

PERSPECTIVES ON TERRORISM

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Enhancing Security through Collaborative Research

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Welcome from the Editors

Dear Reader,

We are pleased to announce the release of Volume VIII, Issue 1 (February 2014) of *Perspectives on Terrorism* at www.terrorismanalysts.com. Our free online journal is a joint publication of the *Terrorism Research Initiative* (TRI), headquartered in Vienna, and the *Center for Terrorism and Security Studies* (CTSS), headquartered at the University of Massachusetts' Lowell campus.

Now in its eighth year, *Perspectives on Terrorism* has more than 4,000 regular subscribers and many times more occasional readers worldwide. The *Articles* of its six annual issues are fully peer-reviewed by external referees while its *Research Notes*, *Resource* and *Book Reviews* sections are subject to internal editorial review.

New on the Editorial Board since the beginning of 2014 are Dr. Paul Gill (University College, London) and Dr. John F. Morrison (University of East London). Given the rapidly increasing number of submissions, the Editors are welcoming their expertise and assistance.

The call of the *Terrorism Research Initiative* (the parent organization of our journal) for submissions for the "Best Dissertation on (Counter-) Terrorism published in 2013" has led to a good number of submissions for the award competition. The deadline is 31 March 2014 and academic readers of our journal are encouraged to identify more excellent dissertations completed last year and submit their authors' names to the chairman of the Award Jury at apschmid@terrorismanalysts.com.

The core of this issue of *Perspectives on Terrorism* consists of four articles. The lead article, *Perspectives on Counterterrorism*, is authored by Prof. Ron Crelinsten, whose influential work in this field dates back to the 1970s. A novel perspective based on Systems Analysis is outlined by a Zurich-based team led by Lukas Schoenenberger. This is followed by a critique of terrorism research by Dr. Rebecca Freese, who compares the role of evidence-based empirical research in medicine and terrorism. Finally, Edith Wu and her co-authors demonstrate how social network analysis can assist in forecasting leadership replacement. While the result predicted by the chosen methodology does not coincide with the actual result for Al-Qaeda, the article nevertheless shows the potential strength of this methodology.

Eric Price from our Editorial Team has compiled a long list of non-English academic dissertations for this issue; in many cases these are clickable for downloading the full text. Dr. Judith Tinnes has compiled another lengthy literature list on terrorism research; it belies the notion that terrorism research is stagnating. Dr. Philipp Holtmann provides us with a primer on the Shia- Sunni split that polarizes the Muslim world, and Dr. Ely Karmon offers an assessment of Boko Haram's international dimension. Our book reviews editor, Dr. Joshua Sinai, presents new publications in the field.

The current issue of *Perspectives on Terrorism* was prepared on the European side of the Atlantic, while the April issue will be assembled by Prof. James J. F. Forest, the American co-editor at the Centre for Terrorism and Security Studies (CTSS) at the University of Massachusetts at Lowell. Please note: the CTSS will be co-sponsoring the 8th Annual International Conference of the Society for Terrorism Research, which will be held in Boston, Massachusetts on 17-19 September. The theme of the conference is "Communication and Collaboration for Counterterrorism." For details and the Call for Papers, see: <http://www.uml.edu/Research/CTSS/STR-Conference>.

Sincerely,

Prof. em. Alex P. Schmid, Editor-in-Chief *Perspectives on Terrorism*

I. Articles

Perspectives on Counterterrorism: From Stovepipes to a Comprehensive Approach

by Ronald Crelinsten

Abstract

This article moves beyond the boundaries that limit counterterrorism discourse and practice to present a more comprehensive approach. In a world where distinctions are blurring between internal and external security, international and domestic jurisdictions, and state and non-state actors, it is important to cast our eyes wide in developing an effective approach to counterterrorism that can apply across a broad variety of policy domains and can outlive the electoral horizon of individual governments. A discussion of five approaches to counterterrorism leads to the identification of thirteen different models which, taken together, can point the way towards a comprehensive approach.

