-71.

⁴⁵³ For an insightful analysis of the form and content of the wills of Sunni jihadist martyrs, as well as their process of commemoration, see Hatina, *Martyrdom in Modern Islam*, pp. 168-86. Clearly, the careful documentation of the bravery, self-sacrifices, and operational successes of battlefield martyrs by jihadist organizations is explicitly designed to inspire other Muslims to take action *fi sabil Allah*.

between you and your eternity, after which a happy and satisfying life begins, the eternal pleasures with the prophets, the righteous, the good, and the martyrs, the best company you can have...⁴⁵⁴

Note also the biographies of other “great martyrs,” selected by al-Qa‘ida itself, who died fighting in the “land of jihad,” i.e., Iraq, several of which have been compiled and translated by Mathieu Guidère.⁴⁵⁵ As Guidère notes, these exemplary martyrs are distinguished by the great sacrifices they made to travel to Iraq, including abandoning their worldly possessions, wives, and children at home, suffering arrest and “persecution”, and finally “to die to defend Islam and the Muslims”.⁴⁵⁶ They are also distinguished – *nota bene* – by “the number of victims [they] produced in the ranks of ‘the enemy’” when they executed their operations, since this high level of “success” was considered to be evidence of Allah’s blessings.⁴⁵⁷ This provides further evidence, if any were necessary, that causing mass casualties is a major objective of al-Qa‘ida’s suicide attackers.

The same, of course, is no less true for the battlefield martyrs of the Islamic State. As Erkan Toguslu has emphasized, “in ISIS-related discourses and *Dabiq* magazine a cult of military martyrdom is developed in relation to some Qur’an verses.”⁴⁵⁸ Indeed, according to Charlie Winter, the IS has “militarised suicide more sustainably than any other non-state actor to date” and “made violent self-immolation a pillar of its insurgency...”⁴⁵⁹ He notes further that suicide operations on behalf of Abu Bakr al-Baghdadi’s organization in Syria and Iraq had “become a daily occurrence”, so much so that the IS carried out 923 suicide operations between 1 December 2015 and 30 November 2016.⁴⁶⁰ That is precisely why he refers to the IS’s activities in this sphere

⁴⁵⁴ Muhammad ‘Ata, “The Last Night,” available in an English translation prepared by the U.S. government, p. 1, at https://www.flight93friends.org/pdf/learning-center/crime-scene-investigation/BS01101T_LastNight_Logan_Translation.pdf. This document is also analyzed and translated by Kanan Makiya and Hassan Mneimneh, “Manual for a ‘Raid,’” in Robert B. Silvers, ed., *Striking Terror: America’s New War* (New York: New York Review Books, 2002), pp. 303-27, which originally appeared in the 17 January 2002 *New York Review of Books*, available at <https://www.nybooks.com/articles/2002/01/17/manual-for-a-raid/>. Cf. further Hatina, *Martyrdom in Modern Islam*, pp. 154-7.

⁴⁵⁵ See Mathieu Guidère, *Les “martyrs” d’Al-Qaida: Au coeur de la propagande terroriste* (Nantes: Temps, 2006), pp. 27-186.

⁴⁵⁶ *Ibid.*, pp. 8-9.

⁴⁵⁷ *Ibid.*, p. 9. Mohammed Hafez has likewise summarized the themes of al-Qa‘ida’s martyrdom narratives in Iraq as emphasizing those martyrs’ a) sincere devotion to Islam, b) willingness to sacrifice personal wealth and personal relationships for Allah, c) eagerness to carry out “martyrdom operations,” d) success in damaging the enemies of Islam, and e) and confirmation of martyrdom through dream visions. See Mohammed M. Hafez, “Martyrdom Mythology in Iraq: How Jihadists Frame Suicide Terrorism in Videos and Biographies,” *Terrorism and Political Violence* 19 (2007), pp. 103-9. Such themes have since become even more widespread within the jihadist milieu.

⁴⁵⁸ Erkan Toguslu, “Caliphate, *hijrah* and Martyrdom as Performative Narrative in ISIS *Dabiq* Magazine,” *Politics, Religion & Ideology* 18:4 (2018), p. 24.

⁴⁵⁹ Charlie Winter, *War By Suicide*, p. 3.

⁴⁶⁰ *Ibid.*, pp. 3, 4. David Cook estimates that the IS has carried out 3500-4000 suicide attacks since its “rebirth” in 2011-2012, whereas there were only an estimated 1010 or so in Iraq between 2003 and 2010. As a result, he argues that the “religious legitimacy of suicide attacks/martyrdom operations is no longer in question among Salafi-jihadis.” See David Cook, “The Routinization of Martyrdom Operations,” *Oasis* [Fondazione Internazionale Oasis, Milan], 20 December 2017, available at <https://www.oasiscenter.eu/en/suicide-bombings-and-martyrdom-in-islam-4>

as a full-fledged “martyrdom industry,” in contradistinction to what Diego Gambetta described as al-Qa’ida’s developing “proto-industry of suicide missions, which exploits scale economies and specialization,” in post-invasion Iraq.⁴⁶¹

Given these grim statistics, and as in the case of al-Qa’ida, it is not necessary to devote much space to explaining the IS emphasis on martyrdom. In addition to noting that, like its al-Qa’ida in Mesopotamia organizational predecessor, the IS created special units to carry out martyrdom operations, it should suffice herein to provide a few illustrative examples of IS statements justifying and highlighting the importance of martyrdom.⁴⁶² First, in an April 2007 speech, its then leader Abu ‘Umar al-Baghdadi insisted that the IS[I] was here to stay for many reasons, first of all “because it was built upon the corpses of martyrs and it quenched its thirst with their blood, and by such the market for Jannah [Paradise] was convened.”⁴⁶³

Second, note the threat issued to the U.S. and its allies in a 9 September 2014 speech by IS spokesman Abu Muhammad al-‘Adnani:

O America, O allies of America, and O crusaders, know that the matter is more dangerous than you have imagined and greater than you have envisioned. We have warned you that today we are in a new era, an era where the [Islamic] State, its soldiers, and its sons are leaders not slaves. They are a people who through the ages have not known defeat. The outcome of their battles is concluded before they begin. They have not prepared for a battle since the time of Noah except with absolute

⁴⁶¹ Cf. the subtitle in Winter, *War By Suicide*; and Diego Gambetta, “Epilogue to the Paperback Edition,” in idem, ed., *Making Sense of Suicide Missions*, p. 311. See further Thomas Joscelyn, “The Islamic State’s Prolific Martyrdom Machine,” *Long War Journal* website, 8 June 2016, available at <https://www.longwarjournal.org/archives/2016/06/the-islamic-states-prolific-martyrdom-machine.php>.

⁴⁶² The special martyr’s unit created by AQM was known as the Kata’ib al-Bara’ ibn Malik [al-Ansari] (al-Bara’ ibn Malik Brigade), which was named after one of the “companions” who died at the battle of Yamama during the Ridda (Apostasy) Wars in the wake of Muhammad’s own death. See Aaron Zelin, “Signs Beyond Western Eyes: Unpacking the Announcement of the al-Bara’ ibn Malik Brigade,” *al-Wasat*, 18 February 2012, available at <https://thewasat.wordpress.com/2012/02/18/signs-beyond-western-eyes-unpacking-the-announcement-of-the-al-bara-ibn-malik-martyrs-brigade/>. But several other martyr’s units were connected to the IS, such as the Liwa’ al-Shuhada’ al-Yarmuk (Yarmuk Martyrs’ Brigade, named after the 636 Muslim battle against the Byzantines at the Yarmuk River) in Syria, which affiliated itself with the IS in late 2014, and – perhaps the most worrisome, from a Western perspective – a secret IS suicide brigade whose existence was revealed when a disgruntled IS member, Abu Hamid, stole a memory stick from the head of the IS’ security chief and provided it to journalists from Sky News. Among the information therein were the names, nationalities, addresses, phone numbers, family members, and blood types of 22,000 IS fighters from 51 countries who were then operating in Iraq and Syria, as well as a special file entitled “The Martyrs,” which listed 123 individuals, including jihadists from Belgium, France, Germany, Tunisia, Egypt and Spain “who joined the Caliphate for the sole purpose of dying as martyrs.” See David Israel, “ISIS ‘Suicide Brigade’ Discovered,” *Jewish News*, 23 March 2016, available at <https://www.jewishpress.com/news/isis-suicide-brigade-discovered/2016/03/23/>; and Cristina Silva, “Islamic State Suicide Bombers: Details Revealed about Secretive ISIS Martyrs Brigade,” *International Business Times*, 23 March 2016, available at <https://www.ibtimes.com/islamic-state-suicide-bombers-details-revealed-about-secretive-isis-martyrs-brigade-2341951>.

⁴⁶³ Abu ‘Umar al-Baghdadi, “Hasad al-sinin bi dawlat al-muwahhidin” [“The Harvest of Years in the State of the Muwahhidin”], cited in “Remaining and Expanding,” *Dabiq* 5 (October-November 2014), pp. 32-3. His entire, absurdly optimistic argument is of considerable interest.

conviction of victory. Being killed – according to their account – is a victory. This is where the secret lies. You fight a people who can never be defeated. They either gain victory or are killed. And O crusaders, you are losers in both outcomes, because you are ignorant of the reality that none of us is killed but to resurrect the dead amongst us. None of us is killed but to leave behind him a story that awakens the Muslims from their slumber by its recount. And then you see the weak one of us – he who has no experience in fighting and thinks he cannot contribute anything practical on the ground, having no goal except to be killed, so that he can illuminate the path with his blood and thereby enliven the hearts with his story, generation after generation. He makes his body and remains a bridge for those who awaken after him to pass over. This person has realized that the life of his [*umma*] is through blood and the honor of his [*umma*] is through blood. So he went on with a bare chest and bare head towards death eagerly searching for life and honor. If he survives, he lives as a victor with freedom, might, honor, and authority. And if he is killed, he illuminates the path for those after him and goes on to his Lord as a joyful martyr. He has taught those after him that might, honor, and life are through jihad and being killed, and that humiliation, disgrace, and death are through submission and subservience.⁴⁶⁴

It would be hard to find a clearer statement than this linking *jihad* inextricably with martyrdom.

Finally, in an interesting paean to Australian jihadist “martyr” Man Haron Monis, who on 15 December 2014 seized “infidel” hostages in the Lindt Chocolate Café in Sydney before executing one and then being killed in the resulting police assault, the IS openly rebuked Western analysts who sought to blame such individual *jihad* attacks on mental illness or to dismiss their perpetrators’ religious convictions by claiming that they had been criminals or not devout earlier on in their lives:

The fact is, however, that any allegations leveled against a person concerning their past are irrelevant so long as they hope for Allah’s mercy and sincerely repent from any previous misguidance. This is so with one who embraces Islam and thereby has his past history of shirk and transgression completely erased – as was even the case with many Sahābah [Companions of Muhammad]. *So how much more so in the case of one who followed up his repentance by fighting and being killed in the path of Allah, knowing the Prophet...declared that such a person would be forgiven the moment his blood is first spilled.* Condemning a person based on his past has been the tradition of the tawāghīt [tyrannical oppressors]...The new Man Haron Monis was a mujāhid in the path of Allah. He declared himself to be upon pure tawhīd and

⁴⁶⁴ Abu Muhammad al-‘Adnani al-Shami, “Indeed Your Lord is Ever Watchful,” pp. 4-5, available at <https://scholarship.tricolib.brynmawr.edu/bitstream/handle/10066/16495/ADN20140922.pdf?sequence=1>. Extracts from this speech were also published under the same title in *Dabiq* 4 (September-October 2014), pp. 6-9. The title of the speech is taken from the *Qur’an* 89:14.

from Ahlus-Sunnah [Ahl al-Sunna wa al-Jama‘a, a term for orthodox Sunni Muslims], announced his bay‘ah [oath of allegiance] to Khalīfah Ibrāhīm al-Qurashī [Abu Bakr al-Baghdadi], and then marched forward to terrorize the kuffār and bring victory to Allah’s religion. His shahādah [martyrdom] is – insha’allah – a testament to his sincerity.⁴⁶⁵

This is a clear statement supporting the standard Islamic notion that waging *jihad* and martyring oneself *fi sabil Allah* erases all of the battlefield martyr’s past sins and guarantees his entry into Paradise. Needless to say, it is also intended to encourage other lapsed Muslims around the world to likewise seek atonement and absolution for their “sins” by waging *jihad* and willingly becoming martyrs for Allah.

However, in earlier issues of the IS’ first English-language magazine, *Dabiq*, the theme of martyrdom, while undeniably present, was a somewhat understated subtext, although it gradually became more pronounced as time went on.⁴⁶⁶ That may be why several analysts who have sought to analyze the communications and propaganda themes in *Dabiq*, although differing amongst themselves, have not generally emphasized martyrdom as being among those themes.⁴⁶⁷ On the

⁴⁶⁵ “Foreword,” *Dabiq* 6 (December 2014-January 2015), pp. 3-4 (italics added). Monis (whose real name was Muhammad Hasan Burujardi) was an eccentric character born in Iran who had been raised as a Shi‘i Muslim but then later, after being radicalized and “converted” in Australia by Sunni Islamists in Hizb al-Tahrir, renounced his *rafidi* views and declared his allegiance to the IS. Since he was previously involved in sexual assaults, fraud, and plotting a murder, the Western media almost uniformly portrayed Monis as a mentally disturbed individual. For an overview of his background, see Bridget Brennan, “The Many Faces of Lindt Siege Gunman Monis,” ABC Australia, 22 May 2017, available at <https://www.abc.net.au/news/2017-05-22/lindt-cafe-sydney-siege-gunman-man-haron-monis/8375858>. For an interesting analysis of other jihadist groups pledging *bay‘a* to the IS, see the special issue of the Combating Terrorism Center’s at West Point’s *CTC Sentinel* 8:3 (March 2015), pp. 1-21, available at <https://ctc.usma.edu/app/uploads/2015/03/CTCSentinel-Vol8Issue319.pdf>.

⁴⁶⁶ *Dabiq* was later succeeded in September 2016 by *Rumiyah*. There was also an IS French-language magazine, *Dar al-Islam*, as well as others in Russian (*Istok [East]*) and assorted non-Middle Eastern languages. An interesting point made by Toguslu (in “Caliphate, *hijrah* and Martyrdom,” p. 8) is that in many issues of *Dabiq*, much like in the *Qur‘an* itself, “the linear story is missed and the story is very fragmented...” Hence articles in *Dabiq* often assume some “prior or existing knowledge” of the *Qur‘an* and/or allude or make references to “complementary materials including *tafsir* (exegesis) and *hadith*.” This means that, in to fully understand the material in *Dabiq*, the reader should ideally have a degree of “pre-existent knowledge that accords with the Qur’anic narrative” and other sources for early Islamic history.

⁴⁶⁷ E.g., in his report, *The Virtual “Caliphate”: Understanding Islamic State’s Propaganda Strategy* (London: Quilliam Foundation, 2015), pp. 22-30, Charlie Winter identifies six major themes in the IS’ “propaganda of winners” approach (p. 30): brutality (towards enemies), mercy (towards penitents and Muslims), victimhood (of Muslims due to the imagined “global war on Islam”), war (against the enemies of the IS), belonging (to the brotherhood forged within the IS), and – most importantly – apocalyptic utopianism. Other studies focus more on social science theories and/or concepts in strategic communications, e.g., Haroro J. Ingram, “An Analysis of Islamic State’s *Dabiq* Magazine,” *Australian Journal of Political Science* 51:3 (2016), pp. 458-77; idem, “An Analysis of *Inspire* and *Dabiq*: Lessons from AQAP and Islamic State’s Propaganda War,” *Studies in Conflict and Terrorism* 40:5 (2017), pp. 357-75; Douglas Wilbur, “Propaganda’s Place in Strategic Communication: The Case of ISIL’s *Dabiq* Magazine,” *International Journal of Strategic Communication* 11:3 (2017), pp. 209-23; Jackie Droogan and Shane Pettie, “Mapping the Thematic Landscape of *Dabiq* Magazine,” *Australian Journal of International Affairs* 71:6 (2017), pp. 591-620; Brandon Colas, “What Does *Dabiq* Do? ISIS Hermeneutics and Organizational Fractures within *Dabiq* Magazine,” *Studies in Conflict and Terrorism* 40:3 (2017), pp. 173-90; and Peter Wignell, Sabine Tan, and Kay L. O’Halloran, “Violent Extremism and Iconisation: Commanding Good and Forbidding Evil?,” *Critical Discourse Studies* 14:1 (2017), pp. 1-22.

other hand, the theme of martyrdom was clearly implicit in many of the themes that have been identified – the IS’ calls for Muslims to undertake *hijra* (emigrate) from the countries they reside in to the IS Caliphate, to work once they arrive to create a utopian *shari‘a*-compliant system, and to wage military *jihad* against infidels, hypocrites, apostates, and “deviant” Muslim sects in order to raise Allah’s word most high – since it was likely that many who chose that particular course of action would end up perishing in the fight against the IS’ many designated enemies.⁴⁶⁸ In the event that they did sacrifice their lives on the battlefield, of course, they were assured that Allah would immediately reward them by welcoming them to Paradise. In later issues, moreover, there was a growing emphasis on highlighting the heroic deeds of martyred IS fighters, whose “diligence, robustness, and eagerness to die” were among “the main characteristics outlined as those of a true martyr.”⁴⁶⁹

Similar themes can also be found in the accounts and videos commemorating the actions of specific IS martyrs that have been released into the public domain, some of which are posted on the IS’ Amaq News Agency website.⁴⁷⁰ Like other IS videos, these have apparently been effective

⁴⁶⁸ Note, e.g., that Toguslu identifies seven organizing “narratives” in *Dabiq* – Crusade, morality, jihad, hijra, Caliphate, state, and hypocrite – each of which touches upon a number of recurrent themes. One of the themes that frequently reappears within those narratives is martyrdom. See Toguslu, “Caliphate, *hijrah* and Martyrdom,” p. 6, table 1. Thus biographies of IS fighters, including those who have been martyred, all share the same emphases (ibid, pp. 14-15): “the piousness of these men, their past committed crimes and corruption depicted as *jahiliyya*, their return to Islam by doing *hijrah* to ISIS, pledge of allegiance to [the] Caliphate and becoming good examples of true Muslims with jihad.” He concludes (ibid, p. 15, and the subsequent discussion on pp. 15-26) that all of these biographies are “coded within three common narratives: Islamic state and caliphate; *hijrah* (migration); martyrdom and jihad.”

⁴⁶⁹ Ibid, p. 25. For some illustrative examples, see the first installment of a section in *Dabiq* on IS martyrs, “Among the Believers are Men: Abū Qudāmah al-Misrī,” *Dabiq* 7 (January-February 2015), pp. 46-9, an Egyptian *mujahid* who was killed by a Syrian Army sniper; “Among the Believers are Men: Shaykh Abū Talhah,” *Dabiq* 8 (March-April 2015), pp. 30-1, a leader of the IS affiliate in Khurasan who was killed in an American airstrike; “Among the Believers are Men: Hudhayfah al-Battāwī,” *Dabiq* 9 (May-June 2015), pp. 40-2, a *mujahid* who killed officials in a Baghdad prison, broke out of jail with some “brothers,” and attacked the Iraqi Interior Ministry in an *inghimas* attack before being killed; “Among the Believers are Men,” *Dabiq* 10 (June-July 2015), pp. 40-1, where two *mujahidin* are featured, one killed in an attack, the other by an airstrike; “Amongst the Believers are Men: Abū Ja’far al-Almānī,” *Dabiq* 11 (August-September 2015), p. 38, a Turk from Germany who died in an airstrike while attacking the Kurds; “Amongst the Believers are Men,” *Dabiq* 12 (November-December 2015), pp. 55-7, where two *mujahidin* who were killed, one by the Jabhat al-Nusra and the other by the Alawis, are featured; “Among the Believers are Men: Abū Muhārib al-Muhājir,” *Dabiq* 13 (January-February 2016), pp. 22-3, which deals with the death in a drone strike of the notorious British beheader “Jihadi John”; and “Among the Believers are Men: Abū Jandal al-Bangālī,” *Dabiq* 14 (April-May 2016), pp. 50-1, a Bengali *mujahid* who was killed while carrying out an *inghimas* attack in Syria. Note that virtually none of these lauded IS martyrs were suicide attackers, suggesting that the IS wanted to convince prospective jihadists that they would also be martyrs if they died in the course of regular military operations. There are, of course, other references to martyrdom in *Dabiq*, such as “The Best Shuhadā’,” *Dabiq* 13 (January-February 2016), pp. 20-1, which cites several *ahadith* concerning who the best martyrs supposedly are. Other such articles appear in *Rumiyah*.

⁴⁷⁰ According to Winter (*War By Suicide*, pp. 5-6), such videos are published both by Amaq and by the IS’ provincial media offices, where many more details concerning the martyrs and their attacks are provided. Unlike most of the Westerners who have analyzed IS videos, Winter relied heavily on the latter in his studies. He further notes (ibid, pp. 7-10, with an illustrative example) that the IS “implements its own rigorous eight-step process for verification.” For some examples of Amaq videos, see some of those published on India’s New Delhi Television Limited (NDTV) website, available at <https://www.ndtv.com/topic/amaq>, as well as some of the ones analyzed by

in both attracting jihadist recruits and in inspiring further suicide attacks.⁴⁷¹ According to Carol Winkler and Jonathan Pieslak, who analyzed the content of seventy IS videos, the martyrdom segments of IS videos “display five strategic themes”:⁴⁷²

- that the decision to give one’s life for *jihad* only occurs after “thoughtful, deliberative, and divine-inspired reflection”;
- that Muslims need to participate in acts of martyrdom in order to respond to assaults on Islam by its enemies;
- that a continuous supply of willing fighters is available to conduct martyrdom operations;
- that the threat of attacks by IS martyrs on its enemies is very real; and
- that IS *mujahidin* who are killed participating in regular military actions can also achieve martyrdom

Note, however, that the themes in these videos were highly ideological as well as merely “strategic,” and indeed were specifically intended to convince Muslim viewers, including potential recruits, that these types of battlefield martyrdom operations were divinely-sanctioned paths to Paradise as well as militarily effective. The result is that there was no shortage of *mujahidin*, above all foreign fighters, who were willing to carry out martyrdom operations.⁴⁷³ Nor were such

Thomas Joscelyn on the *Long War Journal* website, available at <https://www.longwarjournal.org/tags/amaq-news-agency> .

⁴⁷¹ See, e.g., Deb Reichmann, “‘Die Hard’ for Jihadists? IS Recruits with Heroic Tales,” Associated Press, 24 November 2017, available at <https://www.apnews.com/871704f3833d40c789f3eb6696110214> . As per this article, according to a study conducted by the University of Chicago’s Project on Security and Threats, 83% of the recruits for the group watched IS videos before joining. Alas, project Director Robert Pape misconstrued the results of his own group’s study – yet again – by claiming that “[t]his is a journey [for justice] like Clint Eastwood [in the film *High Plains Drifter*]” and arguing that Western Muslims are being coaxed to join the IS not because of their religious beliefs, newfound or otherwise, but because of the group’s message of “personal empowerment” and “Western concepts of individualism.” However, Rita Katz of the SITE Institute, an Arabic speaker and expert on Islamism, justly refuted Pape’s idiosyncratic interpretation by noting that “[a]t the foundation of IS recruitment propaganda is not so much the promise of a Hollywood-esque hero, but a religious hero. There is a big difference between the two.” She added, again rightly, that the “promise of religious martyrdom is powerful to anybody regardless of whether they are rich or poor, happy or unhappy, steeped in religion or not at all.” In short, even recent converts to Islam who are not yet fully knowledgeable about their newly-embraced religion can be attracted by such a message.

⁴⁷² Carol Winkler and Jonathan Pieslak, “Multimodal Visual/Sound Redundancy in ISIS Videos: A Close Analysis of Martyrdom and Training Segments,” *Journal of Policing, Intelligence and Counter Terrorism* 13:3 (2018), p. 351, and the discussion on pp. 351-4.

⁴⁷³ According to an analysis by The Soufan Group (TSG), created by former FBI CT agent Ali Soufan, “[f]or foreign fighters seeking death, the Islamic State (IS) delivers. The group continues to use its foreign fighters in the majority of its suicide attacks in Iraq, and to a lesser degree in Syria....Simply put, there is a subset of foreign fighters who join for the opportunity for martyrdom, as they see it. That is what they want – and it is why they joined....by publicizing these deaths as IS does, it shows potential future recruits that IS delivers what for them would be considered an honorable death. This creates a feedback loop of death, in which each suicide bombing – and the subsequent publicity and glorification – light the fuse for a future suicide bomber.” In doing so, the IS thereby gains military, recruitment, and administrative benefits. See “TSGIntelBrief: The Logic of Foreign Fighters as Suicide Bombers,” The Soufan Group website, 23 October 2014, available at <https://www.ndtv.com/topic/amaq> . For the military benefits of IS martyrdom operations, see “TSGIntelBrief: The Devastating Islamic State Suicide Strategy,” in idem, 29 May 2015, available at <http://www.soufangroup.com/tsg-intelbrief-the-devastating-islamic-state-suicide-strategy/> .

operations viewed as purely defensive in nature, since the IS clearly has offensive, global, and Islamic supremacist goals.

One of Charlie Winter's more interesting and superficially surprising conclusions was that the martyrdom operations of the IS, in contrast to those of al-Qa'ida, were primarily directed against enemy military forces and installations rather than in mass casualty attacks against "soft" civilian targets. Indeed, between 1 December 2015 and 30 November 2016, he found that 84% of the IS' suicide attacks were carried out against military targets, mostly of a "defensive" nature to "thwart enemy advances and pre-empt counter-attacks", whereas only 16% were carried out against civilian targets.⁴⁷⁴ However, the prioritization of targeting military forces by the IS Caliphate state was arguably due primarily to the nature of the main enemies it then faced – units of the Iraqi and Syrian army, regime-backed paramilitary forces, and more autonomous Shi'i and Kurdish militias – as well as to the conventional military and unconventional forms of combat that it was mostly engaged in, rather than to any intrinsic moral qualms that the IS had about carrying out mass casualty attacks against civilians.

This is apparent not only from the IS' constant exhortations to would-be supporters to attack civilians in Western countries using any means at their disposal, but also to their claiming of responsibility for, and glorification of, jihadist attacks inside "infidel" countries. For an example of the former, see again the bellicose remarks of Abu Muhammad al-'Adnani:

O muwahhid, do not let this battle pass you by wherever you may be...If you can kill a disbelieving American or European – especially the spiteful and filthy French – or an Australian, or a Canadian, or any other disbelievers waging war, including the citizens of the countries that entered into a coalition against the Islamic State, then rely upon Allah, and kill him in any manner or way however it may be. Do not ask for anyone's advice and do not seek anyone's verdict. Kill the disbeliever whether he is civilian or military, for they have the same ruling. Both of them are disbelievers. Both of them are considered to be waging war [the civilian by belonging to a state waging war against the Muslims]. Both of their blood and

⁴⁷⁴ Winter, *War By Suicide*, p. 17, chart on p. 19. Furthermore, 70% of the IS' suicide attacks were Vehicle-Borne IED (VBIED) attacks, 10% were Human-Borne IED (HBIED) attacks, and 20% were *inghimas* attacks in which *mujahidin* "plunged into" the facilities, positions, or ranks of the enemy, using either small arms or suicide vests, with the aim of martyring themselves. See *ibid*, pp. 17-21. Therein Winter distinguishes between 1) "battlefield *inghimas*" against military targets, 2) "psyop *inghimas*" against military targets, and 3) "terrorist *inghimas*" against civilian targets, in the process seemingly adopting problematic standard definitions of terrorism as necessarily involving attacks on civilians. Note also that, in contradistinction to standard distinctions made by Islamic scholars, he conflates *inghimas* attacks that are likely to lead to the death of the attackers (*inghimas* attacks proper) with suicide attacks that necessarily involve the death of the attackers (which have not generally been considered *inghimas* attacks, e.g., when a suicide bomber "plunges into" the enemy right before detonating his device). For the IS' increasing use of *inghimas* attacks, including those in which the attacker is wearing a suicide vest, see Cameron Colquhoun, "Inghimasi – The Secret ISIS Tactic Designed for the Digital Age," *Bellingcat* website, 1 December 2016, available at <https://www.bellingcat.com/news/mena/2016/12/01/inghimasi-secret-isis-tactic-designed-digital-age/>. As the responses to this article make clear, it remains debatable how "new" or "secret" such tactics actually are.

wealth is legal for you to destroy, for blood does not become illegal or legal to spill by the clothes being worn. The civilian outfit does not make blood illegal to spill, and the military uniform does not make blood legal to spill. The only things that make blood illegal and legal to spill are Islam and a covenant (peace treaty, dhimma, etc.). Blood becomes legal to spill through disbelief. So whoever is a Muslim, his blood and wealth are sanctified. And whoever is a disbeliever, his wealth is legal for a Muslim to take and his blood is legal to spill. His blood is like the blood of a dog; there is no sin for him in spilling it nor is there any blood money to be paid for doing so.⁴⁷⁵

For examples of the glorification of the martyrs who successfully attack Westerners in their own homelands, see the many “official” statements claiming IS responsibility for such attacks and, in *Dabiq*, the aforementioned paean to Man Haron Monis; another to Abu Basir al-Ifriqi (Amedy Coulibaly), the Malian-French IS-supporting jihadist who wounded two French citizens and killed a policewoman before seizing, killing hostages, and being killed himself at the Hypercacher Kosher Supermarket in early 2015; and still another to Abu ‘Umar al-Baljiki (Abdelhamid Abaaoud), a Moroccan-Belgian IS jihadist who was linked to numerous terrorist plots and attacks in Belgium and France, including the deadly series of attacks in Paris on 13 November 2015 that killed 130 and injured 415 innocent civilians.⁴⁷⁶

In any case, now that the IS’ caliphate has been effectively destroyed as a territorial entity by the military forces of its adversaries, it is a virtual certainty that its surviving fighters will again resort to waging mainly unconventional warfare and terrorism, including against civilians in non-Islamic countries. As Winter recognized even before the major military defeats suffered by the IS, such negative developments are not necessarily a “cause for hope”, since it is “apparent from the scale of IS’s suicide industry that there exists a dedicated infrastructure for manufacturing would-

⁴⁷⁵ Abu Muhammad al-‘Adnani, “Indeed Your Lord is Ever Watchful,” pp. 11-12.

⁴⁷⁶ For an early 2018 listing of IS claims of responsibility for jihadist attacks outside the Middle East, including in the West, see Tim Lister, Ray Sanchez, Mark Bixler, Sean O’Key, Michael Hogenmiller, and Mohammed Tawfeeq, “ISIS goes Global: 143 Attacks in 29 Countries have killed 2,043,” CNN, 12 February 2018, available at <https://www.cnn.com/2015/12/17/world/mapping-isis-attacks-around-the-world/index.html>. This list is neither comprehensive nor up-to-date. For *Dabiq*’s promotion of the three jihadist martyrs who carried out attacks in Western countries, see, respectively, “Foreword,” *Dabiq* 6 (December 2014-January 2015), pp. 3-5; “A Brief Interview with Umm Basir al-Muhajirah,” Coulibaly’s mother, in *Dabiq* 7 (January-February 2015), pp. 50-1 and “The Good Example of Abū Basir al-Ifriqi,” idem, pp. 68-71; and “Interview with Abū ‘Umar al-Baljiki,” idem, pp. 72-5. For the 13 November Paris attacks organized in part by Abaaoud, see Jean-Michel Decugis, François Malye, and Jérôme Vincent, *Les coulisses de 13 novembre* (Paris: Plon, 2016); and Georges Fenech, *Bataclan, l’enquête vérité: Par le président de la commission d’enquête parlementaire sur les attentats de Paris* (Paris: Uppr, 2017). For the response by the elite CT unit of the Police Nationale, Recherche, Assistance, Intervention, Dissuasion (RAID) to these and other attacks, see its former chief Jean-Michel Fauvergue, with Caroline de Juglar, *Patron du RAID: Face aux attentats terroristes* (Paris: Mareuil, 2017). Cf. also Daniel Cerdan, *Assauts: Au coeur des commandos qui ont abattu les terroristes* (Paris: Ring, 2016). For a key epicenter of the organization of jihadist plots in Europe, including some linked to the IS, see Roger Maudhuy, *Molenbeek. Vingt-cinq ans d’attentats islamistes* (Paris: Michalon, 2016); Pierre Guelff, *Molenbeek et la face cachée de l’islamisme radical belge* (Waterloo: Jourdan, 2016); and Jean-Pierre Martin and Christophe Lamfalussy, *Molenbeek-sur-djihad: Document* (Paris: Grasset, 2017).

be martyrs [that] is only increasing in efficiency.”⁴⁷⁷ Alas, given past jihadist expressions of interest in acquiring and using CBRN weapons, a few of these individuals who are seeking martyrdom may eventually prove willing to act as human disease vectors to carry out biological attacks.

Jihadist Attitudes Towards CBRN Use

As I have argued above (and elsewhere at considerable length), the globally-oriented jihadist Salafists are pursuing an expansionist, imperialistic, Islamic supremacist geopolitical agenda that requires the overturning and destruction of the entire existing world order.⁴⁷⁸ Their primary goal, far from being primarily rational, pragmatic, limited, and “defensive” – as many naïve observers have claimed – is in fact delusional, utopian, quasi-apocalyptic, and totalitarian: to unite all of the world’s Muslims into a single political community (*umma*), restore the glory and power of the medieval Caliphate (or, alternatively, some sort of Imamate), and then prosecute “offensive jihad” against the “infidels” until the entire non-Islamic world is brought under the control of an Islamic order governed by a strict, puritanical interpretation of the *shari‘a*.⁴⁷⁹

Such a belligerent and expansive desire to “cleanse” or “purify” the world of “evil” – as well as, in some cases, to help precipitate prophesied apocalyptic “end times” scenarios – by prosecuting armed *jihad* and slaughtering “infidels,” “apostates,” and “hypocrites,” i.e., both those who stubbornly refuse to embrace Islam and Muslims who are not active supporters of the global jihadist agenda, can easily serve to justify the waging of perpetual warfare and the outright extermination and systematic terrorizing of designated enemies. Indeed, citing relevant Qur’anic passages, the jihadists have often explicitly advocated the extermination and terrorizing of their enemies.⁴⁸⁰

⁴⁷⁷ Winter, *War By Suicide*, p. 24.

⁴⁷⁸ Cf. other authors who likewise emphasize the supremacist, utopian, totalitarian, apocalyptic, millenarian, or even sadistic components of the jihadist agenda, including Ephraim Karsh, *Islamic Imperialism: A History* (New Haven and London: Yale University, 2007), introduction, chapters 12-13, epilogue; Mary Habeck, *Knowing the Enemy: Jihadist Ideology and the War on Terror* (New Haven and London: Yale University, 2006), chapters 4-7; Furnish, *Holiest Wars*, esp. chapters 4 and 6; and Laurent Murawiec, *The Mind of Jihad* (New York: Cambridge University, 2008).

⁴⁷⁹ Habeck, *Knowing the Enemy*, chapters 5-7. These goals are often plainly stated in their own ideological treatises and pronouncements.

⁴⁸⁰ See, e.g., *Qur’an* 9:73, 9:123, and 8:60 (for explicit justifications for terrorizing infidels), and *Qur’an* 2:194 and 16:126 (for passages concerning the justness of proportional responses). For examples of the utilization of the *Qur’an* and *ahadith* to justify hatred of infidels, the requirement of waging “offensive *jihad*” against them eternally until they convert or submit, the acceptability of causing innocent deaths in the course of waging *jihad*, the legitimacy of carrying out “martyrdom operations,” etc., cf. Usama b. Ladin, 21 October 2001 interview with Taysir Alluni of al-Jazira (and an alleged member of the al-Qa‘ida network in Spain). See “Terror for Terror,” in Lawrence, ed., *Messages to the World*, p. 114; idem, “Why We Are Fighting You,” translated in Ibrahim, ed., *Al Qaeda Reader*, esp. pp. 200-1; and Ayman al-Zawahiri, “Jihad, Martyrdom, and the Killing of Innocents,” translated in *ibid*, pp. 141-71. One of the arguments frequently employed by jihadists is that American civilians are legitimate

Moreover, it is hardly surprising that the Manichean black-and-white ideological division of the world into “good” and “evil” and the grandiose and indeed phantasmagoric objectives of al-Qa‘ida, the Islamic State, and other global jihadist groups have from the outset been wedded to the systematic application of the most extreme and brutal methods, in particular an emphasis on carrying out psychologically traumatic and highly destructive mass casualty attacks against the “enemies of Allah.” Indeed, after more than three decades, al-Qa‘ida’s basic operational methods for carrying out attacks have become relatively standardized, if not always predictable: the launching of simultaneous mass casualty IED attacks conducted by self-styled “martyrs,” i.e., suicide bombers, that are designed to kill and maim as many people as possible, cause extensive physical damage, psychologically traumatize designated enemies, and rally or inspire supporters. As Devin R. Springer, James L. Regens, and David N. Edger have put it, al-Qa‘ida’s “classic...hallmarks” are attacks that have been

carefully chosen to maximize their effects in terms of destruction, loss of life, and psychological trauma. They emphasize reliance on suicide attacks [that are] often carried out simultaneously in multiple locations, and on mass-casualty operations.⁴⁸¹

These types of actions, at times carefully planned and well-executed, have long constituted al-Qa‘ida Central’s “operational signature,” and they have also been enthusiastically adopted by other jihadist groups. There is no reason to suppose that this primary modus operandi will change any time soon. Although there will undoubtedly be periodic tactical modifications or innovations in the future, the fundamental operational objectives of these jihadist organizations and networks will likely remain the same.

It should be obvious that the jihadist predilection for carrying out mass casualty attacks with conventional weapons is in no way incompatible, other than from a purely technical standpoint, with carrying out similarly or even more destructive acts of mass casualty terrorism using lethal and contagious biological weapons. Hence there seem to be few if any moral or ideological-theological barriers that can be expected to inhibit global jihadist groups from resorting to bioterrorism should they ever have realistic opportunities to do so.

Even so, just as there continue to be disputes among specialists about the overall objectives and strategy of jihadist groups with a global agenda, including al-Qa‘ida and the Islamic State, so, too, are there ongoing disagreements about whether such groups are likely to employ “weapons of mass destruction” should they ever manage to acquire or produce them. Given their greater influence, resources, and geographic reach, the focus in this section will be primarily on those two organizations, which are now the most prominent global jihadist groups.

targets because, by living in a democracy and voting, they are directly complicit in their elected government’s “crimes” against Muslims.

⁴⁸¹ Devin R. Springer, James L. Regens, and David N. Edger, *Islamic Radicalism and Global Jihad* (Washington, DC: Georgetown University, 2009), p. 168.

Although there is no doubt whatsoever that Usama b. Ladin and other leading global jihadists have repeatedly expressed an interest in obtaining chemical, biological, radiological, and nuclear (CBRN) materials, agents, and weapons, nor that they have already sought to provide Islamic theological and moral justifications for employing them, have periodically made efforts to acquire them,⁴⁸² have (in the case of al-Qa‘ida) actually attempted to produce certain of them in makeshift laboratories in Afghanistan,⁴⁸³ and have openly advocated using them against the United States and its “infidel” allies, experts and pundits continue to argue about the likelihood of such an eventuality.⁴⁸⁴ Most of these debates have hitherto concentrated on whether al-Qa‘ida and affiliated or rival groups actually have or are likely to be able to develop the *technical capabilities* required to deploy such weapons, but the focus here will instead be on their intentions.

One fact that is undeniable is that spokesmen for al-Qa‘ida and associated groups have repeatedly advocated the acquisition, if not always the first or immediate use, of CBRN weapons. The arguments for doing so have generally been based on Qur’anic verses and supporting *ahadith* that explicitly authorize the killing and terrorizing of infidels, coupled with – although barely tempered by – certain Islamic “just war” doctrines concerning the appropriate conduct of warfare *fi sabil Allah*. These latter arguments are primarily based on two key notions.⁴⁸⁵ The first is the concept of reciprocity with respect to the enemy – “an eye for an eye” – both in terms of the actual means and the scale of the actions that can and should be employed. In short, if the enemy is said to be behaving barbarously and without restraint or using terrible weapons, then Muslims have the right to use the same brutal methods even if such methods are normally prohibited (*haram*). The second is based on simple practicality and expediency, in that it would normally be impossible to carry out attacks on enemy territory at all without inadvertently killing women, children, the aged, and the infirm, classes of people that it is normally forbidden to kill deliberately. The same is true for Muslims that happen to reside in areas of the *dar al-harb*, who according to classical doctrines

⁴⁸² For a compendium of these expressions of interest and attempts to acquire such materials, see the National Consortium for the Study of Terrorism and Responses to Terrorism (START) Center at the University of Maryland’s WMD terrorism database, the Profiles of Incidents involving CBRN and Non-State Actors (POICN) Database. This database is not yet fully online.

⁴⁸³ Cf. Nic Robertson, “Disturbing scenes of death show capability with chemical gas,” CNN, August 19, 2002; Alan Cullison and Andrew Higgins, “A computer in Kabul yields a chilling array of al Qaida memos,” *Wall Street Journal*, 31 December 2001; and Cullison, “Inside Al Qaeda’s Hard Drive,” *The Atlantic*, September 2004, pp. 61-2, also available online at <https://www.theatlantic.com/magazine/archive/2004/09/inside-al-qaeda-s-hard-drive/303428/>. Note also the recent story by Josh Meyer, “Al Qaeda said to focus on WMDs,” *Los Angeles Times*, 3 February 2008, which suggests that in the Pakistan frontier zone the group, under the auspices of its notorious CW expert Midhat Mursi al-Sayyid ‘Umar (or Abu Khabab al-Masri), “has regenerated at least some of the robust research and development effort that it lost when the U.S. military bombed its Afghanistan headquarters and training camps in late 2001...[and] is once again trying to develop or obtain chemical, biological, radiological or even nuclear weapons to use in attacks on the United States and other enemies.” For more on Abu Khabab, see Evan Kohlmann, “Abu Khabab al-Masri: A Master of Terror,” *Counterterrorism Blog*, 18 January 2006, available at http://counterterrorismblog.org/2006/01/abu_khabab_almasri_a_master_of.php.

⁴⁸⁴ See the analysis in the introductory chapter of this report.

⁴⁸⁵ For an excellent short discussion of these matters, see Quintan Wiktorowicz and John Kaltner, “Killing in the Name of Islam: Al-Qaeda’s Justification for September 11,” *Middle East Policy* 10:2 (Summer 2003), esp. pp. 85-90. Therein the authors further parse jihadist arguments concerning appropriate Muslim “rules of engagement and civilian targeting” by listing them under seven “conditions.”

are enjoined to leave those areas and return to territories of the *dar al-islam* so that they will not be “corrupted” by infidels and so that no harm will inadvertently come to them in the course of Muslim raids.⁴⁸⁶ These themes often appear in statements and texts prepared by jihadists who are trying to provide “Islamically correct” theological and legal justifications for their surprise attacks and depredations against both non-Muslim and Muslim civilians.⁴⁸⁷ Worse still, their arguments often fall on sympathetic ears given that atrocity stories and conspiracy theories concerning the “enemies of Islam” are so widely disseminated and so often uncritically accepted throughout the Muslim world. Even so, it should be noted that some Islamist intellectuals have severely criticized al-Qa’ida’s reliance on these arguments to justify its proposed employment of “weapons of mass destruction,” especially nuclear weapons, which indicates that there remain strong differences of opinion even within jihadist circles concerning these weighty matters.⁴⁸⁸

⁴⁸⁶ For more on these matters, see John Kelsay, *Islam and War: A Study in Comparative Ethics* (Louisville, KY: Westminster/John Knox, 1993), pp. 59-67; and idem, *Arguing the Just War in Islam* (Cambridge, MA, and London: Harvard University, 2007), esp. pp. 104-10. Kelsay emphasizes that classical Muslim treatises on war “exhibit a strong inclination toward a position one might characterize as ‘military realism,’” since once a war was determined to be “just,” i.e., initiated to expand or defend the *dar al-Islam*, their authors were “willing to grant wide latitude to commanders in the determination of appropriate means” even though such latitude was not “total.” See *ibid.*, p. 106, in his analysis of Hanafi scholar Muhammad ibn al-Hasan al-Shaybani’s famous treatise, the *Kitab al-siyar [Book of the Conduct of State]*. For an edited English translation of this treatise by Mahmood Ahmad Ghazi, see Muhammad ibn al-Hasan al-Shaybānī, *The Shorter Book on International Islamic Law: Kitāb al-Siyar al-Saghīr* (Islamabad: Islamic Research Institute, International Islamic University, 1998), available at <https://www.kalamullah.com/Books/Kitab%20al-Siyar%20as-Saghīr.pdf>. For modern debates between jihadists and their critics over the appropriate aims and means for waging *jihad* to “resist” the enemy, see Kelsay, *Arguing the Just War in Islam*, pp. 129-51.

⁴⁸⁷ For explicit justifications for inadvertently killing other Muslims in the course of waging *jihad* and carrying out “martyrdom” operations, see al-Zawahiri, “Jihad, Martyrdom, and the Killing of Innocents,” in Ibrahim, ed., *Al Qaeda Reader*, pp. 161-73; and Abu Mus’ab al-Zarqawi, “The Return of Ibn al-‘Alqami’s Grandchildren,” speech posted by al-Qa’ida fi Bilad al-Rafidayn on jihadist message boards on 18 May 2005, originally available (among other sites) on the *al-Hisba* forum at www.alhesbah.com/v/showthread.php?t=23027. For an English translation of key excerpts from the latter, see “Abu Mus’ab al-Zarqawi: Collateral Killing of Muslims is Legitimate,” MEMRI No. 917, June 7, 2005, available at <http://www.memri.org/bin/articles.cgi?Page=archives&Area=sd&ID=SP91705>. Note, however, that the Shi’a are not even considered to be genuine Muslims by the most sectarian Sunni radicals, who therefore have no qualms about intentionally killing them. See “Leader of Al-Qaeda in Iraq Al-Zarqawi Declares ‘Total War’ on Shi’ites, States that the Sunni Women of Tel’Afar Had ‘Their Wombs Filled with the Sperm of the Crusaders,’” speech translated in MEMRI No. 987, 16 September 2005, available at <http://www.memri.org/bin/articles.cgi?Page=archives&Area=sd&ID=SP98705>, wherein al-Zarqawi refers to the Shi’i as *rafidin* (literally “rejectors [of the Truth]”), a term often applied by Sunni extremists to the Shi’a. Such provocative arguments nonetheless generated considerable debate and even outright opposition from other, less sectarian Sunni Islamist circles. For the justifiability of *intentionally targeting* as well as inadvertently killing categories of “infidels” which Muslims are ostensibly forbidden to attack, see [al-Qa’ida], “A Statement from Qa’idat al-Jihad regarding the Mandates of the Heroes and the Legality of the Operations in New York and Washington,” which was originally posted on the Markaz al-Dirasat wa al-Buhuth al-Islamiyya website on 24 April 2002 – a text that unfortunately does not appear in the existing collections of English-language translations of al-Qa’ida statements – see the discussion in Wiktorowicz and Kaltner, “Killing in the Name of Islam,” pp. 76-92.

⁴⁸⁸ For an example of Islamist opposition to the possible use of nuclear weapons against the U.S., see Abu Zabadi, “Religious Grounds for [Launching] a Nuclear Attack,” *al-Firdaws* website, 12 April 2007, some excerpts from which (and hostile responses to) can be found in “Is it Legitimate to Use Nuclear Weapons against the West? A Debate on an Islamist Forum,” MEMRI #1538, available at <http://www.memri.org/bin/articles.cgi?Page=archives&Area=sd&ID=SP153807>.

In addition to basing their rationales for attacking “infidels” on Qur’anic injunctions and the *sunna* of Muhammad, jihadist leaders have also increasingly sought to behave in other “Islamically correct” ways with respect to their designated enemies. For example, stung by the attacks of certain respected Muslim religious scholars who criticized them for carrying out the 9/11 attacks without first calling their enemies to embrace Islam – as is in theory mandated by the *Qur’an* and other medieval Islamic theological and juridical sources – Bin Ladin and other al-Qa’ida spokesmen have since repeatedly invited their prospective “infidel” targets to convert to Islam and follow Allah’s true path, thereby satisfying accepted precedents and, at least in theory, giving their “satanic” foes an opportunity to avoid being attacked. Therefore, in his October 2002 letter to the Americans, after enumerating a long litany of alleged US political and moral “crimes” to explain why he was fighting the “great Satan,” the late al-Qa’ida leader explained what he wanted from the Americans: “The first thing we are calling you to is Islam....the seal of all the previous religions....the religion of *jihad* in the way of Allah so that Allah’s word and religion reign supreme.”⁴⁸⁹ Furthermore, al-Qa’ida’s former “official” American spokesman, ‘Azzam al-Amriki (né Adam Gadahn), likewise repeatedly demanded that Americans convert to Islam in order to avoid further jihadist attacks. In a September 2006 videotape, Gadahn invited “all Americans and unbelievers to Islam, whatever their role and status in Bush and Blair’s world order,” then warned them that they had better “[d]ecide today, because today could be [their] last day.”⁴⁹⁰ More recently, in January 2008, Gadahn again urged Americans to “abandon their corrupt ungodly religion for the simple, moderate, and reasonable religion of Islam.”⁴⁹¹ These offers, whether they are simply ignored or are publicly rejected (as Bin Ladin surely knew they would be), serve to open the way, legally and theologically, for jihadist attacks on Americans at any time and any place, including in their own homeland.