Keywords: counterterrorism, policy, security, governance

Introduction

The post-9/11 period has been characterised by profound disagreements over the kind of threats we are faced with, the kinds of responses required, the institutions which should be responsible for these responses, and the timeframe within which an effective response can be accomplished. Policy discourse has been dominated by emotional and polemical debates about the very fundamentals of democratic life as they relate to the nature of the terrorist threat and how to deal with it.[1] Elsewhere, I characterise this as a fight between ‘September 12 thinking’ and ‘September 10 thinking.’[2] The former privileges a war model of counterterrorism, while the latter approach is assumed by the former to privilege a criminal justice model of counterterrorism.[3]

This dichotomy between ‘September 10’ and ‘September 12’ thinking underscores how conceptions of terrorism and its place in today’s security environment can limit the approach taken to combat terrorism and which institutions are marshalled in this effort. The criminal justice and war models are both coercive approaches, and largely ignore other ways of dealing with terrorism.

Elsewhere, I singled out five different approaches to counterterrorism: coercive, proactive, persuasive, defensive and long-term.[4] While a degree of overlap exists among these approaches, a more comprehensive counterterrorism strategy would take advantage of all of them. In this article, I shall survey the wide variety of models that emerge when all five approaches are taken into consideration.[5]

Varieties of Counterterrorism

Coercive Counterterrorism

Coercive counterterrorism relies on the state’s monopoly on the use of violence, i.e., the exercise of hard power. Strict limits are placed on who can be subjected to state violence. These restrictions form the basis of

the legitimacy bestowed upon the state by the rule of law, whether national or international.

Without legally mandated restrictions on the use of state violence, the exercise of violence by state agents such as the police or the military would itself be criminal, violating either domestic criminal law or international law. When state agents acting in the name of counterterrorism consistently contravene the rule of law or the laws of war with impunity, using their coercive powers in ways that create a reign of terror that is sanctioned by the state, then they have become state terrorists, mirroring the behaviour of the terrorists they are fighting.

The Criminal Justice Model. A criminal justice approach treats acts of terrorism as crime. If one considers the most common terrorist tactics, such as kidnapping, assassination, bombing and armed attacks, the end result is usually the infliction of injury or loss of life or the destruction of property, all of which are universally proscribed in the criminal law of all nations.

Treating terrorism as ordinary crime—rather than as a special offence requiring special procedures or punishments—has a delegitimizing effect on the terrorists. By criminalising the acts that terrorists commit, emphasis is placed on their criminal nature and not on their political or ideological motive.

All this changed after the attacks of 11 September 2001. Many Western countries created special terrorist offences after the 9/11 attacks: the US and Canada in 2001; Australia and Norway in 2002; Sweden in 2003. [6] In many of these special offences, motive became a central element of the legal definition of terrorism. Offences have included committing terrorist acts or committing acts for terrorist purposes, as well as membership in a terrorist organisation and providing material support for terrorism, such as money, weapons or technical expertise, and recruitment. The creation of speech offences has also increased. UN Security Council Resolution 1624 (2005) calls for Member States to take steps aimed at prohibiting by law and preventing incitement to commit terrorist acts. The glorification of terrorism has become an offence in several countries, such as the UK and Spain.

The criminal justice model relies on a complex bureaucracy with strict rules of governance and many interacting institutions, with their own traditions, culture and language. It can be slow and ponderous, with appeals stretching the process out for years. For some, the model seems to favour the terrorist, especially over the victim. While the criminal justice model can achieve some important goals in terms of deterrence, retribution, education, incapacitation and rehabilitation, these benefits are largely dependent upon how the system is used, how fair it is seen to be used by others, and how committed individuals are to terrorist violence either as a means to other goals or as an end in itself.

The War Model. The war model of counterterrorism treats terrorism as if it were an act of war or insurgency. Because wars are usually fought between states, countering terrorism within a war model implies that the terrorist group represents the equivalent of a state. Treating terrorism as war therefore tends to credit the terrorist with the status of equal partner in a zero-sum conflict. This is why many terrorist groups use the word 'army' in their names. Although the central element of the war model is the use of maximal force, designed to overpower the enemy, the conduct of war does not occur in a legal vacuum. The laws of war lay down rules for how wars should be fought and how noncombatants should be treated. The 1949 Geneva Conventions represent a kind of trade-off that legitimizes killing or detention without trial in time of war, as long as it is directed at overpowering an enemy combatant. The trade-off is that once a combatant is captured and disarmed, or gives up and abandons the fight, he must be accorded humane treatment, protection and

care.[7]

The term ‘illegal enemy combatant’ attempts to create an exception to this rule for combatants who use stealth and do not wear uniforms or insignia identifying them as enemy combatants, namely terrorists, guerrillas or insurgents. In a war model of counterterrorism, success tends to be defined in terms of victory or defeat.[8] A ‘war on terror’ only ends when the terrorist enemy is defeated. If the struggle is a protracted one, even spanning generations, then counterterrorism efforts must be maintained as long as a state of war exists. This has led some to argue that we are engaged in a ‘long war’ or even a ‘never ending’ war with Islamist terrorism.[9] This infinite vision of the war on terror has important policy implications, including constitutional ones.

The war model is considered quick, effective and ideally suited to the new kinds of threat posed by decentralized, ideologically driven terrorist networks whose adherents are not deterred by traditional criminal justice or contained by traditional military power. It places great value on the remarkable things that science and technology can achieve. Examples include remote sensing, satellite imagery, spy drones, missile technology, smart bombs and other sophisticated weaponry, as well as facial recognition and other biometrics. Some of the capabilities being discussed in recent years include ‘the need for “birth to death” tracking and identification of critical targets, whether they are people or things, anywhere in the world.’[10] The idea that a nation’s military can watch, listen, record and track anyone or anything anywhere in the world and strike at will with guided, pilotless attack planes or space-based weaponry is the ultimate individualised war model, designed to fight an atomised, dispersed enemy rather than the traditional hostile state or terrorist group. Since Barack Obama became President in 2008, the military dimensions of counterterrorism policy have expanded further to include a formally authorised system of intelligence-led drone strikes and targeted assassinations.[11]

The war model carries a high risk of unintended consequences that can escalate violence, undermine the legitimacy of governments that use it, or pull governments along a dangerous path to anti-democratic governance.[12] This does not mean, however, that the war model cannot be a useful and valuable tool in an overall counterterrorism strategy. As in just war theory, the use of force can be justified under certain strict conditions.[13] It must be discriminate, proportionate, declared by a proper authority, used for a justifiable cause, with just intentions that outweigh the evil of the means used by the good of the ends sought, have a high probability of success, enjoy public support, and be used only as a last resort, when all other means have been pursued.

Proactive Counterterrorism

Proactive counterterrorism aims to prevent terrorism *before* it happens. Through the merging of internal and external security, the mandates of domestic police, security intelligence agencies, and border and customs officials have all coalesced around the problem of tracking the movement of people, goods and money. Through intrusive techniques involving surveillance, wiretapping, eavesdropping and other means of spycraft, agents of all stripes have devoted their energies more and more to stopping terrorists before they act and thwarting terrorist plots before they develop too far. These trends have led to the emergence of a hybrid model of coercive counterterrorism that combines elements of both the criminal justice model and the war model.[14]

The increased focus on proactive counterterrorism has important implications for a variety of institutions and policies. In the area of criminal justice, it means more proactive and intelligence-led policing, increasing

use of sting operations and informers, more reliance on preventive detention, and early arrests to disrupt plots. In the area of intelligence, it means widening surveillance nets, the identification of dangerous classes of people, increased use of profiling, increasing focus on radicalisation to violence[15] and counter-radicalisation, and increased focus on terrorist financing and fund-raising. In the area of criminal law, it means more speech offences, criminalising membership in organisations, and “material support for terrorism” offences aimed at fundraising, recruitment and training. In the military realm, it means more reliance on drones for surveillance and targeted killings, more intervention in failed and failing states to strike terrorist training camps and militant groups directly, such as the recent French intervention in Mali, and even pre-emptive war, such as the 2003 US invasion of Iraq.

A more proactive approach requires coordination and integration across a wide range of policy domains: criminal law, policing, intelligence, finance, border control, immigration and refugee policy, military strategy and tactics, diplomacy, development, and humanitarian intervention. As such, it places a greater demand on government to coordinate across previously distinct domains, jurisdictions and agencies, domestically, and across the increasingly blurry boundaries between domestic and foreign policy. This whole-of-government imperative can create tensions between intrinsically conflicting goals.[16]

The Intelligence Model. The intelligence function is an important element in any counterterrorist effort. In a proactive approach, it becomes central. In proactive policing and security intelligence, information is not gathered for evidentiary purposes but for intelligence purposes. The ultimate goal is not necessarily criminal prosecution. Instead, the goal of intelligence operations is to learn more about what the terrorist suspects are up to. The demands of information gathering can therefore conflict with those of criminal investigation and due process.