In any event, Usama b. Ladin himself made several pronouncements indicating that he enthusiastically supported the Muslim acquisition of CBRN weapons. For example, in an 11 January 1999 interview with *Time Magazine*, he made the following statement in response to a question about whether he was trying to acquire chemical and nuclear weapons (as the Americans were then claiming):

Acquiring [such] weapons for the defense of Muslims is a religious duty. If I have indeed acquired these weapons, then I thank Allah for enabling me to do so. And if I seek to acquire these weapons, I am carrying out a [religious] duty. It would be a

⁴⁸⁹ See Ibrahim, ed., *Al Qaeda Reader*, pp. 201-2.

⁴⁹⁰ “American Al-Qaeda: U.S. should convert to Islam,” CNN, 3 September 2006, available at <http://www.cnn.com/2006/WORLD/asiapcf/09/02/zawahiri.tape/index.html> . Excerpts from this address, “An Invitation to Islam,” along with the actual tape, which was produced by al-Qa’ida’s media company al-Sahab, can be accessed at Laura Mansfield’s website, [lauramansfield.com](http://www.lauramansfield.com), at <http://www.lauramansfield.com/j/zawahiri090106.asp> .

⁴⁹¹ Adam Gadahn, “An Invitation for Reflection and Repentance,” translated by Laura Mansfield and posted in Jeffrey Imm, “Al-Qaeda’s Gadahn – Transcript of the January 6 Message,” *Counterterrorism Blog*, 7 January 2008, available at http://counterterrorismblog.org/2008/01/gadahn_010608_transcript.php . Gadahn was himself killed in Waziristan in a U.S. drone strike on 19 January 2015.

sin for Muslims not to try to possess the weapons that would prevent the infidels from inflicting harm on Muslims. *But how we would use these weapons if we possessed them is up to us.*⁴⁹²

Elsewhere in the interview he said that America, which was allegedly “acting on behalf of Israel and the Jews, paving the way for the Jews to divide the Muslim world once again, enslave it and loot the rest of its wealth....should expect reactions from the Muslim world that are proportionate to the injustice they inflict.”⁴⁹³ Once again, one can observe al-Qa‘ida’s shrewd public emphases on the “defense” of the *umma* and the legitimacy of “proportional” response to supposed enemy aggression.

In June 2002, as noted above, Kuwaiti al-Qa‘ida spokesman Sulayman Abu Ghayth published a three-part article on the group’s *al-Nida‘ (The Call)* website entitled “In the Shade of Lances.”⁴⁹⁴ In the first part, he argued that the world should not have been surprised by the 9/11 attacks, which was “something natural” given that America had tyrannized and oppressed Muslims and other peoples for so long. In the second part, he claimed that America “disseminates abomination and licentiousness among the people via the cheap media and vile curricula” and “is the reason for all oppression, injustice, licentiousness, or suppression that is the lot of the Muslims.” Moreover, it is “immersed in the blood of Muslims” due to its support for Israeli “abominations” and its invasions of Afghanistan and Iraq. Hence, according to his own calculations of the number of Muslim casualties attributable to American actions, and on the basis of the divinely-sanctioned law of reciprocal punishment, he concluded (in the third part of the article) that Muslims

have the right to kill 4 million Americans – 2 million of them children – and to exile twice as many and wound and cripple hundreds of thousands. Furthermore, it is our right to fight them with chemical and biological weapons, so as to afflict them with the fatal maladies that have afflicted the Muslims because of [the Americans’] chemical and biological weapons....America knows only the language of force...[and] is kept at bay by blood alone.⁴⁹⁵

Lest anyone think that Abu Ghayth was simply promoting the “legitimate” defense of the *umma* against US “aggression” herein, note that in part two he openly advocated the standard

⁴⁹² Italics added. See Rahimullah Yusufzai, “Osama bin Ladin lashes out against the West,” *Time Magazine*, 11 January 1999, available at <http://www.time.com/time/asia/asia/magazine/1999/990111/osama1.html> . Note that the last sentence cited in the above paragraph does not appear on the *Time* site itself, but rather in a 7 October 2001 version of the interview posted on ABC News, available at www.islamistwatch.org/blogger/localstories/05-06-03/ABCInterview.html .

⁴⁹³ Ibid.

⁴⁹⁴ This article has been translated as “Why We Fight America: Al-Qa‘ida Spokesman Explains September 11 and Declares Intentions to Kill 4 Million Americans with Weapons of Mass Destruction,” MEMRI Special Dispatch Series 388, 12 June 2002, available at <http://www.memri.org/gin/printerfriendly/pf.cgi> .

⁴⁹⁵ Ibid.

imperialistic jihadist notion that “the entire earth must be subjected to the religion of Islam – not to the East, not to the West – to no ideology and no path except for the path of Allah.”⁴⁹⁶

Still another crucially important document is the *fatwa* authorizing Muslim use of WMDs that was issued in May 2003 by Saudi *shaykh* Nasir ibn Hamid al-Fahd and posted on his website.⁴⁹⁷ The arguments al-Fahd used in this *fatwa* were the standard Islamic “just war” arguments referred to above, especially those favored by jihadists because they appear to sanction actions that they fervently wish or actually intend to undertake, i.e., attack infidels, “apostates,” and “hypocrites” – that it is permissible for Muslims to retaliate in kind against their enemies, both with respect to means and scale; that it is permissible for Muslims to kill women, children, and the infirm if they do so inadvertently or cannot avoid doing so in the course of military operations against the enemy; and that it is permissible to kill Muslims accidentally in the same context. Moreover, he argued that Muslims were authorized to employ CBRN if it was “necessary”: “If the infidels can be repelled from the Muslims only by using such weapons, their use is permissible, even if you kill them without exception and destroy their tillage and stock.” He also claimed that, according to Islamic scholars, “there is no obligation when there is inability; *there is no prohibited thing when there is necessity*.”⁴⁹⁸ Elsewhere he went much further than “*shari‘a* reasoning” normally allows by arguing that it was permissible to use CBRN weapons “if those engaged in jihad decide that there is benefit in using them,” which effectively eliminates the need to adhere to any *jus in bello* legal restraints, Islamic or otherwise. Finally, he made two arguments with respect to WMDs, one that has commonly been made by Islamists and one that was somewhat more original. The common one was that Muslims are not bound by international agreements, including those banning WMDs, simply because such agreements were established by infidels and therefore have “no standing in Islamic law.” The one that is less common was that the term “weapons of mass destruction” had been unfairly restricted by those same infidels to refer solely to CBRN weapons. As al-Fahd cynically observed, if one belligerent “should strike another with tons of ‘conventional’ bombs, killing tens of thousands, this use of weapons would be allowed internationally,” which indicated that the enemies of Islam, including those who previously used chemical or nuclear weapons, “want to protect themselves and monopolize such weapons on the pretext of ‘banning them internationally.’”⁴⁹⁹

Finally, in his post-7/7 bombing message to the British and Europeans, jihadist strategic thinker Abu Mus‘ab al-Suri likewise resorted to arguments concerning the necessity and justness of responding in kind to the West with respect to “destructive” weapons:

⁴⁹⁶ Ibid.

⁴⁹⁷ Nasir ibn Hamid al-Fahd, “Risala fi hukm istikhdam ‘aslihat al-damar al-shamil didh al-kuffar [A Treatise on the Legal Status of Using Weapons of Mass Destruction against Infidels],” 21 May 2003, originally available at www.al-fhd.com/rsayl/doc/rsayl.damar.doc. All the quotes in this paragraph are from this document.

⁴⁹⁸ Ibid (italics added).

⁴⁹⁹ Ibid.

You have acquired all kinds of destructive conventional and strategic weapons, such as nuclear, chemical and biological, legal weapons as well as weapons that are internationally banned, and you have used all this in your wars against us and against others without any deterrent or any law. Hence, we are serious about acquiring all possible weapons and means and will deal with you the same way, in accordance with our true religion.⁵⁰⁰

Little needs to be added by way of clarification, since the text is quite explicit.

One can see from the above statements and jurisprudential arguments that al-Qa'ida has repeatedly claimed to possess, justified the employment of, or threatened to use CBRN materials and weapons. However, even if one was to assume that the group did in fact already have such weapons in its possession, these bellicose remarks do not really answer the question of when and under what circumstances al-Qa'ida might actually have recourse to deploying them. The two main questions are whether Usama b. Ladin and his cohorts planned to use them 1) defensively, i.e., to deter or repel prospective conventional or CBRN attacks by the “enemies of Islam,” or 2) offensively, i.e., to carry out either a tactical or strategic “first strike” against the “far enemy” in their own homelands. These questions are in turn related to the operational issue of whether, capabilities permitting, al-Qa'ida would be more likely to use CB agents to carry out small-scale attacks on “infidel” forces occupying Muslim lands or in their overseas bases, or spectacular, large-scale attacks with CBRN weapons against the homelands of the United States or its European allies. Perhaps not surprisingly, the available indicators of al-Qa'ida's short-, medium-, and long-term intentions remain somewhat ambiguous, which has in turn caused outside observers to come to rather different conclusions.

For this very reason, it is necessary to discuss al-Qa'ida's possible purposes for using CBRN weapons at greater length. There are some indications that the organization had hoped to obtain or develop these weapons, at least in part, for “defensive” purposes, specifically in order to deter the United States and its allies from taking certain extreme military measures against jihadist networks. For example, in a November 2001 interview with Pakistani journalist Hamid Mir, Usama b. Ladin made the following claim:

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 [a] deterrent.⁵⁰¹

⁵⁰⁰ Abu Mus'ab al-Suri, “Message to the British and the Europeans – Its People and Governments – Regarding the London Explosions, July 2005,” posted on various jihadist websites in August 2005, cited by Lia, *Architect of Global Jihad*, p. 307. Oddly, another version of this “final” Abu Mus'ab text does not include the passage referring to NBC weapons. See “Abu Musab al-Suri's Final ‘Message to the British and Europeans,’” Global Terror Alert website, August 2005, available at www.globalterroralert.com/pdf/1205/abumusabeurope.pdf.

⁵⁰¹ See Hamid Mir, “Osama claims he has nukes: If US uses N-arms it will get same response,” *Dawn* [Karachi], 10 November 2001, available at www.dawn.com/2001/11/10/top1.htm. In this context, the term “retort” is obviously employed in the archaic sense of “repay.”

In a subsequent conversation with journalist and terrorism analyst Peter Bergen, Mir paraphrased Bin Ladin's earlier answer as follows: "We have nuclear deterrence and this is for our defense."⁵⁰²

One might easily be tempted to dismiss these claims to have obtained or developed WMDs merely for "defensive" or deterrence purposes as blatantly deceptive propaganda, much like the global jihadists' public claims to be waging "defensive jihad" and be pursuing limited objectives. However, certain inside sources have lent some additional support, however partial, to Usama b. Ladin's public "deterrence" claims. First, Abu Mus'ab al-Suri made the following arguments in a booklet published on 5 November 1999 by the Al-Ghuraba' Center for Islamic Studies in Kabul:

The difference in armament and number between Muslims and their enemies, between the oppressed and the strong, has never been larger...Military logic shows us that it is almost absurd to launch a classical confrontational war to restore the balance of power...[Hence] the renascent Islamic forces in...Central Asia...must attempt to acquire weapons of mass destruction (nuclear, biological, bacteriological) in exactly the same way as the aggressive, oppressive world represented by the Jews and the West possesses these weapons. One has to threaten with them [these weapons] and deter the enemy exactly like they [the enemy] have been doing...The Central Asian region has developed factories, and they have raw material for these weapons, which has made a base and a hope for Muslims to acquire these weapons...This is a strategic goal which is within reach, but only Allah knows.⁵⁰³

Similar sentiments were expressed by Abu Mus'ab in his huge military treatise, where he warns that unless the American public is able to deter its own "Zionist" government from continuing its "aggression on all mankind," the nations under attack have the right to respond "with all means and reciprocally, including the use of weapons of mass destruction, and [by] breaking the enemy's

⁵⁰² Cited in Peter L. Bergen, ed., *The Usama bin Laden I Know: An Oral History of al Qaeda's Leader* (New York: Free Press, 2006), p. 348. Mir also made a couple of other interesting remarks. First, he emphasized that the al-Qa'ida leader spoke only about chemical and nuclear weapons, and that he explicitly denied that the group had any link to the post-9/11 *Bacillus anthracis* letter mailings in the U.S. Second, when Mir expressed skepticism that al-Qa'ida actually had nuclear weapons, al-Zawahiri replied that it was not difficult to purchase them: "If you have thirty million dollars, you can have these kind of [nuclear] suitcase bombs from the black market of Central Asia."

⁵⁰³ Abu Mus'ab al-Suri, *The Muslims in Central Asia and the Coming Battle of Islam*, cited and translated by Lia, *Architect of Global Jihad*, p. 307. Note further that there has been much speculation about Abu Mus'ab's involvement, along with Abu Khabab al-Masri, in training jihadists in the use of poisons and chemicals at the Darunta camp. Compare *ibid*, pp. 299-304; and Paul Cruickshank and Mohamad Hage Ali, "Jihadist of Mass Destruction," *Washington Post*, 11 June 2006. Here it is also worth pointing out that Abu Mus'ab's reference to former Soviet-controlled areas of Central Asia and the Caucasus as a likely future source for nuclear and biological materials is echoed in a letter prepared by Hasan al-Tajiki, the "fifth letter" in a file addressed to al-Qa'ida's African Corps and entitled "Hawla al-jihad fi al-qawqaz" ["Concerning Jihad in the Caucasus"], wherein the author argues that Chechen mafia gangs "could let the Muslims of the Caucasus defy 'strategic impossibility' and set an historical precedent by becoming the first movement to engage in guerrilla warfare armed with nuclear weapons," since in theory nothing could "prevent the Chechen mafia from arming its people with nuclear weapons." Elsewhere he claims that once nuclear weapons become a "people's weapon" rather than one that is solely in the hands of the superpowers, "history will take a new course..." See Harmony document AFGP-2002-600053, pp. 38, 33, available at <http://ctc.usma.edu/aq.pdf/AFGP-2002-600053-Orig-Meta.pdf>.

back via genocides and the killing of civilians.”⁵⁰⁴ As is common in jihadist tracts, advocacy of the procurement of dangerous WMDs is here justified as an appropriate response to, and a necessary means to counterbalance or even deter, the methods and arsenal of the “infidel” enemy.

Second, a disillusioned al-Qa’ida insider named Abu al-Walid al-Masri, in his book manuscript entitled *Qissat al-afghan al-‘arab min al-dukhul ila afghanistan ila al-khuruuj ma‘a Taliban (The History of the Afghan Arabs from their Arrival in Afghanistan until their Departure with the Taliban)*, subsequently provided important details about secret discussions that had occurred between “hawks” and “doves” within the group’s leadership circles concerning CBRN weapons. The account of Abu al-Walid in this connection is important enough to be quoted at length:

The dreams of the hardline wing in al-Qa’ida , which sometimes appeared in the forms of demands, dealt with the need and importance of possessing weapons of mass destruction and storing some of them on American territory to be used in a fast and direct response to any American aggression against Afghanistan...The conclusion reached was that al-Qa’ida must possess weapons for defense, based on what can be obtained or supplied in the nuclear, biological, or chemical fields, so that in a crisis, if the other side used weapons of mass destruction, it will not escape a deadly punishment...Another group believed that these types of weapons, if Bin Ladin could obtain them, would [only] be tactical by virtue of their primitiveness and weak destructive capability. However, they will continue to call them “weapons of mass destruction” to create fear. They are primitive weapons with tactical and not strategic capabilities. In other words, using them will give the mujahidin credibility, prestige, and psychological influence...The people close to Bin Ladin believed that these destructive weapons would greatly enhance the combat capability and psychological influence of the al-Qa’ida fighters. The most important questions were: if such weapons could be obtained, will they be used against the enemy on Muslim territory or against the enemy on his own territory? Will the enemy forces be targeted by these weapons (if they were obtained), or will the civilians in their country also be targeted? There were different interpretations and views in this respect, and then more questions were asked. Which of these weapons will be more appropriate for the current situation of the mujahidin: the nuclear, chemical, or biological? Should the information regarding the ways of obtaining such weapons remain secret, or should it be disseminated among the mujahidin groups in all the areas?...Others raised questions about the possibility of mixing the weapon of suicide action (the only remaining deterrent weapon in the hands of Muslims) and those weapons [of mass destruction]. They noted that the security measures by the enemy have greatly reduced the effect of suicide operations, and the introduction of these weapons could

⁵⁰⁴ Al-Suri, *Da‘wa al-muqawwama*, p. 1121.

greatly enhance the value of suicide operations and their effect on the enemy...As to the WMD proposals, Bin Ladin did not approve them in the first place and that was obvious from his repeated theory that the United States could not bear two or three strikes from him. But he refused to voice publicly his rejection of the idea, probably because of his extreme politeness with those around him. Another reason was that his right-hand man in al-Qa'ida, Abu Hafis [al-Masri], led the hawks' wing and strongly supported the acquisition of new resources, especially WMD. But he did not make up his mind about the strategy of using these weapons, postponing this until they were actually acquired. Abu Hafis took charge of the WMD issue and acted with his known stubbornness and determination.⁵⁰⁵

This, however, does not fully resolve the matter of al-Qa'ida's reasons for pursuing a CBRN weapons' capability. For one thing, such discussions may well have been context-specific inasmuch as they took place in the periods prior to and after 9/11, when the group's leaders were particularly worried about just how terrible America's reaction to the "planes operation" might be. Hence at that time they were heatedly debating the possible development of new weapons or the adoption of other measures that might serve to deter or at least mitigate an overwhelming and decisive US military response. For another, from the account itself it is clear that Usama b. Ladin and his henchmen had not yet come to definitive conclusions about how best to employ such weapons, and that despite being pressured by certain "hawks," the *shaykh* preferred to postpone making any final decisions about this until the weapons were actually available in his arsenal. At the same time, references to storing WMDs in America *in advance of their use* could easily open the way to using them as a first strike weapon, and not necessarily in response to threatening US military actions.

Indeed, there are numerous other indications that al-Qa'ida fully intended to, or at least hoped to, carry out "offensive" strikes if and when they do actually manage to obtain or develop CBRN weapons. For example, in an undated handwritten letter addressed to the Americans, al-Qa'ida "brother" Abu 'Abdullah al-Kuwaiti, after claiming that the jihadists' war was with "the Jews" and not the American people, warned that if the latter continued to involve themselves in this struggle, "our combat groups, along with our military, nuclear, and biological equipment, will kill hundreds of thousands of people we don't wish to fight."⁵⁰⁶ Despite the transparent attempt to persuade the American public to withdraw support from the Bush Administration, this nonetheless constituted a threat to cause mass casualties by using a combination of conventional, biological, and nuclear weapons. Such a threat may well not have been genuine, but simply part and parcel of

⁵⁰⁵ Cited by Bergen, ed., *Usama bin Laden I Know*, pp. 342-3. These quotes were combined by Bergen after being drawn from the following two sources: "Al-Sharq al-Awsat review of a draft copy of... 'The Story of the Afghan Arabs' ..., Part 1," *Al-Sharq al-Awsat*, 8 December 2004, p. 11; and "Al Qa'ida's hawks sought Weapons of Mass Destruction through fighter Khattab in Chechnya, Part 2," *Al-Sharq al-Awsat*, 9 December 2004, p. 15.

⁵⁰⁶ See Harmony document AFGP-2002-001120, pp. 1-2, available from the Combating Terrorism Center at West Point at <http://ctc.usma.edu/aq/pdf/AFGP-2002-001120-Orig.pdf>. In that same letter, he claimed that al-Qa'ida had already given some combat groups present in America and Europe the "green light to move." See *ibid*, p. 1.

a crude psychological warfare campaign directed against the United States. Even so, it again suggested that elements within al-Qa‘ida seemed to have no qualms whatsoever about killing huge numbers of Americans in their own homeland or about employing WMDs to do so.

More ominously, on 26 December 2002 Abu Shihab al-Qandahari, a former Yemeni *mujahid* in the anti-Soviet war in Afghanistan who served as the moderator of the al-Qa‘ida-linked internet forum *al-Mujahidun*, published a short article with the provocative title, “Nuclear War is the Solution to the Destruction of the United States.” The most illuminating sections of this article are reproduced below:

“Indeed, you did read that [the title] correctly. This is the only way to kill the maximum number of Americans. This is the nuclear terror[ism], which the Americans have never feared....The United States attacked Iraq using weapons that contaminated the lands and water with radiation for thousands of years. It also enhances its bombs with depleted uranium to cause even greater harm to the people and the environment....Eye for eye and tooth for tooth. If the Americans have bombs that no one else owns, al-Qa‘ida is stronger. It owns “dirty bombs” and “bombs with lethal viruses,” which could cover American cities with deadly diseases and turn this nation...into a crowd of contaminated and sick people. The coming days will prove that Qa‘idat al-Jihad is capable, with Allah’s help, of turning the United States into a lake of lethal radiation, which would seem like the last days of humanity. It would also prove that al-Qa‘ida is very popular all over the Islamic world....Yes, we will destroy America and its allies because they have used their power for evil against the weak....Their end is closer now, at the hand of the awakening [Islamic] youth who, [sitting] astride their steeds, will [in the end] dismount either as victors or martyrs.”⁵⁰⁷

Although the sentiments expressed by Abu Shihab concerning the desire to slaughter and terrorize Americans and destroy the United States are crystal clear, and apparently elicited a favorable response among his radical readers, in an analysis of the text Reuven Paz was right to caution that this incendiary article probably represented nothing more than an empty threat, or deliberate disinformation concerning al-Qa‘ida’s supposed possession of CBRN materials, or propaganda aimed at encouraging Islamists and jihadist sympathizers.⁵⁰⁸

The same cautionary remarks also apply to several frightening statements made the following year in a series of emails to the London-based magazine *al-Majalla* by Abu Muhammad

⁵⁰⁷ The original Arabic text is no longer available online, but it has been translated both by Reuven Paz on the Israeli International Institute for Counterterrorism in Herzliya’s website as “The First Nuclear Threat against the United States,” available at <http://212.150.54.123/spotlight/comment/cfm?id=861> , and in the book by Williams, *Day of Islam*, pp. 13-14.

⁵⁰⁸ Paz, introduction to “The First Nuclear Threat against the United States.”

al-Ablaj, who described himself as the *'amir* (commander) overseeing the “mujahidin training center” for al-Qa‘ida and the Taliban. In a May 2003 email, he made these barely-veiled threats:

As to the use of sarin gas and nuclear [weapons], we will talk about them then and the infidels will know what harms them. They spared no effort in their war on us in Afghanistan and left no weapon unused. They should not therefore rule out the possibility that we will present them with our capabilities.⁵⁰⁹

He also said in that same message that al-Qa‘ida “would not rule out the use of sarin gas and the poisoning of the drinking water in American and Western cities.”⁵¹⁰ On 27 June, he followed this up by issuing the following warning:

Crushing and devastating strikes against America will come at the suitable time. In other words, after wearing it out with injuries our strike must be a knockout....The wings of the U.S. eagle must be clipped. This stage will be followed by the stage of cutting off the veins. The last stage will be the stage of slaughtering according to the Islamic method, and it will be major surprise for the entire nation.⁵¹¹

Later, in a 21 September article in *al-Majalla*, al-Ablaj replied thusly to a question from reporter Mahmud Khalil about al-Qa‘ida’s possession and possible use of “strategic biological, chemical, or nuclear weapons”:

Is there a sane person who discloses his [operational] secrets? Brother, the strategic weapons are not just [a matter of] remov[ing] the pin and strik[ing]. If such was the case, then [they] would have been available and [an attack] would have been carried out before the “blessed strike” [9/11]. The matter needs time. Such a massive strategic weapon is bound to have reactions commensurate with its size. It must therefore be used at a time that makes the Crusader enemy beg on his knee that he does not want more strikes and that he will withdraw into himself and occupy himself with his misfortune with the tails of shame, failure, and disgrace between his legs and licking his wounds after the utter defeat.⁵¹²

Elsewhere in that email exchange, al-Ablaj claimed that “action and planning are afoot” and that the US is “on its way to the abyss, disappearance, and breakdown.”⁵¹³ Still more bellicose

⁵⁰⁹ For an analysis of this communiqué from al-Ablaj, see Ben Venzke, “al-Qaeda/al-Ablaj Threat Assessment, volume 1.0,” IntelCenter report, 30 May 2003, p. 7, available at <http://www.intelcenter.com/ATA-PUB-v1-0.pdf>.

⁵¹⁰ Ibid, pp. 6-7.

⁵¹¹ Mahmud Khalil, “Report on an interview by email with Abu Muhammad al-Ablaj, al-Qa‘ida training official,” *al-Majalla*, 27 June 2003, pp. 10-11, translation available at <http://alphabetscity.blogspot.com/2003/06/al-ablajs-latest-rant-mahmud-khalil-of.html>.

⁵¹² Mahmud Khalil, “Al-Qa‘ida’s Abu Muhammad al-Ablaj on Bin Ladin, Weapons, U.S. Targets,” *al-Majalla*, 21 September 2003, translation available at <http://www.why-war.com/news/2003/09/21/alqaidas.html>.

⁵¹³ Ibid.

comments were made by al-Ablaj in late December 2003, when he warned that a new al-Qa'ida strike against the United States was imminent:

Let them prepare now for more sorrows and let them prepare the coffins and the largest number of hospitals and graves. The coming days are full of surprises and major events that will make them an historic example. We will teach them painful lessons that they will never forget.⁵¹⁴

He then outlined a number of possible attack scenarios that would be “distinguished by lethal strikes in depth,” including the “poisoning of a drinking water plant that supplies an entire U.S. city and using the lethal sarin gas against U.S. human crowds” (as Aum Shinrikyo had done in Japan).⁵¹⁵

As in the case of the remarks of Abu Shihab al-Qandahari, those of al-Ablaj were clearly nothing more than examples of false jihadist bravado or components of intentional disinformation and psychological warfare campaigns designed to mislead or frighten Western audiences, especially since al-Ablaj made various other assertions that were either undeniably false or arguably fantastic.⁵¹⁶ Hence, these and other jihadist claims implying that al-Qa'ida already possessed and/or was simply waiting for the right moment to employ CBRN weapons cannot be taken at face value, all the more so since such weapons have neither been displayed nor used during the increasingly long intervening period.

However that may be, the objective of attacking the US homeland with WMDs was explicitly articulated by Abu Mus'ab al-Suri in an open letter to the U.S. Administration published in December 2004, in which he implicitly criticized Usama b. Ladin for not employing WMDs on 9/11 and went on to make other provocative remarks:

If I had been consulted in the case of [the 9/11] operation I would have advised them to select aircraft from other countries and to have put weapons of mass destruction aboard them. Attacking America with weapons of mass destruction was – and still is – a difficult and complicated matter, but it is still a possibility in the end, if Allah permits us. More importantly, it is becoming a necessity....if those engaged in *jihad* establish that the evil of the infidels can be repelled only by

⁵¹⁴ Mahmud Khalil, “Al-Qa'ida's al-Ablaj warns 'zero hour' for strike inside U.S. has been set,” *al-Majalla*, 28 December 2003, translation available at <http://www.why-war.com/news/2003/12/28/alqaidas.html> .

⁵¹⁵ Ibid. Fortunately, such an attack on America never actually occurred within the period specified as “zero hour.”

⁵¹⁶ For example, al-Ablaj falsely claimed responsibility for the sudden failure of the electrical grid in parts of the U.S., and discussed an alleged al-Qa'ida plan to cause a catastrophe by setting off bombs on earthquake fault lines or in volcanic zones within the U.S. See, respectively, Mahmud, “al-Ablaj on Bin Ladin,” and idem, “al-Ablaj warns 'zero hour.'”

attacking them with weapons of mass destruction, they may be used *even if they annihilate all the infidels*.⁵¹⁷

He then went on to claim that “defeating America and ending its ambitions of global hegemony is a matter of life and death for Muslims,” but said this could only be achieved in one of three ways. The first was if Allah would “send a calamity down upon it and destroy it by natural disasters, comets, earthquakes, volcanoes, or a drowning flood,” as some scholars have prophesied, but in the meantime he cautioned Muslims not to neglect their duty to continue the fight. The second was in the wake of Muslim resistance and guerrilla campaigns, but this would “require a long period of time and great sacrifices...” The third was through the use of WMDs:

Finally, the last option: to destroy America through strategic and decisive operations involving weapons of mass destruction – nuclear, chemical, or biological. The mujahidin may be able to obtain these weapons by cooperating with whomever already possesses them, by buying them, or by building and using primitive radioactive weapons known as “dirty bombs”...it is not a far cry from justice to adopt the slogan, “Dirty Bombs for a Dirty Nation.” This is practically equal treatment. Let the American people – those who voted for killing, destruction, the looting of other nations’ wealth, megalomania, and the desire to control others – be contaminated with radiation! We apologize for the radioactive fallout.⁵¹⁸

Here, in short, Abu Mus‘ab is looking forward to the destruction of America, if necessary by means of the use of CBRN weapons.

Even more revealingly, in a 1999 videotaped lecture series entitled “Jihad is the Solution” – i.e., long before the post-9/11 American invasions of Afghanistan and Iraq - Abu Mus‘ab had already clearly indicated his desire to carry out a strategic strike on American soil designed to cause mass casualties and widespread psychological trauma. Here are some telling excerpts from one of his lectures:

Guerrilla warfare in [infidel] countries should be based upon the infliction of large human losses. This is very important! To cause large human losses! Secondly, in their countries, we have to start thinking about the use of weapons of mass destruction in terrorism. You understand? In their countries, we have to use weapons of mass destruction in terrorism. You add one kilogram of uranium to some explosives and you go and pollute some 50 countries altogether....Why?

⁵¹⁷ “Communique from the Office of Abu Mus‘ab al-Suri,” 22 December 2004, p. 6. Italics added. For translated excerpts, compare Lia, *Architect of Global Jihad*, p. 306; and “Abu Mus‘ab al-Suri and his Plan for the Destruction of America: “Dirty Bombs for a Dirty Nation,” 11 July 2005, Global Terror Alert website, available at www.globalterroralert.com/pdf/0705/abumusabalsuri.pdf. All of the quotes in this paragraph below are from the latter source.

⁵¹⁸ Ibid.

Because between us and these people there has to be a strategic balance...If you take away weapons of mass destruction, there is no parity....These human losses [in their countries] must be caused by weapons of mass destruction....Weapons of mass destruction are nuclear. They are quick and easy and can be obtained from most mafias in the world. This is a strategic weapon. Nuclear weapons have become mafia merchandise. They are sold...in Uzbekistan and Pakistan. It is a beautiful and fantastic thing that the uranium sources in the world are located in the region in which we are now moving. Understand? The reservoirs of uranium in the world are in Central Asia.⁵¹⁹

Although Norwegian Arabist Brynjar Lia rightly notes that several of Abu Mus‘ab’s assertions here reveal a lack of technical expertise and effectively gloss over the great difficulties of obtaining, storing, and deploying such materials and weapons, there can be no doubt that the jihadist theoretician would have no moral qualms about carrying out acts of mass casualty terrorism in Western countries using them.⁵²⁰

It is in this context that one must consider a couple of the lesser known actions undertaken or proposed by al-Qa‘ida that seemed designed to facilitate the eventual acquisition or deployment of CBRN weapons. First, in an internal document describing the organizational committees within al-Qa‘ida, there is a reference to both a “Nuclear Weapons Section” (*qism al-aslaha al-nawa‘iyya [sic]*) and a “Special Operations Section” (*qism al-‘amal al-khass*) within the group’s Military Committee (*al-lajnat al-‘askariyya*). Under the description of the Special Operations Section, it indicates that the section’s supervisor must “possess the appropriate amount of scientific knowledge which qualifies him for performing his job”, i.e., not “less than [that of] a university graduate”, and, ideally, also be a “military academy graduate.”⁵²¹ This brief document may assume a more ominous significance given that in his military treatise, Abu Mus‘ab al-Suri specifically advocated the creation of “strategic operations brigades” (*saraya al-‘amaliyyat al-istratijiyya*) that “must possess knowledge of operational capabilities and be in possession of, and able to utilize, weapons of mass destruction in time of need for either reciprocal treatment or for the *strategic termination of the conflict with America*.”⁵²² The latter phrase is clearly an oblique reference to an offensive nuclear or biological attack on American soil. This should not come as any surprise considering Abu Mus‘ab’s frequent emphases on the need to cause mass casualties.

⁵¹⁹ Transcript of Abu Mus‘ab al-Suri, “Jihad is the Solution” videotape, cited by Lia, *Architect of Global Jihad*, pp. 310-12. Of course, as per usual he justifies the adoption of such destructive weapons and extreme measures by claiming that the infidels are the aggressors who originally established the laws of “barbarous warfare.”

⁵²⁰ For Lia’s cautionary remarks, see *ibid*, p. 312. He also points out, quite rightly, that Abu Mus‘ab’s comments may have been designed to play on Western fears, and that the development of CBRN capabilities would require the kind of organizational centralization and hierarchy that is antithetical to his own emphasis on jihadist “leaderless resistance.” See *ibid*, p. 313.

⁵²¹ See untitled document, Harmony document #AFGP-2002-000078, pp. 9, 11, available at <http://ctc.usma.edu/aq/pdf/AFGP-2002-000078-Orig.pdf>.

⁵²² Al-Suri, *Da‘wa al-muqawwama*, p. 1400 (italics added). In the HTML Arabic version of the text, this description appears on p. 1398.

Although it is apparent that al-Qa‘ida and certain affiliated groups have occasionally shown a great interest in acquiring or producing CBRN weapons, from the conflicting statements provided above it is still not entirely clear exactly how they might eventually decide to employ such weapons should they ever manage to obtain or produce them.⁵²³ At present there are ambiguous indications that they might be used for deterrence, in a tactical manner on selected battlegrounds (in the case of chemical agents, as some 2007 attacks in Iraq suggest), or in a strategic strike on Western territories, and it may well be that final operational decisions concerning their deployment would not actually be made by key jihadist leaders until they actually had these weapons at their disposal.

As for the Islamic State, there are few indications that the group, despite its incessant appeals to its supporters to kill as many of its “infidel” enemies as possible, including via the use of unspecified poisons, is seriously interested in producing or employing biological agents as weapons. The one important potential exception is the IS computer discovered and discussed in the introductory chapter, which contained hidden files on weaponizing and deploying biological agents, including bubonic plague. Nevertheless, the practical and operational significance of those files to the group’s leaders has yet to be fully assessed. Moreover, according to one recent study of the IS’ activities involving chemical and biological weapons,

[s]urveys of Islamic State’s propaganda and media materials do not reveal any mention of disease as a weapon. It even appears that IS supporters on social media

⁵²³ The ongoing ambiguity in jihadist pronouncements concerning the use of CBRN materials is further illustrated in a recent series of informational videos produced about the nature of the future Islamic Caliphate that was produced by Nahda Productions II, a “freelance video production unit based in Sydney, Australia.” (These videos provide links to the website *khilafah.com*, where pro-Caliphate articles are regularly posted, and the videos are based on a book by a British Hizb al-Tahrir al-Islami activist, Adnan Khan, who also regularly posts on the *khilafah.com* site. This suggests a close connection to Hizb al-Tahrir, which never tires of discussing what the future Caliphate that needs to be created will be like.) According to presenter 1 on the video, the “Khilafah would need to mitigate the possibilities of an attack [by the U.S. or its other enemies] ever occurring” by annexing territories and expanding very quickly, but the “ultimate deterrent” would be the development of WMD, since “[i]t would be unlikely that the US would undertake such actions if it knows the nation in question can respond with such destruction.” Presenter 2 then adds that this Caliphate would need to develop nuclear weapons in order to deter its enemies; since other nations have acquired them, this “would make it essential for the Khilafah to acquire [them]... Similarly stocks of biological, chemical and radiological weapons should be kept for deterrent purposes...” Presenter 1 then insists, without citing any scriptural support that could conceivably be comparable or applicable in a pre-nuclear context, that “Islam in origin [has] forbidden the use of nuclear weapons as they cause widespread destruction whereas the Khilafah’s foreign policy is to revive humanity with Islam not to exterminate it.” Lest anyone rashly conclude that these fanciful claims ensure that the Caliphate would only use CBRN weapons as a deterrent, throughout the video the presenters emphasize that “the fundamental aim of the Khilafah’s foreign policy is to take Islam to the rest of the world.” See “English-Language Video Series about Islamic Caliphate: It Would Have Nuclear, Biological, Chemical Weapons to Deter Foreign Aggression; It Would Spread Islam, Shari‘a throughout the World,” *MEMRI* website, 13-16 March 2016, available at <https://www.memri.org/tv/english-language-cliphate-video-series-wmds-nuclear-biological-weapons-deter-aggression-hizb-tahrir> . Since, contrary to their patently disingenuous claims about the peaceful worldwide triumph of Islam, it would not be possible to Islamize the U.S. and China without conquering them militarily and then forcibly imposing the *shari‘a* on them, and they could not possibly conquer them without using superior military force, it seems evident that at some point such a Caliphate would have to use any CBRN weapons they had managed to acquire or develop in order to achieve this grandiose goal.

platforms have no interest in recommending biological agents to the core organization.⁵²⁴

Of course, this does not necessarily signify that the IS would not make use of such weapons in the event that it somehow managed to acquire them in a weaponized form, especially given its documented tactical usage, both offensive and defensive, of chemical weapons on the battlefield.⁵²⁵ However, it does suggest – unless one hypothesizes, in the absence of any verifiable evidence, that it has been intentionally concealing certain highly sensitive clandestine biological R&D activities – that the group has not been making sustained efforts to obtain, produce, or employ such weapons. At the very least, developing or employing bioweapons per se does not seem to be a major priority for the IS thus far, despite the organization’s ideological and operational willingness to carry out acts of mass murder and destruction in order to terrorize and defeat its designated enemies.

In this context it needs to be emphasized yet again that it is often simply assumed, especially by uninformed or casual observers and the general public, that the only purpose terrorists might have for employing so-called “weapons of mass destruction” would be to cause mass casualties and massive physical damage. This assumption is generally false.⁵²⁶ First of all, as experts have periodically noted, the only type of weapon included within the category of “weapons of mass destruction” that is actually capable of causing massive physical destruction is a nuclear weapon. None of the other types of “WMDs,” i.e., chemical, biological, or radiological (CBR) materials and weapons, are capable of causing such extensive physical damage. Indeed, of these three types of substances only properly weaponized and disseminated biological agents could potentially generate a truly catastrophic number of casualties, meaning a number ranging from the tens of thousands to the millions. In marked contrast, chemical weapons proper, even if deployed in ideal conditions, would be capable of killing at most several thousand people, and the number of people who might be killed or wounded in an attack with a radiological dispersal device or “dirty bomb” would be dependent primarily upon just how powerful the conventional explosives with which the radiological materials were mixed turned out to be (although, depending on the type of radiological materials used, many others could instead be killed by direct exposure to radiation).

Second, CBRN materials and weapons can be – and indeed historically have been – used for a wide variety of purposes.⁵²⁷ The most obvious of these purposes, as noted above, would be

⁵²⁴ Herbert Tinsley, Jillian Quigley, Markus Binder, and Lauren Samuelson, *Islamic State Chemical and Biological Weapons Behavioral Profile* (College Park, MD: University of Maryland, National Consortium for the Study of Terrorism and Responses to Terrorism, [31 August] 2017), p. 47.

⁵²⁵ *Ibid.*, pp. 13-34, 171-2. Specifically, these included chlorine, mustard, and phosphine.

⁵²⁶ The points emphasized in the next two paragraphs summarize the more extended arguments made in Bale and Ackerman, “How Serious is the ‘WMD Terrorism’ Threat?,” pp. 14-20.

⁵²⁷ This can be determined from even the most cursory perusal of the cases in the POICN database, which is currently the most comprehensive open source catalog of prior CBRN terrorist threats, hoaxes, and attacks. Therein

to try and inflict mass casualties on declared enemies. However, the most important single factor that would arguably motivate terrorists – in the strictest sense of that term – to employ CBRN weapons would be the desire to exert a tremendous psychological influence on one or more target audiences, perhaps including both their enemies, who would be stunned if not cowed, and their supporters, who would be impressed if not inspired. Given the ubiquity of mass casualty Islamist bombings using a variety of Improvised Explosive Devices (IEDs), it seems likely that only attacks using similar types of “conventional” materials that resulted in many hundreds or thousands of deaths would nowadays have the same psychological *frisson* as successful acts of CBR terrorism, whatever their scale. In that sense CBRN weapons are almost ideally suited for terrorism proper, since their employment is almost guaranteed to exert a disproportionate impact upon the emotional states of the wider audiences that terrorists are by definition trying to influence or traumatize with their acts of violence.⁵²⁸ Finally, in addition to these two primary motivations, there are also a number of other reasons why jihadists might opt to employ CBR materials – to assassinate individual “Crusaders,” “polytheists,” or “apostates” with toxic materials, to contaminate key facilities or vital areas of Western cities, or even because they are generally well-suited for covert delivery.⁵²⁹

Finally, one noteworthy point in this context is that the number of references to WMDs is surprisingly limited in available jihadist primary sources. This relative paucity can be interpreted in one of two ways. If one is inclined towards skepticism regarding jihadist claims, one might concur with Paz’s suggestion that this may well be an indication that the development and use of CBRN materials are not operational priorities for al-Qa’ida and affiliated groups, an interpretation that tends to reinforce the more generalized arguments of those specialists who believe that terrorists are unlikely to employ WMDs because they tend to be conservative with respect both to weapons selection and operational techniques. After all, why should veteran terrorist groups bother experimenting with new and dangerous weapons that are difficult to handle and might not actually be effective when they can more easily continue to rely on weapons and techniques that are tried and true, such as IEDs? However, those with a more pessimistic or alarmist disposition might instead interpret the relative absence of discussion about “weapons of mass destruction” in jihadist sources as an indicator that key groups within this milieu are jealously guarding vital information concerning their presumably top secret CBRN efforts in order not to provide their enemies with

one can find a plethora of schemes for using CBR agents, most of which involved poisoning or contaminating specific individuals and locales rather than generating mass casualties.

⁵²⁸ Cf. the remarks of Jonathan B. Tucker and Amy Sands, “An Unlikely Threat,” *Bulletin of the Atomic Scientists* 55:4 (July-August 1999), p. 49, wherein some of the reasons for this disproportionate psychological impact are highlighted: “[CBW weapons] are generally invisible, odorless, tasteless, silent, and insidious,” and as a result they tend to “evoke deep human anxieties and instill a qualitatively different type of terror” than, say, sudden explosions. The same is true of radiological contamination. In contrast, nuclear devices are so massively destructive that they would have a huge psychological impact for that reason alone.

⁵²⁹ Indeed, far from being used primarily to inflict large numbers of casualties in catastrophic attacks, CBR materials have thus far generally been deployed in “tactical or discrete attacks” to achieve limited and far more practical effects.” See Jonathan B. Tucker, “Lessons from the Case Studies,” in idem, ed., *Toxic Terror: Assessing Terrorist Use of Chemical and Biological Weapons* (Cambridge, MA: M.I.T., 2000), p. 267.

any indications of what they plan to do, as certain above-cited comments of al-Ablaj suggest. Thus far it seems that skepticism about these matters has been entirely warranted.

Lest anyone find the historical patterns of actual CBR terrorism, the relative lack of references to WMDs in jihadist sources, or al-Qa'ida's reported internal disputes about how to employ these materials to be overly reassuring, it should by now be clear that certain figures or factions within the jihadist milieu seem motivated to employ "weapons of mass destruction" – at some point – in a strategic strike against the homeland of the United States or, if that is not possible, one of its close European allies. Their fanatical hatred of "infidels," their propensity for carrying out spectacular mass casualty attacks, and their oft-stated desire to eradicate "evil" and annihilate the "enemies of Islam" arguably makes them more prone to try and carry out catastrophic attacks of this sort, irrespective of their propagandistic blather about "defensive jihad" and their periodic references to "deterrence." For that reason, it is probably mainly their apparent inability to acquire or produce effective CBRN weapons that has thus far inhibited them from attempting such a strike. In any case, the world cannot afford to blithely assume that such weapons will never end up in jihadist hands, much less that those *mujahidin* who prefer to target the "far enemy" would have serious moral scruples about employing them.

Conclusion

In sum, it is precisely the above-noted combination of 1) delusional, utopian, and non-negotiable goals, which ultimately derive from a theologically-based and fanatical "fantasy ideology," and 2) a ruthless operational efficiency capable of causing tremendous damage, that makes al-Qa'ida, the Islamic State, and many of their affiliates such dangerous and formidable adversaries. If these groups actually had rational, limited, negotiable aims, as Michael Scheuer erroneously insisted, it would be vastly preferable.⁵³⁰ In that case, compromises could be made by both sides, and it might well be possible to come to some sort of acceptable agreement or settlement that would serve to limit the ongoing campaign of jihadist violence that is nowadays being incited and partially organized and executed by jihadist Salafist leaders and ideologues. No serious observer can honestly believe, however, that even if the United States and its allies suddenly acceded to all of the jihadists' proximate and relatively limited but still expansive demands, that the *mujahidin* affiliated with al-Qa'ida, the Islamic State, or other major Islamist terrorist groups would then be willing to lay down their arms, say "thank you," and initiate peaceful and mutually beneficial relations with the *dar al-kufr*.⁵³¹ Such a naïve illusion, which completely ignores their

⁵³⁰ Cf. Harris, "Al Qaeda's Fantasy Ideology," p. 33. Even Bari Atwan, whose portrayal of Bin Ladin and his group is relatively sympathetic, is forced to admit that "the prospect of opening negotiations with al-Qa'ida seems remote indeed...[although] this notion should not be completely ruled out...The problem, of course, is that al-Qa'ida's demands are global..." See *Secret History of al-Qa'ida*, p. 234.

⁵³¹ Bin Ladin occasionally tried to give the impression that he was reasonable and would stop attacking "unbelievers" if only they would cease and desist. In his 21 October 2001 interview for al-Jazira, e.g., he said "if our violators stop violating us, there is a way out." See "Terror for Terror," cited in Lawrence, ed., *Messages to the*

underlying religious intolerance and fanaticism, can scarcely be reconciled with the ongoing flood of utterly uncompromising statements that Bin Ladin, Abu Bakr al-Baghdadi, and other jihadist spokesmen have made over the years, above all in Arabic-language materials that most Westerners cannot read. Indeed, even in his much earlier December 1998 interview for al-Jazira, Bin Ladin had made the following revealing statement:

Every Muslim, from the moment they realize the distinction in their hearts, hates Americans, hates Jews, and hates Christians. That is part of our belief and our religion.⁵³²

Or, elsewhere in that same interview, when he referred to non-Muslims as mankind's "devils and demons" and boasted that "we are continuing on this path [of *jihād*] until we meet God Almighty."⁵³³ Nor was his meaning any less clear in another interview for al-Jazira, this one dating from 21 October 2001, when he said that the "fornicating disbelievers" may choose whether or not to fight Muslims, but the latter have no choice but to fight everyone in the "ranks of the Jews."⁵³⁴ Similar hardline views have also repeatedly been expressed by Shi'i Islamists, as when the then leader of al-Amal al-Islami (Islamic Amal), the Iranian-backed Shi'i militia in Lebanon, Husayn Musavi, made the following bellicose statement on 14 November 1985: "We are not fighting so that the enemy recognizes us and offers us something. We are fighting to wipe out the enemy."⁵³⁵ Needless to say, when the only alternatives that presently remain open to Western "infidels" are capitulating and converting to a strict, puritanical version of Islam, on the one hand, or fighting to defend the values, interests, and territories of Western civilization, on the other, there is absolutely no choice but to fight, and to fight ruthlessly and effectively. This, in turn, requires that Western democracies understand the true nature of their enemy, properly interpret his intentions and objectives, and take appropriate countermeasures. Up until now, governments in the West have generally failed on all three counts.

In the final analysis, there is one seemingly insurmountable difficulty that faces any state or society which is confronted by hostile, violence-prone religious extremists: their stubborn maintenance of faith that their agendas and actions are "divinely-sanctioned," even in the face of looming defeat and disaster. This is because when things are going their way, they attribute all of their good fortune to the support and will of God, but when things cease going their way, they rarely draw the equally logical but opposing conclusion – that God, in his supposedly infinite wisdom, has decided to withdraw that favor because they have sinned or are otherwise no longer worthy of it. On the contrary, they almost invariably conclude that God is increasing their suffering

World, p. 126. However, his rare conciliatory statements seemed to be designed primarily to sow confusion or dissension within "infidel" ranks.