Proactive counterterrorism is therefore a double-edged sword. It can nip a burgeoning threat in the bud or destabilize a terrorist network enough so that its operatives cannot move from the planning stage and go operational. On the other hand, apprehending a terrorist operative can diminish opportunities for learning more about their connections with other terrorist or criminal networks.

The merging of national and societal security has led to massive surveillance of a wide category of individuals and detention without trial of citizens as well as resident aliens. Much of the post-September 11 debate surrounding counterterrorist efforts in the area of intelligence and surveillance relates to how wide the net should be cast and whether profiling of specific target groups is justified or acceptable.

Two opposing concerns underlie honest efforts to address both security concerns and concerns about democratic acceptability. On one hand, a fear of false negatives (failure to detect a threat) can lead to widening the surveillance net as much as possible, thereby running the risk of infringing upon civil liberties of those targeted and, ultimately, facilitating the commission of human rights violations by control agents. On the other hand, a fear of false positives (targeting innocent individuals, organisations or communities) can lead to the imposition of onerous judicial restrictions upon intelligence gathering, the creation of oversight committees with political agendas, and the creation of sunset clauses on anti-terrorism legislation that activate at inappropriate times, thereby running the risk of attenuating the effectiveness of intelligence gathering operations.

Both fears can be socially constructed or exaggerated by those with a stake in the outcome: politicians, policy-makers, law enforcement, media, communities at risk, private security companies and entrepreneurs.

Persuasive Counterterrorism

Counterterrorism involves understanding and dealing with the ideas that underpin the use of terrorism in social and political life. This has ideological, political, social, cultural and religious aspects. Terrorists have constituencies which include followers, sympathisers, potential recruits, active or passive supporters, and state sponsors. Counterterrorists have constituencies which include state actors within government ministries, agencies and bureaucracies, including those of allies, as well as non-state actors within civil society and the private sector, such as victims' groups, citizens, mass publics and the media, both domestic and international, and employers and employees within industries, private companies and corporations. Counterterrorism must deal with these wider audiences.

Counterterrorism, like terrorism, is inherently communicative.[17] Propaganda, psychological warfare, "hearts and minds" campaigns, and the idea of providing incentives for terrorists to abandon violence and seek nonviolent paths instead all refer to this notion of counterterrorism as a form of communication, where different messages are conveyed to different audiences. Just as terrorist discourse and propaganda can blind followers and recruits to alternative pathways and options, so counterterrorism discourse and propaganda can blind citizenries and publics, as well as policy elites and the media, to alternative means of countering the terrorist threat.

The Communication Model. All response options convey information of some sort to different audiences; they are expressive and symbolic as well as instrumental. The particular messages that are actually received by a particular audience may not be what the sender intended to convey. This lends an inherent complexity to counterterrorism and can lead to unintended consequences. It is therefore important to understand the different kinds of messages, audiences and communicative pathways involved in the complex web of terrorist-counterterrorist interaction.

In addressing terrorists' constituencies, persuasive counterterrorism can try to promote desired perceptions among individual members of terrorist organisations, their sympathizers, and their foreign supporters, such as the message that terrorism is counterproductive and that other means are more useful to achieve their goals. Counter-narratives that foster cross-cultural and inter-ethnic understanding can undermine those aspects of terrorist propaganda and ideology that promulgate hatred and demonise particular groups of "enemies".

The prevention of undesired perceptions among terrorists and their constituencies is another aspect of persuasive counterterrorism. Two of the most powerful beliefs that bind individual members to a terrorist group are the idea that once violence has been committed, you cannot go back, and the idea that the group is the only place where a sense of identity, belonging, importance or existential meaning can be achieved.

Laws that provide reduced sentences for cooperation with authorities or that offer amnesty for renouncing violence, coupled with official assurances that exit from the group is always possible and that those who cooperate and who renounce violence can be accepted back into society, could help to prevent certain individuals from remaining trapped in the self-contained world of the terrorist organisation. Psychological, material and economic concerns that make individuals vulnerable to recruitment can be addressed by creating alternative incentive structures for people to move away from embracing violence and terrorism. Talking to one's enemies and their constituencies, though an anathema to many governments, can serve an important function in challenging and perhaps refuting undesired perceptions whose very existence can be missed in the absence of dialogue and exchange of views.[18] Counter-radicalisation efforts aimed at potential recruits and communities at risk, and deradicalisation efforts aimed at current or imprisoned

members are central to preventing undesired perceptions and belief systems.[19]

In addressing counterterrorists' constituencies, a central element is the maintenance of public trust and confidence in government. Public education about the nature and extent of the terrorist threat, as well as the limits and feasibility of policy options, would help to promote public understanding both before and after a terrorist attack.

Promoting public awareness without fuelling insecurity, apathy or intolerance and hate is an essential element of such an approach. An explicit policy to downplay the impact of terrorism, while condemning the terrorism itself, could help to promote the idea that terrorism is unacceptable in democratic society while minimizing the risk of public calls, fuelled by insecurity and terror, for repressive measures that undermine the rule of law and individual freedoms. Incessant warnings by politicians and security experts about the dangers of radicalisation or the risk of terrorist attack can create a kind of learned helplessness in the face of seemingly inevitable catastrophe. As the rule of law and individual rights are increasingly whittled away in the name of increased security, many citizens simply accept the fact that their rights have to be sacrificed.[20]

The challenge is to prevent the legitimization of terrorists and terrorism without resorting to censorship, intimidation or outright repression. The controversies surrounding *Wikileaks*, the trial and harsh punishment of Private Bradley Manning, and the Edgar Snowden case all suggest that transparency and accountability have become a casualty of the war on terror.

Defensive Counterterrorism

Defensive counterterrorism assumes the inevitability of some kind of terrorist attack and prepares for it by affecting the variables that determine the nature of the attack and identity of its target. There are two basic approaches: preventing attacks and mitigating attacks. Prevention aims to minimise the risk of terrorist attack in certain places and at certain times. The second approach is to mitigate the impact of successful attacks.

Prevention (before an attack)

The Preventive Model. There are three primary means of prevention: target hardening, critical infrastructure protection (CIP), and monitoring and regulating the flow of people, money, goods, and services. Target hardening aims to make potential targets less attractive or more difficult to attack. It has traditionally focused on important people (e.g., VIPs, government officials) and important places (e.g., government buildings, military bases) at particular times (e.g., major sporting events, international summits, special anniversaries). Making favoured targets less vulnerable to attack forces terrorists to innovate and to find alternatives, tying up resources and planning. This often leads to target substitution or a displacement to softer targets. The hope is that deterring attacks against obviously important targets can channel potential terrorists towards less damaging or less costly forms of attack.

Government and industry are often at odds over financing, training, effectiveness, technology, responsibility and timetables for implementation, and potential impacts on operations. Partnerships between government, industry and other stakeholders are therefore essential.

While opinions vary on what infrastructure is critical, the areas of energy, transportation, industry, communications, banking and urban living are widely recognised as key sectors that need to be protected. Potential targets include hydroelectric and nuclear facilities, oil and gas refineries and pipelines,

telecommunications, banks, airports, railways and bridges, urban transport and shopping malls.

Most critical infrastructure is in the hands of the private sector. Government regulation is often weak or nonexistent and industry resistance to any attempts to strengthen security can be intense. Therefore, the most important part of critical infrastructure protection is to identify fruitful points of intervention where physical, structural or procedural changes can be made that reduce the likelihood of attack, and to share this information across government departments and agencies, across different levels of government, and with stakeholders in the private sector.

The third prong of the preventive model is to track the movement of people, money, goods and services in an effort to discover plots in the making and thwart them or to impede their preparation. Terrorists need food, shelter, training, weapons, explosives, safe houses, communications, travel documents, financing. When these are not available or difficult to acquire, the risk of terrorist attack drops. Border and passport control, customs and immigration, refugee determination, and the monitoring and regulation of the flow of people and goods in and out of a country, as well as within its borders, can help identify and track potential terrorists and the plots they devise. The regulation of banking and money transfers can impact terrorist financing, which in turn can make the implementation of terrorist attacks more difficult.