⁵³² "A Muslim Bomb," in *ibid*, p. 87.

⁵³³ *Ibid*, pp. 88, 92.

⁵³⁴ "Terror for Terror," in *ibid*, p. 128.

⁵³⁵ Cited in Taheri, *Holy Terror*, p. 16. Therein one can find numerous other quotations from Iranian clerics reflecting equally intolerant and extreme attitudes.

and misfortune precisely in order to test their faith, and then respond by renewing and redoubling their efforts to achieve their goals. In short, to the extent that they are absolutely convinced that God is on their side and that the enemy is inherently evil and ungodly, they are unusually hard to deter and nearly impossible to undermine their morale of. Such an attitude is particularly problematic if such extremists are interested, however long it may take them, in acquiring, producing, and deploying CBRN weapons, as the global jihadists seem to be.

Indeed, since they have repeatedly proclaimed that they have a legal Islamic religious “right” to do so, jihadist Salafist terrorist groups such as al-Qa’ida and the Islamic State appear to have no ideological or theological qualms – or, for that matter, any moral, cultural, or political qualms – that would seriously inhibit or deter them from deliberately killing millions of their designated enemies, using any means they can. That would include the employment of both conventional and unconventional weapons, such as debilitating or lethal toxic CBRN materials. As one report on the IS justly noted,

Islamic State subscribes to an ethos in which it appears any level of violence can be justified. Likewise, there is no apparent level of violence from which further escalation would not be pursued. Given the lack of discernable self-imposed bounds on violence, the group’s apocalyptic visions, its small-scale combat employment of chemical weapons in Syria and the group’s desire to eclipse their primary Salafi-jihadi rival (al-Qa’ida), it is no surprise that the group displays a willingness to employ weapons of indiscriminate effect and almost certainly aspires to do so with the maximum possible destructive and disruptive effect.⁵³⁶

Hence there is no reason to believe that, opportunities and capabilities permitting, they would not consider spreading contagious lethal diseases within “infidel” countries using infected human vectors, especially given their ongoing promotion, justification, and organizational sponsorship of military forms of martyrdom, including suicide attacks, to carry out mass casualty acts of violence.

⁵³⁶ Tinsley et al, *Islamic State Chemical and Biological Weapons Behavioral Profile*, p. 12.

CHAPTER THREE: PSYCHOLOGICAL AND SOCIAL-PSYCHOLOGICAL FACTORS RELEVANT TO THREAT ASSESSMENTS OF ISLAMIST HUMAN VECTOR BIOTERRORISM ATTACKS

Thomas J. Reidy

Introduction

This chapter considers the deadly threat to society posed by suicide bioterrorism from the perspective of a forensic psychologist. The role of threat assessment is discussed within a broader context that includes social psychology influences, theories of suicide, murder-suicide states of mind, and the contribution of situational and group dynamics. A forensic formulation is then offered that merges disparate theories of suicide terrorism, leading to a dynamic view of threat assessment with potential interventions specific to the suicide human vector bioterrorist.

Countries around the world are concerned about terrorism and ways to thwart terrorist attacks. The threats engendered by global terrorism have increased with the growing availability of explosives, enhanced communications, financial resources, and travel to individuals and groups that are intent on harming innocents and military personnel alike. Suicide mission tactics forged in the 11th century have continuously evolved to the present day use of men, women, and even children as suicide bombers, causing mass murder and destruction around the world.⁵³⁷ The Chicago Project on Security and Terrorism-Suicide attack database demonstrated that between the years 1974 and 2016, 846 attackers killed over 10,000 people and wounded over 26,000, leading to an average of 12.2 deaths per attack, which is a high lethality rate.

The Institute for National Security Studies at Tel Aviv University, which provides yearly reports about suicide bombing attacks,⁵³⁸ indicated that in 2018, 293 suicide attacks were carried out by 505 perpetrators, including 84 women. The casualties from these attacks totaled 2,845 killed and another 5,160 injured. There has been a downward trend in the number of suicide attacks over the past three years, with a decline of 16% from 2017 to 2018. The Islamic State, al-Qa'ida, and their affiliates accounted for 23% of all suicide attacks, but organizations aligned with this ideology accounted for about 80% of all such attacks. Their ideology includes "conscious beliefs which justify acts of political violence toward noncombatants."⁵³⁹ Females also contribute to suicide bombing statistics. There was a significant decrease in the number of female bombers from 2017 to 2018, with 84 women (137 women in 2017) participating in 38 suicide attacks in eight

⁵³⁷ Yorum Schweitzer, Aviad Mendelboim, and Adi Gozlan, "Suicide Attacks in 2018: Fewer Attacks and Victims in Fewer countries." *INSS Insight* No. 1126, 7 January 2019.

⁵³⁸ *Ibid.*

⁵³⁹ J. Reid Meloy, "The Timeliness of Propaganda of the Deed," *Journal of Threat Assessment and Management* 5 (2018), pp. 250-1.

countries. Although no statistics are available, terrorist organizations have also manipulated children into participating in suicide missions.⁵⁴⁰

A Pew Center survey⁵⁴¹ found that terrorist atrocities raised concerns about extremism throughout the Middle East and in predominantly Muslim countries, and that support for suicide bombing had plummeted in these countries. This is most likely because they are targeting other Muslims rather than “infidels.” For some time, counterterrorism and law enforcement officers, political scientists, sociologists, criminologists, psychologists, and psychiatrists have been involved in efforts to better understand not only the psychological underpinnings of suicide bombers, but also other forms of suicidal terrorism.⁵⁴²

Suicide terrorism is a highly lethal and effective weapon that incurs minimal cost, uses low tech and low risk weapons, has a high shock value, and maximizes casualties. Other features that make suicide attackers attractive to Islamist terrorist organizations are their ready availability, their vulnerability or openness to indoctrination, and their minimal need for training, as well as the fact that dead “martyrs” cannot be interrogated and forced to reveal the secrets of terrorist organizations.⁵⁴³ These suicide attacks have caused mass casualties, with the goal of sowing fear and a sense of helplessness in the populace while attracting media attention. Suicide terrorist acts also continue to be regarded as a symbolic element in global jihadist identity, and their success is viewed as definitive evidence of divine sanction. As a result, terrorist organizations will continue to use these highly lethal attacks as a tool to kill, maim, and engender psychological trauma to civilian populations and military forces.

The specter of asymmetrical biological warfare⁵⁴⁴ and bioterrorism⁵⁴⁵ has also increased in recent years, according to government studies,⁵⁴⁶ professional books,⁵⁴⁷ novels,⁵⁴⁸ media

⁵⁴⁰ Anat Berko, *The Path to Paradise: The Inner World of Suicide Bombers and their Dispatchers* (Potomac Books: University of Nebraska Press, 2009); Sharmeen Obaid-Chinoy “Inside a School for Suicide Bombers,” Interactive web talk at TED, available at:

https://www.ted.com/talks/sharmeen_obaid_chinoy_inside_a_school_for_suicide_bombers.html .

⁵⁴¹ Pew Research Center “Concerns about Islamic Extremism on the Rise in Middle East: Negative Opinions of Al-Qaeda, Hamas, and Hezbollah Widespread” July 2014), available at <https://www.pewresearch.org> .

⁵⁴² Gary LaFree and Joshua D. Freilich, eds., *The Handbook of the Criminology of Terrorism* (Oxford UK: Wiley Blackwell. 2017); J. Reid Meloy, “The Operational Development and Empirical Testing of the Terrorist Radicalization Assessment Protocol, (TRAP-18),” *Journal of Personality Assessment* 100 (2018), pp. 483-492; J. Reid Meloy, Kris Mohandie, James L. Knoll, and Jens Hoffmann, “The Concept of Identification in Threat Assessment,” *Behavioral Sciences and the Law* 33 (2015), pp. 213-37; Ivan Sasha Sheehan, “Are Suicide Terrorists Suicidal? Assessment of the Evidence,” *Innovations in Clinical Neuroscience* 11 (2014), pp. 81-92.

⁵⁴³ Debra D. Zedalis, “Female Suicide Bombers,” Strategic Studies Institute, U.S. Army War College, Papers in Security Strategy Series (2004), available at <http://www.carlisle.army.mil/ssi/> .

⁵⁴⁴ Stefan Riedel, “Biological Warfare and Bioterrorism: A Historical Review,” *Baylor University Medical Center Proceedings* 17 (2004), pp. 400-6.

⁵⁴⁵ Jeffrey D. Simon, “Why the Bioterrorism Skeptics are Wrong,” *Journal of Bioterrorism & Biodefense*, S2:001, (2011), pp. 1-4.

⁵⁴⁶ Robert M. DeBell, Jeanne Sappington, and Barry Erlick, *Human Vector Scenario. Final Report. Prepared for the U.S. Government* (Columbus, Ohio: Battelle Memorial Institute, April 2003).

⁵⁴⁷ Daniel M. Gerstein, (2009). *Bioterror in the 21st century* (Annapolis, MD: Naval Institute Press, 2009).

⁵⁴⁸ Jack Mars, *Oath of Office* (Publisher: Jack Mars, 2016).

outlets,⁵⁴⁹ news articles,⁵⁵⁰ and professional journals.⁵⁵¹ The spread of deadly infectious diseases as acts of bioterrorism have also been depicted in movies and documentaries in recent decades,⁵⁵² as well as in the press.⁵⁵³ The Congressional Commission on the Prevention of Weapons of Mass Destruction Proliferation and Terrorism concluded in 2008 that the prevention of bioterrorism should be a higher priority than preventing nuclear terrorism. An update to these findings in 2012 by the Aspen Institute Homeland Security Group emphasized that, despite the fact that the use of bioweapons had not yet reached the “weapons of mass destruction” (WMD) threshold, biological weapons could still inflict “enormous economic and social-psychological consequences.”⁵⁵⁴ This report cited, as an example, that the 2001 anthrax attacks carried out by a single person were able to instill fear sufficient to “terrorize a nation”⁵⁵⁵ despite having caused relatively few deaths. The report concluded that al-Qa‘ida and other terrorist groups remain committed to developing bioweapons. Several factors might influence just how such a biological attack could unfold, including the biological agent used, the type of weaponization, the amount released, and the method of delivery. However, using human vectors as a method of delivery for perpetrating a bioterrorist attack using a lethal pathogen is a frightening possibility.⁵⁵⁶ One such scenario that was recently hypothesized in the press would be to recruit human vectors in Africa for injection with Ebola, and then to send them on missions to spread the deadly pathogen overseas before symptoms became apparent.⁵⁵⁷ Related to such a scenario are RAND Corporation national security risk and threat assessments⁵⁵⁸ that address environmental and human bio-surveillance monitoring

⁵⁴⁹ “Pro-ISIS media outlet publishes posters calling for biological attacks in the West, one of which depicts San Francisco,” *Middle East Media Memory Institute (MEMRI)*, 20 July 2018, available at <https://www.memri.org/tv/pro-isis-video-calls-for-biological-attacks-in-the-west/transcript>.

⁵⁵⁰ Kate Charlet, “The New Killer Pathogens: Countering Bioweapons Threat,” *New York Times*, Essay May/June, 2018; Paul S. Keim, David H. Walker, and Raymond A. Zilinskas, “Time to Worry about Anthrax Again,” *Scientific American* 316, (April 2017), pp. 70-5; Dina Fine Maron, “Weaponized Ebola: Is it Really a Bioterror Threat?” (Sept 25, 2014), available at <https://www.scientificamerican.com/article/weaponized-ebola-is-it-really-a-bioterror-threat/>; Tim Newman, “Bioterrorism: Should We Be Worried?,” *Medical News Today*, 28 February 2018, available at <https://www.medicalnewstoday.com/articles/321030.php>; “Pro-ISIS media outlet publishes posters calling for biological attacks in the West,” one of which depicts San Francisco.”

⁵⁵¹ Francisco Galamas, “Profiling Bioterrorism: Present and Potential Threats,” *Comparative Strategy*, published online, 4 March 2011; and Jeffrey D. Simon, “Why the Bioterrorism Skeptics are Wrong,” *Journal of Bioterrorism and Defense* S2:001 (2011).

⁵⁵² Georgios Pappas, Savvas Seitaridis, Mikolaos Akritidis, and Tsianos Epaminondas, “Infectious Diseases in Cinema: Virus Hunters and Killer Microbes,” *Clinical Infectious Diseases* 37 (2003), pp. 939-42.

⁵⁵³ Wil S. Hylton, “How Ready Are We for Bioterrorism?” *New York Times Magazine*, 26 October 2011, available at <https://nytimes.com/2011/10/30/magazine/how-ready-are-we-for-bioterrorism.html>; Newman, “Should we be Worried?”

⁵⁵⁴ Aspen Institute: Homeland Security Group. *WMD Terrorism: An Update on the Recommendations of the Commission on the Prevention of Weapons of Mass Destruction Proliferation and Terrorism*, 2012, p. 3, available at <https://aspeninstitute.org/content/uploads/2017/01/AHSG-WMD-paper-11.15.12.pdf>.

⁵⁵⁵ *Ibid.*, p. 4.

⁵⁵⁶ DeBell, Sappington, and Erlick, “Human Vector Scenario.”; Jack Mars, *Oath of Office*.

⁵⁵⁷ Maron, “Weaponized Ebola.”

⁵⁵⁸ Melinda Moore, Eric Landree, Alison K. Hottes, and Shoshana R. Shelton, “Environmental Bio-Detection and Human Bio-Surveillance Research and Development for National Security: Priorities for the Department of Homeland Security Science and Technology Directorate,” Rand Corporation, 2018; Henry H. Willis, Mary Tighe, Andrew Lauland, Liisa Ecola, Shoshana R. Shelton, Meagan L. Smith, John G. Rivers, Kristin J. Leuschner, Terry

to detect bio-threat agents, but are not specific to the intentional human vector bio-disseminator. This form of violence is well suited for investigation by forensic psychologists, who are trained to understand and investigate the complex interactions among intrapersonal, interpersonal, social, and situational components that influence human behavior and, in particular, the unique psychological factors that might cause a person to transform his or her body into a bioweapon.

Specifically, forensic psychologists are frequently involved in consulting with federal and state counterterrorism agencies, the military, and other security organizations to help identify individuals and related risk factors that are responsible for mass murder.⁵⁵⁹ However, scientific studies have been extremely limited with respect to identifying the psychological risk factors and pathways that may be unique to non-state terrorist violence,⁵⁶⁰ and virtually nonexistent in terms of using a collaborative approach integrating psychological principles with those of other academic disciplines. A recent forensic formulation for violence risk assessment applied to terrorism has emphasized, as the "highest priority", the need to determine robust individual risk factors that distinguish violent terrorism from other forms of violence.⁵⁶¹ Methodologies designed to understand and identify these extremist risk factors and related management strategies are only now emerging,⁵⁶² but many questions remain unanswered. The challenges faced by these professionals are multifaceted, but increasingly are focused on prevention and identifying the individuals who are likely to engage in terrorist actions,⁵⁶³ particularly suicidal actions leading to the death of scores of innocent victims.⁵⁶⁴

A review of the literature on suicide terrorism revealed many different views and motivations driving suicide terrorists, with no one theory predominating. Some authors focus on single motives that are psychological and personal (e.g., traumas leading to suicide), religious, political, altruistic, or ideological, whereas others emphasize a combination of these motives. Central to our thesis is the need to find a unifying dynamic that accounts for all these disparate views and informs the central thesis of this study about human vector suicide terrorists. Most individuals with histories or experiences similar to suicide terrorists do not take the path of

Marsh, and Daniel M. Gerstein, "Homeland National Risk Characterization-Risk Assessment Methodology," Rand Corporation, 2018.

⁵⁵⁹ Stephen D. Hart, Alana N. Cook, Elaine Pressman, Steven Strang and Yan L. Lim, *A Concurrent Evaluation of Threat Assessment Tools for the Individual Assessment of Terrorism*, (Canadian Network for Research on Terrorism, Security and Society, Working Paper Series, 2017), available at <http://tsas.ca/research/tsas-working-papers/>; J. Reid Meloy and Jens Hoffmann, eds., *International Handbook of Threat Assessment* (New York: Oxford University Press, 2014).

⁵⁶⁰ Paul Gill and Emily Corner, "There and Back Again: The Study of Mental Disorder and Terrorist Involvement," *American Psychologist* 72:3 (2017), pp. 231-42.

⁵⁶¹ John Monahan, "The Individual Risk Assessment of Terrorism," *Psychology, Public Policy, and Law* 18:2 (2012), pp. 167-205.

⁵⁶² Monica Lloyd and Christopher Dean, "The Development of Structured Guidelines for Assessing Risk in Extremist Offenders," *Journal of Threat Assessment and Management* 2:1 (2015), pp. 40-52.

⁵⁶³ Kiran M. Sarma, "Risk Assessment and the Prevention of Radicalization from Nonviolence into Terrorism," *American Psychologist* 72:3 (2017), pp. 278-88.

⁵⁶⁴ Adam Lankford, *The Myth of Martyrdom, What Really Drives Suicide Bombers, Rampage Shooters, and Other Self-Destructive Killers*, (New York: Palgrave Macmillan, 2013).

“martyrdom,” so what is it that drives these suicide terrorists? How can the disparate views by scholars be refuted or reconciled? The first consideration is the concept of violence. The World Health Organization provided a definitional typology of violence⁵⁶⁵ as a useful framework for understanding complex patterns among violence categories, starting with three broad categories that include self-directed (e.g. suicide), interpersonal (e.g., violence between unrelated individuals), and collective (e.g., violence by groups or organizations toward a common ideological agenda), along with subcategories under each of the broad categories. Similarly, Mohammed Hafez emphasizes the need for an interdisciplinary approach to the study of suicide terrorism that incorporates three levels of analysis: the person, the organization, and the culture/society.⁵⁶⁶ Consistent with the view of Hafez, this chapter explores the scientific literature on a number of relevant psychological principles related to theories of suicide, internal psychological motivations, group dynamics, and cultural/societal influences within the context of integrative theories.

Prior research has led to a burgeoning number of theoretical and empirical studies investigating “lone actor” attackers in North America and Europe.⁵⁶⁷ Significantly fewer empirical studies of suicide bombers in the Middle East have emerged.⁵⁶⁸ The research question posed here addresses the assessment of a new type of suicide attack not previously investigated in the open literature, that is, the dissemination of contagious, virulent pathogens by an Islamist “martyr” contributing to potential genocide. Are there psychological markers that might distinguish between these two forms of suicidal actors, that is, between “normal” suicide bombers and suicide bio-disseminators? This portion of the study will attempt to provide such a risk/threat analysis. The goal of any risk/threat analysis, including for terrorist activity, must necessarily work toward understanding how and why people make decisions to harm others though an act of self-sacrifice.⁵⁶⁹

Scope of the Bioterrorist Threat to National Security

Terrorism of all types poses a national security threat, both within U.S. boundaries and across the globe. The protection of human life and the security of U.S. citizen at home and aboard

⁵⁶⁵ World Health Organization, *World Report on Violence and Health* (Geneva: World Health Organization, 2002), chapter 1 (on violence), available at https://www.who.int/violence_injury_prevention/violence/world_report/en/.

⁵⁶⁶ Mohammed Hafez, *Manufacturing Human Bombs: The Making of Palestinian Suicide Bombers*. (Washington DC: United States Institute of Peace, 2006).

⁵⁶⁷ Mirko Allwinn, Jens Hoffmann, and J Reid, Meloy “German Mass Murderers and Their Proximal Warning Behaviors,” *Journal of Threat Assessment and Management* 6 (2019), pp. 1-22.; J. Reid Meloy and Jacqueline Genzman, “The Clinical Threat Assessment of the Lone-Actor Terrorist,” *Psychiatric Clinics of North America* 39:4 (2016), pp. 649-62.; J. Reid Meloy and Paul Gill, “The Lone-Actor Terrorist and the TRAP-18,” *Journal of Threat Assessment and Management* 3 (2016), pp. 37-52.

⁵⁶⁸ Adam Lankford, *Myth of Martyrdom*; Ariel Merari, “Personality Characteristics of Self-Martyrs, Suicide Bombers and Organizers of Suicide Attacks,” *Terrorism and Political Violence* 22 (2010), pp. 87-101; Ariel Merari, *Driven to Death: Psychological and Social Aspects of Suicide Terrorism* (New York: Oxford University, 2010); and Robert A. Pape, *Dying to Win: The Strategic Logic of Suicide Terrorism* (New York: Random House, 2005).

⁵⁶⁹ Randy Borum, “Assessing Risk for Terrorism Involvement,” *Journal of Threat Assessment and Management* 2:2 (2015), pp. 63-97.

requires an understanding of the enemy that wishes and plans to do us harm. The complete absence of data about terrorists who might perpetrate a biological attack as a suicide human vector might best be understood through an analysis of group-sponsored Islamist suicide bombers as the closest comparison group.

The purpose of this paper is to analyze and synthesize what has been reported in the open scientific literature about the background, motivations, vulnerabilities, and religious/ideological indoctrination of the suicide bomber, specifically that which can be applied to understanding the threat posed by a suicidal bio-disseminator desirous of spreading a deadly pathogen among the U.S. population or within American military facilities around the globe. In approaching this task of threat assessment, the goal is not to identify any one root cause or a single explanation for mass murder by a suicide perpetrator. Rather, this investigation will consider the threat posed by a suicidal bio-disseminator through a broad lens, emphasizing individual psychological factors within the context of the ideological, social, and group forces that shape the thinking, feelings, and particularly the murderous resolve of the attacker. The psychology of terrorism is diverse and emblematic of the complex landscape across individuals and their motivations, organizations, and ideologies.⁵⁷⁰ This study focuses on one aspect of terrorism, that is, suicide attackers with the intent to kill and injure by spreading a deadly pathogen. No single explanation is viable to explain suicidal attackers, and no clear socio-demographic or personality profile has emerged,⁵⁷¹ but progress has occurred in conceptualizing the multi-level underpinnings of these attacks and in gathering empirical data.⁵⁷² There have been no biological attacks by a suicide terrorist to date, but “insider” biological attacks have occurred without the perpetrator’s suicide.^{573 574}

Most suicidal persons have no murderous intent, so what factors distinguish purely suicidal individuals from those who are intent on committing suicide while simultaneously carrying out an act of mass murder? A considerable amount of research has addressed the psychological state of

⁵⁷⁰ Randy Borum, “Psychological Vulnerabilities and Propensities for Involvement in Violent Extremism,” *Behavioral Sciences and the Law* 32 (2014), pp. 286-305; Randy Borum, “Assessing Risk for Terrorism Involvement,” *Journal of Threat Assessment and Management* 2:2, (2015), pp. 63-87.; Randy Borum “Operationally Relevant Research and Practice in Terrorism Threat Assessment,” *Journal of Threat Assessment and Management* 2:3-4 (2015), pp. 192-4.

⁵⁷¹ Randy Borum, “Psychological Vulnerabilities and Propensities for Involvement in Violent Extremism,” *Behavioral Sciences and the Law* 32 (2014), pp. 286-305.

⁵⁷² Lankford, *Myth of Martyrdom*; idem, “A Psychological Re-Examination of Mental Health Problems Among 9/11 Terrorists,” *Studies in Conflict & Terrorism* 41 (2018), pp. 875-98, advance online publication. DOI:

10.1080/1057610X.2017.1348742; Arie W. Kruglanski and Edward Orehek, “The Role of Quest for Personal Significance in Motivating Terrorism,” in J. Forgas, Arie Kruglanski, and K. Williams, eds., *The Psychology of Social Conflict and Aggression* (New York: Psychology Press, 2011), pp. 153-66.; Robert A. Pape, *Dying to Win: The Strategic Logic of Suicide Terrorism* (New York: Random House, 2005); and David Webber, Kristen Klein, Arie Kruglanski, Ambra Brizi, and Ariel Merari, “Divergent Paths to Martyrdom and Significance Among Suicide Attackers,” *Terrorism and Political Violence*, 29 (2017), pp. 852-74.

⁵⁷³ Ronald Schouten and Gregory Saathoff, G, “Insider Threats in Bioterrorism Cases,” in J. Reid Meloy and Jens Hoffmann, eds., *International Handbook of Threat Assessment* (New York: Oxford University, 2014), pp. 246-59.

⁵⁷⁴ The anthrax mailings by a lone actor microbiologist in 2001; and the contamination of Oregon salad bars with Salmonella by a nurse working with a laboratory on behalf of the Rajneeshee cult in 1984.

individual mass murderers around the world,⁵⁷⁵ yet little actual empirical data are available concerning the individuals engaging in suicide bombing attacks. A review of research papers published between 2000-2013⁵⁷⁶ revealed that most of the published science about suicide bombers was derived from the political science and international relations fields, with only a small proportion from disciplines that concentrate on human behavior such as psychology (16%) and psychiatry (5%). More recently, psychologists, criminologists, and social scientists have begun exploring the empirical link between suicide motivation and homicidal intent.⁵⁷⁷ Other scholars have emphasized a different path to murder by suicide attacks that focused more on the seeming normality and absence of psychopathology of suicide bombers, who are thought to be motivated, not by suicidal desire, but rather by nationalist fervor, common cause, and religious and ideological obligations/duties spurring the attacker's willingness to die and kill others for Allah and the glorious cause.⁵⁷⁸ The following sections address seemingly contradictory motivations for suicidal attackers through an exploration of psychosocial and suicide theories. The aim is to find a pathway that better elucidates the threat of a suicide attack from a human vector bio-disseminator, and that consequently allows for the application of a forensic threat analysis as a first step in countering such a threat.

Key Definitions

Murder is the unlawful killing of another person(s) in a planned and premeditated manner. This type of violence is predatory and purposeful, sometimes absent intense emotion, and usually without direct threat communication to the victims.⁵⁷⁹ The murder by a terrorist determined to die

⁵⁷⁵ Allwinn, Hoffman, and Meloy, "German Mass Murderers"; Darin J. Challacombe and Paul A. Lucas, "Postdicting Violence with Sovereign Citizen Actors," *Journal of Threat Assessment and Management* 6:1 (2019), pp. 51-9; Emily Corner and Paul Gill, "Is There a Nexus Between Terrorist Involvement and Mental Health in the Age of the Islamic State?," *CTC Sentinel* 10:1 (2017), pp. 1-27; Paul Gill, John Horgan, Emily Corner, and James Silver, "Indicators of Lone Actor Violent Events: The Problems of Low Base Rates and Long Observational Periods," *Journal of Threat Assessment and Management* 3:3-4 (2016), pp. 165-73; J. Reid Meloy, Alasdair M. Goodwill, M. J. Meloy, Gwyn Amat, Maria Martinez, and Melinda Morgan, "Some TRAP-18 Indicators Discriminate Between Terrorist Attackers and Other Subjects of National Security Concern," *Journal of Threat Assessment and Management* 6:2 (2019), pp. 93-110.

⁵⁷⁶ Sheehan, "Are Suicide Terrorists Suicidal?"

⁵⁷⁷ Joshua D. Freilich, William S. Parkin, Jeff Gruenewald, and Steven M. Chermak, "Comparing Extremist Perpetrators of Suicide and Non-Suicide Attacks in the United States," *Terrorism and Political Violence*, published online, 22 March 2017, <https://doi.org/10.1080/09546553.2017.1297708>; Lankford, *Myth of Martyrdom*; Adam Lankford, "A Psychological Re-Examination of Mental Health Problems Among 9/11 Terrorists," *Studies in Conflict & Terrorism* 41:11 (2018), pp. 875-98; J. Reid Meloy and Kris Mohandie, "Assessing Threats by Direct Interview of the Violent True Believer," in J. Reid Meloy and Jens Hoffmann, eds., *International Handbook of Threat Assessment* (New York: Oxford University, 2013), pp. 388-95; Meloy, Mohandie, Knoll, and Hoffmann, "The Concept of Identification"; Ariel Merari, "Personality Characteristics of Self-Martyrs, Suicide Bombers, and Organizers of Suicide Attacks," *Terrorism and Political Violence* 22, (2010), pp. 87-101; Merari, *Driven to Death*; Webber, Klein, Kruglanski, Brizi, and Merari, "Divergent Paths to Martyrdom."

⁵⁷⁸ Scott Atran, "Genesis of Suicide Terrorism," *Science* 299 (2003), pp. 1534-40; Hafez, *Manufacturing Human Bombs*; Pape, *Dying to Win*; Jerrold M. Post, Farhana Ali, Schuyler W. Henderson, Stephen Shanfield, Jeff Victoroff, and Stevan Weine, "The Psychology of Suicide Terrorism," *Psychiatry* 72:1 (2009), pp. 13-31; Ellen Townsend, "Suicide Terrorists: Are They Suicidal?" *Suicide & Life-Threatening Behavior* 37:1 (2007), pp. 35-49.

⁵⁷⁹ J. Reid Meloy, Kris Mohandie, Anthony Hempel, and Andrew Shiva, "The Violent True Believer: Homicidal and Suicidal States of Mind (HASSOM)," *Journal of Threat Assessment* 1 (2001), pp. 1-14.

as part of the attack is perpetrated for political, religious, or ideological motives, but the underlying drives and vulnerabilities of the attacker need further exploration.

Suicide is also premeditated and critically involves the intent of a person to die,⁵⁸⁰ which is an “extremely fearsome and daunting thing and thus requires considerable thought, planning, and resolve.”⁵⁸¹ While the underlying motivation for suicide may vary, the outcome is the same, that is, perpetrating an act that results in one’s own death. However, the process of reaching this lethal result is complex in terms of intrapersonal and interpersonal drives and external influences. Few people want to die by suicide, and even fewer can actually do so. Most individuals that experience suicidal thoughts do not take the final lethal step that requires overcoming the basic instinct for survival and fear of death to reach the necessary state of fearlessness that permits self-sacrifice.⁵⁸² The desire to die for whatever reason is usually insufficient to cause a person to engage in lethal suicide, which also necessitates an *acquired capability for suicide*⁵⁸³ through habituation and overcoming the fear of death. Suicide that requires the killing of others also necessitates an *acquired capability for killing*. Just how these processes unfold will be explored in the following sections.

Murder-Suicide (MS) is a complex concept that not only relates to suicide terrorist actions but also applies to other related forms of murder that transcend cultures. MS is a rare event statistically but occurs with some frequency under certain conditions that can involve the killing of one’s own children, spouse, or family. Still other examples of murder-suicide include mass murder events such as rampage shootings, spree murders, school shootings, and lone actor terrorist attacks. Perpetrators are usually considered suicidal and nihilistic, with suicide after intimate partner homicide occurring in 25-35% of cases and in 50% of all family homicides, while 25% of all mass murderer die by their own hand and an unknown percent from “suicide by cop.”⁵⁸⁴ Considering the high number of murders and suicides across the U.S. - approximately 53 and 129 per day in 2017⁵⁸⁵, respectively - what is different about individuals that simultaneously commit both murder and suicide? Motivations for MS vary, ranging from distorted perceptions to personal grievances, to mental illness, to terrorist-inspired religious and political ideologies.⁵⁸⁶ Thomas Joiner suggests that the motivation, sequence, and timing of events in the terrorist MS scenario

⁵⁸⁰ Thomas E. Joiner, *Why People Die by Suicide* (Cambridge, MA: Harvard University, 2005), p. 18; David Lester, “Are Suicide Bombers Heroes?” *Psychological Reports* 2 (2010), pp. 499-500.

⁵⁸¹ Thomas E. Joiner, *The Perversion of Virtue: Understanding Murder-Suicide* (New York, NY: Oxford University, 2014).

⁵⁸² Joiner, *Why People Die by Suicide*.

⁵⁸³ Thomas E. Joiner, *Myths about Suicide* (Cambridge, MA: Harvard University, 2010).

⁵⁸⁴ Stephen D. Hart, (Professor and Director: Terrorism, Risk and Security Studies Program, Simon Fraser University, Burnaby, B.C.) discussion with the author, 3 July 2019.

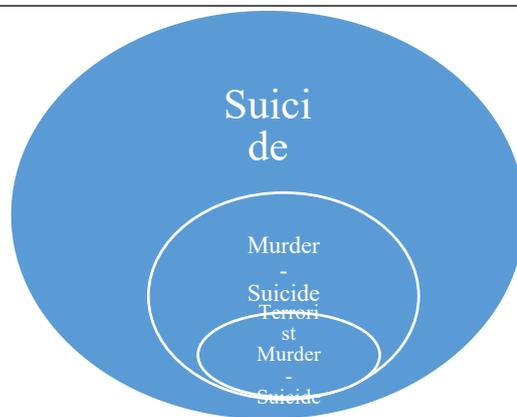
⁵⁸⁵ Centers for Disease Control, *Fatal Injury Reports, National, Regional and State, 1981-2017*, CDC website, available at <https://www.cdc.gov/injury/wisqars/fatal.html>.

⁵⁸⁶ J. Reid Meloy, Karoline Roshdi, Justine Glaz-Ocik, and Jens Hoffmann, “Investigating the Individual Terrorist in Europe,” *Journal of Threat Assessment and Management* 2 (2015), pp. 140-52.; Meloy and Genzman, “The Clinical Threat Assessment of the Lone-Actor Terrorist”; Corner and Gill, “Is There a Nexus Between Terrorist Involvement.”

differ sufficiently from domestic MS to represent a unique and small subset of the domestic MS category.⁵⁸⁷

Figure 1 represents the relationship between acts of suicide, and two types of MS (domestic and terrorist-perpetrated).⁵⁸⁸ Terrorist MS events resulting in the near simultaneous deaths of the perpetrator and victims do not occur in a vacuum, but are also driven by the interaction of three elements: individual motivation, organizational group dynamics, and religious/ideological indoctrination.⁵⁸⁹ No single element or condition results in an MS attack; rather, all elements must work together in a cohesive manner under carefully controlled conditions to produce the lethal action. In a cost-benefit calculus, terrorist MS attackers believe that “their deaths will be worth more than their lives” to their societies.⁵⁹⁰

Figure 1. Theoretical relationship between suicide, and murder-suicide types. Adapted from Joiner (2014) with author permission.



For mass murder attacks by a suicide terrorist, the focus on suicide that is apparent in news articles and much of the professional literature is misplaced. The act is first and foremost one of mass murder caused by the suicide of a terrorist, who detonates a body or car bomb in a public place with the intent to kill. When discussing the mass murder of unsuspecting victims, the attention first and foremost should focus on the criminal act and then the suicidal actions of the perpetrator.

⁵⁸⁷ Joiner, *The Perversion of Virtue*.

⁵⁸⁸ The size of the circles is not meant to be an exact proportionate depiction of actual rates, but broadly corresponds to terrorist murder-suicide as a unique and small subset of murder-suicide within the larger framework of suicide. These statistics vary by both geographic region and race. See Corey B. Bills and Gouhua Li, “Correlating Homicide and Suicide. *International Journal of Epidemiology* 34 (2005), pp. 837-45.

⁵⁸⁹ Hafez, *Manufacturing Human Bombs*; Vanessa Harmon, Edin Mujkic, Catherine Kaukinen, and Henriikka Weir, “Causes and Explanations of Suicide Terrorism: A Systematic Review,” *Homeland Security Affairs* 14, Article 9 (Dec 2018), available at <https://www.hsaj.org/articles/14749>.

⁵⁹⁰ Joiner, *The Perversion of Virtue*.

Hence, for purposes of this report and consistent with Joiner's view,⁵⁹¹ I will refer to such an action as *murder-suicide* involving a terrorist-sponsored attack.

Risk Assessment vs. Threat Assessment

Although risk assessment and threat assessment as concepts have some similarities and are often used interchangeably, some important distinctions are relevant.⁵⁹² Risk assessment is used in forensic psychology across a range of applications to criminal and violent actions. Risk estimates are informed by empirically supported associations between various risk and protective factors and the outcome in question (e.g., assaultive behavior). The application of risk assessment principles to suicide bombers requires a more nuanced approach because there is no solid empirical foundation to guide an understanding of risk factors for this group. Moreover, suicide bombing is such a rare event that estimating a probability is fraught with error. Hence, a different approach is offered in the form of *threat assessment*.⁵⁹³ The theory and methodology of threat assessment differ in a number of practical ways from risk assessment that are relevant to understanding and countering suicide terrorism perpetrated by a bomber or human vector bio-disseminator.

Threat assessment principles identify “pathways of ideas and behavior leading to violent action.”⁵⁹⁴ This means that violence is never entirely a function of only the person, but an interplay of the person, in a particular interaction, and in a given context. There are three basic concepts in threat assessment and management that are directly applicable to considering the threat posed by a MS terrorist, including a human vector bioterrorist:

First, targeted violence is the result of an understandable and often discernible process of thinking and behavior; second, violence stems from an interaction among the potential attacker, past stressful events, a current situation and the target; third, the key to investigation and resolution of threat assessment is identification of the subject's “attack related” behaviors.⁵⁹⁵

Hence, threat assessment for a suicide attacker requires an understanding that a dynamic interaction exists between the attacker, current adverse life circumstances (e.g., trauma, shame, death of a family member by the enemy, feeling burdensome to others, and lacking a sense of belonging), situational components (e.g., religious/ideological indoctrination, group pressures), and “attack related” behaviors (e.g., thinking, planning, logistical preparations related to use of bomb, gun, or pathogen). Particular attention should be given to recognizing the thinking, planning, preparation and logical needs preceding a particular type of attack. In the case of a

⁵⁹¹ Joiner, *The Perversion of Virtue*.

⁵⁹² J. Reid Meloy, Stephen D. Hart, and Jens Hoffmann, “Threat Assessment and Threat Management,” in J. Reid Meloy and Jens Hoffmann, eds., *International Handbook of Threat Assessment* (New York: Oxford University, 2014), pp. 3-17.

⁵⁹³ Ibid

⁵⁹⁴ Borum, “Psychological Vulnerabilities and Propensities.”

⁵⁹⁵ Meloy, Mohandie, Hempel, and Shiva, “The Violent True Believer”; Borum, “Psychological Vulnerabilities and Propensities.”

biological attack this would include identifying and obtaining a lethal biological agent, weaponizing the agent, choosing a target(s) and recruiting and indoctrinating suitable human vector(s), and establishing the logistics for the attack(s). This threat assessment model provides for management and intervention decisions that are equally applicable to suicide bombers and suicide human vectors.

Directly applicable to bioterrorist attacks, scholars need to consider the different ways that people become involved in suicide attacks, leading to different levels of threat for their roles at any given time. Some terrorists become organization leaders and others are fighters, but in the realm of suicide actions there are recruiters, dispatchers, and the attacker, all with different motives and roles.⁵⁹⁶ Consequently, threat assessments of the suicide attacker must consider a broad array of defining factors, with less emphasis on prediction and more on management and interventions. Particular emphasis should be placed on the consideration of multiple pathways, incorporating a notion that different risks may be associated with a range of terrorist roles and outcomes, including suicide attacks.⁵⁹⁷ Ultimately, the goal of this analysis is to integrate life history factors with religious, ideological, environmental influences, and social pressures in order to determine an individual pathway or trajectory leading to a suicide bioterrorist attack by a human vector.

From the standpoint of prediction, MS bombings are circumscribed and low base rate events, that is, such acts are relatively infrequent and tend to cluster in certain countries, primarily in Asia and the Middle East.⁵⁹⁸ Although rare, MS bombings have occurred in the U.S.⁵⁹⁹ Nevertheless, despite the rarity of such events in America, the threat of suicide bombing and bioterrorism remains undiminished.⁶⁰⁰ It behooves evaluators of bioterrorist threats, in particular, to keep in mind the Black Swan metaphor, which is about the impact of a highly improbable yet enormously consequential event, should it occur.⁶⁰¹ To understand the Black Swan in relation to terrorism, it is necessary to think outside the box and realize that extremely rare events, and not the expected ones, are critical to shaping history. The tragic events of the 9/11 terrorist attacks on

⁵⁹⁶ Berko, *The Path to Paradise*.

⁵⁹⁷ Randy Borum, "Assessing Risk for Terrorism Involvement," *Journal of Threat Assessment and Management* 2:2 (2015), pp. 63-87; Randy Borum, "Operationally Relevant Research and Practice in Terrorism and Threat Assessment," *Journal of Threat Assessment and Management* 2:3-4 (2015), pp. 192-4; Monahan, "The Individual Risk Assessment of Terrorism"; John Monahan, "The Individual Risk Assessment of Terrorism: Recent Developments," in Gary LaFree and Joshua D. Freilich, eds., *The Handbook of the Criminology of Terrorism* (NY: John Wiley & Sons, 2017), pp. 520-34.

⁵⁹⁸ National Consortium for the Study of Terrorism and Responses to Terrorism: Annex of Statistical Information. *Country Reports on Terrorism, 2016*, available at <http://www.state.gov/j/ct/rls/crt/2016/>; Yoram Schweitzer, Aviad Mendelboim, and Adi Gozlan, "Suicide Attacks in 2018: Fewer Attacks and Victims in Fewer Countries," *INSS Insight* 1126, 7 January 2019.

⁵⁹⁹ Bath School Disaster, 1927; Poe Elementary School, 1959; National flight 2511, 1960-suspected suicide bomber; Continental flight 11, 1962; Allentown PA, 2018, father blew up self and family in a car.

⁶⁰⁰ Aspen Institute: Homeland Security Group, *WMD Terrorism: An Update on the Recommendations of the Commission on the Prevention of Weapons of Mass Destruction Proliferation and Terrorism*, 2012, available at <https://aspeninstitute.org/content/uploads/2017/01/AHSG-WMD-paper-11.15.12.pdf>.

⁶⁰¹ Nassim N. Taleb. *The Black Swan: The Impact of the Highly Improbable* (New York: Random House, 2nd ed., 2010).

the World Trade Center perfectly exemplify this assertion. Consequently, threat analysis in bioterrorism planning must account for the unexpected event, no matter how rare, such as the terrorist use of a human vector to transmit lethal diseases to an unsuspecting population.

Social Psychology and Murder-Suicide Terrorism

Not all suicide terrorists are the same, and the search for a unique psychological profile has not been fruitful and likely will not occur.⁶⁰² The role of individual psychology alone will not answer the question of “what makes a suicide bomber tick.”⁶⁰³ Rather, as Jon Elster points out, the answer is more complex. He emphasizes the “... need to identify the reasons-motivations and beliefs-of suicide attackers”⁶⁰⁴ within a wider context, including the emotional impact on society. Such an assertion is consistent with the forensic psychology concepts underlying the origins of violence. Violence is multidimensional in origin, with diverse motivations involving individual/psychological, social/environmental, and biological domains operating in a particular context.⁶⁰⁵ The crucial question then becomes why some people see MS terrorism as acceptable and/or can become externally pressured to carry out such an act of terrorism. One explanation comes from social psychology concepts.

Social Psychology Concepts

There is no single causal theory for violence or murder. Concepts of social psychology have long been an integral part of informing assessments of the violence risk or threats posed by individuals.⁶⁰⁶ In particular, the social psychology concept that is most relevant to threat posed by MS attackers is that behavior is multi-determined from the dynamic interaction between individual characteristics and motivations and environmental or situational factors impinging on the person over time.⁶⁰⁷ Merging theories from forensic and social psychology permits a broader understanding of person-situation interaction within the context of how groups behave and the threat risk from vulnerable individuals.

⁶⁰² John Horgan, *The Psychology of Terrorism* (New York: Routledge, 2014).; idem, “Psychology of Terrorism: Introduction to the Special Issue,” *American Psychologist* 72:3 (2017), pp. 199-204; Arie Kruglanski, Xiaoyan Chen, Mark Dechesne, Shira Fishman, S., and Edward Orehek, “Fully Committed: Suicide Bomber Motivation and Quest for Personal Significance,” *Political Psychology* 30, (2009), pp. 331-57.

⁶⁰³ Frank Furedi, “Making Sense of Suicide Missions,” *Contemporary Sociology* 37:1 (2008), pp. 66-7.

⁶⁰⁴ Jon Elster, Motivations and Beliefs in Suicide Missions, in Diego Gambetta, ed., *Making Sense of Suicide Missions* (New York: Oxford University, 2005), p. 238.

⁶⁰⁵ J. Reid Meloy, *Violence Risk and Threat Assessment: A Practical Guide for Mental Health and Criminal Justice Professionals* (San Diego, CA: Specialized Training Services, 2000).

⁶⁰⁶ Monahan, “The Individual Risk Assessment of Terrorism”; Idem, “The Individual Risk Assessment of Terrorism: Recent Developments”; Marisa R. Pynchon and Randy Borum, “Assessing Threats of Targeted Group Violence: Contributions from Social Psychology,” *Behavioral Sciences and the Law* 17 (1999), pp. 339-55.

⁶⁰⁷ Hafez, *Manufacturing Human Bombs*; Monahan, “The Individual Risk Assessment of Terrorism”; Monahan, “The Individual Risk Assessment of Terrorism: Recent Developments”; Pynchon and Borum, “Assessing Threats of Targeted.”

A comprehensive analysis of terrorist murder-suicide behavior must include both individual, contextual, and situational aspects, and any evaluation lacking one or the other of these characteristics is insufficient to explain such violence.

Randy Borum⁶⁰⁸ offers an integrative framework for understanding the making of a suicide terrorist. He proposed defining categories that are equally applicable to the suicide bomber and suicide bioterrorist:

- a. predisposing life experiences and strains;
- b. activating situations at key life moments;
- c. predisposing psychological and psychosocial vulnerabilities.
- d. social and group dynamics;
- e. adoption of the group ethos and ideology; and
- f. embracing the group goal that the end justifies the means (i.e., MS attack).

Collectively, these factors can be further understood through the framework of three organizing theories that provide a theoretical link to MS: I³ (I Cubed) Theory, Situational Action Theory (SAT), and Significance Quest Theory (SQT).⁶⁰⁹

I³ (I Cubed) Theory

I³ theory⁶¹⁰ imposes organizational structure to a given situation such as a MS attacker by considering the main and interactive effects of:

- a. instigating triggers,
- b. impelling forces, and
- c. inhibiting forces.

Instigating triggers can be adverse life events (e.g., grievances, trauma, shaming incidents, failure, death of family at the hands of the enemy) contributing to a feeling of social alienation, loss of meaning in life, and being a burden to others, whether real or perceived.⁶¹¹ Impelling forces would include social pressure, ethno-nationalist, religious, and ideological indoctrination.⁶¹² Inhibiting forces are key protective factors involving the degree of motivational connectiveness⁶¹³ to the organization and/or family. Terrorist organizations are well aware of the need to isolate the recruit

⁶⁰⁸ Randy Borum, "The Etiology of Radicalization," in *Handbook of the Criminology of Terrorism*.

⁶⁰⁹ Ibid.

⁶¹⁰ Erica B. Slotter and Eli J. Finkel, "EI³ Theory: Instigating Impelling, Inhibiting Factors in Aggression," in Philip R. Shaver and Mario Mikulincer, eds., *Human Aggression and Violence: Causes, Manifestations, and Consequences* (Washington, DC: American Psychological Association, 2011).

⁶¹¹ Joiner, *Why People Die by Suicide*.

⁶¹² Kruglanski, Chen, Dechesne, Fishman, and Orehek, "Fully Committed.," Webber, Klein, Kruglanski, Brizi, and Merari, "Divergent Paths to Martyrdom."

⁶¹³ E. David Klonsky and Alexis M. May, "The Three-Step Theory (3ST): A New Theory of Suicide Rooted in the "Ideation-to-Action" Framework," *International Journal of Cognitive Therapy* 8:2 (2015), pp. 114-29.

and cut off contact with outside sources of support that could interfere with indoctrination⁶¹⁴ and inhibit the recruit's motivation to follow through with an attack.

Situational Action Theory

Situational Action Theory (SAT)⁶¹⁵ is a prominent emerging theory that holds promise for explaining why people differ in their violence regardless of individual factors. This theory postulates a general, dynamic, and analytical model of human action and crime causation that explains crime by emphasizing the interaction between individuals and their situation/environment. The essence of the theory is that people commit crime or moral rule violations (e.g., MS attacks) because (1) they perceive their actions as morally justifiable given the circumstances in the absence of a strong deterrent, (2) they fail to adhere to personal morals to exercise self-control when they are externally incited to break them, and (3) they commit an act of suicide while intending the death of others. To explain why MS attackers will deliberately blow themselves up in a crowded café or ingest a deadly pathogen to disperse among civilian or military targets these attackers must view such acts as an acceptable moral action alternative or fail to resist external pressures to carry out such an act.