Illegal arms sales, weapons smuggling, theft of poorly guarded materials, corruption, and collusion to break sanctions or to circumvent tracking and monitoring efforts, or simply seeking profit at the expense of considering the impact of sales on future security, all constitute persistent impediments to reducing the likelihood that dangerous goods fall into terrorist hands. Terrorist groups often engage in auxiliary criminal activity to support their terrorist activities and the possibility that they could cooperate with transnational criminal organisations to procure weaponry or other materiel has long been a concern.[21]

Mitigation (Response to an attack)

The Natural Disaster Model. Moshe Dayan, Israeli Minister of Defence from 1967-1974, suggested that 'terrorist incidents more closely resemble natural disasters than acts of war.' [22] Terrorist attacks do share many of the same elements as any natural disaster: dead and wounded people; damaged or destroyed infrastructure; uncertainty about what may happen next; people fleeing in panic or rushing to the scene to help; an urgent need for rescue workers, ambulances, transportation routes to hospitals; and intense media coverage that may interfere with rescue operations or create pressure on crisis managers and other authorities. Contingency planning, established chains of command and communication networks, stockpiles of emergency supplies, training of first responders, and strategies for dealing with victims, their families, and the media can be arranged in advance. Such an 'all-hazards' or 'all-risks' approach means that it can be more cost effective to prepare for a wide spectrum of risks.[23]

The Public Health Model. Terrorism, particularly mass-casualty terrorism, has an impact on public health and the psychological well-being of citizens.[24] Concerns about WMD and CBRN terrorism and the threat of pandemics pre-date the 9/11 attacks. The 2001 anthrax-laced letters intensified the concern post-9/11. [25] The prevalence of Ground Zero-related respiratory illness in first responders, cleanup crews and area residents has also increased awareness about the wider health implications of mass terrorist attacks.[26] As a result, public health, environmental safety and local emergency preparedness have all been incorporated into defensive counterterrorism. Strengthening public health systems would create an infrastructure that can respond efficiently and effectively to a whole range of threats, whether a disease like SARS or swine flu,

an industrial accident, an environmental disaster, or an intentional release of a pathogen or explosion of a radiological, chemical or biological device.

The Psychosocial Model. Interest in social and psychological defences and the development of citizen resilience in the face of terrorist threats has increased greatly in recent years.[27] The terror in terrorism is most directly felt by those who fear terrorist attack themselves because of specific threats or because they belong to the same category as past victims. In the case of indiscriminate, mass terrorism, the terror is much more widespread. Add to that the power of television and the internet to bring images from far away into our homes, constantly barraging us with reports of terror strikes from around the world, and the psychological impact of terrorism can be quite invasive and pervasive. Doomsday predictions of new and frightening attacks can spread the terror even further. Chronic anxiety and stress about the threat of terrorism can be a serious problem in societies geared to expect that an attack is imminent or inevitable. It can even increase the risk of cardiovascular disease.[28] Promoting citizen resilience means preparing people ahead of time and strengthening their capacity to cope with the stress, anxiety and fear that particular kinds of terrorist attack provoke. This can help to take the terror out of terrorism.

Long-Term Counterterrorism

Long-term *counterterrorism* refers to initiatives that do not promise quick fixes, but play out in the long term. This includes the realm of 'root causes' and the more structural factors that can create a suitable climate for the promotion and use of terrorism. What are often assumed to be causes, for example, poverty, alienation, personality, discrimination, ideology, are often either facilitating factors, which are usually structural, or triggering factors, which are usually ideational in that they involve interpretations of an event, situation, or conflict.[29] It is these interpretations that are then used to mobilise and recruit people to adopt terrorist violence. Radicalisation, mobilisation and recruitment processes become central to understanding how the terrorist option comes to be seen as the appropriate tool for achieving particular goals and how it is justified to those who are recruited and trained to carry it out.[30]

Because structural factors usually change and evolve very slowly, action taken now may not have a clear and discernible impact until much later. Short-term successes can evolve into long-term failures, and vice-versa. The key to effective long-term counterterrorism is to focus on long-term strategies that can make choosing pathways to terrorism more difficult and less attractive.

The Development Model. Development issues and resource utilization can have social and political repercussions that go far beyond purely economic concerns, and violence and terrorism often become part of the equation. Trade, foreign aid and development projects can undercut the ideological fuel that drives terrorist radicalisation and recruitment in a world of haves and have-nots. Issues such as land distribution and reform, environmental management, market regulation, and commodity markets should complement the more territorially based issues of border control, customs and immigration, and refugee and migration flows that are traditionally addressed in counterterrorism discourse and practice. Such broader issues have become increasingly important ideological motors in areas such as WMD proliferation, anti-globalisation movements, environmental activism and protest, and anti-Western, anti-capitalist and religious fundamentalist movements.