Integration of I³ and SAT Theories

Three key factors underlie both I³ and SAT Theories.⁶¹⁶ These would require that a MS attacker (bomber or human vector bioterrorist) has:

1. One or more factors that motivate her/him to engage, deliberately or recklessly, in conduct that s/he knows is: (a) likely to cause others serious physical injury or fear of serious physical injury; and (b) wrong, in the sense of being illegal or immoral, that is, without authorization, permission, or consent of the others. The motivational factors may be chronic/distal (vulnerabilities) or acute/proximal (triggers), and they could be individual (biological or psychological), group, or social/environmental in nature. There must be at least one good motivation, else there will be no act!
2. One or more factors that disinhibit a MS terrorist, that is, allow her/him to neutralize potential self-punishment for knowingly engaging in an act that is both harmful and wrong through justification or desensitization. The disinhibiting factors may also be chronic/distal or acute/proximal, and individual or group or social/environmental. Some sort of disinhibition is necessary, but the number/strength of disinhibitors depends on the number/strength of the motivations: Strong motivations require only weak disinhibitions for action, but weak motivations may require strong disinhibitions for action.

⁶¹⁴ Arie Kruglanski and Agnieszka Golec, "Individual Motivations, the Group Process and Organizational Strategies in Suicide Terrorism," in E. M. Myerston Milgrom, ed., *Suicide Missions and the Market for Martyrs: A Multidisciplinary Approach* (Princeton, NJ: Princeton University, 2004).

⁶¹⁵ Per-Olaf H. Wikström, "Violence as Situational Action," *International Journal of Conflict and Violence* 3:1 (2009), pp. 75-96; Per-Olaf H. Wikström and Noe Bouhana, "Analyzing Radicalization and Terrorism: A Situational Action Theory" in *Handbook of the Criminology of Terrorism*, pp. 175-86.

⁶¹⁶ Stephen D. Hart, (Professor and Director: Terrorism, Risk and Security Studies Program, Simon Fraser University, Burnaby, B.C.) discussion with the author, 20 February 2019.

3. Both SAT and I³ theory also recognize that a MS attacker (bomber or human bio-vector) *may* have: One or more factors that disturb or disorganize her/his decision-making, resulting in reduced capability for him or her to exercise good coping or problem-solving abilities. These may be chronic/distal or acute/proximal, and may also reflect problems at the individual, group, or social/environmental levels.

Significance Quest Theory (SQT)

Arie Kruglanski and colleagues postulate the intertwining of three organizing needs (3 N's) contributing to extremism, including MS attackers.⁶¹⁷ The ultimate decision to become a suicide attacker derives from (1) a motivational *need* to gain or restore personal significance, reinforced through (2) a strong ideological *narrative* emphasizing the superiority of the suicide mission as a significance restoring act, and (3) *network* dynamics adding group pressure for the attacker to internalize the ideology as a driving force toward suicidal martyrdom and associated murder. Over the past two decades, various scholars have identified an array of motives for a suicide attack, including “honor, dedication to the leader, social status, glamour, personal loss, group pressure, humiliation, vengeance, restoration of Islam to its glory, monetary benefits to the family, desire to enter heaven.”⁶¹⁸ These vulnerabilities lead to a “motivational imbalance”⁶¹⁹ of needs disrupting a person’s sense of well-being. Restoring and re-balancing of motives is best explained by a “quest for personal significance—the desire to count, to be someone, to be recognized, to matter in the eyes of one’s group, according to its (sacred) values.”⁶²⁰ As David Webber and colleagues point out, individuals suffering personal traumas (e.g., the loss of loved ones through enemy action) and others suffering shame from self-inflicted, dishonorable deeds (e.g., divorce, extramarital affairs, contraction of HIV), or the victim of unforeseen life circumstances (e.g., infertility) all lead to a marked stigma that brings shame or humiliation on the self, family, and/or community that can never be directly undone. Once activated, the motivational need then requires an ideological narrative to justify the means to reach the goal of attaining significance. In the case of the MS attacker, the ideological narrative is one that supports, promotes, and justifies violence through self-sacrifice as an effective, and morally and culturally acceptable, way to regain significance.

The narrative may also offer the opportunity to gain significance by attaining the status of hero or martyr that further legitimizes the violence. The third component to SQT emphasizes the shared ideology of a group network that provides validation for the MS act, and further reinforces the ideological rationale that violence is not only acceptable but commendable as a means of restoring or gaining significance. Importantly, Kruglanski and colleagues summarize the elevated threat of violence from the interaction among *need*, *narrative*, and *network* as follows: “Thus, individuals who both experience a quest for significance and are embedded in a social network

⁶¹⁷ Kruglanski, Chen, Dechesne, Fishman, and Orehek, “Fully Committed.”; Arie W. Kruglanski, Jocelyn Belanger, and Rohan Gunaratna, *The Three Pillars of Radicalization: Needs, Narratives, and Networks* (New York: Oxford University Press, 2019).; Arie W. Kruglanski, Katarzyna Jasko, David Webber, Marina Chernikova, and Erica Molinaro, “The Making of Violent Extremists,” *Review of General Psychology* 22:1 (2018), pp. 107-20.

⁶¹⁸ Webber, Klein, Kruglanski, Brizi, and Merari, “Divergent Paths to Martyrdom.”

⁶¹⁹ Kruglanski, Jasko, Webber, Chernikova, and Molinaro, “The Making of Violent Extremists.”

⁶²⁰ Webber, Klein, Kruglanski, Brizi, and Merari, “Divergent Paths to Martyrdom.”

that subscribes to a violence justifying narrative will be more likely to engage in violent extremism than individuals who experience only one, or neither, of those.”⁶²¹

The diversity in life histories of MS attackers is evident in the examples provided by Kruglanski et al., yet the examples also demonstrate certain common fundamental features of the 3 N's of SQT.⁶²² One of these stories is that of 27-year-old Tatiana Menake, who planned to kill the Sri Lankan prime minister with a body bomb but was arrested the day prior to the attack. Briefly, she experienced a childhood history filled with chronic humiliation and abuse and even rape by her alcoholic father, who also abused and killed Tatiana's mother. She was further victimized and considered a burden by relatives before being sold by these relatives and forced to join a vicious tyrannical terrorist organization that forced her into many months of intense physical training and indoctrination. She had little hope for the future and never expected to lead a normal life in any way, and thus ultimately decided that she had no reason to live. Other women were volunteering to be suicide bombers, so she joined believing that the new role would give her a sense of meaning and purpose in life. During her last meal, she was treated like a celebrity, had her picture taken to be displayed on a clock tower as “great warrior” worthy of respect and adulation by the community, and posthumously would be accorded a military rank in honor of her. The authors point out her *need* to achieve significance, meaning, and purpose in life, which was reinforced by an ideological *narrative* justifying and supporting her MS attack. Further adding an increased sense of belonging was the social validation from the *network* of other female suicide recruits that provided further significance affirmation.

A second example illustrates a far different path to MS for a 20-year-old male with a *nom de guerre* of Marwan, who was interviewed by a journalist prior to his mission. This youth grew up in a more privileged setting and was intensely motivated toward Islamic studies in high school before becoming a terrorist fighter with a history of killing Americans. The intensity of his religiosity and hatred of Americans led him to volunteer as a suicide bomber. As was the case with Tatiana, he was provided with special training and indoctrination, including listening to taped speeches about heavenly rewards and the lives of deceased jihadists. He reported feeling exhilarated by the potential for killing many infidels. This history represents a different application of the 3 N's, with Marwan's *need* to achieve great significance achieved by dying in the service of killing infidels. Throughout his journey as an MS attacker, a religious and ideological *narrative* from a respected and highly influential “spiritual guide” reinforced his readiness to die. Further support for the *narrative* of jihad came from the jihadist network, including other MS attackers.

Empirical validation of SQT supports the concept as a unifying theory to address the debate among scholars over the disparate motivations of suicide attackers. A study by Webber and associates⁶²³ is particularly relevant in showing that significance gain or loss varied considerably by ethnicity, gender, age, family status, and the number of casualties produced. Particularly relevant to a potential human vector bio-disseminator, the authors concluded that (1) attackers with

⁶²¹ Kruglanski, Jasko, Webber, Chernikova, and Molinario, “The Making of Violent Extremists.”

⁶²² Kruglanski, Belanger, and Gunaratna, *Three Pillars of Radicalization*.

⁶²³ Webber, Klein, Kruglanski, Brizi, and Merari, “Divergent Paths to Martyrdom.”

the greater significance gain motivation would be more inspired to take measures for mission success; (2) such highly motivated attackers would be more likely to volunteer for high value targets ensuring maximum casualties; and (3) group leaders recognizing the success potential of these highly motivated attackers may capitalize on their “yearning for high value targets”⁶²⁴ because of a potential for greater success and media attention. Moreover, organizations capitalize on successful attacks that are glorified, as a celebrity suicide can be used as a recruiting tool to attract imitators. Such highly motivated and reinforced MS attackers may be more likely to participate in a human bio-vector attack that would require significant sustaining power than more passive or less committed recruits.

Theories of Suicide in Murder-Suicide Terrorism

General Theories

Suicide is a major topic of research and scholarly writing.⁶²⁵ No one theory or typology of suicide is likely to explain all suicidal acts, but certain theories are more relevant than others. Most studies of suicide focus on risk factors, the identification of susceptible individuals, and treatment, but with little emphasis on theoretical underpinnings. Theory provides an organizational basis to unite the disparate pieces of information about suicide that help make sense of the motives driving a person to self-destruction. Numerous conceptualizations of suicide have been proposed over the decades that address psychological, biological, sociological, and economic approaches.⁶²⁶ Still other newer psychological theories cast a different light on suicide that are more directly applicable to the MS terrorist, reflecting both interpersonal and self-directed violence.⁶²⁷

John F. Gunn, III discusses a theoretical model relevant to MS that emphasizes escape or flight from intolerable aversive states, grief over a central component of personality or way of life, or punishment to atone for real or imagined wrongs related to shame, guilt, infamy (fault perceived by the community), or suicide carried out at the order of a political power.⁶²⁸ Similarly, Edwin S. Shneidman touts suicide as escape from psychological pain or *psychache*.⁶²⁹ Roy Baumeister’s theory highlights escape from “meaningful awareness of current life problems and their implications about the self.”⁶³⁰

⁶²⁴ Ibid.

⁶²⁵ John F. Gunn, III and David Lester, eds., *Theories of Suicide: Past, Present, Future* (Springfield, IL: Charles C. Thomas, 2014); Matthew K. Nock, ed., *Oxford Handbook of Suicide and Self-Injury* (New York: Oxford University, 2014).

⁶²⁶ Gunn and Lester, *Theories of suicide*.

⁶²⁷ M. Hillebrand, “Overlap Between Suicidal Behavior and Interpersonal Violence,” in Matthew K. Nock, ed., *Oxford Handbook of Suicide and Self-Injury* (New York: Oxford University, 2014).

⁶²⁸ John F. Gunn, III, “Suicide as Escape: Baechler, Shneidman, and Baumiester,” in Gunn and Lester, eds., *Theories of Suicide*.

⁶²⁹ Joiner, *Why People Die by Suicide*.

⁶³⁰ John F. Gunn, III, “Suicide as Escape.”

Emile Durkheim⁶³¹ characterized suicide through the lens of unbearable emotional pain that the person feels only death can end. In the case of voluntary MS, the pain will end, in his or her fantasy, in the passage to an afterlife in the Muslim paradise, so that the pain will be replaced by supreme bliss in the concrete sense, sexual bliss, which is perceived as a major reward of paradise. Also, for society to compel some members to commit suicide, it must be a society in which individual personality has very little value. For someone to be so marginal, a person must be almost completely submerged within the group. Thus, suicide depends not only on the individual circumstances of the MS perpetrator but also on the social circumstances and dictated community norms which enable society to accept the act. The collective social force encourages the individual to commit suicide, while in Western society it would be expected to deter the person from doing so.

Of course, suicides do not all evolve from a single psychological process, but rather from a confluence of events contributing to a belief that no relief is possible. Scientific research using a meta-analysis investigating 50 years of research on risk factors for suicidal thoughts and behaviors came to the startling conclusion that predictions of suicide were only slightly better than chance.⁶³² Such a finding certainly highlights the difficulty faced by scholars and even experienced clinicians to identify suicidal individuals, especially if the person wishes to hide intentions of self-harm. These authors attributed the effects broadly to the absence of any one pathway to suicide, in other words, “one size does not fit all” and there is a need to separate study groups that may differ by population. Such a finding emphasizes that MS and human bio-vector attackers may differ in unknown ways, both as individuals and compared to other groups, and will therefore need to be considered as unique entities pending future studies.

Joiner's Interpersonal-Psychological Theory of Suicide

Thomas Joiner, an eminent suicidologist, provides a new perspective⁶³³ by explaining the motivation for suicide that has a growing body of empirical support and a direct application to MS terrorism. This model incorporates three principle components:

1. Thwarted belonging, which emphasizes social disconnection and alienation leading to a real or perceived lack of social support from family, friends, and the community;
2. Perceived burdensomeness, which refers to a real or false belief that a person is a drain on others or society, thereby motivating thoughts of relieving the burden on others by suicide;
3. Acquired capability, which involves overcoming the fear and pain of the suicidal act through such methods as rehearsal, indoctrination, and manipulation. This ability to

⁶³¹ David Lester, “Three Classical Sociological Theories of Suicide,” in Gunn and Lester, eds., *Theories of Suicide*.

⁶³² Joseph C. Franklin, Jessica Ribeiro, Kathryn Fox, Kate H. Bentley, Evan M. Kleiman, Xieyining Huang, Katherine M. Musacchio, Adam C. Jaroszewski, Bernard P. Chang, and Matthew K. Nock, “Risk Factors for Suicidal Thoughts and Behaviors: A Meta-Analysis of 50 Years of Research,” *Psychological Bulletin* 143:2 (2017), pp. 187-232.

⁶³³ John F. Gunn, III, “Suicide as Escape”; Joiner, *Why People Die by Suicide*; Joiner, *The Perversion of Virtue*.

overcome the inherent fear of death necessitates specialized and militaristic training. In the case of the MS attacker, the fear of killing must also be suppressed.

In his recent book about understanding MS,⁶³⁴ Joiner argues that the intent of an MS terrorist at the time of the attack is political in emphasis but that the driving motivation is intensely personal. While the ultimate *goal* for the MS attack may be political, with less emphasis on personal issues of the attacker, Joiner's views are strongly compatible with the work of Adam Lankford, Ariel Merari, and Arie Kruglanski in asserting the primacy of suicidal *motivation* over the political, religious, and ideological.⁶³⁵ Lankford views most MS attackers as exhibiting "clinically suicidal risk factors", such as a desire to escape the world and responsibility for their behavior, failure to cope with a perceived crisis, and low self-worth.⁶³⁶ Merari's investigation of deceased suicide terrorists and interviews with failed suicide terrorists focuses on the intrapersonal demons and the struggle of these suicide terrorists with depression, suicidal thoughts, low ego strength, and dependent-avoidant personality style. The presence of such precursors increases the susceptibility of such predisposed individuals to religious and ideological indoctrination by a charismatic or strong group leader, thereby reinforcing their suicidal desire through an MS act for religious and ideological reasons.⁶³⁷ In a related argument, Kruglanski⁶³⁸ focuses not on personality dimensions and clinical symptoms but rather believes the suicide decision provides the opportunity to gain personal significance that has been lost because of humiliation, discrimination, or personal traumas.

Islamic Suicide Beliefs

Islamic beliefs create a theological dilemma between the Islamic doctrine that forbids conventional suicide as an unforgivable sin and the sanctioning of suicidal martyrdom missions. Militant Islamic leaders and clerics, however, exploit a loophole in the ideology that is incorporated into the recruitment and indoctrination of the MS attackers.⁶³⁹ Specifically, the doctrine of martyrdom, which is associated with the killing of non-believers (as well as other Muslims who are regarded as "apostates" or "heretics"), is the only way that a suicide attack can be justified, and will then lead to all the ensuing rewards, accolades, and heavenly benefits.

Murder-Suicide States of Mind

⁶³⁴ Joiner, *The Perversion of Virtue*.

⁶³⁵ Adam Lankford, *Myth of Martyrdom*; Merari, "Personality Characteristics of "Self-Martyrs."; Merari, *Driven to Death*; Kruglanski, Chen, Dechesne, Fishman, and Orehek, "Fully Committed."

⁶³⁶ Adam Lankford, "Do Suicide Terrorists Exhibit Clinically Suicidal Risk Factors? A Review of Initial Evidence and Call for Future Research," *Aggression and Violent Behavior* 15 (2010), pp. 334-40.

⁶³⁷ Merari, "Personality Characteristics of "Self-Martyrs."; Merari, *Driven to Death*.

⁶³⁸ Kruglanski, Chen, Dechesne, Fishman, and Orehek, "Fully Committed."

⁶³⁹ Zedalis, "Female Suicide Bombers."

MS as a terrorist act requires a continuity of process,⁶⁴⁰ with one action in a series following another. Consider that MS involves the continuous process of a person making the decision to die by suicide, with their ultimate consideration being “death more than life.”⁶⁴¹ Once a person has concluded that his or her own death is necessary and warranted, the person then turns every thought and behavior to accomplishing this goal through the death of others. The process is completed by the murder and simultaneous suicide of the attacker. So how do MS attackers arrive at a suicide decision? Both external and internal factors influence their mindset and worldview.⁶⁴² The external factors constitute adverse life experiences, be they personal traumas/losses or situational events that contribute to a fundamentally maladaptive life context. Internal factors provide the “psychological climate within which various vulnerabilities and propensities shape ideas and behaviors in ways that can increase the person’s risk or likelihood of involvement in violent extremism.”⁶⁴³

Psychological Vulnerabilities

Borum stresses that three psychological vulnerabilities or “need states” open a door to a person being influenced and receptive to terrorist thinking, indoctrination, and an altered worldview. The specific vulnerabilities are:

1. Need for personal meaning and identity;
2. Need for belonging; and
3. Perceived injustice/humiliation

Borum further argues that scholars should focus on these vulnerabilities and related propensities (motivational, attributional, volitional, emotional, attitudinal, and worldview) as risk factors in understanding and preventing extremist actions.⁶⁴⁴ Borum’s contribution to a discussion of MS is quite similar to the views espoused by Joiner and in Kruglanski’s body of work applicable to MS terrorists, including human vector bioterrorists.⁶⁴⁵

⁶⁴⁰ Joiner, *The Perversion of Virtue*.

⁶⁴¹ Ibid.

⁶⁴² Borum, “Psychological Vulnerabilities and Propensities.”

⁶⁴³ Ibid.

⁶⁴⁴ Ibid.

⁶⁴⁵ Joiner, *Why People Die by Suicide*; Joiner, *Myths about Suicide*; Joiner, *The Perversion of Virtue*; Kruglanski, and Golec, “Individual Motivations”; Kruglanski, Chen, Dechesne, Fishman, and Orehek, “Fully Committed”; Kruglanski, Jasko, Webber, Chernikova, and Molinario, “The Making of Violent Extremists.”

Interpersonal Virtues

Thomas Joiner's analysis of MS demonstrates that such actions derive from cognitive distortion and misapplication of four interpersonal virtues: mercy, justice, duty, and glory.⁶⁴⁶ From this perspective, the personal aspect of the MS attacker subsumes the political, religious, and ideological forces that can still be exploited to enhance and reinforce such beliefs; these keep the attacker on a straight course to the final fatal act. Joiner further explains that MS terrorism is a

...perversion of the virtue of glory with undertones of justice-the suicide terrorist may be reasoning, as do some of those who perpetrate MS, along the lines of 'I have decided on suicide, but as long as I am to die, it is virtuous that I use my death for the glory of my society and for revenge and justice too.'⁶⁴⁷

Joiner further suggests that MS terrorism is a different form of MS than the typical familicide scenario because of key distinctions between the two phenomena, for example, a political versus a personal motivation, the choice of a bomb (or human bio-disseminator) versus a gun as a weapon. In further contemplating MS, Joiner cites Kruglanski's statement "terrorists feel that through suicide, their lives will achieve tremendous significance. They will become heroes, martyrs."⁶⁴⁸ This decision to engage in an MS attack is therefore not strictly political or ideological but is also responsive to a high degree of significance loss driven by personal crises, humiliation, discrimination, and other perceived injustices or losses.

Definitions of terrorist-promoted MS all have in common two simple propositions, that the attacker intends to die in a violent attack and has the intent to purposely kill and maim as many unsuspecting victims as possible.⁶⁴⁹ Diego Gambetta writes that, although various lethal devices have been used exclusively against military, civilian, and symbolic targets, a deadly pathogen could be added to the list of lethal devices such that "an infected individual could be dispatched to spread a deadly virus by contagion."⁶⁵⁰ Various scenarios of bioterrorist attacks have also been discussed hypothetically in news articles, books, and movies.⁶⁵¹ Christina Hellmich and Amanda Redig describe a fictional scenario of a deadly virus, which was thought eradicated three decades ago, that is unleashed on an airplane by a passenger willing to die in the attack, either as an infected

⁶⁴⁶ Joiner, *Perversion of Virtue*.

⁶⁴⁷ Ibid.

⁶⁴⁸ Ibid.

⁶⁴⁹ Sheehan, "Are Suicide Terrorists Suicidal?"; Diego Gambetta, ed., *Making Sense of Suicide Missions* (New York: Oxford University Press, 2005), p. vi, preface by Gambetta; Zedalis, "Female Suicide Bombers"; J. Vandevoorde, N. Estano, G. Painset, "Homicide-Suicide: Clinical Review and Psychological Assumptions," *L'Encephale: Revue de Psychiatrie Clinique Biologique et Therapeutique* 43:4 (2017), pp. 382-93.

⁶⁵⁰ Gambetta, *Making Sense of Suicide Missions*.

⁶⁵¹ Bruce Dorminey, "Ebola as ISIS Bio-Weapon," *Forbes Magazine*, 5 October 2014, available at <https://www.forbes.com/sites/brucedorminey/2014/10/05/ebola-as-isis-bio-weapon/#1123afdb7319>; Jamie Doward, "Top Secret Military Warning on Ebola Biological Weapon Terror Threat," *The Guardian*, 21 February 2015, available at <https://www.theguardian.com/uk-news/2015/feb/21/top-secret-ebola-biological-weapon-terror-warning-a-qaida-isis>; Maron, "Weaponized Ebola"; Georgios Pappas, Savvas Seitaridis, Mikolaos Akritidis, and Epaminondas Tsianos "Infectious Diseases in Cinema: Virus Hunters and Killer Microbes," *Clinical Infectious Diseases* 37 (2003), pp. 939-42.

human vector spreading a deadly and contagious pathogen through respiratory secretions or purposely dispersing the pathogen from a container so that re-circulating air in the plane ventilation system would spread the disease potentially over many hours.⁶⁵² Using this example, it is easy to conjure up a situation of simultaneous biological attacks on multiple airplanes or similar attacks on large groups of people congregating in venues like hotels, restaurants, conferences, movie theaters, and even indoor sports stadiums. Fortunately, no such biological attack has deliberately introduced a deadly infectious disease, using either an infected terrorist or by deliberate introduction anywhere in the world – yet.

Behavioral History of Murder-Suicide Terrorists

Are Murder-Suicide Attackers Normal and Devoid of Psychopathology?

Long-standing proclamations that MS bombers are psychologically “normal” and display none of the typical signs of mental disorder, depression, or suicide have dominated the literature.⁶⁵³ These reports indicate that suicide terrorists commit acts of martyrdom for various reasons unrelated to individual motivation, such as the submerging of their individuality to a charismatic leader, moral disengagement, contravention of individual and group social norms, collective group identity, viewing the mission as a sacred duty leading to a multitude of heavenly and earthly rewards, and eternal glorification in the community as a martyr. In stark contrast are those experts that find evidence of “normality” to be weak or simply not supported by recent findings, which necessitates a broader and more comprehensive analysis of motivation.⁶⁵⁴

⁶⁵² Christina Hellmich and Amanda J. Redig, “The Question is When: The Ideology of Al Qaeda and the Reality of Bioterrorism,” *Studies in Conflict & Terrorism* 30 (2007), pp. 375-96.

⁶⁵³ Robert J. Brym and Bader Araj, “Are Suicide Bombers Suicidal?” *Studies in Conflict and Terrorism* 35:6 (2012), pp. 432-43; Nasra Hassan, “What Motivates Suicide Bombers?” *Yale Global Online, Yale Center for the Study of Globalization*, 3 September 2009, available at <https://yaleglobal.yale.edu>; Horgan, *Psychology of Terrorism*; Pape, *Dying to Win*; Post, Henderson, Shanfield, Victoroff, and Weine, “The Psychology of Suicide Terrorism”; Townsend, “Suicide Terrorists”; Andrew Silke, “Understanding Suicide Terrorism: Insights from Psychology, Lessons from History,” in John Pearse, ed., *Investigating Terrorism: Current Political, Legal and Psychological Issues* (New York: Wiley Blackwell, 2015); Ellen Townsend, “Suicide Terrorism,” in *Oxford Handbook of Suicide and Self-Injury*..

⁶⁵⁴ Michelle Dugas, Jocelyn J. Belanger, Manuel Moyano, Birga Schumpe, Arie W. Kruglanski, Michele J. Gelfand, Kate Touchton-Leonard, and Noemie Mociti, “The Quest for Significance Motivates Self-Sacrifice,” *Motivation Science* 2:1 (2016), pp. 15-32; Kruglanski and Orehek, “The Role of Quest.”; Kruglanski, Chen, Dechesne, Fishman, and Orehek, “Fully Committed”; Merari, “Personality Characteristics of “Self-Martyrs”; Merari, *Driven to Death*; Ariel Merari, “Studying Suicide Bombers: A Response to Brym and Araj’s Critique,” *Studies in Conflict and Terrorism* 35 (2012), pp. 733-9; Lankford, *Myth of Martyrdom*; idem, “Precis of the Myth of Martyrdom: What Really Drives Suicide Bombers, Rampage Shooters, and Other Self-Destructive Killers,” *Behavioral and Brain Sciences* 37 (2014), pp. 351-93; Lester, Yang, and Lindsay, “Suicide Bombers: Are Psychological Profiles Possible?”; David Lester, “Possible Role of Posttraumatic Stress Disorder; Lester, “Are Suicide Bombers Heroes?”; David Lester, “Female Suicide Bombers and Burdensomeness,” *Psychological Reports* 106 (2010), pp. 160-2; Kathryn Paul, “Making a Terrorist: Psychosocial Risk Factors in the Recruitment of Female Suicide-Homicide Bombers” (Unpublished Ph.D Dissertation, Chicago School of Professional Psychology, 2018), available at <http://proxy.miis.edu/login?url=https://search.proquest.com/docview/2116142717?accountid=12457>; Sheehan, “Are Suicide Terrorists Suicidal?”; Webber, Klein, Kruglanski, Brizi, and Merari, “Divergent Paths to Martyrdom.”

The complexities of suicide terrorism are emphasized in the interdisciplinary approaches taken by Hafez and others.⁶⁵⁵ These scholars explain what drives suicide bombers that cannot be limited to either individual, organizational, or societal contexts, but rather requires a more integrative approach because religious fanaticism, psychological trauma, group dynamics, and strategic calculation alone are insufficient to explain the suicide bomber. In presenting this formulation, Hafez has provided a multidimensional pathway to understanding the MS attacker that is consistent with the views of many scholars.

Statements by a number of researchers about a suicide terrorist being psychologically damaged or, alternatively, showing few if any of the typical signs or symptoms of mental illness or suicidal motivation cannot be taken at face value. Post correctly points out that the “best way to learn what makes a terrorist tick is to ask them,”⁶⁵⁶ *but this method only goes so far*. When asking the same question, Borum makes an important contribution to the literature by emphasizing the need to eschew a focus on “abnormal psychology, mental disorder, and mental illness in their search for answers,”⁶⁵⁷ which he thinks have little to offer threat assessment professionals. Alternatively, he proposes that threat assessment would be enhanced by considering “vulnerabilities and propensities...a subject’s motivational, attributional, volitional, emotional, attitudinal, and worldview propensities.”⁶⁵⁸ As can be seen from Borum’s conceptualization, the goal of attaining true and accurate information about the motives of an MS perpetrator can be challenging and require extensive investigation across many dimensions of a person’s life.

Forensic psychologists and psychiatrists have long known that criminals and collateral sources such as parents, spouses, friends, or community informants can be unreliable, and even intentionally lie, distort, or minimize personal or family dysfunction,⁶⁵⁹ have a genuine lack of knowledge, or harbor ulterior motives that may be influenced by social and cultural biases.⁶⁶⁰ Similarly, inaccurate reporting by collateral sources in MS cases may also stem from family members wanting to avoid embarrassment to the family, or a desire to hide family secrets such as abuse and criminal conduct. Family and friends may also wish to portray a loved one in the most positive and esteemed light possible, as a “martyr” who selflessly died for an honorable cause related to political or religious reasons, even though they may not know the true motive(s) that contributed to the MS attack. Such views might be viewed as “survival tools to make sense of the past and the future...preserve their family as benign and wholesome, [since] parents may need to protect themselves.”⁶⁶¹ MS attackers are no different in their motivation to avoid humiliation, obscure or deny family dysfunction, and be seen as paragons of virtue who sought to die for a just

⁶⁵⁵ Ibid.

⁶⁵⁶ Ibid.

⁶⁵⁷ Borum, “Psychological Vulnerabilities and Propensities.”

⁶⁵⁸ Ibid.

⁶⁵⁹ Mark D. Cunningham, “Differentiating Delusional Disorder from the Radicalization of Extreme Beliefs: A 17-Factor Model,” *Journal of Threat Assessment and Management* 5:3 (2018), pp. 137-54.

⁶⁶⁰ Sheehan, “Are Suicide Terrorists Suicidal?”

⁶⁶¹ Mette Rasmussen, Hanne Haavind, Gudrun Dieserud, and Kari Dyregrov, “Exploring Vulnerability to Suicide in the Developmental History of Young Men: A Psychological Autopsy Study,” *Death Studies* 38 (2014), pp. 549-56.

cause. Too often, key elements pertaining to motivation remain intentionally hidden or undiscovered due to a focus on religious or ideological justifications for MS contained in personal communications of the attacker or their family and friends.⁶⁶² More candid disclosures and evidence may surface only after multiple interviews and a closer inspection of the person's life history, as opposed to accepting at face value either the formulaic propaganda statements, martyrdom videos, or last wills that offer post-hoc justifications for their suicidal action,⁶⁶³ or the self-interested pronouncements of terrorist leaders.⁶⁶⁴

Direct assessment of terrorists requires specialized interviewing techniques and strategies to assess threat that take into consideration the role of the terrorist and his or her personality style, as well as social, emotional, and cultural experiences.⁶⁶⁵ The application of these methods when interviewing failed or captured MS attackers and their families would be critical to obtaining accurate information to the extent possible. The important components of such an approach in this scenario would include extensive preparation by skilled interviewers with a broad and standardized line of questioning (that includes risk factors for suicide and related Structured Professional Judgment measures), the development of rapport, patience and flexibility in questioning, assessing and monitoring the interviewees' emotional states, and measuring typical verbal and nonverbal responses to aid in determining the truthfulness of responses. Even with considerable preparation and strategic methodology "there is no absolute, infallible way to detect lying or deception."⁶⁶⁶

Are Murder-Suicide Attackers Suicidal?

Merari⁶⁶⁷ emphasized that little factual information about the characteristics and motivations of suicide bombers was available and that estimates of their "normality" derived from diverse demographic features and the absence of any record of mental illness, which was a reasonable conclusion based on the known evidence. However, Merari also points out that assessments of "self-martyrs" relied solely on biographical information from secondary sources, and that no direct psychological assessments had been conducted. Working in Israel, Merari provided the first glimpse of empirical data regarding a sample of failed suicide terrorists compared to a matched control group consisting of individuals jailed for politically violent behavior and another group of terrorists incarcerated for commanding or coordinating suicide terrorist attacks. Merari found distinct and important differences across the three groups. Among the "would be" suicide attackers, Merari identified two personality styles: a dependent and avoidant personality style and low ego strength, making them more amenable to the influence of charismatic leaders and group identity. Suicidal tendencies were identified in 40% of the martyr group, with none found in the controls or organizer groups. Half of the martyrdom group evidenced significant depressive tendencies (e.g., melancholia, sadness, lack of vitality, psychomotor slowing, low

⁶⁶² Webber, Klein, Kruglanski, Brizi, and Merari, "Divergent Paths to Martyrdom."

⁶⁶³ Lankford, *Myth of Martyrdom*; idem, "Precis of the Myth of Martyrdom."

⁶⁶⁴ Sheehan, "Are Suicide Terrorists Suicidal?"

⁶⁶⁵ Meloy and Mohandie, "Assessing Threats by Direct Interview."

⁶⁶⁶ Ibid.

⁶⁶⁷ Merari, "Personality Characteristics of "Self-Martyrs"; Merari, *Driven to Death*.

energy, tearfulness, emotional constriction, Posttraumatic Stress Disorder, and attentional deficit) in comparison to far less distress in the other groups. Of critical importance is Merari's⁶⁶⁸ conclusion that significant differences exist between terrorists intending to carry out murder-suicides and "ordinary" suicides, which is also shared by Joiner in his book about MS.⁶⁶⁹ The suicidal subjects in Merari's study largely did not show the typical suicidal background or risk factors seen with ordinary suicides, such as a background of mental illness, substance abuse, and a history of prior suicide attempts. Merari further stressed the significant differences across all psychological measures for the suicide group in comparison to politically violent control subjects and the commanders and organizers of suicide terrorists also jailed for their activities, which Merari believes argues against incarceration alone as a major contributing cause for the psychological deficits described in the study.

Suicidality, according to Merari, is "perhaps a contributing factor in a significant minority of the terrorist martyrs, suicide bombers' motivation, and background factors are different from those of ordinary people who commit suicide."⁶⁷⁰ Merari concluded that "the creation of a suicide bomber is a product of the interactions between groups and individuals, in which certain individual characteristics make a person more likely to carry out a martyrdom operation." Joiner comes to a similar conclusion from an exploration of murder-suicide, emphasizing, as does Merari, that that "ordinary suicide" differs in significant ways from those engaging in MS terrorism.⁶⁷¹

Lankford presents evidence in a number of peer reviewed publications that suicidality is far more of a contributing factor to "martyrdom" attacks than Merari concluded.⁶⁷² Moreover, Lankford strongly challenged the common wisdom in the literature about the "normalcy" of suicide bombers to show that "much like other suicidal individuals, many suicide terrorists do appear to be driven by clinically relevant suicide risk factors."⁶⁷³ Yet like many suicidal people, these suicide terrorists work hard to conceal the truth about their suicidal state of mind for a host of reasons, including maintaining the "myth of martyrdom." Lankford, citing numerous references in the suicidology literature,⁶⁷⁴ argues that suicidal people in the general population and some Islamist suicide terrorists have a number of *suicide risk factors*⁶⁷⁵ in common, namely (1) a desire to escape the world they inhabit; (2) a desire to escape moral responsibility for their actions; (3) the inability to cope with a perceived crisis; and (4) a sense of low self-esteem. Although expert views differ about the degree of suicidality demonstrated by MS attackers, an undeniable point is

⁶⁶⁸ Merari, *Driven to Death*.

⁶⁶⁹ Joiner, *The Perversion of Virtue*.

⁶⁷⁰ Merari, "Personality Characteristics of "Self-Martyrs."

⁶⁷¹ Joiner, *The Perversion of Virtue*.

⁶⁷² Lankford, "Precis of the Myth of Martyrdom"; idem, "Do Suicide Terrorists"; idem, "Suicide terrorism as a socially approved form of suicide," *Crisis* 31 (2010), pp. 287-9; idem, *Myth of Martyrdom*; and idem, "A Psychological Re-Examination."

⁶⁷³ Lankford, *Myth of Martyrdom*, pp. 5-6; idem, "Precis the Myth."

⁶⁷⁴ Ibid.

⁶⁷⁵ Risk factors include known individual, psychological, biological, social, environmental, and situational influences that increase the probability of a particular outcome. Risk factors can be static (unchangeable) or dynamic (changeable), acute (sudden onset) or chronic (enduring/repetitive), cumulative or single. Risk factors do not imply causation, only a relationship exerting differential effects on behavior.

the recognition that MS is a complex and multi-determined phenomenon that does not follow typical pathways and must be viewed through a less traditional lens.

David Lester proposed that the absence of psychological autopsies precluded a true understanding of the psychological factors driving suicide terrorists and hypothesized that such analyses would likely show a high frequency of suicidal risk factors.⁶⁷⁶ Contrary to conventional wisdom more recent forensic analysis demonstrated that Muhammad ‘Ata and many of the other terrorists involved in the 9/11 attacks were anything but normal when they were more closely examined using two relatively similar forensic methodologies, psychological autopsy and indirect assessment. (1) The psychological autopsy method was applied to ‘Ata and a number of the 9/11 terrorists for whom life details were known.⁶⁷⁷ This method utilizes a range of both primary (e.g., ‘Ata’s last will and testament, and suicide note) and secondary sources (previously conducted interviews with family, friends, and media reports). (2) The “indirect” assessment of ‘Ata employed by Meloy⁶⁷⁸ allows for making deductive inferences about the motivations of terrorists considered “true believers” with suicidal and homicidal intent. This indirect process is grounded in physical evidence, the observations of others and “personal productions.”

Both Lankford and Meloy arrived at similar conclusions about the pathway to suicide terrorism for these 9/11 terrorists. They make the case that ‘Ata did indeed demonstrate mental health dysfunction and suicidal risk factors, including eight symptoms: depression, mistrust or paranoia, introversion, anger, humiliation from rejection, social alienation, guilt feelings of worthlessness, and shame similar to individuals committing suicide in other circumstances. Lankford also cites a 2003 CIA intelligence report indicating that some of the terrorists “were adrift or had significant family conflicts and participated primarily because of personal and family considerations rather than deeply ingrained religious beliefs.”⁶⁷⁹ Similar documentation was gathered to provide sufficient direct evidence of significant mental health problems for at least five of the terrorists, and indirect evidence of mental disorders in eight more cases.

Why Behavioral Histories of Murder-Suicide Terrorists are Contradictory

Some scholars have taken the view that suicide bombers sacrifice their lives for a cause and are not actually suicidal because they do not meet Diagnostic and Statistical Manual (DSM) (2013) criteria for a mental disorder or fail to display the typical hallmarks of a suicidal person.⁶⁸⁰ This type of analysis is based on false assumptions and inadequate information about suicide and the role of mental health risk factors contributing to suicide. There is reason to question the

⁶⁷⁶ Lester, Yang, and Lindsay, “Suicide Bombers.”

⁶⁷⁷ Lankford, “A Psychological Autopsy”; idem, “A Psychological Re-Examination.”

⁶⁷⁸ Meloy, “Indirect Personality.”

⁶⁷⁹ Lankford, “A Psychological Re-Examination.”

⁶⁸⁰ Gambetta, *Making Sense of Suicide Missions*; Post, Henderson, Shanfield, Victoroff, and Weine, “The Psychology of Suicide Terrorism”; Hafez, *Manufacturing Human Bombs*; Pape, *Dying to Win*; Townsend, “Suicide Terrorists.”

reliability and accuracy of such information, particularly in view of new research and theorizing about the motivations of suicide terrorists.⁶⁸¹

Discovering the truth about the mental health and suicide motivations of MS attackers is challenging at best and in many cases will never be known. Performing psychological assessment of these individuals is perplexing and not easily achieved by researchers and even clinicians or forensic evaluators. The attackers are dead, leaving only attackers whose bombs failed to detonate, those that were apprehended before the attack, or those who made a last-minute decision to renege on the attack,⁶⁸² as well as the terrorist dispatchers and leaders whose statements may according to their role in the organization. Until recently, the prevailing standard among terrorism scholars was that suicide terrorists were not really suicidal or that mental health symptoms played little to no role in defining MS terrorist motivation. In fact, as Joiner points out, suicidal individuals do not need to meet full DSM criteria for a mental disorder, such as Major Depression, to be suicidal, and may show only a few of the symptoms associated with the disorder prior to taking their own lives.⁶⁸³

It is imperative for researchers to understand that the seeming absence of overt mental disorder symptoms or diagnoses should not necessarily result in a conclusion the person is psychologically healthy. One potential hinderance is confusion over the definition of suicide, and what behaviors to include under the term.⁶⁸⁴ Lester, for example, demonstrated that experts and lay persons tend to apply a prototypical rather than a feature comparison approach to defining suicide.⁶⁸⁵ A prototypical approach does not rely on determining if a particular kind of action is a suicide or not, but rather how closely the context and actions resemble what is generally considered a prototypical suicide with clear boundaries. Applying this rationale overlooks features that are not considered prototypical or not recognized as being applicable as suicidal risk factors.

A number of considerations strongly suggest that it is unlikely or less likely for mental illness and suicide risk factors to be readily recognized and diagnosed in a MS population.

1. Many individuals with a mental disorder are under-diagnosed;
2. Individuals experiencing psychological distress commonly do not divulge such issues and eschew seeking professional help, especially in certain cultures;

⁶⁸¹ David Cantor, "The Samson Syndrome: Is There a Kamikaze Psychology?," *21st Century Society* 1:2 (2006), pp. 107-27; Lankford, *Myth of Martyrdom*, pp. 5-6; idem, "Detecting Mental Health Problems and Suicidal Motives among Terrorists and Mass Shooters," *Criminal Behaviour and Mental Health* 26 (2016), pp. 315-21; idem, "A Psychological Re-Examination"; Joiner, *The Perversion of Virtue*; Kruglanski, Chen, Dechesne, Fishman, and Orehek, "Fully Committed"; Merari, "Personality Characteristics of 'Self-Martyrs'; idem, *Driven to Death*; Sheehan, "Are Suicide Terrorists Suicidal?"

⁶⁸² Cantor, "The Samson Syndrome."

⁶⁸³ Joiner, *Myths about Suicide*.

⁶⁸⁴ David Lester, "A Proposal for a Nomenclature for Suicide," *Psychological Reports* 105 (2009), pp. 685-6; idem and Jessica Fleck, "What is Suicide? Will Suicidologists Ever Agree?" *Psychological Reports* 106 (2010), pp. 189-92.

⁶⁸⁵ Lester, "A Proposal for a Nomenclature"

3. Avoidance of mental health treatment is hampered by the perception of shame, stigma, discrimination, and fear of disclosure;
4. Lack of trust;
5. Lack of psychiatrists and trained medical personnel in many countries;
6. Stigma of mental illness, denial of mental illness or suicide risk factors;
7. Absence of in-depth psychological and forensic analysis; and
8. Confirmation bias.

A major flaw in prior research about the motivation of MS attackers is the *under-diagnosis* of mental health disorders and suicide potential. There is a near complete absence of clinical and forensic interviews and assessments of MS attackers, with the notable exception of Merari.⁶⁸⁶ When researchers talk to failed MS attackers, review martyrdom videos or the writings of the suicide attacker, or talk to their family and friends, the conclusion is often one of mistakenly accepting at face value these sources that emphasize the influence of organization, social networks, the culture of martyrdom, and religious, political, or ideological motivations, while also minimizing or not recognizing individual psychological contributions.⁶⁸⁷ John Monahan, citing an observation by the National Resource Council,⁶⁸⁸ cautioned that any risk assessment of a terrorist relying on self-reporting must ask the question, “Are they being honest?”⁶⁸⁹

Psychologically troubled individuals *may not divulge* their true mental state, and “symptoms may not necessarily be readily apparent to most or even to any of the people in the individual’s life.”⁶⁹⁰ Even with the best of mental health care, many suicidal individuals still may not divulge their true mental state. Younger males from financially struggling circumstances are the least likely to seek mental health care. Medical personnel cannot be faulted for failure to recognize and diagnose suicidal people that hide or deny symptoms. This unfortunate and common state of affairs is exemplified in a recent large-scale study of nearly 6000 completed suicides, which demonstrated that more than 55% received no diagnosis of mental health disorders in the year prior to death, and that only 24% had a mental health diagnosis in the 4 weeks prior to suicide, despite having a history of regular medical care.⁶⁹¹

⁶⁸⁶ Merari, “Personality Characteristics of “Self-Martyrs”; idem, *Driven to Death*.

⁶⁸⁷ Mohammed Hafez, *Suicide Bombers in Iraq: The Strategy and Ideology of Martyrdom* (Washington DC: United States Institute of Peace, 2007); Lankford, “Detecting mental health problems.”

⁶⁸⁸ National Resource Council Workshop Summary-Field Evaluation in the Intelligence and Counterintelligence Context, 2010, p. 7

⁶⁸⁹ Monahan, “The Individual Risk Assessment of Terrorism.”

⁶⁹⁰ Joiner, *Myths about Suicide*.

⁶⁹¹ Brian K. Ahmedani, Gregory E. Simon, Christine Steward, Arne Beck, Beth E. Waitzfelder, Rebecca Rossom, Frances Lynch, Ashli Owen-Smith, Enid M. Hunkeler, Ursula Whiteside, Belinda H. Operskalski, Justin M. Coffey, and Leif I. Solberg, “Health Care Contacts in the Year Before Suicide,” *Journal of General Internal Medicine* 29 (2014), pp. 870-7.

Avoidance of mental health treatment is common, especially for Muslims and other tribal peoples who are socialized within an honor-shame culture.⁶⁹² When asked to share discomforting feelings and experiences, psychiatric patients may experience “reactions such as fear, shame, discomfort, or worry”⁶⁹³ that preclude divulging their true beliefs. The stigma attached to mental health treatment, which is related to a fear of being judged and discriminated against, is a common problem, and it is even more pronounced for demoralized and traumatized women faced with reduced status in Middle East countries, leading to higher suicide rates for women in some countries.⁶⁹⁴

Further contributing to a failure of individuals to reveal mental health concerns and related suicide intentions is a fundamental *lack of trust*, which is highly relevant to a person’s willingness to reveal suicidal thinking and related life experiences to strangers (e.g., researchers and clinicians) who are conducting interviews.⁶⁹⁵ In fact, only 3% to 31% of suicide decedents receiving health care in the year prior to committing suicide revealed suicidal intent in their final psychiatric consultation prior to the suicide.⁶⁹⁶

Unfortunately, *few mental health resources* are available in the Middle East, which further compounds the problem of diagnosis and treatment. A plethora of social and psychological strains, losses, and traumatic events across Middle Eastern cultures plagued by war, violence, trauma, personal losses, displacement, and other restrictions or alterations of life and liberty, not to mention those afflicted by repressive religious and cultural values, have contributed to mental health maladjustment and disorders, including suicide. Doctors without Borders, for example, reported that there were “only four psychiatrists for every one million residents in Iraq”, and in Jordan

⁶⁹² See Nicolai Sennels, *Holy Wrath: Among Criminal Muslims* (Helsingborg, Sweden: Logik, 2018), pp. 15-20, 39-57, and passim.

⁶⁹³ Thomas E. Joiner, Kimberly A. Van Orden, Tracy K. Witte, and M. David Rudd, M. D. *The Interpersonal Theory of Suicide: Guidance for Working with Suicidal Clients* (Washington DC: American Psychological Association, 2009).

⁶⁹⁴ Lesley Pocock, “Mental Health Issues in the Middle East-An Overview,” *Middle East Journal of Psychiatry and Alzheimer’s* 8 (2017), pp. 10-15; Mohsen Rezaeian, “Suicide among young Middle Eastern Muslim females,” *Crisis* 31 (2010), pp. 36-42.

⁶⁹⁵ Linda Ganzini, Lauren Denneson, Nancy Press, Matthew J. Bair, Drew A. Helmer, Jennifer Poat, and Steven K. Dobscha, “Trust is the Basis for Effective Suicide Risk Screening and Assessment in Veterans,” *Journal of General Internal Medicine* 28:9 (2013), pp. 1215-1221; Joiner, *Why People Die by Suicide*.

⁶⁹⁶ Ahmedani et al, “Health Care Contacts”; Erkki Isometsa, Martti E. Heikkinen, Markus M. Henriksson, Hillevi M. Aro, and Jouko K. Lonnqvist, “The Last Appointment before Suicide: Is Suicide Intent Communicated?” *American Journal of Psychiatry* 152:6 (1995), pp. 919-22; Erkki Isometsa, Martti E. Heikkinen, Markus M. Henriksson, Hillevi M. Aro, and Jouko K. Lonnqvist, “Recent Life Events and Completed Suicide in Bipolar Affective Disorder: A Comparison with Major Depressive Suicides,” *Journal of Affective Disorders* 33 (1995), pp. 99-106.; Keith Matthews, Steven Milne, and George W. Ashcroft, “Role of the Doctor in the Prevention of Suicide: The Final Consultation,” *British Journal of General Practice* 44:385 (1994), pp. 345-8; Anna Pearson, Pooja Saini, Damian Da Cruz, Caroline Miles, David While, Nicola Swinson, Alyson Williams, Jenny Shaw, Louis Appleby, and Navneet Kapur, “Primary Care Contact Prior to Suicide in Individuals with Mental Illness,” *British Journal of General Practice* 59 (2009), pp. 825-32.

659,828 traumatized refugees had access to just 31 hospital-based psychiatrists providing medication and 24 psychologists.⁶⁹⁷

Considering the *stigma of mental illness* in any country and the lack of mental health services in many areas, the likelihood of assessment, diagnosis, and treatment for any type of psychological issue is remote at best. Additionally, arguments refuting the absence of mental illness and suicidality must be considered within the context of cultural beliefs that seeking treatment is associated with “social shame, damaged reputation and diminished social status.”⁶⁹⁸ Lester, a noted suicidologist, proposed that detailed clinical analyses of the life of a suicide bomber may uncover psychological risk factors not previously divulged.⁶⁹⁹ The denial or unwillingness of family members or friends to reveal their true personal perspectives also plays a role in limiting an understanding about the nature of a decedent’s life. These sources may not want to harm the “hero” halo of their loved one who died for the cause or reveal that they failed to understand how their loved one truly felt. Or, perhaps, they simply did not want to share information out of a misguided sense of shame or fear of reprisal that his death was not really a matter of Allah’s will.

The absence of *in-depth clinical and forensic analysis* to identify risk factors may doom psychological assessments from the start and may miss key evidence of mental health and suicide risk potential. A case in point described by Lankford⁷⁰⁰ references an initial U. S. Secret Service analysis of rampage school shooters, which initially found that only 17% had received a mental or behavior diagnosis prior to the attack.⁷⁰¹ However, after further broad and intensive expanded investigations across multiple sources, involving interviews with numerous perpetrators, and the involvement of criminal investigators and social science researchers, the investigators ultimately determined that “at least 62% of school shooters were depressed, and at least 78% were suicidal before the attack.”⁷⁰² Subsequent studies revealed that suicidal and mental health considerations were prevalent in over 90% of rampage school shooters.⁷⁰³ Such findings emphasize the psychological complexity of mass murder cases, as well as demonstrating that suicidal drivers and mental illnesses may not be so easily discovered in MS cases. Researchers should be cautioned to not necessarily accept a belief in the “normalcy” of MS perpetrators on the bases of initial analyses, but rather to delve deeper into the complex dynamics of individual motivation.

⁶⁹⁷ Pocock, “Mental Health Issues.”

⁶⁹⁸ Ibid.

⁶⁹⁹ Lester, Yang, and Lindsay, “Suicide Bombers.”

⁷⁰⁰ Lankford, “Detecting Mental Health Problems.”

⁷⁰¹ Bryan Vossekuil, Robert A. Fein, Marisa Reddy, Randy Borum, and William Modzeleski, *The Final Report and Findings of the Safe School Initiative: Implications for the Prevention of School Attacks in the United States* (Washington DC: United States Secret Service and United States Department of Education, June 2004).

⁷⁰² Ibid.

⁷⁰³ Katherine S. Newman and Cybelle Fox, “Repeat Tragedy: Rampage Shootings in American High School and College Settings, 2002-2008,” *American Behavioral Scientist* 52 (2009), pp. 1286-1308; Katherine S. Newman, Cybelle Fox, Wendy Roth, Jai Mehta, and David Harding, *Rampage: The Social Roots of School Shootings* (New York: Basic Books, 2004).

Most authors that talk about the normalcy of suicide bombers are not psychologists or psychiatrists and likely were not trained in forensic analysis and diagnostic interviewing skills or know the factors or questions to include in an interview - or even how to conduct an in-depth clinical interview to address the warning signs and risk factors described in the works of Lankford, Joiner, and Kruglanski cited above. Even for experienced clinicians, assessing genuine suicide risk can be extremely challenging under conditions that encourage concealment such that many suicidal individuals will not be recognized. The likelihood of untrained or inexperienced researchers with a limited command of clinical skills being successful in this endeavor is low. Similarly, the absence of prepared protocols and questionnaires addressing specific issues of vulnerability during interviews with failed suicide terrorists or collateral sources in the case of successful MS attacker could lead to inaccurate or missed information. Sheehan⁷⁰⁴ and Meloy⁷⁰⁵ proposed that much insight could be gained from a coordinated effort by countries that had captured would-be MS terrorists on the way to an attack to develop a database by using standardized diagnostic interviews and suicide/homicide rating scales and terrorist assessment protocols.

Researchers may have been misled by *confirmation bias*, which is tendency to seek or interpret information in a way that confirms one's preconceptions, leading to erroneous conclusions. Attempting to discern the motives of an MS attacker is fraught with opportunities for confirmation bias in the absence of more in-depth assessments and investigations. When conducting a risk assessment in a forensic context it is not uncommon for family and friends of the perpetrator to lie about the life of their loved one to protect the person or themselves, or to have been misled by the person who had a hidden agenda. Sometimes suicidal acts surprise families, seemingly occurring "out of the blue," when in fact the planning had been in the works for weeks or months, which can be explained by the suicidal person's intense need for privacy and secrecy.⁷⁰⁶ Such individuals can seemingly appear "normal", keep appointments, and not appear to display symptoms identified in the DSM manual of psychiatric disorders.

Risk Correlates vs. Causal Risk Factors

Another factor to consider is the distinction between a risk correlate and a causal risk factor. The former means that a particular behavior or symptom is associated with suicide, whereas the latter would directly lead to a suicide. There are no guidelines about how to estimate the magnitude of a risk factor to determine population risk. Some risk factors may prove to be statistically significant but not clinically meaningful because the base rate is too low, as in the case of suicide bombers. To illustrate this using the CDC's 2014 data,⁷⁰⁷ if the suicide risk is 0.013 for every 100

⁷⁰⁴ Sheehan, "Are Suicide Terrorists Suicidal?"

⁷⁰⁵ J. R. Meloy, Personal Communication, 27 August 2018.

⁷⁰⁶ Joiner, *Myths about Suicide*; Jessica Ravitz, "A Widow Struggles to Make Sense of Suicide Where There Were No Signs," CNN, 22 June 2018, available at <https://www.cnn.com/2018/06/08/health/suicide-no-signs-grief/index.html>.

⁷⁰⁷ Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, "We-based Injury Statistics Query and Reporting System (WISQARS)," 2014, available at <http://www.cdc.gov/ncipc/wisqars>.

people based on a particular trait or behavior in 2013, that is near zero in absolute terms. But if a particular risk factor is shown to increase the risk of suicide threefold, the rate of suicide might only increase 0.039 per 100 people, which is clinically significant by virtue of a 300% increase even though in absolute terms the effect is still near zero. This analysis of base rates becomes critical when considering the risk potential for a suicidal human vector bio-disseminator to engage in a biological attack. Known risk factors were shown to be weak or inaccurate,⁷⁰⁸ and while guidelines may be useful for clinical purposes, traditional risk factors may not capture the essence of suicide risk for particular groups such as suicidal human vectors, especially since the relationship may be quite complex. One risk factor taken in isolation, such as depression, may prove inaccurate, and even a small number of factors may also produce limited results. Similarly, the absence of specific risk factors may also prove inadequate for understanding suicidal thinking and behavior. A “one size fits all” conceptualization of risk factors - or lack thereof - must be rejected in favor of a more dynamic and complex view of risk and causation.

Emerging Views of Murder-Suicide Terrorists

A MS terrorist is fundamentally a person with a desire to die by suicide while orchestrating an intentional act of mass murder. There is a strong polarization among experts over the motivations and psychology driving these individuals. Some experts have rejected suicidal drives as influencing factors in MS attacks in favor of the conventional wisdom that normalizes them as stable and relatively average individuals⁷⁰⁹ prior to being recruited, who were then persistently inculcated with religious and ideological notions of martyrdom⁷¹⁰ while being subjected to group pressure.⁷¹¹ Bale has strongly cautioned against accepting the “political correctness” permeating Western thinking in downplaying or denying the link between Islamist ideology and jihadist terrorist attacks.⁷¹² New research and theories offer a more personalized view of the MS terrorist, emphasizing unique individual psychological traits that lie beyond social and situational determinants. The importance of considering a range of personal, social, group, and cultural factors is exemplified in an assessment of capital murder perpetrators like those committing murder-homicide was addressed by the 1976 U.S. Supreme Court ruling in *Jurek v. Texas*; the opinion emphasized the need for an individualized assessment that provides an in-depth look into the personal life of each defendant, uniquely shaped by their history and all aspects of their environment and life experiences. The Court required that extensive investigation be given to the details of each person’s life to more fully understand the distal and proximal forces contributing

⁷⁰⁸ Franklin, et al., “Risk Factors for Suicidal Thoughts and Behaviors.”

⁷⁰⁹ Atran, “Genesis of Suicide Terrorism”; Robert J. Brym and Bader Araj, “Are Suicide Bombers Suicidal?” *Studies in Conflict and Terrorism* 35:6 (2012), pp. 432-43; Robert J. Brym and Bader Araj, “Suicidality and Suicide Bombing Revisited: A Rejoinder to Merari.” *Studies in Conflict and Terrorism* 35:10 (2012), pp. 733-9; Nasra Hassan, “An Arsenal of Believers,” *The New Yorker* 77:36, 19 November 2001; Pape, *Dying to Win*; Townsend, “Suicide Terrorists.”

⁷¹⁰ Lankford, *Myth of Martyrdom*.

⁷¹¹ Gambetta, *Making Sense of Suicide Missions*; Hafez, *Manufacturing Human Bombs*; Monahan, “The Individual Risk Assessment of Terrorism: Recent Developments.”

⁷¹² Jeffrey M. Bale, “Denying the Link Between Islamist Ideology and Jihadist Terrorism: ‘Political Correctness’ and the Undermining of Counterterrorism,” *Perspectives on Terrorism* 7:5 (2013), pp. 5-46.

to an act of murder, which can be equally applied to the case of any MS attacker. This is a painstaking process of analysis by multiple experts assessing diverse dimensions that goes beyond superficial reports about the person or accepting at face value formulaic ideological and religious rhetoric about martyrdom espoused by the decedent, family members, and terrorist groups.

As in investigations of a person charged with a capital crime (and MS terrorism qualifies), specialists in such diverse areas as developmental history, culture, religion, trauma, substance abuse, family interactions, medicine, psychology, psychiatry, and even genetics can all contribute unique perspectives in an effort to avoid superficial analysis. As an example of the type of analysis required to adequately investigate MS attackers, Maria Rasmussen and her colleagues⁷¹³ investigated the suicide of ten young men similar in age to many suicide attackers, and who had no history of previous suicide attempts or mental health treatment. The methodology involved extensive semi-structured interviews with 61 sources and 4-8 key informants per decedent. Interviews averaged 2.5 hours and included questions across the lifespan, ranging from details about the death to developmental experiences, personal and family relationships, lifestyle, substance use, personality, reactions to stress, strengths and successes, and personal history. Of some importance was the use of interviewers experienced in suicidology and interviewing bereaved individuals. Typically, such a penetrating assessment is not performed in the case of the MS attacker, leaving scholars investigating these acts to rely on incomplete information.

Numerous studies have emerged with experts emphasizing an array of forces as the “true” explanation for MS. These have included single or multiple explanatory factors, including demographic, personal, psychological, cultural, charismatic leadership, religious, ideological, indoctrination, and multiple motivations. Some experts⁷¹⁴ believe that personal and psychological factors (e.g., trauma and bereavement) are the real driving forces and that religious and political statements are post-hoc justifications for their behavior. Lankford, in a series of papers, cites data showing that MS terrorists are driven by suicidal factors,⁷¹⁵ a view shared in part by Merari’s psychological assessments of failed MS attackers.⁷¹⁶ Others emphasize idealism and altruistic motives as playing the deciding role in attacks, as opposed to power, wealth, or fame.⁷¹⁷ Multiple motives are identified in the work of Hafez,⁷¹⁸ including the jihadist propaganda-driven portrayal

⁷¹³ Mette L. Rasmussen, Hanne Haavind, Gudrun Dieserud, and Kari Dyregrov, “Exploring Vulnerability to Suicide in the Developmental History of Young Men: A Psychological Autopsy Study,” *Death Studies* 38 (2014), pp. 549-56.

⁷¹⁴ Marc Sageman, *Understanding Terror Networks* (Philadelphia: University of Pennsylvania, 2004); Anne Speckhard and Khapta Ahkmedova, “Mechanisms of Generating Suicide Terrorism: Trauma and Bereavement as Psychological Vulnerabilities in Human Society: The Chechen Case,” in Jill Donnelly, Anna Kovacoa, Joy Osofsky, Howard J. Osofsky, Caroline Paskell, Josi Salem-Pickartz, eds., *Developing Strategies to Deal with Trauma in Children* (Amsterdam: IOS Press, 2005).

⁷¹⁵ Lankford, “Do Suicide Terrorists?”; idem, “Suicide Terrorism as a Socially Approved Form of Suicide”; idem, “A Psychological Autopsy.”; idem, *Myth of Martyrdom*; idem, “Precis of the Myth of Martyrdom”; and idem, “A Psychological Re-Examination.”

⁷¹⁶ Merari, *Driven to Death*.

⁷¹⁷ Pape, *Dying to Win*.

⁷¹⁸ Hafez, *Manufacturing Human Bombs*; idem, “A Case Study: The Mythology of Martyrdom in Iraq,” *eJournal USA*, (May 2007).

of suicide attackers acting out of broad morally justified personal convictions, religious and ideological motives, and nationalist passion that seeks to mythologize martyrs and martyrdom and is designed to incite support and justify the atrocities committed against innocent victims. A more nuanced analysis⁷¹⁹ suggests that motivation varies in each case, with some MS terrorists driven primarily by personal crises/psychological reasons, others primarily by religious or ideological motives, and still others by a complex mixture of these factors.

The dimensions of risk viewed from a criminology perspective (criminal history, irresponsible lifestyle, psychopathy, criminal attitudes, and substance abuse) do not characterize risk factors applicable to terrorism and particularly to MS terrorist acts, which led Monahan to propose five broad interrelated domains of risk: Ideology, affiliations, grievances, identities, and moral emotions.⁷²⁰ Based on these risk elements and review of the scientific literature, Meloy⁷²¹ developed a conceptual model of threat based on two broad sets of behavior patterns and risk indicators for terrorist attacks: distal predisposing risk factors and more proximate warning behaviors signaling an imminent attack. So far, this approach has been successfully applied to lone actor suicidal and non-suicidal terrorist attacks in North America and Europe.⁷²²

Specifically addressing suicide bombers, the work of Arie Kruglanski and his colleagues⁷²³ described a motivational analysis incorporating risk elements defined as personal causes (trauma, humiliation, social exclusion), ideological reasons (e.g., liberation, defense of nation, or religion), and social pressures. Kruglanski emphasizes that personal grievances (e.g., trauma, humiliation, social exclusion), ideological and religious justifications (e.g., defense of nation, religious duty, liberation from foreign occupiers), and social/group pressures alone or in combination are insufficient as “authentic” forces driving MS and require a unifying conceptual standard that accounts for the disparate explanations of MS attackers found in the literature. The MS attacker, in the view of Kruglanski and others, is seeking a quest for significance through “eradication of significance loss and/or the aspiration for significance gain.”⁷²⁴ Of particular note is the study by Webber and colleagues of 219 suicide attackers from various regions around the globe, showing that a significance quest can involve different pathways depending on certain demographics of the attackers.⁷²⁵ For example, attackers that are Arab-Palestinians, males, younger, and more educated are motivated primarily by significance gain, whereas women, older attackers, under-educated, and those from other regions are motivated more by eliminating significance loss.

⁷¹⁹ Ami Pedahzur and Susanne Martin, “Evolution of Suicide Attacks,” in *Handbook of the Criminology of Terrorism*, 339-52.

⁷²⁰ Monahan, “The Individual Risk Assessment of Terrorism: Recent Developments.”

⁷²¹ J. Reid Meloy, “The Operational Development.”

⁷²² J. Reid Meloy and Paul Gill, “The Lone-Actor Terrorist and the TRAP-18,” *Journal of Threat Assessment and Management* 3 (2016), pp. 37-52.

⁷²³ Kruglanski, Chen, Dechesne, Fishman, and Orehek, “Fully Committed.”

⁷²⁴ Ibid; Webber, Klein, Kruglanski, Brizi, and Merari, “Divergent Paths to Martyrdom.”

⁷²⁵ Ibid.

Vulnerability to Recruitment

Contrary to previous reports by some terrorist leaders and recruiters that the mentally challenged or those suspected of psychological problems are shunned as potential recruits,⁷²⁶ Stern reported that recruiters in fact seek troubled youth and provided a checklist of traits that were deemed important by recruiters.⁷²⁷ Over a number of years Anat Berko interviewed both the dispatchers of suicide bombers and failed suicide bombers, thereby clearly demonstrating the emotional, psychological, and personality vulnerabilities of recruits.⁷²⁸ Contrary to the beliefs of many scholars about the “normality” of MS bombers, Berko⁷²⁹ provided evidence that these recruits were anything but normal, citing dispatcher statements to group leaders identifying specific characteristics that were deemed important to mission success:

“find me guys who were desperate and sad”

“social nonentities and had no status but who might get recognition by dying, those with low self-esteem and who are usually not involved in social affairs...men and women who have trouble finding themselves, sometimes influenced by anger and bitterness at their marginality and who are willing to try anything to feel they have worth and to win the approval of society or their families.”⁷³⁰

Other evidence from security officials in Israel and Iraq supports the idea that the recruitment by terrorist groups of individuals challenged by cognitive or mental health factors, depression, despair and motivated by suicidal desire rather than strictly by religious ideology.⁷³¹ These findings support Lankford’s emphasis on the suicidal aspects of the MS terrorist.⁷³² Similar to other reports, Merari’s empirical study of failed suicide martyrs identified an ego deficient, passive-dependent personality style as a risk factor that made many of these individuals quite vulnerable to recruitment efforts, group influence, and ideological indoctrination.

Terrorist organizations have learned the need to infuse in their recruits a fearlessness of death, which Joiner⁷³³ believes is a necessary precursor to suicide. The habituation of death fear occurs through complex dynamics related to psychological reinforcement⁷³⁴ by means of the

⁷²⁶ Berko, *Path to Paradise*; Idem, *The Smarter Bomb: Women and Children as Suicide Bombers* (Lanham, MD: Rowman & Littlefield, 2012); Jessica Stern, *Terror in the Name of God: Why Religious Militants Kill* (New York: Harper Collins, 2003).

⁷²⁷ Ibid.

⁷²⁸ Berko, *Path to Paradise*.

⁷²⁹ Ibid.

⁷³⁰ Ibid.

⁷³¹ Michael Isikoff and Mark Hosenball, “Al-Qaeda Recruits Mentally Disabled,” *Newsweek*, 29 May 2008, available at <https://www.infowars.com/newsweek-al-qaeda-recruits-mentally-disabled/>; Dov Lieber, “IDF Report Highlights Palestinians Who “Seek Suicide” Through Attacks,” *Times of Israel*, 11 March 2017, available at <http://www.timesofisrael.com/idf-report-highlights-palestinians-who-sought-suicide-through-attacks/>; Mohammed Al-Qaisi, “Al-Qaeda Recruiting Mentally Challenged Individuals for Suicide Attacks,” *Al-Shurfa*, 15 August 2012. Available at: http://al-shorfa.com/en_GB/articles/meii/features/2012/08/20/feature-01

⁷³² Lankford, *Myth of Martyrdom*.

⁷³³ Joiner, *Perversion of Virtue*.

⁷³⁴ Ami Pedahzur, *Suicide Terrorism* (Cambridge MA: Polity Press, 2005).

celebration and commemoration of the multitude of suicide bombings over the past few decades, which “changed the culture into one that idolizes martyrdom and its hero.”⁷³⁵ Further contributing to this habituation of fear is control through preexisting social and friendship bonds with known terrorists⁷³⁶ in the group. These personal and group connections can be a strong inducement to override the fear of death needed to commit an act of MS. Alone, an individual may not be able to overcome the strong instinct to survive, but fear of betrayal and shame within the group can overcome such inhibition.

The related concept of memes⁷³⁷ has relevance to the recruitment process. A meme describes the interpersonal and cultural transmission of ideas and behavior that can be applied to suicide and to MS. This is a form of imitation known for centuries, which explains one method exploited by terrorist leaders. An example of such a meme would be the rise in imitation suicides shortly after the death of a celebrity. For example, Lester reports that following the death of Marilyn Monroe in 1962, there were 198 more suicides in the subsequent month than expected by chance alone.⁷³⁸ Memes spreading the culture for MS terrorists can be passed on through instantaneous modern communication technology. These glorify what terrorist organizations label as the altruistic deaths of “martyrs” for political or religious reasons, and in the process reinforce the status and prestige of the attacker. This, in turn, leads to the likelihood of the meme being passed along to other vulnerable candidates. Hearing about an MS attack with glorious accolades for the attacker that transcend mortality may, for some individuals, be sufficient to overcome internal restraints, thus leading to disinhibition about joining the ranks of future MS attackers.

Do Terrorist Organizations Screen out Mentally Unfit Volunteers?

Contrary to reports that terrorist organizations screen out volunteers and potential recruits with mental health issues and traumas, there exists convincing evidence showing just the opposite. Information from multiple sources highlights the significant pre-existing risk factors, and psychological vulnerability of recruits or volunteers for MS missions that makes them especially susceptible to enhanced indoctrination at the hands of a terrorist organization. These individuals have no specialized talent, skill, or expertise, only a willingness to die. Mohammed al-Qaisi⁷³⁹ reported, for example, that in Iraq security officials and even some arrested terrorist dispatchers described MS bombers as mentally challenged or psychologically maladjusted. One terrorist expert cited by al-Qaisi stated that “it is common knowledge that suicide operations are often conducted by individuals who have lost interest in life.”⁷⁴⁰ Similarly, Berko challenges the assumption that “suicide bombers freely and voluntarily choose to commit suicide.”⁷⁴¹ Additional

⁷³⁵ Michael Shermer, “Murdercide: Science Unravels the Myth of Suicide Bombers,” *Scientific American*, 1 January 2006, available at <https://www.scientificamerican.com/article/murdercide/>.

⁷³⁶ Sageman, *Understanding Terror Networks*.

⁷³⁷ David Lester, “Memes and Suicide,” *Psychological Reports* 105 (2009), pp. 3-10.

⁷³⁸ Ibid.

⁷³⁹ Al-Qaisi, “Al-Qaeda Recruiting.”

⁷⁴⁰ Ibid.

⁷⁴¹ Berko, *Path to Paradise*.

support for this view is highlighted in Berko's interview of a Palestinian journalist, who emphasized the stark discrepancy between public statements concerning martyrdom motives of female suicide attackers and the hidden truth about underlying life problems really driving such behavior.⁷⁴²

Females as Murder-Suicide Attackers

The profile of the MS attacker has seen a dramatic change with an increase in the number of women used for these missions since the 11 September 2001 World Trade Center attacks. The first recorded murder-suicide attack by a female occurred in 1985,⁷⁴³ and female-perpetrated attacks have continued. In a 2019 report, the Institute for National Security Studies at Tel Aviv University described 84 women who had participated in 38 suicide attacks in eight countries, which declined from 2017, when 137 women engaged in 61 attacks.⁷⁴⁴ Terrorist organizations have recognized that women have a tactical and practical advantage over males in accessing targets and evading security. Few gender differences exist when considering the motivation for becoming a suicide bomber.⁷⁴⁵ Religion is emphasized as a moral justification for committing inherently immoral acts of murder by suicide that will result in rewards in the afterlife. Nationalistic fervor and rhetoric emphasize hatred and victimization, jingoism, and indoctrination that martyrdom serves a higher purpose. Anne Speckhard writes that the "women are in many cases motivated by trauma and revenge and go to their targets unaccompanied, which may signify high motivational states."⁷⁴⁶ Reinforcing these justifications are promises that families will receive substantial financial rewards and increased social status, and that the martyr will be publicly memorialized as a hero in the community. These messages and community support for martyrdom legitimize and justify MS for exploitation by recruiters.

Until recently, little was known about the female MS attacker and the particular psychosocial risk factors that might make them vulnerable to recruitment or volunteering. Lindsey O'Rourke discusses the role of group ideology as a necessary link between the terrorist organization and each attacker's motives.⁷⁴⁷ In this way terrorist recruiters are better able to formulate a message to entice the potential attacker. Consistent with other scholarship, O'Rourke eschews a single profile of a female MS bomber in favor of multiple potential motivations and causal pathways that end up driving a woman to attack a target. She notes that erroneous thinking conflates the differences between men and women attackers. While men and women suicide attackers may both suffer traumas, scholars like Mia Bloom are prone to attribute female motivation to personal experiences in contrast to the religious and nationalistic devotion of the

⁷⁴² Berko, *The Smarter Bomb*.

⁷⁴³ Zedalis, "Female Suicide Bombers."

⁷⁴⁴ Schweitzer, Mendelboim, and Gozlan, "Suicide Attacks in 2018."

⁷⁴⁵ Anne A. Speckhard, "The Emergence of Female Suicide Terrorists," *Studies in Conflict and Terrorism* 31 (2008), pp. 995-1023; Zedalis, "Female Suicide Bombers."

⁷⁴⁶ Anne A. Speckhard, "Female Suicide Bombers in Iraq," *Democracy and Security* 5 (2009), pp. 19-50.

⁷⁴⁷ Lindsey A. O'Rourke, "What's Special About Female Suicide Terrorism?" *Security Studies* 18 (2009), pp. 681-718.

men.⁷⁴⁸ Consequently, terrorist organizations, in a chameleon like manner, promote diverse norms at different times in the recruitment process in order to achieve a strategic goal. Recruitment tactics specifically target the individual motives of both male and female attackers. For women, feminist appeals for equal participation, redemption for violating gender roles in the community, revenge, and religion all serve to individualize and entice a woman's commitment to attack even for those not having close community ties. O'Rourke highlights that a woman's deviation from narrowly prescribed cultural and gender rules subject her to intense psychological and social pressure to validate those norms, thereby providing an incentive for an attack. In a similar vein, recruiters look for women who have been grievously wronged and victimized by a target group in some way, such as having been raped or having experienced the killing of a family member by that target group.

Kathryn Paul also provides a more nuanced perspective concerning the reasons why females become "martyrs" and commit acts of MS.⁷⁴⁹ Applying a comprehensive critique of the open source literature, Paul addressed identity development through the lens of demographic and psychosocial risk factors for women that contribute to the appeal of becoming a MS bomber in several terrorist organizations.⁷⁵⁰ As with male suicide bombers, no single psychosocial profile or combined profile could be determined from this study that makes these women vulnerable to recruitment, which is consistent with other analysts.⁷⁵¹ However, Paul did find explicit evidence for multiple dimensions of psychosocial risk factors for female enlistment in al-Qa'ida of Iraq that were not previously addressed. No one specific risk factor or combination of factors contributed to making a woman vulnerable to recruitment, but rather numerous combinations of psychosocial risk factors must be considered. These risk factors in the study were associated with a shame-based culture, a low social status and defined gender role, a young age, investing personal trauma with social meaning, a lack of education, a desire for autonomy and revenge, familial connections to a terrorist organization, community influence, religious commitment, and access to terrorist organization propaganda. Paul, like other observers, highlights the fact that religious commitment is the most critical theme, since it contributes to a woman's vulnerability to extremist rhetoric and interpretations of Islamic teachings. While religious fervor is important, the available evidence suggests that a more complicated motivation process contributes to female engagement in suicidal acts. Consistent with Paul's characterization of female psychosocial risk factors, Lester⁷⁵² cited multiple journalist reports identifying more personalized motives driving female MS bombers, including posttraumatic stress disorder, shame and humiliation, feelings of burdensomeness to their families, hopelessness, despair, and a desire to elevate their image in the eyes of their family and their community.

⁷⁴⁸ Mia Bloom, "Mother, Daughter, Sister, Bomber," *Bulletin of the Atomic Scientists* 61:5 (2005), pp. 54-62.

⁷⁴⁹ Paul, "Making a Terrorist."

⁷⁵⁰ Ibid. Note that no mental health, psychopathological, pre-existing suicidality, or personality measures were included in the research protocol.

⁷⁵¹ Gambetta, *Making Sense of Suicide Missions*; Horgan, *Psychology of Terrorism*; O'Rourke, "What's Special"; Pape, *Dying to Win*.

⁷⁵² Lester, "Female Suicide Bombers."

Children and Adolescents as Murder-Suicide Attackers

Suicidal and murderous states of mind are not limited to adults. In some Islamic areas in the Middle East and Africa, children and adolescents are being recruited from impoverished areas and radical madrasas, while others are being kidnapped or orphaned. These children are easy to recruit and tend to be more gullible than adults because of their developmental status and limited life experiences, which inhibit informed choice. These youths are subjected to “brainwashing” with “martyrdom rhetoric” that provides religious and ideological justifications for killing with suicide bombs and are also being told blatant lies about their future. For example, a news article from London in *The Telegraph*⁷⁵³ described the experience of four children ages 9 through 12, who were captured trying to enter Afghanistan from Pakistan on a suicide bombing mission. The nine-year-old reported being told by the mullah that the amulets given the children contained Qur’anic verses, which would keep them safe from the explosion, and that upon their return they would be hailed as heroes and their parents would be guaranteed entry to heaven. This same news report also mentions 25 failed suicide bombers under age 18 who were being held in Afghan custody. Berko describes children ages 13, 14, and 17 who were exploited by their own relatives to act as suicide bombers.⁷⁵⁴ Still others are exploited through propaganda and “see Shaheed’s glorified as holy. Every child wants to be a Shaheed...it’s a spontaneous reaction to the way they live.”⁷⁵⁵ Consistent with these coercive tactics, the Combating Terrorism Center at West Point reported that Boko Haram sent children and adolescents to their deaths in 56% (81 out of 434 bombers) of their suicide bombing attacks from 11 April 2011 to 30 June 2017.⁷⁵⁶

Sharmeen Obaid-Chinoy’s documentary film about her visit to a training school for child and adolescent suicide bombers in Pakistan, along with her interviews with the students, provides a chilling reminder about the power of coercive persuasion by powerful leaders and their minions. The film highlights examples of these tactics, which include such strategies as isolation, various forms of deprivation, harsh and violent treatment, forced study of the Qur’an for hours, enforced compliance of rules, obedience to powerful leaders and teachers, dehumanization of bomb victims, and the glorifying of killing “evil” people and those who were supposedly committing atrocities against Islam.⁷⁵⁷ These methods emphasize Joiner’s view that suicide attackers must acquire a capability to commit a suicidal act of murder by means of inhibiting the fear and pain of such an action.⁷⁵⁸

⁷⁵³ Ben Farmer, “Taliban Recruiting Nine-Year-Old Suicide Bombers,” *The Telegraph*, 15 May 2011, available at <https://www.telegraph.co.uk/news/worldnews/asia/afghanistan/8515012/Taliban-recruiting-nine-year-old-suicide-bombers.html> .

⁷⁵⁴ Berko, *Path to Paradise*.

⁷⁵⁵ Ibid.

⁷⁵⁶ Jason Warner and Hilary Matfess, *Exploding Stereotypes: The Unexpected Operational and Demographic Characteristics of Boko Haram’s Suicide Bombers* (West Point, NY: Combating Terrorism Center, August 2017), available at <https://ctc.usma.edu/app/uploads/2017/08/Exploding-Stereotypes-1.pdf> .

⁷⁵⁷ Obaid-Chinoy, “Inside a School.”

⁷⁵⁸ Joiner, *Perversion of Virtue*.

The developmental stage, psychosocial immaturity, and life status of these children and adolescents, as well as their less than fully developed brain function,⁷⁵⁹ sets them apart as a unique subset of adult MS bombers. Youths at this developmental stage are exceedingly easy targets for astute and shrewd recruiters and trainers, who can manipulate them through propaganda and give them false promises about their future prospects in this life or the afterlife. Other young people that completed this ideological indoctrination reported that the recruiters and trainers understood their needs and provided opportunities that were otherwise lacking in their lives after they had been shunned by society. These children, by virtue of age-related immature brain development, do not possess the judgment, moral reasoning, or cognitive awareness to understand their environment and circumstances sufficiently to make rational choices about life and death decisions.⁷⁶⁰ These youths are directly or indirectly coerced through manipulation, intimidation, pressure, and violence, all the while being promised a range of earthly and heavenly rewards.⁷⁶¹ The extent of personal traumas, and other risk factors impinging on these youths, remains unknown.⁷⁶² Further study of this unique group of potential suicide terrorists is essential to understand their circumstances and outcomes in the larger universe of suicide terrorists.

Contribution of Situational, Social, and Group Dynamics to Murder-Suicide

There has been an increase in the number of worldwide suicide bomb attacks carried out by terrorist groups in recent years. When faced with seemingly inexplicable behavior such as the actions of these suicide bombers, how can we make sense of a person taking his or her own life while killing scores of others? Is this horrific behavior totally volitional and an unfettered choice? One way to explain this behavior is to take an individualist approach by identifying the presence or absence of inherent personality traits, mental disorders, and other psychopathological causes within the person. However, the principles underlying forensic and social psychology (e.g., I³ & SAT) emphasize that the mental calculus underlying violent behavior is a function of internal or dispositional influences (instigating triggers, impelling and inhibiting forces, moral justifications) interacting with situational influences (e.g., personal traumas and grievances), and organizational reinforcement (e.g., group pressures and propaganda indoctrination) that might propel a person to behave violently. Stephen D. Hart especially emphasizes the importance of group dynamics:

...the reality is that much – if not most – violence is perpetrated by people whose decisions and behavior are influenced by one or more social groups to which they belong, with which they are affiliated, or with which they identify, and it is often

⁷⁵⁹ John M. Fabian, “Mitigating Murder at Capital Sentencing: An Empirical and Practical Psycho-Legal Strategy,” *Journal of Forensic Psychology Practice* 9 (2009), pp. 1-34; Laurence Steinberg, “Should the Science of Adolescent Brain Development Inform Public Policy?” *American Psychologist* 64:8 (2009), pp. 739-50.

⁷⁶⁰ Elizabeth Cauffman and Laurence Steinberg, “(Im)maturity of Judgment in Adolescence: Why Adolescents may be Less Culpable than Adults,” *Behavioral Sciences and the Law* 18:6 (2000), pp. 741-60.

⁷⁶¹ Obaid-Chinoy, “Inside a school.”

⁷⁶² Kruglanski, Chen, Dechesne, Fishman, and Orehek, “Fully Committed”; Webber, Klein, Kruglanski, Brizi, and Merari, “Divergent Paths to Martyrdom.”

directed at people that do not belong to, are not affiliated with, or do not identify with the same groups.⁷⁶³

Social psychology research has demonstrated the risks of potential harm posed by individuals subject to the strong influence engendered by group dynamics. Along this line of thinking, Gambetta believes that “martyrdom” alone is an insufficient motivation to create a suicide attacker. As he puts it, “[w]ithout the social processes and networks that foster the method of martyrdom the religious motivation would remain behaviorally inert.”⁷⁶⁴ Research into social and group dynamics has clearly shown that individual behavior often differs markedly from that of persons interacting in groups.⁷⁶⁵ Several classic social conformity experiments conducted in the 1950s 1960s and 1970’s⁷⁶⁶ contributed to an understanding of context in shaping the behavior of suicide terrorists by demonstrating the power of conformity to impact norms, compliance, and obedience, thereby leading people to voluntarily suspend or ignore reality in order to conform to the thinking and behavior of the group.

Solomon Asch⁷⁶⁷ demonstrated, in a series of experiments, just how perfectly normal people can be pressured into unusual behavior by authority figures so that they conform to group norms because of a desire to “fit in”, avoid ridicule, or, in the face of uncertainty, turn to others of perceived higher status for guidance in how to respond. A striking example of obedience can be seen in Stanley Milgram’s controversial experiment, in which students were told to shock others believed to be patients.⁷⁶⁸ The results demonstrated the willingness of many individuals to obey commands from an authority figure, even when their behavior went against their beliefs of what was right and wrong and they believed that their obedience to authority had resulted in harming an innocent person.

Although criticized on a variety of grounds, the Stanford Prison Experiment⁷⁶⁹ also demonstrated that perfectly normal students randomly assigned to the role of inmates and guards in a “prison” could behave in problematic ways, thereby emphatically demonstrating the power exerted by conformity, authority, and obedience. So devastating were the results that the experiment was prematurely terminated after a week. One of the dominant conclusions of the experiment was that the “pervasive yet subtle power of a host of situational variables...can

⁷⁶³ Stephen D. Hart, “Assessment of Risk for Group-Based Violence,” in Derek Eaves, Christopher D. Webster, Quazi Haque, and Joanne Eaves-Thalken, eds., *Structured Professional Judgment of Violence Risks: A Practical Guide* (Hove, UK: Pavilion Publishing and Media, in press).

⁷⁶⁴ Gambetta, *Making Sense of Suicide Missions*, p. 322.

⁷⁶⁵ Hart, “Assessment of Risk.”

⁷⁶⁶ Solomon E Asch, “Opinions and Social Pressure. *Scientific American* 193 (1955), pp. 31-5; idem, “Studies of Independence and Conformity. A Minority of One Against a Unanimous Majority,” *Psychological Monographs* 70 (1956), pp. 1-70; Stanley Milgram, “Behavioral Study of Obedience,” *Journal of Abnormal and Social Psychology* 67 (1963), pp. 371-8; Philip Zimbardo, *The Lucifer Effect: Understanding How Good People Turn Evil* (New York: Random House, 2007).

⁷⁶⁷ Asch, “Opinions and Social Pressure”; idem, “Studies of Independence.”

⁷⁶⁸ Milgram, “Behavioral Study of Obedience.”

⁷⁶⁹ Zimbardo, *Lucifer Effect*.

dominate an individual's will to resist,"⁷⁷⁰ and that good people can be induced to carry out evil acts, particularly dehumanizing ones. The Asch, Milgram, and Zimbardo social experiment findings show that human behavior can be molded in unexpected ways by powerful situational forces.⁷⁷¹

Findings from social science experiments like the ones described are directly applicable to the circumstances of the MS bomber, according to Zimbardo himself.⁷⁷² The process of creating an MS mindset also requires the interaction between a person and their situation, making it imperative to consider the group to which the person belongs as a "situation" and an immensely powerful force influencing the individual's behavior. Social psychology research provides an explanation for individual differences in behavior within a group as due to "pressures, expectations, and obligations, both explicit and implicit."⁷⁷³

Group membership within a terrorist organization provides a haven for the potential MS attacker through rewards like social acceptance and emotional group affiliation, gaining a sense of identity and meaning in life, and self-esteem that may be lacking in the histories of its most vulnerable members. Additional benefits include pride in the group's mission and successes, and even support for daily living with food, shelter, and clothing. These benefits also come at a cost, since they require an adherence to group norms that mold and transform attitudes and behavior so as to reinforce conformity to the group's principles. Once in the grasp of a terrorist group, pressures mount for the person to conform to implicit group norms and even to obey more explicit demands for martyrdom⁷⁷⁴ from the group's leaders, particularly if other members are complying and obeying.⁷⁷⁵ As part of this programming that contributes to an MS mindset, potential attackers learn to dehumanize their victims to the point where normal human emotions become irrelevant, thus providing an impetus to overcome the fear of suicide and killing.⁷⁷⁶ Further reinforcing the MS terrorist mission is a preparation process for attacks that often involves filming the "martyr" with a Qur'an, a rifle, and a colorful headband, as the "martyr" reads a prepared statement-like contract, making it impossible to get out of the attack.

The role of group interactions and dynamics on individual behavior has been the focus of decades long research in social psychology that has a direct applicability to understanding the threat posed by individual MS attackers. There is a need in current research to incorporate a better appreciation of the person-situation interaction and of the dynamic nature of the behavior over time.⁷⁷⁷ Individual motives and needs can be transformed and shaped by power, conformity, and

⁷⁷⁰ Ibid, 261.

⁷⁷¹ Ibid.

⁷⁷² Ibid.

⁷⁷³ Pynchon and Borum, "Assessing Threats of Targeted."

⁷⁷⁴ Ibid.

⁷⁷⁵ Asch, Opinions and Social Pressure."

⁷⁷⁶ Joiner, *Perversion of Virtue*.

⁷⁷⁷ Pynchon and Borum, "Assessing Threats of Targeted"; Borum, "Psychological Vulnerabilities and Propensities"; Gary LaFree and Gary Ackerman, "The Empirical Study of Terrorism: Social and Legal Research," *Annual Review*

obedience within the group. Zimbardo argues that “the most dramatic instances of directed behavior change and ‘mind control’ are not the consequence of exotic forms of influence, such as hypnosis, psychotropic drugs, or ‘brainwashing,’ but rather the systematic manipulation of the most mundane aspects of human nature over time in confining settings.”⁷⁷⁸ Given the right circumstances of situational power and control, almost anyone can be manipulated into engaging in normally incomprehensible acts, such as suicidal acts of murder in the furtherance of a political and religious agenda. Immersing a person in circumstances that unleash powerful situational forces can change a person’s character and personality. Contrary to popular opinion, a person’s personality is not entirely consistent and can change over time and circumstances. As Zimbardo explains, “you are not the same person working alone as you are in a group.” Examples of this thinking can be seen in the tactics employed by cults, which provide evidence of certain long-standing methods that can be – and sometimes are - used for Islamist recruitment and for the indoctrination of murder-suicide attackers. The process is one of isolation and fear, engendered by charismatic, authoritarian leaders that use manipulation and ideology so that the person becomes emotionally and cognitively isolated and unable to act in their own survival interests.⁷⁷⁹

Hafez⁷⁸⁰ believes that the organizational dynamic is the glue holding together individual and societal motives that must all interact in order for suicide terrorism to occur. Without the influence and commitment of the organization, aggrieved individuals would not have the necessary resources or perhaps even the will to engage in an MS attack. Once a volunteer or recruited MS attacker enters the terrorist group, his or her individuality is subordinated to the group’s identity and collective cause. Powerful and charismatic group leaders will frame self-sacrifice as a legitimate and necessary action to attain group goals by emphasizing glory, heroism, heavenly honors, community accolades, and financial rewards, while at the same time highlighting the recruit’s desolate future outlook. In these circumstances, the individual becomes deeply imbedded and committed to the group as part of the “cult of martyrdom,” which makes leaving the group increasingly impossible.

Hart⁷⁸¹ identifies three powerful group-based violence determining mechanisms that drive individual decision-making and behavior. The first is the modification of an individual’s “beliefs, attitudes, values, and norms” through interacting with and incorporating a group’s unique collective identity that reinforces the group consensus and behavior. The second is the modeling or vicarious learning through watching or direct teaching by group leaders seen as influential or high-status individuals in order to reinforce the individual’s belief in the group’s purpose and goals. The third is the development of group identity, a sense of belonging that supersedes an

of Law and Social Science 5 (2009), pp. 347-74; Meloy, Hart, and Hoffmann, “Threat Assessment and Threat Management.”

⁷⁷⁸ Zimbardo, *Lucifer Effect*.

⁷⁷⁹ Alexandra Stein, *Terror, Love, and Brainwashing* (London: Routledge, 2016).

⁷⁸⁰ Hafez, *Manufacturing Human Bombs*.

⁷⁸¹ Hart, “Assessment of Risk for Group-Based.”

individual's sense of self, particularly when that self-identity is distorted by thwarted belonging⁷⁸² and significance loss or need for significance gain.⁷⁸³

Based on social psychology research on group dynamics, Pynchon and Borum ask three key questions⁷⁸⁴ related to the assessment of individuals influenced by groups: (1) how important is the group to the individual?; (2) how likely is the individual to deviate from the group?; and (3) how likely is the individual to move toward a violent or extreme solution? The answers to these questions have implications for assessing the threat from a potential suicide attacker, including a human vector bio-disseminator. When a person becomes committed to the group ideology indoctrination by propaganda, manipulation, and the organized rhetoric of the group, they are more inclined to accept the group norms, conform, and obey authority in order to avoid disapproval. Deviation from group norms depends on the lack of strength of an individual's commitment to the extremist ideas espoused by the group. These individuals may be less inclined to engage in an MS attack, reject the notion of being a suicide attacker, or lose their nerve to follow through during an attack.

Forensic Formulation: Vulnerabilities, Motivation, and Pathways

Taking one's own life is counterintuitive and goes against a person's inherent survival instinct; it is a complex process involving both internal and external risk factors that contribute to a suicidal act that ultimately takes the lives of innocent victims. Understanding this phenomenon requires a move away from dichotomized thinking about the underlying motive for an MS attacker or human vector suicide bio-disseminator (HVSb) attack (suicidal vs. non-suicidal, psychologically disturbed vs. "normal") to a more integrative risk formulation that is the cornerstone of violence risk and threat assessment. Emily Corner and Paul Gill⁷⁸⁵ make a fundamental point about threat analysis that is applicable to MS attackers as well as other mass murderers and lone-actor terrorists by noting that it "is usually the culmination of a complex mix of personal, political, and social drivers that crystalize at the same time to drive the individual down the path of violent action." Consistent with this analysis, it is critical to identify multiple risk factors across an array of intrapersonal and interpersonal life traumas and struggles that contribute to or exacerbate one's vulnerability to ideological influences from a persuasive group leader and the inherent pressures associated with a terrorist group affiliation. Under this scenario no one factor is determinative, but rather MS and HVSb in particular arise from the dynamic interaction of threat forces permitting intervention at multiple levels. Also critical to threat assessment is the need to reframe threat in terms of both suicide and murder warning signs and patterns of behavior, both with respect to distal and proximal characteristics.⁷⁸⁶ Distal characteristics are life events and traumas that develop over time, creating a suicidal state of mind but do not pose immediate risk,

⁷⁸² Joiner, *Perversion of Virtue*.

⁷⁸³ Kruglanski, Chen, Dechesne, Fishman, and Orehek, "Fully Committed."

⁷⁸⁴ Pynchon and Borum, "Assessing Threats of Targeted."

⁷⁸⁵ Corner and Gill, "Is There a Nexus Between Terrorist Involvement?"

⁷⁸⁶ Meloy and Gill, "The Lone-Actor Terrorist"; J. Reid Meloy, *TRAP-18 User's Manual 1.0* (Toronto, Ontario, Canada: Multi-Health Systems, Inc., 2017); Meloy, "The Operational Development."

whereas proximal characteristics and triggers are apparently closer in time and relate to more imminent risk and a direct need for counterterrorist intervention.

A forensic formulation related to MS attacks requires collecting and integrating diverse information based on one or more theories, as cited throughout this paper, in order to develop an understanding of the personal vulnerabilities and forces influencing a person's decision-making and motivation.⁷⁸⁷ Comprehending the motivation driving an MS attacker derives from a seemingly simple question raised by Kruglanski and his colleagues about "the readiness of seemingly unexceptional human beings *not only* to massively murder innocents, *but also* to sacrifice their lives in the process, contrary to the basic human instinct of physical survival."⁷⁸⁸ The answer lies in an understanding that most MS attackers are not "unexceptional human beings" but rather quite the opposite. Multiple scholars have proposed a plethora of singular and multiple motivations or risk factors representing, for example, personal pain, loss and trauma, altered social status, humiliation, injustice, lack of future prospects, religious and ideological dedication, restoration of glory, and suicidal intent. Once it is understood that MS attackers are often "exceptional" individuals, then addressing the question of risk from different vantage points allows for the development of threat assessment methods and new approaches to counterterrorism efforts that are equally applicable to an MS bomber or a human vector bioterrorist.

The Significance Quest Theory (SQT) formulated by Kruglanski and his colleagues from the START Center at the University of Maryland⁷⁸⁹ provides a unifying approach that ties together the disparate elements emphasized by various scholars, which include individual, organizational, and societal influences. This formulation provides a "common core"⁷⁹⁰ for understanding and coalescing under one roof the role of heretofore heterogeneous motivations, ranging from personal to religious, to ideological to social pressures, including duty and obligation honed through internalization or peer and group pressure.

Understanding the precise role and the circumstances instigating a murder-suicide attack is based on two core principles: suicidal intent driven by a range of risk-related vulnerabilities and pathological narcissism.

1. Individuals perpetrating MS attacks may engage in a fundamental quest for suicide to regain lost personal significance and meaning; in other words, to feel as if one's life matters and to gain value and meaning through one's actions, and to prevent significance loss or achieve significance gain.⁷⁹¹ Kruglanski calls upon the works of Victor Frankl⁷⁹² and

⁷⁸⁷ Stephen Hart, Peter Sturmey, Caroline Logan, and Mary McMurrin "Forensic Case Formulation," *International Journal of Forensic Mental Health* 10 (2011), pp. 118-126.

⁷⁸⁸ Kruglanski, Chen, Dechesne, Fishman, and Orehek, "Fully Committed."

⁷⁸⁹ Arie Kruglanski, Psychological Factors in Radicalization: A "3 N" Approach," in LaFree and Freilich, eds., *Handbook of the Criminology of Terrorism* 33-46.; Kruglanski, Chen, Dechesne, Fishman, and Orehek, "Fully Committed."; Webber, Klein, Kruglanski, Brizi, and Merari, "Divergent Paths to Martyrdom."

⁷⁹⁰ Webber, Klein, Kruglanski, Brizi, and Merari, "Divergent Paths to Martyrdom."

⁷⁹¹ Kruglanski, Chen, Dechesne, Fishman, and Orehek, "Fully Committed."

⁷⁹² Victor Frankl, *Man's Search for Ultimate Meaning* (New York: Basic Books, 2000).

Abraham Maslow⁷⁹³ to show that the quest for significance in life is a normal fundamental striving on the hierarchy of needs that drives human motivation, and the human costs when such significance cannot be achieved. The separation of roles played by the extremist MS attacker from other terrorist actors that do not sacrifice their lives

requires a conjunction of psychological forces of supreme magnitude (particularly intense significance quest, particularly powerful social pressures, and a particularly engulfing presence of a suicide prompting rhetoric) ... to catapult oneself to the pinnacle of cultural veneration by an act of supreme sacrifice for an ideologically touted cause.⁷⁹⁴

While in one way the path toward significance is an expected human endeavor, the MS terrorist also engages in a pathological perversion of virtues related to mercy, justice, duty, and heroic glory⁷⁹⁵ that is engendered by the religious and ideological and social group indoctrination of the terrorist organization. A significance quest of this magnitude and destructive power must also include an understanding of pathological narcissism that has been immensely shaped and influenced by these forces.⁷⁹⁶

2. Pathological narcissism is another individual driving force not previously discussed in the MS literature that must be considered as influencing the MS attacker. This term refers to compensatory mechanisms for personal suffering related to experiences of “disappointment, failure, rejection, and humiliation”⁷⁹⁷ from real world adverse events. This compensatory and pathological narcissism flowers into a sense of entitlement, omnipotence, grandiosity, and identification with aggression, fueled by group-based ideological and social indoctrination and culminating in violence.⁷⁹⁸ Through this mechanism the MS attacker believes he or she has the right to kill others for the group cause as part of carrying out the will of Allah. This state of mind for lone actor terrorists was described by Meloy and colleagues⁷⁹⁹ as a “warrior mentality,” which can be equally applied to the MS attacker as the “pathological fantasy and behavior of being a soldier/warrior, often with the goal of targeting unarmed civilians, in the absence of actual

⁷⁹³ Abraham H. Maslow, “A Theory of Human Motivation,” *Psychological Review* 50 (1943), pp. 370-96; idem, “A Theory of Meta-Motivation: The Biological Rooting of the Value-Life,” *Journal of Humanistic Psychology* 7 (1967), pp. 93-127.

⁷⁹⁴ Kruglanski, Chen, Dechesne, Fishman, and Orehek, “Fully Committed.”

⁷⁹⁵ Joiner, *Perversion of Virtue*.

⁷⁹⁶ J. Reid Meloy (forensic psychologist, and terrorism consultant) in discussion with the author, 9 May 2019.

⁷⁹⁷ J. Reid Meloy, Anthony Hempel, Kris Mohandie, Andrew Shiva, and Thomas Richards, “A Comparative Analysis of North American Adolescent and Adult Mass Murderers,” *Behavioral Sciences and the Law* 22 (2004), p. 297.

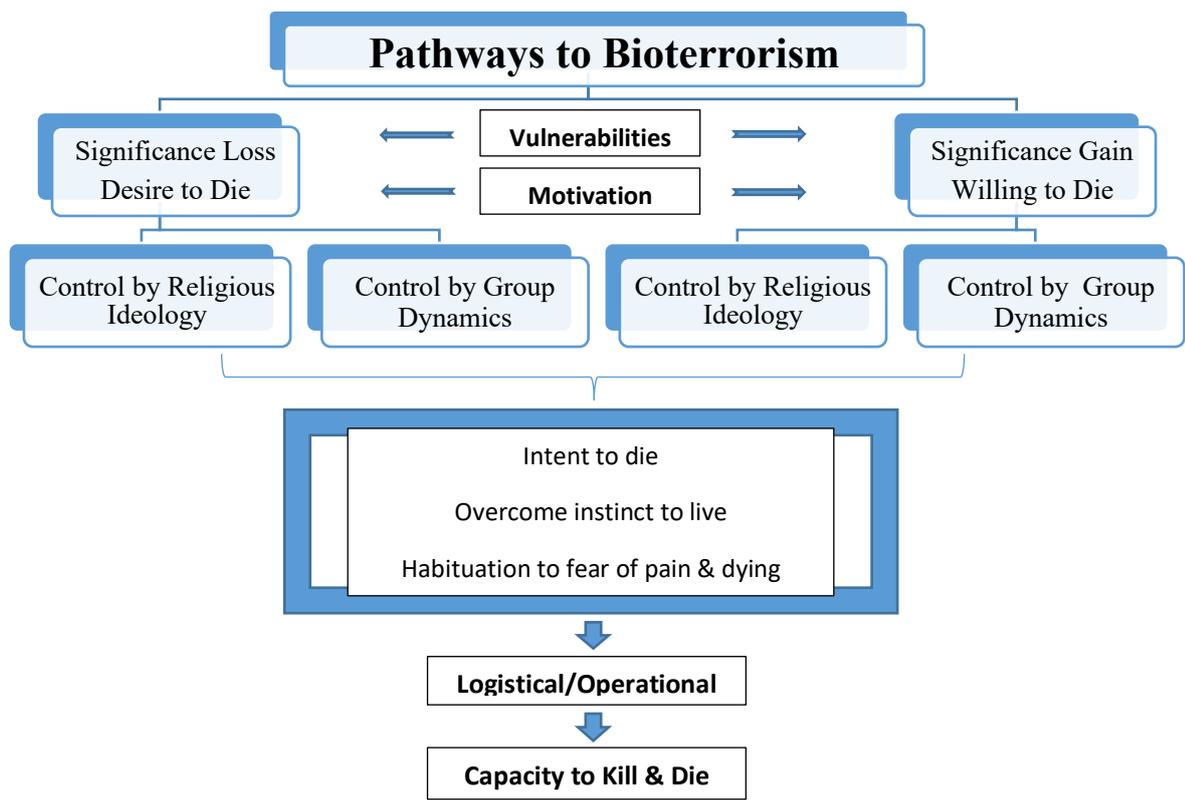
⁷⁹⁸ Meloy, Mohandie, Knoll, and Hoffmann, “The Concept of Identification.”

⁷⁹⁹ Anthony Hempel, J. Reid Meloy, and Thomas Richards, “Offender and Offense Characteristics of a Nonrandom Sample of Mass Murderers,” *Journal of the American Academy of Psychiatry and the Law* 27 (1999), pp. 213-25; Meloy, Mohandie, Knoll, and Hoffmann, “The Concept of Identification”; Meloy, Roshdi, Glaz-Ocik, and Hoffmann, “Investigating the Individual Terrorist in Europe.”

participation in state sanctioned warfare as a trained soldier/warrior against an identified enemy combatant.”⁸⁰⁰

Figure 2 demonstrates pathways integrating multiple concepts that can lead to an MS attack, including an HVSB, by first considering a range of vulnerabilities that lead to significance loss or gain and motivated by either a desire to die or a willingness to die. Both pathways are not mutually exclusive and create opportunities that increase receptivity for a predisposed person to be influenced by strong, religiously infused ideological beliefs and an alternate world view espoused by Islamist leaders and group organizers. These weaknesses can be exploited to shape attitudes, beliefs, and behavior that legitimizes organizational objectives and neutralizes moral judgments and guilt about murdering innocent people. Most importantly, these forces are necessary for the suicide attacker to overcome fundamental and instinctual moral and religious prohibitions against murder and suicide. The terrorist group not only provides control and reinforcement of the individual, but also the capacity to carry out the attack through logistical and operational support.

Figure 2. Adapted from theories based on Joiner, Kruglanski, Lankford, & Merari



⁸⁰⁰ Meloy, Mohandie, Knoll, and Hoffmann, “The Concept of Identification.”

Comparisons between Lone Actor and Group Sponsored Mass Murderers

While limited qualitative and quantitative research has provided a modicum of understanding about the motivations and vulnerabilities leading to group-sponsored suicide mass murder, a growing body of lone actor mass murder research may provide additional insights about group-sponsored suicidal attackers. Do mass murderers who harbor fundamentalist fantasies of an idealized afterlife differ in appreciable ways from domestic lone actor right-wing extremists with no such religious beliefs? Two studies derived from North American and European lone-actor attackers addressed this question,⁸⁰¹ finding few differences. This suggests that religious ideology alone may be only one of many warning components to terrorist attacks and that other determinants may be more meaningful indicators.⁸⁰² These investigations revealed only a few differences, encompassing a wide range of variables addressing vulnerability indicators and both distal and proximal warning behaviors. Islamic extremists showed significantly more personal grievance and moral outrage, thwarted occupational goals, and fixated thinking than the extreme right-wing group, which are findings also described in literature about group-sponsored murder-suicide attackers.⁸⁰³

Particularly relevant to the current research are the similarities rather than the differences between lone actor Islamic and domestic right-wing extremists. Several of these similarities are noteworthy in the MS bomber literature and have direct relevance to a HVSB attacker. One such crucial similarity to all forms of terrorism, including HVSB, is a vulnerability to cognitive and moral change that is needed to propel and sustain attack behavior. Motivation and capability indicators are also important markers across groups. These indicators refer not only to the attacker having the means and resources to successfully engage in an attack but also to do so over a period of time when alone, which is directly relevant to an HVSB scenario. Another important similarity is “leakage”, which is a proximal warning behavior expressed through direct and indirect communication to others of the attacker’s suicidal intent, ideological commitment, motivation, and/or attack details. Importantly, the Meloy and Gill study⁸⁰⁴ demonstrated that although the Islamic extremist group displayed a significantly higher prevalence rate for dependence on a virtual community, fully 100% of both groups expressed ideological commitment, and very high levels of “leakage” among the vast majority of Islamic extremists (79%) and domestic right-wing extremists (88%).⁸⁰⁵ A similar finding was noted across all 13 leakage and warning variables in the Noémie Bouhana et al. study.⁸⁰⁶ Both groups were indistinguishable when considering psychopathology, with nearly 40-50% showing psychological distress or mental disorders. In

⁸⁰¹ Noe Bouhana, Emily Corner, Paul Gill, and Bart Schuurman, “Background and Preparatory Behaviours of Right-Wing Extremist Lone Actors: A Comparative Study,” *Perspectives on Terrorism* 12 (2018), pp. 150-62; Meloy and Gill, “The Lone-Actor Terrorist,” *Journal of Threat Assessment and Management* 3 (2016), pp. 37-52.

⁸⁰² Then again, as Jeffrey Bale notes in his chapter of this report, other types of ideological extremism share most of the same common characteristics with Islamist extremism, although he also notes that there are some qualitative differences between religious and secular ideologies.

⁸⁰³ Kruglanski, Chen, Dechesne, Fishman, and Orehek, “Fully Committed.” However, Jeffrey Bale, who is familiar with many cases of domestic right-wing extremism, finds these claims doubtful.

⁸⁰⁴ Meloy and Gill, “The Lone-Actor Terrorist.”

⁸⁰⁵ Here it should be emphasized again, however, that Islamists are also right-wing extremists.

⁸⁰⁶ Bouhana, Corner, Gill, and Schuurman, “Background and Preparatory Behaviours.”

other words, domestic right-wing attackers were no different from fundamentalist religiously-infused attackers with regard to need for social belonging, organizational ties, and social media communication, a finding also reported by Bart Schuurman et al.⁸⁰⁷ Other investigations have reported similar findings for lone actor terrorists, especially regarding “leakage.”⁸⁰⁸ The concept of “leakage,” in particular, is apparent across all targeted violent offender groups studied (adult and juvenile mass murderers, school shooters, public figure attackers, and lone actor terrorists), and thus offers unique opportunities for intervention for group-sponsored suicide bombings and human vector bioterrorism.

Most of the writing about suicidal intent is contained in political science and international politics journals (63%), with significantly less contribution from psychologists (16%) and psychiatrists (5%).⁸⁰⁹ A closer inspection of the underlying data used by scholars emphasizing the normality of suicide bombers demonstrates it is either anecdotal, self-reported, lacking in experimental rigor, or based on faulty assumptions about suicide and risk factors. A number of noted scholars investigating terrorism have refuted or doubted any notion that suicide attackers are influenced by suicide risk factors, but rather engage in self-sacrifice for a political or religiously-motivated ideology.⁸¹⁰ These claims are not mutually exclusive, but the emerging theory and evidence points to the critical interaction of pre-existing risk factors with ideological and religious indoctrination.

Many observers have dismissed the claims that suicide attackers could in fact be suicidal or motivated by significant life events, while repeatedly citing the standard wisdom that these individuals are “normal” despite their desire to die in a suicidal driven act of murder. This matter has been the subject of debate, sometimes acrimonious, in recent literature.⁸¹¹ Analyses and descriptive studies⁸¹² and empirical data⁸¹³ support a broader perspective encompassing seemingly divergent views about the motivational aspects of MS terrorists. Ivan Sheehan,⁸¹⁴ a noted psychiatrist terrorism/security expert, explored the role of suicidality in suicide terrorism from the

⁸⁰⁷ Bart Schuurman, Edwin Bakker, Paul Gill, and Noe Bouhana, “Lone Actor Terrorist Attack Planning and Preparation: A Data-Driven Analysis,” *Journal of Forensic Science* 63 (2018), pp. 1191-1200.

⁸⁰⁸ Meloy and Genzman, “The Clinical Threat Assessment”; Meloy, Mohandie, Knoll, and Hoffmann, “The Concept of Identification”; Meloy, Roshdi, Glaz-Ocik, and Hoffmann, “Investigating the Individual Terrorist in Europe”; James Silver, John Horgan, and Paul Gill, “Foreshadowing Targeted Violence: Assessing Leakage of Intent by Public Mass Murderers,” *Aggression and Violent Behavior* 38 (2018), pp. 94-100.

⁸⁰⁹ Sheehan, “Are Suicide Terrorists Suicidal?”

⁸¹⁰ Hafez, *Manufacturing Human Bombs*; Pape, *Dying to Win*; Townsend, “Suicide Terrorists.”

⁸¹¹ Brym and Araj, “Are Suicide Bombers suicidal?”; Brym and Araj, “Suicidality and Suicide Bombing Revisited: A Rejoinder to Merari,” *Studies in Conflict and Terrorism* 35:10 (2012), pp. 733-9; Ariel Merari, “Studying Suicide Bombers: A Response to Brym and Araj’s Critique,” *Studies in Conflict and Terrorism* 35 (2012), pp. 733-9.

⁸¹² Kruglanski, Chen, Dechesne, Fishman, and Orehek, “Fully Committed”; Lankford, “Suicide Terrorism as a Socially Approved Form of Suicide,” pp. 287-289; idem, *Myth of Martyrdom*; idem, “A Psychological Re-Examination”; Lester, Yang, and Lindsay, “Suicide Bombers”; Lester, “Possible Role of Posttraumatic Stress Disorder”; Sheehan, “Are Suicide Terrorists Suicidal?”

⁸¹³ Dugas, et al., “The Quest for Significance Motivates”; Kruglanski and Orehek, “The Role of Quest”; Merari, “Personality Characteristics of “Self-Martyrs”; Merari, *Driven to Death*; Webber, Klein, Kruglanski, Brizi, and Merari, “Divergent Paths to Martyrdom.”

⁸¹⁴ Sheehan, “Are Suicide Terrorists Suicidal?”

nationalist/political/strategic, social/cultural, and personal perspectives, and provided cogent retorts to proponents of the arguments against suicidality. This is not to say that political/religious and social or group/cultural factors are irrelevant or not equally as important as the personal factors, but rather that suicidal behavior in the context of a suicide attack must be considered as important for the interrelationship of seemingly heterogeneous factors driving the suicidal act. In essence, individual psychology always mediates such behavior, despite larger social and political issues.

Threat Assessment: The Role of Structured Professional Judgment

The studies and analyses in the preceding sections highlight the need for a new conceptual understanding of terrorist-perpetrated MS attacks, including HVSB, and assessing the threat from these attackers. We should no longer be looking for “profiles” and understanding terrorist MS through the lens of individual elements, for example, emphasizing exclusively the normality of MS terrorists, or clinical diagnosis, or religion or ideology, or social group pressures, or societal influences, as the sole driving forces. Taken as a whole, the studies cited in the preceding sections emphasize the complex nature of MS terrorism, which necessarily must encompass multiple risk factors, including motivations, disinhibitors, and destabilizing forces leading to one or more pathways to an act of MS. Such a view of threat assessment allows for a future-oriented management of risk factors, and not just a quantitative predictive assessment of what will occur in the future.⁸¹⁵ One new research methodology merges both quantitative and qualitative aspects to try and understand the key concept of vulnerability in lone actor terrorist behavior, apart from “aggregate and static conclusions.”⁸¹⁶ The findings are quite intriguing in demonstrating that static inferential analyses do not adequately address the vulnerability factors associated with terrorism. The authors provide a visual mapping of behavioral sequencing for key markers to cognitive capability and morality, interacting with radical networks and related propaganda, to influence susceptibility to moral change, self-selection, social selection, attack preparation, and the attack phase. Of particular interest to forensic risk analysis, the findings demonstrate that the road to an MS terrorist attack is a dynamic process in which a range of indicators, including undiagnosed symptoms of mental disorders, play accelerating or inhibiting roles during each phase leading up to an attack (radicalization, attack planning, and attack). Although developed for lone actor terrorist attacks, this new research methodology, once more fully developed, also has particular applicability for further understanding MS attackers while offering a more creative way to consider MS attacks, potentially leading to a better allocation of resources.

Targeted violence such as a biological attack is a low probability but high intensity event. Such events cannot be predicted, but also cannot be ignored. Remember the Black Swan concept

⁸¹⁵ Stephen D. Hart and Caroline Logan, “Formulation of Violence Risk Using Evidence-Based Assessments: The Structured Professional Judgment Approach,” in Peter Sturmey and Mary McMurrin, eds., *Forensic Case Formulation* (Chichester, UK: Wiley Blackwell, 2011).

⁸¹⁶ Emily Corner, Noe Bouhana, and Paul Gill, “The Multifinality of Vulnerability Indicators in Lone-Actor Terrorism,” *Psychology, Crime & Law* 25 (2019), pp. 111-32.

- expect the unexpected! Threat assessment in this scenario requires the identification of risk factors that permit the management of an MS threat such as one posed by an HVSB. It is important to keep in mind that “[p]revention does not require prediction.”⁸¹⁷ Rather, reducing threat depends upon identifying and *managing* risk factors.

The most efficacious form of threat assessment utilizes a Structured Professional Judgment model (SPJ)⁸¹⁸ that can be applied to the problem of the MS attacker using any form of weapon, including biological agents. SPJ is a decision-making approach informed by a set of core and evidence-based risk factors that allow for risk reduction and threat management. A number of SPJ instruments organizing static (unchanging) and dynamic (changeable) risk factors related to terrorism⁸¹⁹ are currently in various stages of validation. One particular SPJ instrument that is designed specifically to assess “targeted or intended terrorist violence in the community” is the Terrorist Radicalization Assessment Protocol (TRAP-18).⁸²⁰ This is a rationally derived theoretical model designed to aid in the threat assessment of individuals posing a national security risk for incurring lethal violence across nations.

Terrorist Radicalization Assessment Protocol (TRAP-18)

The TRAP-18⁸²¹ is beginning to garner considerable attention, and a large body evidence related to empirical reliability and validation has developed.⁸²² This tool consists of 8 proximal warning behaviors, and 10 chronic or distal characteristics to consider in understanding terrorist attack behavior.²⁹⁰

Table 1. TRAP-18 Proximal and Distal Characteristics
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⁸¹⁷ J. Reid Meloy, “Threat Assessment: Scholars, Operators, our Past, our Future,” *Journal of Threat Assessment and Management* 2 (2015), pp. 231-42.

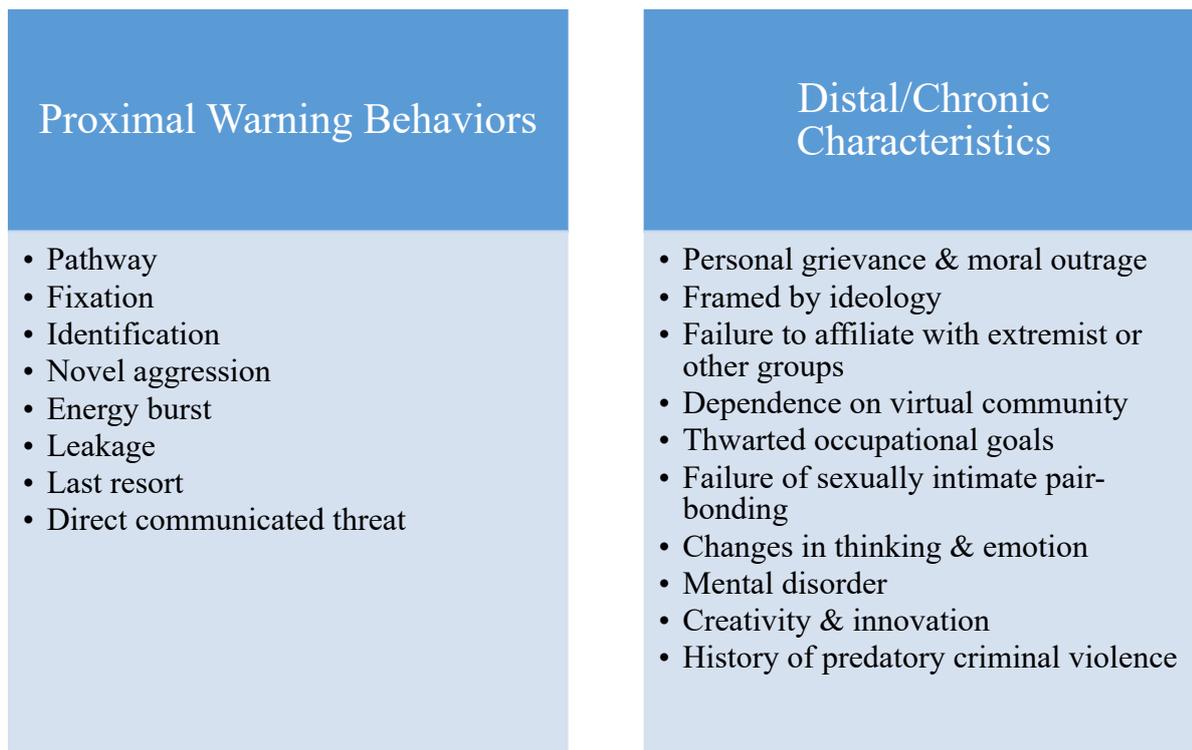
⁸¹⁸ Borum, “Assessing Risk for Terrorism Involvement”; idem, “Operationally Relevant Research.”

⁸¹⁹ Monica Lloyd, *Extremism Risk Assessment: A Directory* (London: Center for Research and Evidence on Security Threats (CREST), [March] 2019), available at <https://crestresearch.ac.uk/resources/extremism-risk-assessment-directory/>

⁸²⁰ Meloy, *TRAP-18 User’s Manual 1.0*.

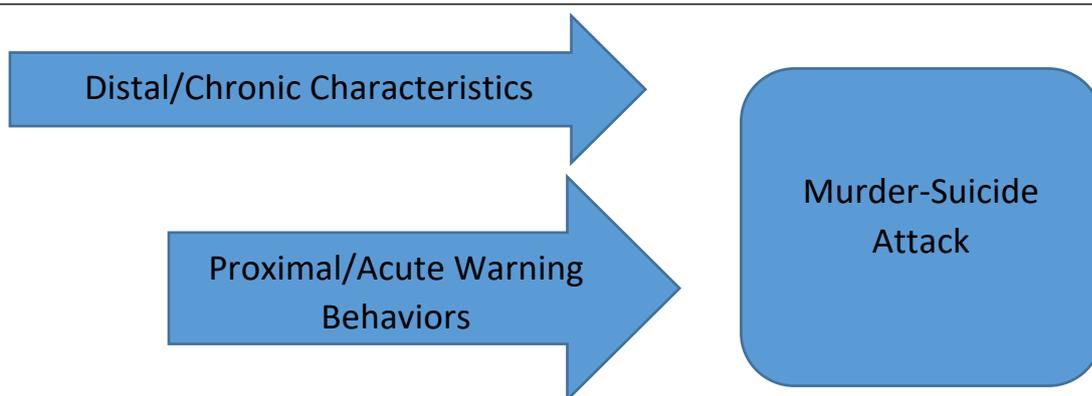
⁸²¹ Ibid.

⁸²² Challacombe and Lucas, “Postdicting Violence”; Alastair Goodwill and J. Reid Meloy, “Visualizing the Relationship Among Indicators for Lone Actor Terrorist Attacks: Multidimensional Scaling and the TRAP-18,” *Behavior Sciences and the Law*, in press; Lloyd, *Extremism Risk Assessment*; Meloy and Genzman, “The Clinical Threat Assessment”; Meloy, Roshdi, Glaz-Ocik, and Hoffmann, “Investigating the Individual Terrorist in Europe”; and Meloy, Goodwill, Meloy, Amat, Martinez, and Morgan, “Some TRAP-18 Indicators.”



One key feature of this instrument highlights the time element leading to an attack, which permits the coding of ongoing distal/chronic characteristics that precede the proximal/acute warning behaviors or triggers nearer in time to a terrorist attack, as depicted in Figure 3.⁸²³ This allows investigators to prioritize the degree of case monitoring and intervention required.

Figure 3. Depiction of the temporal relationship between distal and proximal characteristics and warning behaviors prior to MS attack



⁸²³ Figure 3 is adapted with permission from Meloy, “The Operational Development.”

Although the TRAP-18 has not been applied to group-based MS terrorists such as bombers or potential HVSB's,⁸²⁴ the concept of risk-based predisposing distal/chronic vulnerabilities and more proximal/acute warning behaviors has relevance and applicability to the current investigation. For example, Meloy et al. demonstrated that distal/chronic elements comprising personal grievance and moral outrage, framed by an ideology with changes in thinking and emotions, were present 100% of the time in a sample of European individual terrorists and autonomous cell terrorists; the thwarting of occupational goals was present in both groups with slightly less percent of occurrence; and 6 out of the 8 proximal/acute warning behaviors were present in virtually all the cases; and each attacker had at least one proximal/acute warning behavior.⁸²⁵ Similar findings were reported in a sample of terrorists involved in lethal terrorist attacks in North America, and a group of nonviolent individuals identified as a national security concern, with demonstrable discriminant validity between the attackers and non-attackers, especially for proximal warning behaviors.⁸²⁶

A first step in understanding the threat of a human vector bioterrorist attack is to better understand the individual attacker, not only through the individual's vulnerabilities (distal/chronic characteristics), but also the proximal/acute warning or triggering indicators that an attack is forthcoming in the near future. Awareness of these distal/chronic and proximal/acute behaviors have implications for security and law enforcement allocation of resources to help them focus more on individuals of immediate concern. Use of the TRAP-18 model, as applied to captured and unsuccessful MS bombers, would greatly enhance threat assessment and management for not only bombers but also potential bio-disseminators.

When applied to an MS attacker, distal/chronic elements would include an array of vulnerabilities consistent with research cited above (e.g., perceived burdensomeness, thwarted belongingness, personal crises, trauma, suicidal risk factors, moral outrage, grievances, changes in thinking and emotion), as well as proximal/acute risk factors (e.g., recruitment, terrorist group socialization and pressure, religious/ideological restructuring, and mastering capability for murder and suicide)⁸²⁷ that could ultimately lead to an act of MS, including one using a biological weapon.

Use of Human Vector Suicide Bio-Disseminators: Cost-Benefit Analysis

Empirical evidence demonstrates that suicide attacks generally are more lethal than non-suicide attacks, particularly those with organizational support or that are religiously inspired, although this is not always the case when comparing lethality ratios related to attack type, target,

⁸²⁴ The TRAP-18 research data is currently available only for North American and European samples, and the instrument focuses solely on lone actors and autonomous cells, not individuals embedded in a group and being directed by them.

⁸²⁵ Meloy, Roshdi, Glaz-Ocik, and Hoffmann, "Investigating the Individual Terrorist in Europe."

⁸²⁶ Meloy, Goodwill, Meloy, Amat, Martinez, and Morgan, "Some TRAP-18 Indicators."

⁸²⁷ Lester, Yang, Lindsay, "Suicide Bombers"; Lester, "Possible Role of Posttraumatic Stress Disorder"; idem, "Suicidal Protests: Self-Immolation, Hunger Strikes, or Suicide Bombing," *Behavioral and Brain Sciences* 37 (2014), p. 372; Joiner, *Perversion of Virtue*; Meloy, Goodwill, Meloy, Amat, Martinez, and Morgan, "Some TRAP-18 Indicators."

and victim type.⁸²⁸ When considering the use of an HVSB, the calculation is even more complex since it involves not only technical and human factors, but also strategic ones.⁸²⁹ The determination for human vector bio-attacks, like all types of terrorist attacks, may not be focused so much on actual casualties as on the degree of fear, vulnerability, and panic that can be instilled in a large population. This mode of attack would emphasize the “propaganda of the deed”⁸³⁰ that is, the political success of the terrorist organization given that news outlets and TV cameras throughout the world would further document the vulnerability of a nation or its military forces. There are numerous factors that could contribute to the cost-benefit analysis that must be undertaken by a terrorist organization in determining the feasibility of using a HVSB to disperse a deadly pathogen among a targeted populace rather than other methods. As can be gleaned from the following partial list of challenges for a biological attack, the calculation of feasibility includes human, biotechnical, logistical, and outcome considerations.

1. Recruiting potential human vector suicide bio-disseminator(s);
2. Indoctrinating and training human vector suicide bio-disseminator(s);
3. Identifying, locating, and accessing a pathogen and related production materials;
4. Overcoming biotechnology hurdles of developing, weaponizing and storing a pathogen for HVSB use or other purposes;
5. Potential for unintentional consequences, such as the indiscriminate infection of terrorist group members or other populations;
6. Need and ability to develop safety protocols for handling a pathogen;
7. Organizational costs in acquisition, production, weaponizing, and storage of a pathogen;
8. Determining the scope of the attack;
9. Logistics of planning and preparation: target selection, need for multiple targets for effectiveness, number of suicidal human vectors, mode of transportation to targets, maintaining focus of human vector to complete the mission, etc.;
10. Expected deaths and injuries vs the required financial and manpower costs; and
11. Gauging community support for a biological attack.

Procuring and deploying biological weapons as a terrorist tactic is far simpler than obtaining and employing nuclear weapons. Multiple global, biotechnical, and terrorist decision-making considerations will likely influence the organizational deployment of a biological weapon.⁸³¹ Although other methods of deployment are possible, the HVSB as a terrorist tactic is the exclusive focus of this paper.

⁸²⁸ Joseph Mroszczyk, “To Die or Kill? An Analysis of Suicide Lethality,” *Terrorism and Political Violence* 31 (2019), pp. 346-66.

⁸²⁹ Christina Hellmich and Amanda J. Redig, “The Question is When: The Ideology of Al Qaeda and the Reality of Bioterrorism,” *Studies in Conflict and Terrorism* 30 (2007), pp. 375-96.

⁸³⁰ Meloy, “The Timeliness of Propaganda.”

⁸³¹ Daniel M. Gerstein, *Bioterror in the 21st Century* (Annapolis, MD: Naval Institute Press, 2009).

MS Bomber vs. Human Vector Bio-Disseminator: Do Differences Exist?

No data are available to distinguish human vector suicide bio-disseminators (HVSB) from other suicide attackers, since an attack of the former type has not yet occurred. The tactic of suicide terrorism is driven by tangible and substantial motivations at the individual, organizational, and community level. As noted above, certain terrorist organizations are looking to obtain weapons of mass destruction, including deadly pathogens. If the Black Swan analysis is to be believed, these motivations suggest that it is only a matter of time before an HVSB attack occurs. Such a possibility, however remote, cannot and should not be ignored.

The dispersal of a deadly pathogen using an HVSB is a far more challenging concept than it may appear. There is no reason to believe, based on currently available data, that HV bio-disseminators would differ from MS bombers in their ultimate intent to die during the course of their attacks, and both would be influenced by individual vulnerabilities interacting with group and organizational pressures, as described in the previous sections of this report. However, the psychological dynamics of the actual attack warrant further consideration in order to better understand the similarities and differences between MS bombers and HVSB's.

1. Specifically, a suicidal bombing is brutal, direct, and requires some type of direct confrontation with likely victims - as well as having to overcome fear of death and killing, whereas an HVSB attack with a deadly disease is more passive, indirect, and does not require direct confrontation with likely victims. Both types of attackers must overcome the fear of death and killing, but via a different method of murder and suicide.
2. The process of an HVSB attack may be quite drawn out, with the HVSB being sent alone to a target area possibly days before the attacker becomes contagious. This would require a dedicated individual who would persist in carrying out the mission while waiting to become contagious and deathly ill. Would HVSB's be able to sustain their motivation in the absence of continued group dynamics, reinforcement, and pressures after being sent alone on a mission that might take days and will result in a slow, agonizing death? The death of the MS bomb attacker is instantaneous, whereas the HVSB's demise is likely to be slow, excruciatingly painful, and to occur alone in a foreign environment. Both the threat and logistical barriers are magnified by consideration that not one, but many bio-disseminators could be simultaneously dispatched to spread disease.
3. Suicide attackers who are willing to die a glorious blazing death from a body or car bomb know the expected fatal outcome from the experiences of their "martyr" predecessors. However, these same attackers may find the ingestion of a deadly pathogen to be far less appealing than a suicide bomb attack because of the uncertainty about the outcome and the prolonged painful method of dying that is involved in this unique type of MS terrorism. They may also wonder about their own possible survival with debilitating and permanent injuries, which may lead informed potential attackers to have second thoughts about their desire or willingness to participate in such an attack.

4. Whereas many suicide bombers are given a detonator to initiate a bomb blast, the terrorist organization is not always so trustful as to assume that the bomber will actually fulfill the mission. Hence their bombs are often rigged for external detonation by a distant observer. Ensuring mission success and the simultaneous death of the attacker also protects the organization from security leaks that are likely to result from the subsequent interrogation of a captured attacker. No such backup plan is feasible for an HVSB attack should the attacker change his or her mind, seek help, and then divulge damaging information about the organization and strategy.
5. The extended time frame between the attacker becoming infected and then contagious enough to infect others, coupled with the potential use of multiple bio-disseminators, increases the possibility of one or more attackers being captured or having second thoughts, which poses a potential serious security breach for the terrorist organization.
6. Considering the potential drawbacks to entrusting human vectors to actually become infected with a deadly pathogen and carry out a planned biological attack, the organization is likely to consider strategies of deception or coercion to improve a successful outcome. One way to ensure the success of a human vector biological attack would be for organizers to lie and refrain from telling HVSBs just how bad their death will be, because the attacker cannot necessarily be trusted to ingest and then transmit the pathogen during the window of time when it is contagious. Another scenario of deception would be for the organization to indicate that the human vector would not die but merely become mildly ill, and be given a counterfeit antidote for use once the attack has been completed. A different deceptive strategy might include the potential human vector transporting a pathogen to a distant target area before ingestion in the belief that a counterfeit antidote would prevent infection or death. Coercion by the organization, for example, making threats of harm to loved ones unless the person agrees to become a human vector, may be feasible but less likely to result in a successful attack in comparison to other strategies using deception. Although other methods of dispersing a pathogen not including a human vector are feasible, this report is limited to strictly to the human vector scenario.
7. The scope of the damage and carnage from an MS attacker using a body or car bomb is generally known and limited. In contrast, the use of an HVSB(s) offers a potentially much higher death toll depending upon the pathogen, the lack of geographic boundaries, the extent of dispersal, the indiscriminateness of the victim pool, and the rapidity with which security and medical professionals can identify and respond to the crisis.

The Individual: Challenges

Recent theories and data have expanded the scholarly literature to provide a much better understanding about the complex nature of MS terrorism, which places more emphasis on the individual attacker than was previously the case. Earlier conceptualizations of these attackers that focused on the “normality” of the individual MS attacker left little room for further investigation and intervention. By taking a broader and more nuanced view of MS attackers, researchers may learn more about the complexities and pathways that individuals travel to become MS terrorists.

Empirical investigations of individual MS terrorists are hampered for four very practical reasons. First, the accessibility by researchers to failed or captured attackers around the globe is minimal to nonexistent.⁸³² Second, even if granted access, case histories may be inaccessible due to security reasons or because they are non-existent. Third, terrorists may refuse to participate in research or provide inaccurate information. Fourth, the MS terrorist is usually dead, leaving only secondary sources of information. Nevertheless, Merari was successful in accessing a sample of failed and captured MS bombers and a control sample of general terrorists.⁸³³ His study serves as a model for future work to emulate and thereby expand one particular avenue of threat assessment.

Sheehan⁸³⁴ suggests that “any inquiry into the psychological or psychiatric aspects of suicide terror somehow marginalizes or delegitimizes the real political and social grievances that are thought to lie at the heart of the phenomenon.” Sympathizing with this thinking, Meloy’s work⁸³⁵ on the TRAP-18 identified the integration of personal grievances about significant adverse life experiences (e.g., major relationship or employment loss, feelings of anger, humiliation, and externalizing blame) with moral outrage (identification with a group that claims to have experienced suffering over historical, religious, or political events) as the first of 10 distal/chronic characteristics to consider in all terrorist acts. Rather than ignoring political and social grievances, a more enlightened viewpoint incorporates these factors into a more cohesive theoretical understanding about the making of an MS terrorist. Placing more emphasis on the vulnerabilities of the individual within a larger context permits new and exciting avenues of research, which can embolden creative counterterror interventions.

Multiple articles and books purport to describe the psychology of terrorism and offer many solid observations and ideas, but relevant evidence-based empirical investigation of MS terrorists has only begun to emerge⁸³⁶ and no studies specifically address the human vector suicide bioterrorist.⁸³⁷ Clearly, more scientific research and analysis is needed to better understand the MS terrorist that will serve to inform our understanding of the terrorist bio-disseminator. In particular, a multidisciplinary task force approach is needed that incorporates more emphasis on forensic methodology by interviewers trained and experienced in mental health, and particularly suicidology. This will open new lines of research and uncover aspects of individual psychology that are currently unknown or disputed. No one solution or even multiple solutions will stop all

⁸³² J. Reid Meloy (forensic psychologist and terrorism consultant), in discussion with the author, 27 April 2019.

⁸³³ Merari, “Personality Characteristics of “Self-Martyrs”; idem, *Driven to Death*.

⁸³⁴ Sheehan, “Are Suicide Terrorists Suicidal?”

⁸³⁵ Meloy, “The Operational Development.”

⁸³⁶ Dugas, et al., “The Quest for Significance Motivates”; Merari, “Personality Characteristics of “Self-Martyrs”; idem, *Driven to Death*; Lankford, “A Psychological Autopsy”; idem, *Myth of Martyrdom*; Meloy, Indirect personality assessment”; Paul, “*Making a Terrorist*”; O’Rourke, “What’s Special”; Webber, Klein, Kruglanski, Brizi, and Merari, “Divergent Paths to Martyrdom”; Zedalis, “Female Suicide Bombers.”

⁸³⁷ Gary Ackerman and Michelle Jacome, “WMD Terrorism: The Once and Future Threat,” *Prism* 7:3 (2018), p. 27: “...there is no evidence of a successful mass casualty attack by a violent non-state actor with a contagious bio-agent, and according to POICN there have been only 11 small scale incidents involving biological agents since 2011.”

MS and potential HVSB attacks. However, intervention directed at *vulnerabilities* is absolutely *required* as a means for lessening the threat of attack.

Threat Assessment, Vulnerabilities, and Interventions

The premise of the preceding sections is that no distinct differences likely exist between the motivation of a regular MS bomber and an HVSB terrorist with regard to their individual vulnerabilities and religious, ideological, and organizational influences. For a biological attack to occur, the terrorist organization must have the capability to locate vulnerable and motivated individuals who can be indoctrinated and supported by the terrorist group so that they can carry out one or more biological attacks on multiple targets. The logistics necessary to create an opportunity for an attack, especially using multiple HVSB, also provides more chances for “leakage” and communication monitoring by counterterrorist forces.

Threat assessments for an HVSB intent on unleashing a lethal pathogen among a civilian or military population will necessarily involve the implementation of coordinated and multi-level counterterrorism efforts. Intervention at the individual level can be organized around three categories:

- a. Motivation
- b. Capability
- c. Opportunity

These three categories provide a framework for intervention to try and interdict human vector bioterrorist attacks. So long as the minimum requirements for a biological suicide attack remain viable (murder-suicide intent, access to a biological weapon, and a target) the threat will remain real. Individual intervention might be accomplished at each of the three levels:

Points of Intervention		
MOTIVATION <i>Why I want to die?</i>	CAPABILITY <i>Am I able to do it?</i>	OPPORTUNITY <i>Can I access my target(s)?</i>
<ul style="list-style-type: none"> •Desire to die •Willing to die •Intent to kill •Significance Quest 	<ul style="list-style-type: none"> •Access to biological weapon •Habituation to dying & killing •Overcoming social stigma •Organization support •Community support 	<ul style="list-style-type: none"> •Weapon Characteristics •Target Type: Civilian/military •Target Location: Close/distant •Target access: Easy/complex

Motivation – Why does the HVSB want to attack?

1. Identifying an HVSB before an attack necessitates a level of intervention that could be feasible in some cases. Family members and friends are valuable resources in the fight against suicide attacks because they often have insights and awareness of changes in their family member/friend that might not be evident to an outsider. Lankford⁸³⁸ uses the example of the Christmas Day “underwear bomber,” a Nigerian named ‘Umar Faruq ‘Abd al-Muttalib, to demonstrate multiple individual vulnerabilities, such as “social marginalization, family problems, and a growing obsession with Islamic fundamentalism.” Other clues can potentially be discerned in Internet posts revealing the potential MS bomber’s state of loneliness, isolation, and depression. Equally important are observable changes in behavior and expressed views emphasizing lifestyle changes, embracing radical religion, and/or hinting at suicidal intention. For example, the underwear bomber’s father became concerned about his son’s behavior and reported his misgivings to authorities, who took steps to investigate the situation. However, these measures were insufficient to avoid a potential disaster that only did not occur due to sheer luck. Similarly, Theodore Kaczynski, the Unabomber, was reported to authorities by his brother, which led to his capture. Family and communities must be educated to understand their responsibilities, to not only to protect a loved one but also the community-at-large. Authorities could mobilize resources in order to educate them about risk factors and warning signs characteristic of suicidal individuals, as well as others who are likely to follow a MS pathway. Making it easier for both families and the general public to recognize vulnerable individuals would be a tremendous asset in the fight against MS attacks. While false positives will occur, individuals displaying adverse life changes and other risk factors may then receive necessary care.
2. Assessing psychological vulnerabilities must include taking into account the emerging evidence that suicidal risk factors do play a significant role in suicide attacks as a response to a wide array of stressors and traumas fueled by moral outrage and a need for “eradication of significance loss and/or the aspiration for significance gain” as the motivation for pursuing a lethal attack.⁸³⁹
3. Specific to the HVSB threat, semi-structured interviews and evaluation protocols for gauging the future threat of bioterrorism can be aided by knowledge about captured MS terrorists, and should become a part of every interrogation of captured MS terrorists. A methodology of assessment should be developed that includes noting the differences in individual psychology between murder-terrorists willing to act as human vectors to carry out a biological attack and others who eschew such a mission in favor of a quick and glorious death as a human bomb. A useful analogy here is a noteworthy gender difference

⁸³⁸ Lankford, *Myth of Martyrdom*.

⁸³⁹ Kruglanski, Chen, Dechesne, Fishman, and Orehek, “Fully Committed.”

in suicide methods, with women generally favoring less direct methods (e.g., pills and alcohol) versus men, who prefer firearms (and a sudden and explosive end to life).

4. The decreasing rate of MS attacks in many countries may permit psychological autopsies of the attackers by skilled and trained interviewers using semi-structured interviews and standardized protocols that are designed to uncover suicidal and psychological vulnerabilities. One possible way to accomplish this goal would be to organize a rapid response team trained to gather specified information similar to the way the National Transportation Safety Board sends investigators with diverse areas of expertise to examine railroad and plane crashes in order to obtain timely information from multiple sources.
5. Several international databases collect information about terrorist incidents, but do not always capture crucial information related to motivations, vulnerabilities, suicidal beliefs, or other forms of psychopathology. Since no single organization can collect and organize this form of data, Sheehan has proposed either developing a shared database or adding to current databases in order to capture such information.⁸⁴⁰ This might be akin to a crowd source method for people with legitimate credentials to make contributions to a Wikipedia-type terrorist database.
6. The greater systematic study of MS terrorists by national health and security authorities is needed in order to produce an evidence-based intervention strategy. As part of an international effort, countries capturing MS terrorists should develop standardized protocols for routinely conducting in-depth interviews by experienced interviewers, administering psychological testing, and employing various types of suicide and threat assessment rating tools such as the TRAP-18,⁸⁴¹ MLG,⁸⁴² VERA-2R,⁸⁴³ ERG 22+⁸⁴⁴ that can be linked into an international database.

Capability – Is the HVSB able to self-weaponize with a deadly pathogen and attack?

7. Habituation to dying and killing by an HVSB is accomplished by jihadist organizations that “deactivate self-inhibiting norms against murder [and suicide] and mayhem and allow them to appear as moral agents even when they are acting in immoral ways.”⁸⁴⁵ A first step towards reducing this capability is to impede the recruitment process. Research demonstrates that recruiters and organizational leaders sometimes seek individuals with psychological vulnerabilities and risk factors for suicide.⁸⁴⁶ This observation has

⁸⁴⁰ Sheehan, “Are Suicide Terrorists Suicidal?”

⁸⁴¹ Meloy, “TRAP-18 User’s Manual 1.0.”

⁸⁴² Alan N. Cook, Stephen D. Hart, and P. Randall Kroop, *Multi-Level Guidelines for the Assessment and Management of Group-Based Violence* (Burnaby, Canada: Mental Health, Law & Policy Institute, Simon Fraser University, 2013).

⁸⁴³ D. Elaine Pressman and J. S. Flockton, “Calibrating Risk of Violent Political Extremists and Terrorists: The VERA-2 Structured Assessment,” *British Journal of Forensic Practice* 14:4 (2012), pp. 237-51.

⁸⁴⁴ Monica Lloyd and Christopher Dean, “The Development of Structured Guidelines for Assessing Risk in Extremist Offenders,” *Journal of Threat Assessment and Management* 2:1 (2015), pp. 40-52.

⁸⁴⁵ Hafez, “A Case Study.”

⁸⁴⁶ Berko, *Path to Paradise*; Stern, *Terror in the Name of God*.

implications for interrupting and reducing their capability for recruitment. Increased efforts should be made to address the stigmas about mental health treatment, and a greater emphasis should be placed on marketing community mental health outreach and screening programs with appropriate cultural awareness and sensitivities.

8. Further reducing MS and HVSB attacker capability would require using primary prevention methods, such as increasing the number of mental health treatment providers through innovative community outreach programs in affected areas where there is a greater need to combat psychological trauma, grievances, and moral outrage. This intervention may not be easily accomplished, but participation by global health agencies and other aid providers in a discussion of this need may result in creative solutions.
9. Internet monitoring and surveillance can play a critical role in further reducing capability by identifying individuals who are displaying irrational thoughts and behavior or demonstrating suicidal risk factors such as social isolation, a need for attention, and religious intensity that co-exist with psychological pain. These individuals may frequent various social networking sites, online communities where clues and warning signs are freely expressed. Meloy⁸⁴⁷ refers to this form of warning communication as “leakage” (communication of intent to a third party), and views leakage and “last resort” (signaling significant distress and despair over a grievance or stressor) as two of eight proximal warning or trigger indicators that an attack may be forthcoming. Leakage occurs in a large majority of cases, across ideologies, amongst lone actor terrorists,⁸⁴⁸ and in some cases may also disclose targets, timing, locations, and methods.⁸⁴⁹
10. Destroying the myth of martyrdom espoused by terrorist group and community supporters is another method that can be employed to alter capability, since it is directly related to the social perception of suicide prevalent among MS attackers and is therefore utilized as a manipulative tool by these organizations to attain their political goals. For example, one intervention could involve using the press, media, and other mass communications fora to slander the reputations of MS terrorists as cowardly and weak, as well as denigrating these organizations and their supporters as immoral and corrupt because they take advantage of women and children, the mentally ill, and suicidal individuals to recruit them as MS attackers. Another option would be making use of the media to highlight the social stigma of suicide by emphasizing that MS acts of martyrdom are not justified by Islam and will not lead to glory and paradise, but rather that they are a direct path to hell, despite the exhortations of the leaders. This approach is unlikely to be widely effective, however, since both *jihad* and military martyrdom are important orthodox features of Islam.
11. Capabilities at the community level may be further interrupted by collaboration between scholars and national security/law enforcement officials to share classified sources of information that might result in a new or broader understanding of actual threats from MS

⁸⁴⁷ Meloy, “The Timeliness of Propaganda”; idem, “The Operational Development.”

⁸⁴⁸ Meloy and Gill, “The Lone-Actor Terrorist.”

⁸⁴⁹ Silver, Horgan, and Gill, “Foreshadowing Targeted Violence.”

terrorists, and in particular the HVSB. Most studies of MS attackers rely exclusively on open source material and interviews, which has limits. While this data has provided significant insights, there are limits to the available knowledge, validity of the information, and conclusions that can be drawn from this material alone. Of course, sources and methods would need to be disguised, but the ultimate product would then be based on more complete information. Academic institutions and specialized forensic researchers have the tools or can develop tools necessary to examine and evaluate classified data, whereas the national and international counterterrorism community may have the raw data but not necessarily the time or resources for the type of analysis made possible by scholars.

12. For medical doctors practicing in Middle Eastern and other Muslim countries, better training and continuing education are required that highlight the need to understand and recognize psychological vulnerabilities and suicide risk factors. Equally important is the need for doctors to directly ask about these risk factors when evaluating and treating patients.

Opportunity – Can the HVSB access the biological weapon and target(s)?

13. Efforts at identifying potential pathogens and their respective capabilities, preparing for a biological attack, improving responsive resources and contingency plans, and training of medical, law enforcement, and security personnel need to be made a high priority.
14. Once a jihadist organization acquires a biological weapon for deployment, this becomes a proximal risk factor signaling the possibility of a more imminent attack depending the availability of a HVSB. Interrupting the HVSB use of the pathogen becomes of paramount importance. Reducing bioterrorist opportunity through close Internet scrutiny, as noted in #9 above, may provide clues about the acquisition of a biological weapon and an attack's timing, target, and location. Communication to family members and others through the "leakage" of clues can be critical warning signs of an impending acquisition of a pathogen or attack.⁸⁵⁰
15. There will only be a brief window of time when an HVSB has the ability to spread a deadly pathogen from person to person before being incapacitated by that pathogen. This scenario will likely limit target choice and the distance to targets.
16. While sending multiple human vectors to attack different targets may increase illness rates, it also provides an opportunity for one or more attackers to fail, either by becoming sick before arriving at their targets or by changing their minds about carrying out the attack in order to seek medical care. In either case, law enforcement/security officials would be able to learn details about the organizational capabilities, training, and targets. As with normal suicide bombers, a considerable amount of information about HVSB vulnerabilities could be garnered through interviews and assessment methods, leading to a better understanding

⁸⁵⁰ Meloy, "The Operational Development."

of this form of terrorism and particularly about the distinctions that might exist between such attackers and suicide bombers.

Human Vector Suicide Bioterrorists: Conclusions

This report is the first comprehensive analysis to address the threat of human vector bioterrorism from the collaborative perspective of a forensic psychologist, an expert on jihadist terrorism and ideology, and a public health physician. The challenges are complex and have enormous implications for society and global economies. The notion of a purposefully infected bioterrorist(s) spreading a deadly disease among an unaware population has until recently been unthinkable, but current events now force us to confront this possible challenge more directly. Instead of asking why a terrorist organization would employ an HVSB attacker, considering the obstacles involved with organizing and implementing this method, the better question to ask is “why wouldn’t they” utilize this form of attack given that it has the potential to not only kill vast numbers of people but also to disable and frighten larger portions of a population, as well as causing related economic damage. Although the threat of an HVSB attack is considered relatively remote at this time, mostly for logistical and practical reasons, the terrorist motivations for a human vector biological attack and the HVSB desire or willingness to die cannot be underestimated or discounted. It is incumbent upon security forces, counterterrorism officials, forensic mental health specialists, and medical professionals to prepare for such a “black swan” HVSB attack.

To understand the threat from an HVSB is to recognize that such violence is a multi-determined phenomenon. Counterterrorism officials must conceptualize bioterrorist violence as a phenomenon that is not only perpetrated by individuals whose suicidal intent is driven by personal risk factors (e.g., alienation, nihilism, trauma, grievances) and a quest to attain significance, but also due to their affiliation with a terrorist group and their identification with its ideology and goals, which further reinforces their intent to die in the attack.

The killing of others by individuals desiring or willing to die has been occurring for centuries and has continued in the form of suicide bombers. Now, society must contend with terrorist groups exploiting a new type of violence and death by utilizing human vectors to transmit and infect unsuspecting populations with a deadly pathogen. The arguments in the literature over the pathway for these MS attackers being driven either by a suicidal desire to die or by an entirely altruistic willingness to die is a false dichotomy. In fact, both pathways are operative, with individual vulnerabilities and broader ideological motivations often overlapping. Once the potential MS or HVSB attacker has made the decision to die, either by aspiration or readiness, the outcome then falls under the control of group and social dynamics organized around the core of religious and ethnocentric jihadist ideology. This process provides the necessary support and reinforcement that enables the potential attacker to overcome natural instincts against self-destruction and killing others. Only after a sense of fearlessness has been achieved by the MS or HVSB can the attack move forward.

Threat assessment is about identifying and countering known risk factors that are related to all types of MS attackers, not about predicting exactly who will and will not become a MS or HVSB attacker. There are no current tools available to specifically identify these attackers, either suicide bomber or HVSBs. However, various SPJ risk instruments discussed in this paper and developed by psychologists provide guidelines and offer a way of thinking about MS attackers, and HVSB in particular, as well as about the types of questions that might be addressed in the threat assessment process. Moreover, this section of the report has demonstrated that threat assessment of the HVSB scenario is a complex process requiring not only consideration of organizational capability but also intra-individual risk factors interacting with religious, social, and group dynamics. No one person is an expert in all facets of threat assessment. A multi-disciplinary approach that considers threat from diverse perspectives is necessary to address group-based bioterrorist violence. Forensic mental health experts with training in violence risk assessment should be included in a team consisting of physicians and public health officials knowledgeable in the biology, epidemiology, and treatment of deadly pathogens; security officials that can identify and disrupt terrorist operations and networks; and terrorism scholars who are able to provide perspective on the history and thinking of specific terrorist groups as a critical component of intervention.

CHAPTER FOUR: TECHNICAL FACTORS IN ASSESSING THE THREAT OF ISLAMIST BIOTERRORIST ATTACKS USING HUMAN VECTORS OF CONTAGIOUS PATHOGENS

Noreen A. Hynes

Introduction

This chapter will identify possible deployable pathogens by so-called human vectors (HV), the ways a jihadist group might acquire the desired pathogens to create a HV, and ways to infect the HV. I shall discuss each of the three areas in separate sections of the chapter. A final section will provide a synthesis of the three areas, in order to summarize the likelihood that a HV could be created and successfully deliver a pathogen for the desired jihadist outcome.

The selection of potential deployable pathogens required a comprehensive review of the characteristics of the 60 human pathogens considered by the U.S. government to have possible national security consequences and, of these, only 28 (46.7%) can be transmitted directly from one person to another. The use of these U.S. government generated pathogen lists led me to place this chapter in the context of U.S. (and higher resource countries). The accompanying table, “Human Infections Caused by Centers for Disease Control and Prevention (CDC) A, B, C Diseases/Agents of Bioterrorism and Federal Select Agent Program Pathogens, by Mode of Transmission,” provides pathogen-specific epidemiological and pathogenic data that was analyzed to produce the final output of “human vector potential” identified in the last column of the table. The pathogens that do not have person-to-person transmission potential (32 pathogens) are shown in grey. The pathogens identified as “effective to create a human vector” are shown in green in the final table column; less effective pathogens are shown in orange; poor candidates are highlighted in salmon pink; and pathogens for possible use to create HV in the distant future are shown in blue.

There are two ways for an infectious pathogen to gain access to a host, either directly or indirectly, from its usual reservoir (human, animal, or the environment), to a susceptible person. It is important to emphasize that not all infectious diseases are contagious, that is, communicable from the infected person to a susceptible person. Lyme disease is an example of an infectious disease transmitted by a tick to a human with no subsequent person-to-person transmission. Hence, it is infectious but not contagious. The common cold, caused by a number of viruses, is both infectious and contagious (easily transmitted from person-to person). The spread of an infection following direct contact between an individual with a naturally acquired infection and a susceptible, uninfected person can occur in one of three ways. The three methods of direct contact are by person-to-person contact, aerosol, or airborne routes.⁸⁵¹ Hence, the deliberate infection of

⁸⁵¹ Philip E. Sartwell and John M. Last, “Epidemiology,” in *Maxcy-Rosenau Public Health and Preventive Medicine*, 11th ed. (New York, N.Y., n.d.), pp. 9-94. Person-to-person contact transmission requires direct physical contact between an infected person and a susceptible one, involving touch and contact such as kissing, sexual

one or more consenting – or, for that matter, coerced or deceived – volunteers for the expressed purpose of transmitting the disease to others is feasible.⁸⁵² The airborne routes (airborne and aerosol) would likely be the most efficient and effective way to spread infection by a HV because a greater number of people could be infected within a certain time period as compared with the direct person-to-person contact route.

There are two ways to create such a HV. The first method is for the individual to self-infect with a transmissible pathogen; the second approach is the deliberate infection of a person by another individual. In the latter case, the infection can occur with or without the consent of the person infected. Persons who have been deliberately infected against their will have been shown to be effective HV transmitters, as was the case with more than 10,000 prisoners who were being held at the Japanese Unit 731 facility in Harbin, China.⁸⁵³ In this chapter, the use of consenting volunteers is the assumed methodology for creating an HV.

I shall aim to examine three factors that are considered critical for the successful implementation of this deliberate infection modality with expected high morbidity and mortality in populations targeted by the HV – the right pathogen, obtained from a reliable source, and then effectively used to infect one or more HVs. The information provided in this chapter is based upon literature reviews; the author’s personal infectious disease clinical, epidemiological, medical countermeasure (MCM) development, and laboratory experience; and interviews with experts⁸⁵⁴ in the broad domains of this chapter.

contact, and contact with infected blood or body fluids, including infected lesions on the body. Common direct physical contact infections include herpes “cold sores” at the corner of the lips, gonorrhea, and syphilis. Aerosol droplet transmission involves contact spread from an infected person to a susceptible person’s eye, nose, or mouth within one meter. The droplets are usually greater than 5 micrometers in size. Examples of such aerosol droplet-producing infections include influenza, whooping cough, and adenovirus. Direct contact via airborne particles occurs when the microorganism remains infectious over time and distance, acting like a gas, and infects a person at a distance of greater than 1 meter. The small, respirable particles are usually smaller than 5 micrometers in size. Measles and chickenpox are examples of airborne infections.

⁸⁵² Raymond A. Zalinkas, *Assess the Probability That Islamist Terrorist Groups Will Acquire Human Vectors to Disseminate Contagious Pathogens: A Proposal to Smith Richardson*, Executive Summary, 2018, p. 3.

⁸⁵³ Sheldon H. Harris, *Factories of Death: Japanese Biological Warfare, 1932-45 and the American Cover-Up*, 2 edition (New York: Routledge, 2002).

⁸⁵⁴ Expert Interviews. Invitations to discuss likely pathogens, their acquisition, and modes of deployment to create a human vector were extended to 30 experts, other than this chapter’s author; 1 refused to be interviewed; 9 did not respond to the invitation; 21 were interviewed. Some were in-person interviews and others were conducted by telephone. Each interviewed expert is now or has recently been involved in addressing the scientific, medical, and/or laboratory aspects of bioterrorism. Over half of those interviewed are current U.S. government employees or previously had been in government service. Depending upon the area of expertise, we discussed the three main topic areas under consideration: pathogen selection, acquisition, and use to create a human vector. I assured the interviewees anonymity in order to facilitate the most open discussion--- in essence, a one-on-one version of the Chatham House Rule. No expert’s name or affiliation is included in this document. I did not share a list of other invited participants among the interviewees. None of the interviews was audio-recorded or captured on video. I took handwritten notes during each interview, but did not record identifiable information about the person interviewed. Each interview lasted up to 2.5 hours and focused on the area of the person’s expertise in the biological threat agent domain.

Pathogens Most Suitable for Creating a Human Vector

There are seven important questions related to the selection of a suitable pathogen to be used in creating a human vector (HV) that ideally should be answered. *First*, is the pathogen transmissible directly from one person to another and, if so, does it spread between people in more than one way and, if so, which is the most efficient way? *Second*, how virulent is the pathogen – will it kill most of the people who are infected? *Third*, is there enough time between introduction of the pathogen into the HV and the onset of symptoms (the incubation period) for the HV to get to the location for the dissemination of the pathogen? *Fourth*, what dose of the pathogen is needed to infect and render the HV infectious to others? *Fifth*, how long will the HV be infectious to others? *Sixth*, are there inadequate MCM to halt the spread of the infection? *Seventh*, is most of the population susceptible to infection with the selected pathogen(s)?

Clinical, Epidemiological, and Laboratory Challenges Associated with Bioterrorist Attacks Using Infectious Pathogens

Certain inherent challenges exist in finding one or more pathogens that could produce a highly successful HV. Although pathogen virulence, assessed in terms of the associated morbidity and mortality of infected persons, is critically important, there is another important epidemiological variable to consider – the reproductive number (R_0).⁸⁵⁵ This factor takes into consideration the probability that an exposed person, if susceptible, contracts a pathogen after having a single contact with an infected person (transmissibility), the average rate of contact between the susceptible and infected person, and the duration of infectiousness. In addition to virulence and the reproductive number, the host (both the selected HV and the targets for infection) is an important factor, as susceptibility may not be universal. Host susceptibility may be due to the genetic make-up⁸⁵⁶ or to past infection with the same or similar pathogen.⁸⁵⁷ From a clinical

⁸⁵⁵ Roy M. Anderson and Robert M. May, *Infectious Diseases of Humans: Dynamics and Control* (New York: Oxford University, 1991). The reproductive number ($R_0 = \tau x \bar{c} x d$) takes into account the transmissibility of the infectious agent (τ), the average rate of contact between the infected and susceptible persons (\bar{c}), and the duration of infectiousness (d). This is not a static characteristic but rather a dynamic, complex, and changing number, and it will differ (increase and decrease) over time during an outbreak or epidemic.

⁸⁵⁶ Geison Cambri and Marcelo Távora Mira, “Genetic Susceptibility to Leprosy—From Classic Immune-Related Candidate Genes to Hypothesis-Free, Whole Genome Approaches,” *Frontiers in Immunology* 9 (2018), available at <https://doi.org/10.3389/fimmu.2018.01674>. Only five percent of persons closely exposed to a person with leprosy or Hansen’s disease (*Mycobacterium leprae*) manifest the disease in the future. Among those who develop clinical leprosy, the type of disease appears to be influenced by host genetic factors.

⁸⁵⁷ Janice K. Louie et al., “A Review of Adult Mortality Due to 2009 Pandemic (H1N1) Influenza A in California,” *PLoS ONE* 6:4 (5 April 2011), available at <https://doi.org/10.1371/journal.pone.0018221>; Centers for Disease Control and Prevention, “Outbreak of Swine-Origin Influenza A (H1N1) Virus Infection --- Mexico, March--April 2009,” *Morbidity and Mortality Weekly Report* 58:17 (2009), pp. 467-70. The influence of past immunity was demonstrated when a new pandemic strain, the influenza A virus, emerged in 2009. Despite influenza viruses, in general, causing higher morbidity and mortality in the elderly, those aged 60 years and older had much lower morbidity and mortality, even if they were not vaccinated, than younger adults. This was likely due to pre-1950 infection with similar viruses.

perspective, the natural history of the infection⁸⁵⁸ may change should the strategy used to infect the HV differ from that commonly noted following natural infection. For example, there could be a change in the virulence for the HV due to receiving a higher than normal dose of the pathogen at the time of infection. In turn, this could change the incubation period, clinical expression of the infection, and duration of communicability. Pathogens that would likely be selected to create a HV are also likely to pose a laboratory infection hazard to those working with the agent when preparing it for use.⁸⁵⁹ Usually, there is a need to use special personal protective equipment (PPE), special air handling and delivery systems, and a high-grade biological safety cabinet to prevent the infection of the person manipulating the pathogen, such as a laboratory worker.⁸⁶⁰

Consideration of the most efficient direct mode of transmission is important. Transmission via the respiratory route, in the form of droplets or aerosol, is associated with the greatest spread following natural infection, making it the most efficient form of transmission. I have assumed that this would also be the most efficient and effective way for a HV to spread infection;⁸⁶¹ all of the interviewed experts agreed with this assumption. Bacterial pathogens transmitted by the respiratory route tend to spread by droplets, whereas viruses are more diverse in transmission depending on pathogen and host characteristics. Usually, skin, mucous membrane, or bodily fluid contact between people is a less efficient mode of transmission. However, poor infection control practices and poor understanding of the natural history of infection have been associated with the blood-borne and sexual transmission, respectively, of high consequence pathogens including the ebolavirus virus.⁸⁶² Therefore, a jihadist may choose these contact methods as pathogen delivery strategies. Furthermore, several pathogens could be selected to create a group HV with the objective of creating simultaneous outbreaks in the same or different locations.

Characteristics of Bacterial and Viral Pathogens Most Suitable for Creating Human Vectors

All of the experts interviewed stated that the use of a HV to deliver a biological threat agent was the most ineffective delivery method when compared with other methods to simultaneously infect many persons as opposed to just a few individuals, citing the delivery of anthrax spores by

⁸⁵⁸ MacFarlane Burnet, *Natural History of Infectious Diseases*, 3rd ed. (Cambridge UK: Cambridge University, 1962). The natural history of a disease refers to its progression in a single person over time, in the absence of treatment. In the case of an infectious disease, the process begins with the exposure to the pathogen and continues to disease onset, until eventual complete recovery or death.

⁸⁵⁹ The infectious agents that cause disease fall into five groups: viruses, bacteria, fungi, protozoa, and helminths (worms). Only some viral or bacterial organisms are likely to meet the criteria for creating a human vector, and only those organisms are included in this chapter.

⁸⁶⁰ Deborah E Wilson and L Casey Chosewood, eds., *Biosafety in Microbiological and Biomedical Laboratories*, 5th, 5th ed. (Bethesda, MD: U.S. Department of Health and Human Services/Centers for Disease Control and Prevention & National Institutes of Health, 2009), available at <https://www.cdc.gov/labs/pdf/CDC-BiosafetyMicrobiologicalBiomedicalLaboratories-2009-P.PDF> .

⁸⁶¹ Wladyslaw Jan Kowalski and William P. Bahnfleth, "Airborne Respiratory Diseases and Mechanical Systems for Control of Microbes," 1998, available at <https://pdfs.semanticscholar.org/4dca/7fbffc373056273ba77c69226e9e724ff5b8.pdf?ga=2.86781915.2121643040.5620936871809395111.1562093687> . The manner in which the microorganism travels in the air is either in the form of droplets or aerosols that differ in size of the transmission form (>5 microns versus <5 microns), how long it remains suspended in air (<17 minutes versus indefinitely), and the distance over which it can travel (<1 meter versus >1 meter), respectively.

⁸⁶² Denis Malvy et al., "Ebola Virus Disease," *The Lancet* 393:10174 (2 March 2019), pp. 936-48, available at [https://doi.org/10.1016/S0140-6736\(18\)33132-5](https://doi.org/10.1016/S0140-6736(18)33132-5) .

a crop duster over a football stadium during a game as an example.⁸⁶³ However, all agreed that a HV could infect others in a manner to cause an ongoing chain of transmission before medical and public health sectors could successfully identify the pathogen and institute measures to halt its spread.⁸⁶⁴ Even in the setting of adequate MCM to halt further spread, several hundred cases could be anticipated to be associated with each HV sent out.⁸⁶⁵ Under certain circumstances, the number of persons infected with a highly transmissible agent, requiring isolation upon admission to a hospital, could overwhelm local healthcare delivery systems, thereby constituting a mass casualty incident.⁸⁶⁶ Importantly, none of the experts interviewed felt that an existential threat would evolve following the deployment of one or more HV, even in the setting of no existing MCM.

Generally, infectious disease physicians and other clinicians, clinical microbiologists, molecular biologists, epidemiologists, and public health professionals in the United States use two lists of priority pathogens to inform their thinking about which agents may pose a threat to national security if identified in patients. The first list of interest is the Category A, B, and C bioterrorism agents and diseases, the so-called ABC List defined by the Centers for Disease Control and Prevention (CDC), with Category A pathogens/diseases posing the greatest threat. The second list is the Select Agent and Toxins List (SATL) maintained by the U.S. Department of Agriculture and the U.S. Department of Health and Human Services. Tier 1 pathogens on the SATL are considered to pose the greatest threat. As described below, smallpox, pneumonic plague, and certain viral hemorrhagic fever viruses (those causing Ebola, Marburg, and Lassa Fever) – all CDC Category A or SATL Tier 1 pathogens – would make the most suitable candidate pathogens to infect an HV. The other CDC categories and SATL tiers are briefly examined to highlight why they are less likely choices for creating one or more HV.

CDC Category A and SATL Tier 1 Agents. Each of the pathogens/disease groups in Category A meet all four of the following criteria: 1) they are transmitted person-to-person or easily disseminated by other means; 2) they result in high mortality rates and have the potential for a major public health impact; 3) they might cause public panic and social disruption; and 4) they require special action for public health preparedness.⁸⁶⁷ There are six disease conditions within this category, including anthrax, botulism, plague, smallpox, tularemia, and viral hemorrhagic fever. Anthrax, botulism, and tularemia are *not* directly transmissible person-to-person. Tier 1 of the SATL includes those pathogens and toxins believed to present the greatest risk of deliberate misuse with significant potential for mass casualties or devastating effects on the economy, public

⁸⁶³ James D. Nordin et al., “Simulated Anthrax Attacks and Syndromic Surveillance,” *Emerging Infectious Diseases* 11:9 (September 2005), pp. 1394-98, available at <https://doi.org/10.3201/eid1109.050223> .

⁸⁶⁴ A. F. Kaufmann, M. I. Meltzer, and G. P. Schmid, “The Economic Impact of a Bioterrorist Attack: Are Prevention and Postattack Intervention Programs Justifiable?,” *Emerging Infectious Diseases* 3, no. 2 (1997): 83–94. This article attempts to quantify the overall impact of non-HV bioterrorist attacks based upon the timeliness of instituting medical and public health interventions.

⁸⁶⁵ Kaufmann, Meltzer, and Schmid.

⁸⁶⁶ Offir Ben-Ishay et al., “Mass Casualty Incidents - Time to Engage,” *World Journal of Emergency Surgery (WJES)* 11 (3 February 2016), available at <https://doi.org/10.1186/s13017-016-0064-7> .

⁸⁶⁷ “CDC | Bioterrorism Agents/Diseases (by Category) | Emergency Preparedness & Response,” 15 May 2019, available at <https://emergency.cdc.gov/agent/agentlist-category.asp> .

confidence, or critical infrastructure, and pose a severe threat to public health and safety.⁸⁶⁸ All of the CDC Category A agents are also Tier 1 agents on the SATL, but the latter includes two additional agents not on the CDC Category A list. These two additional pathogens are a type of smallpox virus, variola minor, which has a low associated case fatality (less than 1 percent of affected persons) and *Bacillus cereus* biovar *anthracis*, which contains all the of same virulence determinants of *B. anthracis*, the causative agent of anthrax. This latter pathogen is found in elephants, great apes, and goats in Africa, but no reported human cases have occurred.⁸⁶⁹ The smallpox variant is transmissible person-to-person, whereas the anthrax variant, a derivative of a foodborne pathogen (*Bacillus cereus*), would not be.

Smallpox/variola major virus: Of the transmissible Category A and Tier 1 pathogens that may be suitable to infect and deploy one or more HV, the variola virus (smallpox virus) may be the most suitable. This virus has the highest average reproductive number (6.87) among the 28 transmissible national security pathogens,⁸⁷⁰ requires a very low dose to cause infection (1 virus particle),⁸⁷¹ takes at least 5 days or more for a naturally-infected person to become symptomatic, and has a long period of transmissibility (about 3 weeks).⁸⁷² The case fatality is 20 to 40 percent among susceptible persons.⁸⁷³ Currently, nearly the entire population of the world is susceptible to smallpox infection.⁸⁷⁴ The incubation period of this infection would allow one or more HVs to travel to one or more planned dissemination sites prior to the onset of clinical disease.

In ordinary (classic) smallpox, seen in 90 percent of naturally occurring cases, fever may be present for two days before the onset of the smallpox rash, evolving over a number of days from a common-appearing red rash to the classic “pox” for which the disease is named. But there are several challenges to the timely identification of the condition, including lack of clinical expertise concerning this now eradicated infectious disease and the possible alternation of usual disease presentation in the HV due to receipt of a higher than usual infecting dose. Therefore, delay in diagnosis is likely. Misdiagnosis of the condition as chickenpox rather than smallpox is possible, as both produce a “pox” lesion. This error may be further magnified by the fact that chickenpox is an increasingly uncommon condition due to use of a childhood vaccination. Further delay may

⁸⁶⁸ “Federal Select Agent Program - Select Agents and Toxins List,” Federal select, accessed 30 June 2019, available at <https://www.selectagents.gov/SelectAgentsandToxinsList.html> .

⁸⁶⁹ Kym S. Antonation et al., “*Bacillus Cereus* Biovar *Anthraxis* Causing Anthrax in Sub-Saharan Africa—Chromosomal Monophyly and Broad Geographic Distribution,” *PLoS Neglected Tropical Diseases* 10:9 (8 September 2016), available at <https://doi.org/10.1371/journal.pntd.0004923> .

⁸⁷⁰ Frank Fenner et al., *Smallpox and Its Eradication* (Geneva: World Health Organization, 1988). The reproductive number for smallpox is debated, although one of the co-authors of this particular work, Donald A. Henderson (now deceased), who led the eradication effort when seconded to WHO from the CDC, has discussed with me on several occasions the reality that the reproductive number will change during the course of an epidemic. Factors include the stage of the epidemic (higher at the outset of an epidemic and then lower later on), where the epidemic is occurring, and the population characteristics.

⁸⁷¹ Fenner et al., p. 87.

⁸⁷² *Ibid*, p. 90.

⁸⁷³ *Ibid*, p. 106.

⁸⁷⁴ Small numbers of persons have been immunized, such as some military personnel, certain laboratory workers, and persons born in the US before the cessation of routine vaccination in 1972 or persons who traveled to endemic areas prior to the declaration of smallpox eradication in 1980.

occur during contact tracing focused on only suspect chickenpox non-immune persons. The end-result could be more exposed persons than would have occurred with prompt identification.

Importantly, the Strategic National Stockpile (SNS), managed by the Department of Health and Human Services (DHHS), contains Food and Drug Administration (FDA)-approved medical countermeasures (MCM) for the prevention and treatment of smallpox – antiviral and vaccine products.⁸⁷⁵ However, despite the existence of MCM, the delays in diagnosis would still have an important impact on the general population once the cause was identified, as there is no longer any naturally-occurring disease – universal knowledge of a deliberate attack with potential clamoring for immediate receipt of MCM before an effective, efficient, and secure administration system could be developed. The June 2001 “Dark Winter” bioterrorism exercise, held at Andrews Air Force Base, postulated a single confirmed and 20 possible additional smallpox cases in Oklahoma City, OK. At the time of the tabletop exercise, there were only 12 million smallpox vaccine doses in the US, 60 million vaccine doses worldwide, and no knowledge to support dilution of the vaccine without loss of efficacy in disease prevention.⁸⁷⁶ The exercise included three separately attacked cities without stating a mode of pathogen deployment, and within less than three weeks from the presumed attack date there were over 2,000 infected persons in 15 states, a 15 percent case fatality, with cases occurring in other countries where US residents had traveled. At the end of week 3, there were 16,000 cumulative cases with an estimated 1.6 million contacts. More recent modeling of a smallpox virus release in Australia, taking into consideration the current availability of multiple MCM, posits that with 95 percent of cases quarantined, outbreak control would take up to 100 days even if 50% of contacts were traced, evaluated, and immunized or treated; epidemic control would be lost if case isolation and contact tracing both fall below 50 percent.⁸⁷⁷ Hence, even with today’s smallpox prevention and treatment armamentarium, there is a high risk of significant adverse population outcome. This could be the harbinger of a reinstatement of universal childhood vaccination.

⁸⁷⁵ Available medical countermeasures for smallpox include an antiviral agent, tecovirimat, which was approved in 2018 for the treatment of smallpox in both adults and children. It is not approved by the U.S. Food and Drug Administration (FDA) for the prevention of disease, but could be used in persons who cannot receive a live vaccine, as previously noted, under a regulatory provision called an Emergency Use Authorization (EUA). There is enough FDA-licensed smallpox vaccine for the entire US population. Furthermore, the vaccine can be diluted ten-fold and still provide protection, allowing it to be possibly shared with other countries. Although this live vaccine’s ability to prevent smallpox in those receiving the immunization prior to an exposure is proven, the data on its use for effective post-exposure prevention appears to depend upon how quickly the vaccine is administered after the exposure. Another smallpox vaccine, licensed in Europe and Canada, exists that could be used in an emergency for persons with certain deficiencies in their immune system (2 to 3 percent of the population) or certain skin conditions (10 to 20% of children and 1 to 3% of adults). This vaccine has been stockpiled in the US and could be administered as an investigational product or under an EUA.

⁸⁷⁶ “Dark Winter Script. Bioterrorism Exercise. Andrews Air Force Base, June 22-23, 2001” (Johns Hopkins Center for Civilian Biodefense, Center for Strategic and International Studies, ANSER, Memorial Institute for the Prevention of Terrorism, 2001), available at http://www.centerforhealthsecurity.org/our-work/events-archive/2001_dark-winter/Dark%20Winter%20Script.pdf .

⁸⁷⁷ Chandini Raina MacIntyre, Valentina Costantino, and Mohana Priya Kunasekaran, “Health System Capacity in Sydney, Australia in the Event of a Biological Attack with Smallpox,” ed. Eric HY Lau, *PLOS ONE* 14:6 (14 June 2019): e0217704, available at <https://doi.org/10.1371/journal.pone.0217704> .

Yersinia pestis/plague. Unlike smallpox, which is a uniquely human diseases, *Y. pestis*, the bacterium causing plague, has been maintained in nature in non-human animals for over a millennium.⁸⁷⁸ This bacterium usually infects rodents after the bite of infected fleas; the transmission from fleas to humans is an incidental event not required for maintenance of the transmission cycle in nature. There are many strains of the bacterium throughout the world; the least strain diversity exists in the Americas; and some strains are more virulent than others, although our understanding of what factors are responsible for virulence is not complete.⁸⁷⁹ The most common form of human infection follows the bite of an infected rat flea, causing bubonic plague, where lymph nodes of the body are affected; this clinical form of disease is not transmitted between humans. If left untreated the infection can spread, leading to sepsis (septicemic plague) and affecting many areas of the body. Human-to-human transmission via the respiratory route (pneumonic plague) does occur when bacteria reach the lung and are expelled in droplets produced during coughing. Pneumonic plague is an uncommon form of the infection, and is rarely seen as the only clinical expression of infection during an epidemic.⁸⁸⁰ However, well-described epidemics of pneumonic plague have been documented in Madagascar during this century. An average reproductive number of 2.4 (range 1.6 to 3.6) was estimated during a four-month pneumonic plague outbreak in 2017.⁸⁸¹ The reason for this disease outbreak manifesting as only the pneumonic form in several recent outbreaks in this country has not been determined. However, it does suggest that sustained chains of transmission of this clinical form can occur. In an earlier 2011 outbreak of pneumonic plague in Madagascar, which began among copper miners, the isolated organism was a strain dating back to 1995 and known to be naturally resistant to the 8 antibiotics, so treatment with alternate, effective drugs was required.^{882,883} The incubation period may be as short as 24 hours, meaning that a HV may become symptomatic before reaching a designated dispersal location. Common diagnostic tests and readily available antibiotics for treatment, including of resistant *Y. pestis* strains, suggests that this agent would be a suboptimal selection for a pathogen to create one or more HV. Importantly, this pathogen would likely be much more rapidly identified compared with variola virus, leading to prompt isolation of the patient and accompanying measures to prevent the infection of others.

Viral hemorrhagic fever-related viruses. There are six CDC Category A viral hemorrhagic fever (VHF) viruses that can be directly transmitted by contact, including the Ebola, Marburg,

⁸⁷⁸ Deborah Josko, "Yersinia Pestis: Still a Plague in the 21st Century," *Clinical Laboratory Science: Journal of the American Society for Medical Technology* 17:1 (2004), pp. 25-9.

⁸⁷⁹ Andrey P. Anisimov, Luther E. Lindler, and Gerald B. Pier, "Intraspecific Diversity of Yersinia Pestis," *Clinical Microbiology Reviews* 17:2 (1 April 2004), pp. 434–64, available at <https://doi.org/10.1128/CMR.17.2.434-464.2004>.

⁸⁸⁰ Roger D. Pechous et al., "Pneumonic Plague: The Darker Side of Yersinia Pestis," *Trends in Microbiology* 24:3 (1 March 2016), pp. 190-7, available at <https://doi.org/10.1016/j.tim.2015.11.008>.

⁸⁸¹ Maimuna S. Majumder et al., "Estimation of Pneumonic Plague Transmission in Madagascar, August–November 2017," *PLoS Currents* 10 (1 November 2018), available at <https://doi.org/10.1371/currents.outbreaks.1d0c9c5c01de69dfbff4316d772954f>.

⁸⁸² Vincent Richard et al., "Pneumonic Plague Outbreak, Northern Madagascar, 2011," *Emerging Infectious Diseases* 21:1 (January 2015), pp. 8-15, available at <https://doi.org/10.3201/eid2101.131828>.

⁸⁸³ Marc Galimand, Elisabeth Carniel, and Patrice Courvalin, "Resistance of Yersinia Pestis to Antimicrobial Agents," *Antimicrobial Agents and Chemotherapy* 50:10 (October 2006), pp. 3233-36, available at <https://doi.org/10.1128/AAC.00306-06>.

Lassa, Machupo, Junin, and Lujo viruses, and the former two viruses may be transmitted by respiratory droplets. Only the Ebola, Marburg, Lassa, and the Machupo viruses are considered Tier 1 pathogens on the SATL. Although the incubation periods for the Category A agents are usually more than four to five days, the reported average reproductive number is less than two. The case fatality is consistently highest following infection with the Ebola and Marburg viruses. However, all known Ebola virus disease outbreaks have variable associated case fatality, some of which appears to be related to the virus strain. There is too little information available about the natural history and pathogenesis of Lujo virus, with only one small outbreak of five persons reported with an 80 percent case fatality, and thus may not be representative of this pathogen.⁸⁸⁴ Importantly, the viruses for which we have the most information, Ebola, Marburg, Lassa, and Machupo, are commonly transmitted in Western health care settings following exposure to an infected patient's blood or body fluid. Early in the course of the clinical disease, transmission to another person would follow an identifiable breach in proper infection control practices, including the mishandling of clinical samples or not wearing appropriate personal protective equipment. Later in the disease, when hemorrhage is present, a HV would likely be too ill to cause widespread infection, but a large amount of contaminated body fluids would nonetheless pose a risk to care providers. The maximum number of persons who could be infected by a HV in a Western setting, therefore, would be low.⁸⁸⁵ The availability of some investigational MCM, along with supportive care, would likely result in a lower case fatality than has been noted in lower resources areas that are now experiencing or have experienced outbreaks in the past. Additionally, as of July 2017 there were 63 state- or jurisdiction-designated treatment centers in the U.S. to care for patients with such high consequence pathogens, along with 10 regional treatment centers.⁸⁸⁶ It is unlikely that the capacity of these units would be exceeded following the deployment of one or more HV in the U.S.

CDC Category B and SATL "Other" Tier Agents. CDC Category B agents, the second priority level of pathogens, include those that are moderately easy to disseminate, have moderate morbidity and low mortality rates, and require special enhancements of CDC's diagnostic capacity to enhance disease surveillance. Many of the CDC Category B agents are primarily foodborne or waterborne pathogens, including brucellosis, cholera, typhoidal and non-typhoidal salmonellosis, shigellosis, and *Escherichia coli* O157:H7. These pathogens are rarely transmitted by direct contact from person-to-person, and would most likely be by means of the transfer of the pathogen from fecally-contaminated hands to the mouth of another person (the fecal-oral route of infection). The consumption of contaminated food and water accounts for almost all cases. For example, the

⁸⁸⁴ Edgar Simulundu et al., "Lujo Viral Hemorrhagic Fever: Considering Diagnostic Capacity and Preparedness in the Wake of Recent Ebola and Zika Virus Outbreaks," *Reviews in Medical Virology* 26, no. 6 (2016): 446–54, <https://doi.org/10.1002/rmv.1903>.

⁸⁸⁵ This low transmissibility in higher resource countries differs significantly from what has been noted in Sub-Saharan African countries where the virus has caused repeated, but varying sized, epidemics which, at times, have been difficult to control due to multiple factors including population fear of the health care delivery system, distrust of government, poor infection control practices by health care providers and traditional burial attendants, and civil conflict.

⁸⁸⁶ Office of the Assistant Secretary for Preparedness and Response, "Regional Treatment Network for Ebola and Other Special Pathogens" (U.S. Department of Health and Human Services, Office of the Secretary, November 2017), <https://doi.org/10.1037/e658332011-001>.

deliberate contamination of restaurant salad bars with *Salmonella typhimurium* by a group seeking to alter election results in Oregon caused 751 confirmed cases of infection, but there were no reported secondary cases transmitted by the person-to-person (fecal-oral) route of transmission.⁸⁸⁷ Cholera, caused by certain strains of the bacterium *Vibrio cholera*, is usually food borne or waterborne. Fecal-oral transmission is more likely during epidemics, at which time the reproductive number may reach about 2.7 in lower resource areas of the world.⁸⁸⁸ During the usual non-epidemic transmission cycle of cholera, the reproductive number is usually far less than 1.0.⁸⁸⁹ Rarely; *Brucella* species are transmitted through sexual contact or from mother-to-child during breastfeeding;⁸⁹⁰ this would not be an efficient pathogen for spread by an HV. *Burkholderia* species appear on both the CDC Category B list and the SATL “Other” Tier. The zoonotic disease, glanders, caused by *B. mallei*, may be transmitted from solipeds (uncloven hoof animals such as horses, mules, and asses) to humans,⁸⁹¹ but subsequent person-to-person transmission is exceedingly rare, such as during an autopsy or following a laboratory accident.⁸⁹² Similarly, *B. pseudomallei*, the causative agent of melioidosis, is usually transmitted via contaminated soil or water through overt or inapparent skin wounds, inhalation of soil dust, or aspiration or ingestion of contaminated water. Person-to-person transmission is exceedingly rare, including through sexual transmission⁸⁹³ and neonatal acquisition during passage through an infected birth canal.^{894,895} *Coxiella burnetii*, the cause of Q fever, is usually transmitted through contaminated dust particles or aerosols in the area of infected animals and their tissues, such as placentas following birth. It causes a range of non-specific symptoms of varying severity. It is rarely transmitted between humans, either by sexual contact or airborne droplets.⁸⁹⁶ It has a low infectious dose but a low case fatality, and is treated with available MCM. However, it can be

⁸⁸⁷ T. J. Török et al., “A Large Community Outbreak of Salmonellosis Caused by Intentional Contamination of Restaurant Salad Bars,” *JAMA* 278, no. 5 (August 6, 1997): 389–95, <https://doi.org/10.1001/jama.1997.03550050051033>.

⁸⁸⁸ Zindoga Mukandavire et al., “Estimating the Reproductive Numbers for the 2008–2009 Cholera Outbreaks in Zimbabwe,” *Proceedings of the National Academy of Sciences of the United States of America* 108:21 (24 May 2011), pp. 8767–72, available at <https://doi.org/10.1073/pnas.1019712108>.

⁸⁸⁹ K. T. Goh et al., “Person-to-Person Transmission of Cholera in a Psychiatric Hospital,” *Journal of Infection* 20:3 (1 May 1990), pp. 193–200, available at [https://doi.org/10.1016/0163-4453\(90\)90994-J](https://doi.org/10.1016/0163-4453(90)90994-J).

⁸⁹⁰ Felipe F. Tuon, Regina B. Gondolfo, and Natacha Cerchiari, “Human-to-Human Transmission of Brucella – a Systematic Review,” *Tropical Medicine & International Health* 22:5 (2017), pp. 539–46, available at <https://doi.org/10.1111/tmi.12856>.

⁸⁹¹ Calderon Howe and Winston R. Miller, “Human Glanders: Report of Six Cases,” *Annals of Internal Medicine* 26:1 (1947), pp. 93–115, available at <https://doi.org/10.7326/0003-4819-26-1-93>.

⁸⁹² Kristopher E Van Zandt, Marek T Greer, and H Carl Gelhaus, “Glanders: An Overview of Infection in Humans,” *Orphanet Journal of Rare Diseases* 8 (3 September 2013), p. 131, available at <https://doi.org/10.1186/1750-1172-8-131>.

⁸⁹³ Joseph B. McCormick, “Human-to-Human Transmission of Pseudomonas Pseudomallei,” *Annals of Internal Medicine* 83:4 (1 October 1975), p. 512, available at <https://doi.org/10.7326/0003-4819-83-4-512>.

⁸⁹⁴ P. Lumbiganon et al., “Neonatal Melioidosis: A Report of 5 Cases,” *The Pediatric Infectious Disease Journal* 7:9 (September 1988), pp. 634–6.

⁸⁹⁵ G. R. Osteraas et al., “Neonatal Melioidosis,” *American Journal of Diseases of Children* 122:5 (November 1971), pp. 446–8, available at <https://doi.org/10.1001/archpedi.1971.02110050116019>.

⁸⁹⁶ J S Mann et al., “Q Fever: Person to Person Transmission within a Family.” *Thorax* 41:12 (December 1986), pp. 974–5.

associated with chronic infection in a small number of persons.⁸⁹⁷ Psittacosis, also known as parrot fever, is caused by *Chlamydia psittaci* and causes infection in various avian species. It is an occupational disease for poultry farmers, zoo workers, and pet-shop employees due to the inhalation of dried bird droppings or dust from feathers. However, human-to-human transmission by airborne droplets is very rare.⁸⁹⁸ Effective MCM are available, with a case fatality up to 20% if antibiotics are not provided. Among the CDC Category B infectious agents, only *Brucella* species (spp), *Burkholderia* spp, and *Coxiella burnetti* are on the SATL “Other” Tier. The low transmissibility of these agents by the person-to-person route strongly suggests that these would be unlikely candidates for spread via a HV.

CDC Category C and SATL “Other” Tier Agents. The CDC Category C agents are considered the third highest priority agents, but include an interesting group of pathogens. These pathogens are those that have not yet “emerged” into the medical, public health, and scientific consciousness or are currently classified as emerging infectious diseases/pathogens, meaning that there are many “holes” in our knowledge about them. However, they fall into the bioterrorism domain because they could be engineered for mass dissemination in the future because of their availability, ease of production and dissemination, and potential to cause high morbidity and mortality and a major health impact.⁸⁹⁹ The diseases that fall into this category including Nipah, Hendra virus disease, hantavirus pulmonary syndrome/cardiopulmonary syndrome caused by Andes virus, Rift Valley fever, Crimean-Congo hemorrhagic fever, coronavirus diseases causing severe acute respiratory syndrome (SARS), and Middle East Respiratory Syndrome (MERS-CoV). The latter two are not found on the SATL. All are zoonotic infections, and with the exception of the SARS and Andes viruses, all are spread to humans only by contact, usually blood or body fluids, thereby causing the biggest concern in the in-patient hospital setting if there are sub-optimal infection control practices.^{900,901,902} The upper limit of the published reproductive numbers for these two viruses reflects poor initial infection control practices in hospitals. Notably, Andes virus, a hantavirus, has

⁸⁹⁷ Marisa H. Miceli et al., “A Case of Person-to-Person Transmission of Q Fever from an Active Duty Serviceman to His Spouse,” *Vector-Borne and Zoonotic Diseases* 10:5 (18 December 2009), pp. 539-41, available at <https://doi.org/10.1089/vbz.2009.0101> .

⁸⁹⁸ A. Wallensten, H. Fredlund, and A. Runehagen, “Multiple Human-to-Human Transmission from a Severe Case of Psittacosis, Sweden, January–February 2013,” *Eurosurveillance* 19:42 (23 October 2014), p. 20937, available at <https://doi.org/10.2807/1560-7917.ES2014.19.42.20937> .

⁸⁹⁹ “CDC | Bioterrorism Agents/Diseases (by Category) | Emergency Preparedness & Response.”

⁹⁰⁰ Vikrant Sharma et al., “Emerging Trends of Nipah Virus: A Review,” *Reviews in Medical Virology* 29:1 (2019), p. e2010, available at <https://doi.org/10.1002/rmv.2010> .

⁹⁰¹ Yudong Yin and Richard G. Wunderink, “MERS, SARS and Other Coronaviruses as Causes of Pneumonia,” *Respirology* 23:2 (2018), pp. 130-7, available at <https://doi.org/10.1111/resp.13196> .

⁹⁰² Mustafa Gokhan Gozel et al., “Investigation of Crimean-Congo Hemorrhagic Fever Virus Transmission from Patients to Relatives: A Prospective Contact Tracing Study,” *The American Journal of Tropical Medicine and Hygiene* 90:1 (8 January 2014), pp. 160-2, available at <https://doi.org/10.4269/ajtmh.13-0306> .

infrequently been epidemiologically linked to respiratory transmission between humans⁹⁰³ rather than nosocomial transmission in health care settings.⁹⁰⁴

The possibility that a new pathogen could emerge *de novo* in nature exists, but is nearly impossible to predict. The specter of modifying an existing emerging or re-emerging pathogen to make it easier to disseminate widely by a human vector would suppose altering an organism's virulence and/or transmissibility. As our knowledge of the Category C agents is incomplete, the needed modifications would first require an expanded knowledge of the pathogenesis, virulence, and natural history of their infection in humans. Therefore, like the CDC Category B agents, the Category C pathogens are unlikely to be efficiently transmitted by a HV.

SATL "Other" Tier Pathogens Not Found Assigned to a CDC Disease/Agent Category. There is only one directly transmissible pathogen, monkeypox virus, found only on the SATL "Other" Tier but not on the A, B, C list of pathogens and diseases categorized by CDC. This virus, a relative of smallpox, is a zoonotic infection found in certain Sub-Saharan African countries.⁹⁰⁵ It is less transmissible person-to-person than smallpox virus (and hence has a lower reproductive number),⁹⁰⁶ produces skin lesions very similar to smallpox, has a lower associated case fatality, and responds to the same MCM as smallpox.⁹⁰⁷ Importantly, its natural history, once entering human populations, is to die out on its own by the fifth propagation cycle.⁹⁰⁸ This means that because its overall reproductive number is less than one (estimated to be between 0.02 and 0.22),⁹⁰⁹ it will not become an endemic human infection and will not continue to spread, even with no medical or public health interventions. Therefore, it would be a less than ideal pathogen for a HV to try to disseminate.

Synthetically Engineered Pathogens. The past several decades have been associated with an explosion in molecular biology and a much more detailed understanding of the immune system. As a result, the ability exists to modify existing microorganisms to make them more virulent,⁹¹⁰ and the possibility of creating new organisms that are not found in nature exists. Synthetic biology

⁹⁰³ Valeria P. Martinez et al., "Person-to-Person Transmission of Andes Virus," *Emerging Infectious Diseases* 11:12 (December 2005), pp. 1848-53, available at <https://doi.org/10.3201/eid1112.050501> .

⁹⁰⁴ Constanza Martinez-Valdebenito et al., "Person-to-Person Household and Nosocomial Transmission of Andes Hantavirus, Southern Chile, 2011," *Emerging Infectious Diseases* 20:10 (October 2014), pp. 1629-36, available at <https://doi.org/10.3201/eid2010.140353> .

⁹⁰⁵ Andrea M. McCollum and Inger K. Damon, "Human Monkeypox," *Clinical Infectious Diseases* 58:2 (15 January 2014), pp. 260-7, available at <https://doi.org/10.1093/cid/cit703> .

⁹⁰⁶ Adam J. Kucharski and W. John Edmunds, "Characterizing the Transmission Potential of Zoonotic Infections from Minor Outbreaks," *PLoS Computational Biology* 11:4 (10 April 2015), available at <https://doi.org/10.1371/journal.pcbi.1004154> .

⁹⁰⁷ Inger K. Damon, "Status of Human Monkeypox: Clinical Disease, Epidemiology and Research," *Vaccine, Smallpox Eradication after 30 Years: Lessons, Legacies and Innovations*, 29 (30 December 2011), pp. D54-9, available at <https://doi.org/10.1016/j.vaccine.2011.04.014> .

⁹⁰⁸ Kucharski and Edmunds, "Characterizing the Transmission Potential of Zoonotic Infections from Minor Outbreaks."

⁹⁰⁹ Kucharski and Edmunds.

⁹¹⁰ R. J. Jackson et al., "Expression of Mouse Interleukin-4 by a Recombinant Ectromelia Virus Suppresses Cytolytic Lymphocyte Responses and Overcomes Genetic Resistance to Mousepox," *Journal of Virology* 75:3 (February 2001), pp. 1205-10, available at <https://doi.org/10.1128/JVI.75.3.1205-1210.2001> .

(SB) techniques have been used to synthesize, “from scratch,” both poliovirus⁹¹¹ and the 1918 pandemic strain of influenza virus.⁹¹² SB, for the most part, has been pursued for beneficial purposes across multiple domains, including medicine.⁹¹³ However, there is a concern that SB could be used for harm. The National Academies has created a framework to guide thinking regarding these technologies to stratify levels of concern regarding advances in biotechnology, their implications, and how to categorize the possible threats posed by them.⁹¹⁴ The authors of this framework identified important current barriers or bottlenecks to recreating known pathogenic bacteria or viruses, making existing bacteria or viruses more virulent, creating de novo pathogens, modifying critical human systems or attributes such as the microbiome, immune system, or genome – each requiring one or more developments to have a successful outcome, particularly in the areas of knowledge and technology.⁹¹⁵

Similar questions to those posed when thinking of existing pathogens that could be used to create a HV would also apply here. First, if such a SB pathogen were produced, would it have an adequate reproductive number to allow it to be easily propagated by the HV and then continuously transmitted person-to-person? Second, would the incubation period of the SB pathogen be long enough to permit the HV to reach the targeted dissemination point before becoming too ill to move about freely? Third, are there existing MCM that could be used to rapidly treat the pathogen and stop its ongoing spread? A new question is raised that is specific to an SB pathogen – will the new pathogen have the desired and predictable results, including high morbidity and mortality? Creating or acquiring such SB pathogens is discussed below.

The 2018 report, “Biodefense in the Age of Synthetic Biology,” provides a thoughtful assessment of concerns related to pathogens that is instructive:

Known pathogens can be created. The difficulty of this recreation increases with the size of the genome. Engineering viruses to make them more pathogenic is possible. Design would be challenging because of knowledge limitations and because changes are generally detrimental to viruses; however, these challenges could potentially be addressed by building and testing many variations until a more pathogenic virus emerges. Bacteria can be engineered with current technology, and the engineering of bacteria with characteristics such as multidrug resistance is an area of near-term concern. With regard to making new pathogens, the difficulty increases as the distance from natural pathogens increases.⁹¹⁶

⁹¹¹ Jeronimo Cello, Aniko V. Paul, and Eckard Wimmer, “Chemical Synthesis of Poliovirus CDNA: Generation of Infectious Virus in the Absence of Natural Template,” *Science* 297:5583 (9 August 2002), pp. 1016–18, available at <https://doi.org/10.1126/science.1072266> .

⁹¹² Terrence M. Tumpey et al., “Characterization of the Reconstructed 1918 Spanish Influenza Pandemic Virus,” *Science* 310:5745 (7 October 2005), pp. 77-80, available at <https://doi.org/10.1126/science.1119392> .

⁹¹³ Engineering National Academies of Sciences, *Biodefense in the Age of Synthetic Biology*, 2018, available at <https://doi.org/10.17226/24890> . In this report, “synthetic biology” is defined as “...concepts, approaches, and tools that enable the modification or creation of biological organisms...”

⁹¹⁴ National Academies of Sciences, p. 4.

⁹¹⁵ *Ibid*, pp. 7-8.

⁹¹⁶ *Ibid*, p. 57.

This assessment highlights that among the pathogens identified in this chapter as the “most likely” pathogens to select for creating a human vector, current technology⁹¹⁷ could render *Y. pestis* resistant to all known classes of antibiotics. However, the acquisition of antimicrobial resistance does not insure that the organism will remain virulent or as transmissible between humans.⁹¹⁸ Furthermore, rendering the organism resistant to one type or class of antibiotics may have a different impact on the ability of the *Y. pestis* to multiply and cause damage to the infected person.⁹¹⁹ Hence the ability to create a multi-drug resistant, plague-producing organism does not insure that it will be able to cause a fatal, untreatable, severe infection. Verification that the microorganism had maintained both virulence and transmissibility would be required prior to deployment.

Likely Sources of Suitable Pathogens and Approaches or Techniques to Create a Human Vector

This section will focus on the acquisition of the most suitable pathogens identified previously to create a HV, and how the HV could be created once a pathogen is at hand. The pathogens for discussion will include variola virus (smallpox virus), *Yersinia pestis* (plague), three hemorrhagic fever viruses (the Ebola, Marburg, and Lassa Fever viruses), and the possibility of creating or acquiring an engineered pathogen.

Accessible Pathogens

Variola virus. Smallpox, a uniquely human pathogen that has been eradicated, purportedly exists in only two World Health Organization (WHO)-designated reference laboratories with high-level (Biosafety Level 4) secure laboratories: at the CDC in Atlanta, GA and at the State Research Center of Virology and Biotechnology (VECTOR) in the Novosibirsk, Siberia in the Russian Federation. However, the discovery of vials of the virus in a storage area on the campus of the U.S. National Institutes of Health in Bethesda, MD in 2014 suggest that more vials of the virus may exist.⁹²⁰ Further “undeclared” vials of virus could exist outside of official repositories, despite the 1982 WHO recommendation to either destroy all “unofficial” smallpox viruses held or to transfer them to a reference laboratory.⁹²¹ Notably, no additional “forgotten” vials of smallpox have as yet been reported. Importantly, the virus can be grown in several laboratory cell types, particularly those of human or non-human primate origin,⁹²² meaning that a single vial of the virus

⁹¹⁷ Leonie J. Jahn et al., “Adaptive Laboratory Evolution of Antibiotic Resistance Using Different Selection Regimes Lead to Similar Phenotypes and Genotypes,” *Frontiers in Microbiology* 8 (11 May 2017), available at <https://doi.org/10.3389/fmicb.2017.00816> .

⁹¹⁸ Médéric Diard and Wolf-Dietrich Hardt, “Evolution of Bacterial Virulence,” *FEMS Microbiology Reviews* 41:5 (1 September 2017), pp. 679-97, available at <https://doi.org/10.1093/femsre/fux023> .

⁹¹⁹ Alejandro Beceiro, María Tomás, and Germán Bou, “Antimicrobial Resistance and Virulence: A Successful or Deleterious Association in the Bacterial World?,” *Clinical Microbiology Reviews* 26:2 (April 2013), pp. 185–230, available at <https://doi.org/10.1128/CMR.00059-12> .

⁹²⁰ Jocelyn Kaiser, “Six Vials of Smallpox Discovered in U.S. Lab,” *Science | AAAS*, 8 July 2014, available at <https://www.sciencemag.org/news/2014/07/six-vials-smallpox-discovered-us-lab>.

⁹²¹ Fenner et al., *Smallpox and Its Eradication.*, p. 1274.

⁹²² *Ibid*, p. 98.

could be easily expanded by a person who has basic knowledge of how to grow and maintain virus cultures.

Adding to the issue is the fact that the complete sequence of the variola virus has been published^{923,924} and the recent recreation of a previously extinct horsepox virus⁹²⁵ using published sequence data and common cloning techniques has raised the question of the ethics of such research and the possibility of the resurrection the smallpox virus.⁹²⁶ However, other experts take a more moderate view of the likelihood of a non-state actor being able to successfully carry out such efforts to completion.⁹²⁷ The ability to recreate a virus from a published sequence requires sophisticated knowledge and skills in molecular biology including genome-editing technologies such as gene drives⁹²⁸ as well as the supporting laboratory infrastructure, such as equipment and supplies. The work would need to be carried out in a covert manner, and the resulting virus would need to be grown and be shown to cause disease in an unvaccinated person. The effort would require long-term planning and a significant amount of time to implement. If an existing, distantly related virus, such as monkeypox, were to be edited to create the virulence associated with smallpox, specific changes to the monkeypox genome would be needed not only for virulence but also to cause virus reversion to a predominantly human pathogen.⁹²⁹ This would require repeated laboratory experiments and testing of the resulting pathogens on humans.

Nonetheless, there are those who believe that this could be done, given the increasing popularity of “do-it-yourself” biology (DIYbio)⁹³⁰ that lowers costs and the international genetically-engineered machine competition (iGEM), a worldwide SB event for high school students, undergraduates, entrepreneurs, and community laboratories. The DIYbio “movement” in North America includes about 20 laboratories in locations such as San Francisco, Boston, and Baltimore, which offer training and laboratory space. However, the member may not bring in

⁹²³ Robert F. Massung et al., “Analysis of the Complete Genome of Smallpox Variola Major Virus Strain Bangladesh-1975,” *Virology* 201:2 (1 June 1994), pp. 215-40, available at <https://doi.org/10.1006/viro.1994.1288> .

⁹²⁴ Robert F. Massung et al., “Potential Virulence Determinants in Terminal Regions of Variola Smallpox Virus Genome,” *Nature* 366:6457 (December 1993), p. 748, available at <https://doi.org/10.1038/366748a0> .

⁹²⁵ Ryan S. Noyce, Seth Lederman, and David H. Evans, “Construction of an Infectious Horsepox Virus Vaccine from Chemically Synthesized DNA Fragments,” *PLoS ONE* 13:1 (19 January 2018), available at <https://doi.org/10.1371/journal.pone.0188453> .

⁹²⁶ Gregory D. Koblentz, “A Critical Analysis of the Scientific and Commercial Rationales for the De Novo Synthesis of Horsepox Virus,” *MSphere* 3:2 (7 March 2018), available at <https://doi.org/10.1128/mSphere.00040-18> .

⁹²⁷ Diane DiEuliis and Gigi Kwik Gronvall, “A Holistic Assessment of the Risks and Benefits of the Synthesis of Horsepox Virus,” *MSphere* 3:2 (7 March 2018), available at <https://doi.org/10.1128/mSphere.00074-18> .

⁹²⁸ John R. Christin and Michael V. Beckert, “Origins and Applications of CRISPR-Mediated Genome Editing,” *The Einstein Journal of Biology and Medicine: EJBM* 31:1-2 (2016), pp. 2-5, available at <https://doi.org/10.23861/EJBM201631754> .

⁹²⁹ Sergei N. Shchelkunov et al., “Human Monkeypox and Smallpox Viruses: Genomic Comparison,” *FEBS Letters* 509:1 (2001), pp. 66-70, available at [https://doi.org/10.1016/S0014-5793\(01\)03144-1](https://doi.org/10.1016/S0014-5793(01)03144-1) .

⁹³⁰ Thomas Landrain et al., “Do-It-Yourself Biology: Challenges and Promises for an Open Science and Technology Movement,” *Systems and Synthetic Biology* 7:3 (September 2013), pp. 115-26, available at <https://doi.org/10.1007/s11693-013-9116-4> .

pathogens to work on, and there is oversight of experiments.⁹³¹ Like DIYbio, iGem has focused on the biosafety aspects of SB rather than biosecurity, but acknowledges that dual-use research of concern (biosecurity) issues exist.⁹³² All of the laboratory experts interviewed stated that SB could evolve to become a future threat, but is unlikely to become one in the near future. This view of concern for the future was also noted by the National Academies, in terms of both SB and dual use research of concern.^{933,934}

Yersinia pestis. There are hundreds of strains of this bacterium, but virulence is highly variable. Acquisition would be possible by someone working in a clinical or public health laboratory where clinical specimens may be stored. One laboratory expert interviewed voiced concerns about the lack of screening of students prior to entering some graduate degree programs, in both upper and lower resource settings. Citing the pre-employment security screening of only faculty, who in lower resource settings often hold positions at both a university and a public health reference laboratory, the expert expressed concern that there is often ease of access for students who often work with a faculty advisor in both locations. This could give them unrestricted access to pathogens that could be used for nefarious purposes. Alternatively, the bacterium could be acquired by someone working in a clinical facility or laboratory in the area of a country with an ongoing outbreak of any strain of plague. A culture containing the pathogen would need to be transported in a manner that allowed for continued growth until its arrival at a location where it could be further grown and prepared for infecting one or more HV. This is more likely to occur where access to the pathogen is not highly controlled. However, a culture of the pathogen could with some ease be taken from a controlled access location and not be discovered.

Viral hemorrhagic fever viruses. The hemorrhagic fever viruses, particularly ebolavirus and Lassa fever virus, could be obtained from patient materials during an outbreak. “Collectors” could be health care providers or laboratory workers who were either part of a jihadist cell, an ideological sympathizer, or someone who was bribed to provide the sample. In outbreak locations, patient samples are usually transferred to secure settings, thereby making them harder to obtain if one is not employed in the laboratory. Expropriating part of a sample before or during the packaging of a sample that is being sent to a national reference laboratory is another way to obtain such a sample. Maintaining the viability of the virus during transport is essential. There are ways to insure the viability of a sample, but the transporter would need instructions from a skilled person. It is also possible to try to obtain one of the viruses from a clinical or national reference laboratory.

⁹³¹ Synthetic Biology Project, “Seven Myths & Realities about Do-It-Yourself Biology” (Washington DC: Wilson Center International Center for Scholars, [November] 2013), available at https://www.wilsoncenter.org/sites/default/files/7_myths_final.pdf.

⁹³² Zheng-jun Guan et al., “Biosafety Considerations of Synthetic Biology in the International Genetically Engineered Machine (iGEM) Competition,” *BioScience* 63:1 (1 January 2013), pp. 25-34, available at <https://doi.org/10.1525/bio.2013.63.1.7>. The report cites the potential misuse of Team GeorgiaTech_2011 project, with the potential for misuse of any genetic-modification experiment in developing a clustered regularly interspaced short palindromic repeat (CRISPR) mechanism that could render an engineered organism resistant to a phage, for example, that would ordinarily kill it.

⁹³³ National Academies of Sciences, *Biodefense in the Age of Synthetic Biology*.

⁹³⁴ National Academies of Sciences, Engineering, and Medicine et al., *Dual Use Research of Concern in the Life Sciences: Current Issues and Controversies* (Washington, DC: National Academies Press, 2017), available at <http://www.ncbi.nlm.nih.gov/books/NBK458491/>.

This may take longer-term planning for execution, including the placement of employees with microbiology training in the laboratories, where they could then acquire the desired pathogen without raising suspicions. Virus maintenance, once in the hands of the end-user prior to final deployment, would require some level of laboratory experience and expertise.

Approaches and Techniques to Create a Human Vector

It is likely that the most successful method of creating a HV would be to use a technique that would come as close as possible to the manner in which the naturally-occurring infection is acquired, and that would deliver a similar infection dose to what is seen in nature.

Respiratory Pathogen HV Creation. The two pathogens for discussion here are smallpox and pneumonic plague. A drug delivery device, such as a nebulizer, commonly used to treat asthma, cystic fibrosis, and other respiratory diseases and disorders, could be used to infect the human vector. A solution of the liquid culture of the pathogen could then be loaded into the drug dispenser. In general, the smaller (less than 5 microns) the particle, the more likely that the pathogen will enter more deeply into the lung. However, nebulizers are more likely to create droplets of varying sizes that would reach a transition area between the mouth and lower airway of the mouth and throat. Importantly, droplet transmission occurs in both smallpox and pneumonic plague. The efficiency of nebulizers to deliver drugs to the respiratory tract is dependent upon the characteristics of the inhaled material, including particle density, particle size, particle shape, and surface energy.⁹³⁵ Therefore, it is likely that several different devices would need to be tested to find the optimal conditions for delivery to the lowest part of the respiratory tree possible, and to employ a dose similar to that usually infecting a human. Nebulizers, which are easily purchased from an Internet vendor without a prescription, provide a range of sophistication and cost between \$34 and \$200.

The incubation period of smallpox is longer than that of pneumonic plague, the latter being as short as one day but as long as one week. Hence, near immediate deployment of the HV would be needed for plague compared with smallpox. The inoculation of smallpox virus into the skin (variolation) in a manner akin to administration of smallpox vaccine is an inefficient approach to creating a HV, because it is more likely to immunize the person that cause disease.⁹³⁶

Viral Hemorrhagic Fever Pathogen HV Creation. Creating a HV with a viral hemorrhagic fever pathogen could most easily be done by injecting a small amount of infectious material, such as from a culture. Alternatively, one or more virus-containing drops from a culture or infected bodily secretion could be applied to the nasal mucosa. However, the use of infected body secretions would require application within hours of collection, or thawing if the sample had been quickly

⁹³⁵ Chaeho Moon et al., "Delivery Technologies for Orally Inhaled Products: An Update," *AAPS PharmSciTech* 20:3 (19 February 2019), p. 117, available at <https://doi.org/10.1208/s12249-019-1314-2>.

⁹³⁶ Fenner et al., *Smallpox and Its Eradication*, p. 345.

frozen using liquid nitrogen immediately after collection.⁹³⁷ As the incubation period for Ebola virus disease, Marburg disease, and Lassa fever may be as long as several weeks, there would be time to get the HV into position. Because the transmission by the HV to others requires that the targeted persons be exposed to blood or body fluids, however, the means of propagation to others could be challenging, particularly in settings with effective infection prevention and control measures in place in health care settings.

Final Considerations: Feasible Does Not Mean Likely

It is clear that the deliberate creation of one or more HV to transmit pathogens with potential high transmissibility in targeted population(s) is possible. The underlying ideological and psychological motivations that would be involved in recruiting a potential HV are discussed elsewhere in this report.

Depending upon the selected pathogen, morbidity and mortality may be considerable before the associated epidemic(s) is controlled. The specter of engineered organisms – from the modification of existing pathogens to the creation of new ones – is on the horizon, and some would say is already here. As previously noted, use of HV is not the most efficient way to cause pathogen-specific harm to the greatest number of people. Therefore, the use of a different biological weapon delivery mechanism is more likely than the use of a HV, although that also would require a certain level of scientific expertise to employ.

⁹³⁷ Thomas V. Ramos et al., “Standardized Cryopreservation of Human Primary Cells,” *Current Protocols in Cell Biology* 64:1 (2014), p. A.3I.1-A.3I.8, available at <https://doi.org/10.1002/0471143030.cba03is64> .

TABLE. Human Infections Caused by Centers for Disease Control and Prevention (CDC) A, B, C Diseases/Agents of Bioterrorism^A and Federal Select Agent Program Pathogens^B, by Mode of Transmission (MOT)^C

Disease	Pathogen	CDC Category	FSAP Category	Direct MOT ^D	Direct MOT Type ^E	Reproductive Number (R ₀) ^F	Infect Dose ^G	Inc Per (d) ^H	Length Txn ^I	Pop'n Susc ^J (%)	Usual CFR ^K (%)	MCM ^L Available?	Human Vector Potential
CDC Category A Agents for Bioterrorism and Federal Select Agent Program Tier 1 Pathogens													
Anthrax	<i>Bacillus anthracis</i>	A	Tier 1	NO	---								
	<i>B. cereus</i> biovar <i>anthracis</i>	ND	Tier 1	NO									
Botulism	<i>Clostridium botulinum</i> toxin	A	Tier 1	NO	---								
Plague (pneumonic)	<i>Yersinia pestis</i>	A	Tier 1	YES	D	2.4	~100	1-7 d	During untreated cough	All	50-60%	V*,A, D1	Effective to create human vector (HV): See text
Smallpox	Variola major virus	A	Tier 1	YES	D, C,A	6.87 (Higher early)	1	7-19 d (2-4 d before rash)	Rash to scab fall off (~3 weeks)	All not vaccinated	20-40%	V,A,D2	Effective to create human vector (HV): See text
	Variola minor (alastrim)	ND	Tier 1			?	?				All not vaccinated	<1%	V,A,D2
Tularemia	<i>Francisella tularensis</i>	A	Tier 1	NO	---								
Viral hemorrhagic fever	Filoviruses	A	Tier 1	YES	C, D?	1.51-1.83	<10	2-21 d	≤7 wks after recovery in genital secretions	All non-immune persons	32-88%	V**, A**, D2	Less effective but could be used to create HV: See text
	--Ebola virus					1.53-1.66	?	5-15 d	22-90%				
	--Marburg virus												Less effective but could be used to create HV: See text
	Arenaviruses --Lassa virus	A	Tier 1	YES	C	1.29-1.37	?	6-21 d	3 wks (blood) 3-9 wks (urine); 3 mo (semen)	All non-immune persons	1-15%	None	Less effective but could be used to create HV: See text
--Machupo virus	A	Tier 1	YES	C	?	?	4-21 d	?	All non-immune	25-35%	None	Less effective but could be used to create HV: See text	

	Venezuela EE virus	B	ND	NO	---								
	Western EE virus												
CDC Category C Agents of Bioterrorism and Federal Select Agent Program List Designation													
Nipah disease	Nipah virus	C	Other	YES	C, D	0.056-0.59	?	4-60 d	?	All	13%-32%	A**, D	Less effective but could be used to create HV: See text
Hendra Virus Disease	Hendra virus (HeV)	C	Other	NO	---								
Crimean-Congo Hemorrhagic Fever (CCHF)	CCHF virus	C	Other	YES	C	?	?	1-12 d	?	All	3-30%	A*, D*	Less effective but could be used to create HV: See text
Rift Valley Fever	Rift Valley Fever virus	C	Other	NO	---								
HANTAVIRUS DISEASES													
-Hantavirus Pulmonary Syndrome (HPS)/Cardio-Pulmonary Syndrome (HCPS)	-Andes virus	C	ND	YES	C, D? A?	2.9-4.9	?	?	?	All	40-50%	A**, D**	Less effective but could be used to create HV: See text
	-Araaquara virus	ND	ND	NO	---								
	-Bayou virus	ND	ND	NO	---								
	-Black Creek Canal Virus	ND	ND	NO	---								
	-Bermejo virus	ND	ND	NO	---								
	-Castelo Dos Sonhos virus	ND	ND	NO	---								
	-New York orthohantavirus	ND	ND	NO	---								
	-Monongahela virus	ND	ND	NO	---								
	-Sin Nombre orthohantavirus	ND	ND	NO	---								
	-Amur virus												

- Hemorrhagic Fever with Renal Syndrome	-Dobrava-Belgrade virus -Hantaan virus -Puumala virus -Saaremaa virus -Seoul virus -Thailand hantavirus -Tula virus	C	ND	NO	---								
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SEVERE CORONAVIRUS (CoV) INFECTIONS

Severe acute respiratory syndrome (SARS)	SARS-associated coronavirus (SARS-CoV)	C	ND	YES	D, C	0.63 (0.49–0.85)	?	2-14 d	<21 d	All	10%		Less effective but could be used to create HV: See text
Middle East Respiratory Syndrome- (MERS)	MERS-associated coronavirus virus (MERS-CoV)	C	ND	YES	C	1.9-5.0		2-10 d	<21 d	All	36%		Less effective but could be used to create HV: See text

Pathogens on the Federal Select Agent List Only

Monkeypox	Monkeypox virus	ND	Other	YES	D, C	0.08 (0.02–0.22).	?	7-17 d	?	All	15-20%	V, A, D2	Less effective but could be used to create HV: See text
Tick-borne Encephalitis	Tickborne encephalitis complex viruses -Far Eastern subtype -Siberian subtype	ND	Other	NO	---								
Kyasanur Forest Disease	Kyasanur Forest disease virus	ND	Other	NO	---								
Omsk Hemorrhagic Fever	Omsk hemorrhagic fever virus	ND	Other	NO	---								

Synthesized Organisms or Gain-of-Function Pathogens (Not Categorized)

Engineered Pathogens	UNKNOWN	ND	ND	?	?	?	?	?	?	?	?	?	Possible use in distant future to create HV: See Text
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^ACDC Categories of Agents of Bioterrorism. Category A=Designated as high-priority agents that pose a risk to national security because they: 1) can be easily disseminated OR transmitted from person to person; 2) result in high mortality rates and have the potential for major public health impact; 3) might cause public panic and social disruption; and 4) require special action for public health preparedness. Category B=Designated as second highest priority agents and include those that: 1) are moderately easy to disseminate; 2) result in moderate morbidity rates and low mortality rates; and 3) require special enhancements of CDC's diagnostic capacity and enhanced disease surveillance. Category C=Designated the third highest priority agents including emerging pathogens that could be engineered for mass dissemination in the future because of: 1) availability; 2) ease of production and dissemination; and 3) potential for high morbidity and mortality rates and major health impact; ND=No designation as A, B, or C.

^BSelect Agent Program Pathogen List. The Federal Select Agent Program is a program that has been evolving since 1995 following a former Aryan Nations member obtaining *Yersinia pestis*, the cause of plague, by mail order. Congress passed Section 511 of the Antiterrorism and Effective Death Penalty Act of 1996 requiring the U.S. Department of Health and Human Services (HHS) to publish regulations for the transfer of select agents that have the potential to pose a severe threat to public health and safety. Thereafter, requirements were updated in the Code of Federal Regulations (CFR) or by Executive Order. In 2010 Executive Order 13546, "Optimizing the Security of Biological Select Agents and Toxins in the United States," required that HHS and the U.S. Department of Agriculture, as part of ongoing review, "tier" the agents and establish physical security standards for select agents with highest risk of misuse. The Final Rule of 5 October 2012 designated **Tier 1** select agents as those at greatest risk of deliberate misuse with significant potential for mass casualties or devastating effects to the economy, critical infrastructure, or public confidence. All other pathogens and toxins on the list are not placed in any tier and are noted here as "**Other**". **ND** = No designation if not found on the Select Agent List

^CMode of Transmission. There are multiple ways, or modes, of transmission of pathogens. There are two general modes of transmission: direct transmission, such as pathogen acquisition from kissing, sexual intercourse, or droplets from a coughing person and indirect transmission, such as from a mosquito or contaminated food.

^DDirect Mode of Transmission (MOT). Some epidemiologists debate which MOT are due to direct versus indirect transmission. Here, direct transmission means the transfer of a pathogen directly from a human to another human by direct contact, droplet aerosols, or on airborne small droplet nuclei. Direct transmission can also occur following contact soil or directly from contact with the output of a droplet-producing sprayer. These are not considered as a direct MOT in this table. Indirect transmission by non-human produced airborne droplet nuclei, vehicles (such as food, water, blood products, and fomites), or vectors (such as mosquitos, fleas, and ticks) are not included. **YES** = the pathogen has been reported to be directly transmitted. This may not be the pathogens' usual MOT. **NO** = there are no reports of direct transmission of this pathogen, **UNK** = Unknown due to insufficient existing information about the pathogen.

^EDirect MOT Type. **C**=Direct Contact through skin-to-skin contact, kissing, sexual intercourse between an infected persons and a susceptible person; **D**=short-range aerosol droplets of 5 micrometers or more in size from the infected person to the susceptible person; **A**=long-range airborne droplet nuclei of less than 5 micrometers from an infected person through the air to a susceptible person.

^FReproductive Number. The reproductive number ($R_0 = \tau \times \bar{c} \times d$) is the expected number of secondary cases resulting for a single infectious person introduced into a fully susceptible population. It is a measure of the ability of a pathogen to spread in a population and then, to cause an epidemic. If R_0 is less than 1, then an epidemic is unlikely to occur whereas if the R_0 is more than 1, then an epidemic of some size is likely to occur. The R_0 takes into account the transmissibility of the infectious agent (τ), the average rate of contact between the infected and susceptible persons (\bar{c}), and the duration of infectiousness (d). The greater the R_0 , the more transmissible the pathogen. These are average reported reproductive numbers that have been reported in the published literature.

^GInfect Dose=Infectious dose. The number of microorganisms or colony forming units in culture required to initiate an infection

^HInc Per (d)=Incubation Period, in days. The time from exposure to the infectious agent and onset of illness.

^ILength of Txn=Duration of transmissibility from the infected person to a susceptible person

^JPop'n Susc (%) = Percentage of the population assumed to be susceptible if exposed to a pathogen

^KUsual Case Fatality Ratio (CFR). The reported proportion of fatal cases among all infections occurring. The stated CFR is for unvaccinated and/or untreated cases, should a vaccine or treatment exist.

^LMCM=Medical countermeasures available. **V**=FDA-licensed and manufactured; **V***=FDA-licensed but not currently manufactured; **V****=Investigational vaccine/biologics; **A**=Antimicrobial; **A****=Investigational agents **D1**=FDA cleared diagnostic test; **D2**=Laboratory Research Network (LRN) laboratory only

SUMMARY AND CONCLUSIONS

Given the in-depth treatment given in the above chapters about three key issues – ideological, psychological, and technical – that must be considered in assessing the potential threat of a jihadist bioterrorist attack using human vectors, this concluding chapter will be relatively brief. It consists of two parts. Part I will provide summary responses to four issues that were identified by Dr. Raymond Zilinskas in his original project proposal. Part II will instead briefly delineate certain “red flags” or warning signs that U.S. law enforcement and intelligence communities should be paying careful attention to in this context.

Part I: Summary Responses to Zilinskas’ Questions

Bioterrorist attacks utilizing human vectors, i.e., persons who have been deliberately infected with pathogens that can be easily spread from person-to-person, constitute a potential national and international security threat. An attack that employs such a heretofore unused methodology would require a confluence of four elements: 1) groups, and their leaders, with extremist ideological beliefs that serve to sanction mass casualty attacks, including the use of this methodology; 2) ideological believers – or other individuals who have been bribed or coerced – that have sufficient scientific and technical expertise to create the human vectors; 3) ideological believers who are willing to be infected and possibly die from being deliberately infected (or other individuals who have been coerced or deceived into doing so); and 4) the selection of a pathogen that can be effectively used to create a human vector who can efficiently spread infections to targeted populations.

Element One: Terrorist Groups with Leaders Who Might Seek to Employ Human Vectors

This study is focused on the potential bioterrorist threat posed by jihadist terrorist groups, which presupposes that the leaders, cadres, and members of those groups will embrace one of the main currents of Islamist ideology. The majority of contemporary, globally-oriented Sunni jihadist organizations espouse jihadist Salafism, perhaps the most radical of those currents. The most important and notorious jihadist Salafist groups are al-Qa‘ida (The Base, or Foundation) and al-Dawla al-Islamiyya (the Islamic State). As with the leaders of other types of ideologically-motivated extremist groups, Dr. Jeffrey M. Bale emphasizes that it is the interpretations of those core ideological beliefs by jihadist leaders – which, in this case, derive from a strict, puritanical interpretation of orthodox Islamic religious doctrines and injunctions – that serve as the primary

driver of the terrorist actions they decide to undertake. The only question is whether particular jihadist leaders have a serious interest in using human vectors to conduct bioterrorist attacks, which in most cases seems not to be the case since they are able to carry out successful mass casualty terrorist attacks using destructive but more reliable and easily deployed conventional weapons (such as Improvised Explosive Devices [IEDs]).

Nevertheless, there are few, if any, ideological, religious, or cultural barriers that would serve to inhibit jihadist organizations from carrying out mass casualty attacks against their designated enemies, with or without the use of “weapons of mass destruction.” There are several reasons for this. First, it is apparent from the innumerable statements issued by jihadist groups that threaten to wreak massive, unprecedented destruction on their “infidel” enemies. Second, jihadist groups already have a long and well-documented history of planning and carrying out destructive mass casualty attacks against “soft” civilian targets, which have continued up until the present day. Third, the traditional Islamic “just war” doctrines sanctioning proportionality and reciprocity with respect to carrying out attacks on the enemy have already been cited several times by Islamist clerics and jihadist leaders in order to argue that Muslims have a religio-legal “right” to kill many millions of “infidels,” above all Americans, who they blame for having caused the deaths of millions of Muslims. Fourth, there is theological and legal support in Islam for the employment of “battlefield martyrs” to carry out such attacks, even if using such martyrs as human vectors to disseminate contagious, lethal pathogens has not yet been attempted. Finally, the apocalyptic millenarian beliefs associated with Islam and, by extension, their pronounced manifestations in the ideology of certain jihadist terrorist organizations (as well as in that of the Shi’i Islamist regime in Iran), could also easily provide both a theological rationale and an emotional driver to carry out catastrophic acts of violence, including with biological agents.

Element Two: Jihadist Terrorist Group Recruitment of Technical Experts to Create Human Vectors for Deployment

A jihadist terrorist group that was intent upon creating and deploying human vectors would need to recruit persons with the expertise to maintain or create a supply of one or more selected pathogens, as well as persons with the needed skills to infect the human vector. These experts could potentially be recruited from amongst Islamist extremists or Islamist sympathizers, since in that case they would have the same beliefs, goals, and designated enemies as the violence-prone extremist groups that sought to recruit them. Alternatively, such experts could potentially be recruited by means of either tangible rewards or the threat of tangible punishments, i.e., they could be financially bribed or pressured to cooperate when faced with coercive threats to their own lives or those of their loved ones. In such cases, however, their cooperation would likely be more conditional and lacking in equivalent levels of fanaticism and dedication.

Element Three: Recruiting Human Vectors and Preparing Them for Deployment

The desire of a terrorist group leader to employ a human vector does not necessarily mean that he will easily be able to find an individual who is ready, willing, and able to become a potential “suicide” human vector. Dr. Thomas Reidy’s in-depth examination of the psychology of individuals who might be willing to become human vectors, and how they would be prepared for their deployment, revealed that so-called “murder-suicide” terrorists may have different characteristics than both regular terrorists and troubled individuals who commit garden variety murder-suicides (such as familial murder-suicides). Although the religiously-sanctioned emphasis in Islam on “battlefield martyrdom” is a very important factor in the successful recruitment of potential jihadist human vectors, other pre-existing risk factors and psychological vulnerabilities may be no less important. Although such recruits may have no other specialized talents, skills, or expertise, it appears that they do often have a willingness or even a desire to die. Isolation from the outside world during the process of indoctrination and preparation for the “mission” are also crucial in order to ensure that the prospective suicide attacker can be further habituated to a culture that idolizes martyrdom as well as instilled with a fearlessness of death.

A human-vector suicide operation, like other forms of suicide terrorism, could prove to be highly lethal to the targeted population(s), provide a low cost weapon, have a traumatic psychological shock value by inducing fear in the general population beyond those directly infected after exposure to the human vector, undermine a country’s public health and medical infrastructure’s ability to respond, and erode faith in a government’s ability to protect the public.

Element Four: Pathogens Most Likely to Result in an Effective Outcome by a Deployed Human Vector

In this section of the report, Dr. Noreen A. Hynes discusses the four factors considered to be critical for the successful implementation of the human vector strategy from the pathogen perspective. These are finding the right pathogen, obtaining that pathogen from a reliable source, and then effectively using the selected pathogen to infect one or more human vectors. The characteristics of the right pathogens include 1) easily transmissible from the human vector directly to another person, 2) high lethality, killing most infected persons, 3) maximal time delay from infection of the human vector to the onset of illness in order to permit the human vector to be strategically placed to do the most harm, and 4) long duration of infectiousness of the human vector before succumbing to the infection. Among the 60 human pathogens of greatest published national security concern to the U.S. government, only 28 (46.7%) have ever been associated with person-to-person transmission. Notably, most of these pathogens are transmitted by a different mechanism and only infrequently transmitted person to person, and many of these are through sexual contact.

Therefore, only a few of the pathogens of greatest national security concern are considered especially suitable for creating a human vector because they are commonly and efficiently transmitted from person-to-person. These include the smallpox virus, the pulmonary form of *Yersinia pestis* (which causes pneumonic plague), and a viral hemorrhagic fever virus such as Ebola or Marburg. The ability to obtain, maintain, and propagate these pathogens poses technical

challenges and also requires the expertise to infect and create an effective and efficient deployable human vector. Any of these identified infectious agents, if introduced in an upper income country, would be rapidly identified. Soon after, effective infection control measures would be instituted, including the initiation of prevention and treatment strategies designed to limit the number of cases.

Control measures of the associated human vector-associated epidemic could be slowed by the use of either a naturally-occurring or engineered antimicrobial resistant pathogen, including plague. According to experts interviewed for this study, although the effective synthesis of a new and previously unknown, highly transmissible, and lethal engineered pathogen to circumvent currently existing prevention and treatment strategies is possible, such a feat is believed to lie far in the future. Importantly, parallel technological progress in the rapid development and deployment of effective medical countermeasures would also be occurring, thereby minimizing the impact of such a future attack.

General Recommendations

There are many contagious diseases, such as the common cold or seasonal influenza viruses, that are transmitted easily from person-to-person. However, only a few could be effectively used in a human vector attack initiated by jihadist terrorist organizations. We regard the jihadist use of human vectors to carry out a biological attack on the U.S. homeland, on U.S. citizens or troops overseas, or on the U.S.'s Western allies, to be a low probability, albeit potentially high consequence, event.

The use of such human vectors for a planned bioterrorist attack has thus far been largely ignored, along with the characteristics of potential perpetrators, their associated ideological and psychological motivations, and the “best” or most effective pathogens that might be acquired and effectively used. We strongly recommend adding attacks due to deployed human vectors to the analysis of potential bioterrorist threats. Furthermore, we recommend examining how this attack strategy may be the same or different from those associated with other deployment modalities. Finally, we suggest that a tripartite risk analysis involving risk assessment, risk management, and risk communication, informed by classified data, be the approach that is used to best study and respond to this potential threat.

- **Risk Assessment.** A comprehensive collaborative risk assessment of the threat posed by human vectors by the intelligence, scientific, medical, and public health communities may inform a more complete and nuanced determination of the nature and level of the threat. The results of that assessment would also help identify gaps in knowledge that need to be addressed, including additional threat assessments and intelligence community collections, further scientific research into pathogens needed to design new or improved medical countermeasures, and better detection modalities. For example, the intelligence community should look for possible indicators, based upon the analysis of data from human and electronic sources, that jihadist

organizations might be 1) seeking to acquire pathogens or 2) promoting, planning, or organizing such attacks.

- Risk Management. The results of the comprehensive risk assessment should inform the process of weighing policy alternatives for addressing the threats and risks identified, as well as determining what additional resource allocations are needed. Improved risk management strategies to prepare and protect the nation's population may need to be crafted.
- Risk Communication. The public needs to become an integral part of the discussion regarding the nature of the threat and anticipated responses to such a threat. Approaches to communicate risks to the public may need to be changed to reflect this additional potential threat.

Part II: Further Concluding Recommendations for Law Enforcement and Intelligence Agencies

The possibility of a jihadist bioterrorist attack using “martyrs” as human vectors, however unlikely, should nonetheless not be ignored by American – and, by extension, other Western – intelligence and law enforcement agencies. For that reason, the section below highlights some of the warning signs that jihadist organizations may constitute a potential bioterrorism threat, either in the short term or the longer term. These warning signs fall into four main categories: ideological/rhetorical, financial, demographic, and behavioral.

Ideological/Rhetorical Indicators: Escalating Paranoia, Calls for Violence, and/or Expressions of Interest in “Weapons of Mass Destruction” in General or Biological Weapons in Particular

The use of increasingly overheated rhetoric of various kinds is a strong potential indicator that certain jihadist groups could present increasing future security threats, bioterrorist or otherwise. Although rhetorical violence, no matter how extreme it may be, does not invariably result in the perpetration of tangible acts of violence, it is rare indeed to find that the actual violence perpetrated by organized groups was not preceded by an escalating pattern of rhetorical violence against real and imagined “enemies,” whether internal or external. Hence the existence of such a rhetorical pattern should serve as a “red flag,” i.e., a warning sign of potential trouble to come. In this context, it is perhaps useful to distinguish between two different but related types of dangerous rhetoric. The first is an increase in general statements expressing paranoia about supposed conspiratorial threats to the group or its agenda, which are in turn often coupled with a growing insistence that violence must be employed by group members against the “evil” forces that are believed to embody those threats. The second is more specific to the subject at hand: public or

private expressions of interest in acquiring or utilizing “weapons of mass destruction” of some kind, or similar expressions focused solely on harmful or lethal biological agents.

Escalation of Rhetorical Paranoia and Calls for Violence

The historical record indicates that Islamist groups that end up crossing the threshold of violence usually proclaim, announce, or otherwise signal their intentions to carry out acts of violence against the so-called “forces of evil,” whether within or outside of the Muslim community, long before they actually do so. Like other types of political and religious extremists, jihadists are not shy about expressing their true beliefs, including their beliefs about the omnipresence of enemies who are out to “get them” and the consequent need to take decisive, perhaps even violent action to deal with those enemies. Such sentiments are almost invariably transmitted by leaders to trusted group members, at times secretly, but they are also frequently expressed more publicly. By definition, ideological extremists are convinced that they are beset by internal and external enemies who are out to destroy them and prevent them from achieving their ostensibly noble goals. As noted in the chapter on ideology above, these beliefs are normally manifested in a variety of overlapping ways, from the adoption of Manichean worldviews to expressions of paranoia (albeit usually in the non-clinical sense) to the espousal of elaborate conspiracy theories to a noticeable tendency to dehumanize if not demonize designated enemies. Indeed, the adoption of such conceptual and rhetorical tropes by particular groups almost always precedes their actual employment of violence, and can thus serve as an important indicator or warning sign. This pattern of escalating rhetoric followed by violence is very clear, both in the cases of innumerable medieval and early modern Islamic revivalist groups (such as during the 19th century Mahdist uprising in the Sudan) and in the cases of most recent jihadist groups, Sunni and Shi‘i (for example, the apocalyptic Shi‘i organization Jund al-Sama’ [Soldiers of Heaven] in Iraq).

Expressions of Interest in “Weapons of Mass Destruction” in General or Biological Weapons in Particular

Another obvious indicator of importance in this context would be either clear or coded expressions of interest by jihadist groups in so-called “weapons of mass destruction” (WMD), including biological weapons. In these cases one must endeavor to distinguish between a) outright fantasizing or purely wishful thinking along these lines, which would essentially be comparable to saying “I wish I could win the lottery,” as well as b) the making of alarmist threats involving CBRN that are specifically designed to spread disinformation and fear within the enemy camp, and c) more sustained, serious, or concrete expressions of interest, especially during secret sessions, in acquiring or deploying such weapons as a way to deal with or smite designated enemies. If the leaders or spokesmen of such groups make repeated and increasingly frequent statements to this effect, or begin contemplating various measures to make it happen, or actually take concrete steps

in this direction, then important moral barriers have likely already been crossed that require the close attention of security forces. The same factors would also be applicable if a group repeatedly expressed an interest in obtaining, weaponizing, or disseminating harmful or lethal biological agents, including via the use of “martyrs” as human vectors. For example, certain high-level personnel in other types of extremist groups, such as Aum Shinrikyo (Aum Supreme Truth) and the Rajneesh Movement, reportedly expressed an ever-growing desire to use harmful biological agents against their opponents before actually taking steps to do so. The same pattern of rhetorical escalation leading to tangible efforts is no less likely in future cases of this type involving jihadists.

Financial Indicators: Availability of Significant Amounts of Money and Resources

It goes without saying that organizations of any type with considerable financial resources are much more likely to have the wherewithal to pursue and achieve their goals than their counterparts with more limited resources. This is also true of extremist groups, including jihadist organizations and networks. Although the financial aspects of terrorism have often been overemphasized, since most terrorist actions are in fact relatively cheap to carry out by comparison with other types of military activities, the availability of funding is more important in assessing the potential “WMD terrorist threat” that particular extremist groups might pose. This is because most terrorist organizations would find it prohibitively expensive to manufacture, purchase, or even steal certain types of “WMD,” in particular nuclear weapons. On the other hand, they would not find carrying out relatively crude attacks with certain types of toxic agricultural chemicals or radiological materials to be an undue financial burden, since such attacks would scarcely be more expensive than normal ambushes or bombing attacks. The types and levels of resources necessary for a terrorist group to acquire, produce, or disseminate biological weapons, including via the use of human vectors, arguably falls between these two extremes on the spectrum.

Demographic Indicators: Intentional Recruitment of Trained Scientific, Military, and Intelligence Personnel

It seems self-evident that jihadist groups with valuable human resources in the form of highly-educated members, military or intelligence veterans, computer experts, and above all trained scientists are potentially far more threatening should they decide to engage in the research, production, and dissemination of biological weapons than similar types of groups with less well-trained personnel. Nevertheless, infecting select group members with an infectious pathogen requires somewhat less scientific expertise than, say, properly weaponizing a biological agent for aerosol dissemination.

The skill sets available to members of a given jihadist group can either be evaluated as a whole or subdivided into several useful subcategories in this context. With respect to the former, the leadership directorates and key cadres of such groups are not infrequently composed of

individuals who are highly educated and come from relatively privileged social and economic backgrounds in their respective countries. Indeed, certain jihadist groups go out of their way to recruit some followers who are well-educated and have particular high-order talents, not to mention access to financial assets, because they view such people as valuable resources in terms of helping them to achieve their ostensibly benevolent and divinely inspired goals. Of course, this depends to some extent on the specific ideological emphasis of the group's leader(s): if he is claiming to champion the interests of the poor and dispossessed, he may instead focus largely on recruiting the supposedly "oppressed" members of society as rank-and-file members, though even in these cases he will typically also seek to recruit more talented and financially well-off people to serve as his immediate subordinates, agents, or delegates. Attempts by jihadist leaders to mobilize and recruit the poor and dispossessed for ideological reasons, whilst also relying primarily on educated cadre for important tasks, is quite common. That has certainly been the case with al-Qa'ida, the Islamic State, and the most operationally sophisticated Shi'i Islamist organizations like Hizballah.

As for specialized subcategories of recruits, those that would be particularly important in this context are highly-trained scientific, military, intelligence, or financial personnel. In terms of bioterrorism, it would obviously be of crucial importance for a group to recruit enough members with sufficient levels of scientific and technical knowledge to be able to produce, acquire, weaponize, transport, and/or disseminate selected biological agents. After all, even if a jihadist leader contemplated stealing previously weaponized agents from a facility where they were known to be housed, both the group members who actually handled and transported those materials and those who later endeavored to disseminate them in the course of an attack would need to have an adequate degree of knowledge about microbiology, fermentation engineering, and aerobiology in order to achieve their aims. Even those seeking to acquire pathogens existing in the environment would need to have some degree of scientific knowledge and expertise.

Similarly, a group that recruited several individuals with specialized military training, intelligence experience, high-level financial skills, or IT expertise would also pose a greater danger, both in general and in the context of bioterrorism. Military veterans have certain skills that would enable them to better plan and conduct clandestine paramilitary operations, either to steal lethal biological agents from inadequately secured facilities or to facilitate their effective deployment in a subsequent surprise attack. Well-trained intelligence operatives have the ability to perform a number of vital tasks, including vetting prospective recruits, providing for organizational and operational security, gathering necessary intelligence about the "enemy" (including potential targets of attack), and carrying out successful covert operations of various types. Experienced financial specialists may possess the skills necessary to organize various kinds of money-making ventures, launder money that has been obtained illicitly, network with criminal organizations, and manipulate the banking sector in various useful ways. Computer experts could conceivably also perform a variety of useful tasks, such as hacking into defense systems, disabling security protocols in selected targets, spreading malicious viruses, disrupting the functioning of portions of the Internet, or using steganography to enable group leaders to transmit secret messages to attack cells.

In short, the security forces should pay particular attention to jihadist organizations and networks that focus on recruiting highly-educated members, above all those with specialized scientific and operational skills.

Behavioral Indicators: Stockpiling of Weapons and Escalation of Violent Acts, Internal or External

In terms of behavioral indicators, the progressive stockpiling of weapons and/or an observable pattern of escalating acts of violence should each be viewed as clear warning signs that future mass casualty attacks may be in the offing, with or without the use of CBRN materials. Firstly, whenever extremist groups of any type make special efforts to accumulate firearms or explosives, even if they are doing so legally or ostensibly for self-defense purposes, it should raise alarm bells. And if they undertake tangible efforts to obtain or manufacture lethal biological agents or other “WMD,” that would obviously be of particular concern in this context.

Secondly, as in cases of escalating talk of violence, escalating acts of violence by such groups have often resulted in the targeting of larger and larger numbers of “enemies,” whether internal or external. In fact, in the case of many jihadist groups, especially those with cult-like characteristics, their first acts of brutality and violence have typically been committed against their own members who are thought to have “betrayed” or otherwise harmed the group in some way. A second phase has often been the perpetration of acts of targeted violence against individual external “enemies,” including non-members or former members (“apostates”) who have become open critics. The third and most important phase is when such organizations carry out acts of mass casualty violence against groups of anonymous “outsiders” who are at the very least regarded as expendable in pursuit of their goals, if not as overtly hostile or intrinsically “evil.”

Thus the most dangerous behavioral patterns to watch for are normally these:

- the stockpiling of firearms and explosives, even for “defensive” purposes;
- the commission of acts of brutality or violence against individual group members;
- the commission of acts of brutality or violence against individual non-members (including “apostate” ex-members, who are typically regarded as traitors);
- the commission of acts of mass casualty violence against larger collective groups of non-members or against designated external “forces of evil.”

This pattern of behavioral escalation often parallels or is directly interlinked with the types of ideological/rhetorical escalation discussed above. In practice, what this means is that such groups usually transmit clear signals of their increasingly violent intentions, both rhetorically and behaviorally, well in advance of actually carrying out mass casualty attacks. If these signals can be recognized early enough, it is likely that the authorities will be able to take better preventive measures or actions to interrupt or interdict this progressively unfolding sequence of violence. It

should be apparent that groups that exhibit several of these characteristics simultaneously, as several do, should be of particular concern to the intelligence and law enforcement communities.

To sum up, we regard the jihadist use of human vectors to carry out a biological attack on the U.S. homeland, on U.S. citizens or troops overseas, or on the America's Western allies, to be a low probability, albeit potentially high consequence, event. The IC should therefore look for any possible indicators, based on credible intelligence from reliable human or electronic sources, that jihadist organizations may be a) seeking to acquire dangerous disease cultures, or b) promoting, planning, or organizing such attacks.