Capacity building in weak and conflict-riven states, including police and military training, judicial reform, and strengthening democratic governance, can be another aspect of the development model, where foreign

aid and development are integrated into a long-term counterterrorism strategy.[31]

The Human Security/Human Rights Model. The concept of human security reflects the view that international security cannot be achieved unless the peoples of the world are free from violent threats to their lives, their safety, or their rights. The focus of security is the individual, not the state. Promoting social and economic rights can reduce the inequities that fuel radicalisation and facilitate terrorist recruitment. Many of the UN conferences of the 1990s, such as those dealing with social development, women's rights, population and habitat, came up with recommendations and specific time-frames for member states to enact specific proposals. Many of these proposals deal explicitly with the issue of human rights and the need to strengthen legal regimes that require states to protect different baskets of rights.

The promotion of political and civil rights can clearly have an impact on the attractiveness of the terrorist option. By giving voice to disenfranchised or oppressed groups, other options are provided that make the terrorist option less compelling. In the short term, however, allowing excluded groups access to the political process can increase conflict and even violence. It is only when rights are fully entrenched and institutionalized, and applied uniformly to all societal groups, not just the majority, that the use of violence becomes counterproductive. This was made painfully clear by events in Tunisia, Egypt and Syria, where the early optimism of the Arab Spring has soured, thus giving new impetus to Al-Qaeda's radical Islamist message that terrorism and violence, not democracy, is the only way to create an Islamic state.[32]

A related challenge is the problem of anti-democratic political or religious movements and whether there are acceptable limits to the right to free expression, assembly and participation in political life: the balance between freedom of expression and freedom from expression.[33]

Many international conventions on human rights single out education as a fundamental right and emphasize education as a vehicle for promoting democratic, pluralistic and anti-racist values. Education can help create a social and political environment that is sensitive to human rights and mutual understanding across cultures and civilizations. Teaching methods that foster an understanding of the interdependence of human beings and an appreciation of ethnic, linguistic, cultural, religious and historical diversity can contribute to reducing the fear and cultivated ignorance that lie at the root of much hatred and violence. Support for extremist and terrorist groups would become harder to sustain and recruitment would become more difficult.[34]

Education can also inform people of injustices and inequities around the world. As they become exposed to the realities of our complex world, they often search for answers and solutions, and can be attracted to the simplistic explanations and solutions offered up by ideologues and fanatics. Many seek refuge in the past or in the rigid authoritarianism of political or religious dogma. This is why education must stimulate critical thinking as well as greater awareness of issues and facts. The ability to think for oneself and to research issues by collecting data from many sources is a good antidote to the propensity to succumb to ideological fads or exclusionary, racist theories. Many educated terrorists come from professions like engineering and medicine. Mohammed Atta, the leader of the 9/11 hijackers, for example, studied engineering in Cairo and pursued graduate studies in urban planning at a technical university in Hamburg. Few terrorists come from the humanities, where literature, history and philosophy promote critical thinking and self-awareness.[35]

The Gender Model. The vast majority of terrorists are young men. The practice of sex selection, such as female infanticide or sex-selective abortion, has led to a sharp imbalance in the male/female sex ratio, especially in Asia. This surfeit of males means that many young men will never have a hope of finding a mate, marrying, or raising a family. These 'bare branches,' as the Chinese call them, might be perfect fodder for terrorist

recruitment.

Studies have shown a significant inverse correlation between a woman's educational level and the number of children that she bears.[36] The more educated and empowered a woman is, the less likely it is that she will have a lot of children. In the long term, then, the best antidote to the bare-branch problem would be the promotion of education and empowerment of women and girls throughout the world and particularly in those regions where the sex ratio significantly favours males.

In countries where the sex ratio may be more balanced than in Asia, but women are denied access to education or the workforce, the bare branch problem is manifested differently. Overpopulation and failing economies mean lack of job opportunities for young men and therefore a reduced likelihood of finding a mate and raising a family. Idle, unemployed young men are often ideal targets for radicalisation and recruitment.

Traditional women's roles usually emphasise child-rearing at the expense of other contributions that a woman might make to her society or the economy. Young women are confined to traditional roles and transgressions bring shame on the entire family or tribe. Women in such situations can be convinced to become suicide bombers to redeem themselves and spare their families social exclusion. Empowering women and girls could reduce the birth rate overall, addressing the bare branch problem, but also allow half the population to better contribute to social, political and economic life and to resist the pressure of family and tribal traditions that can sometimes drive 'deviant' girls and women along the terrorist path.

The Environmental Protection Model. Disturbances brought on by climate change, such as flooding, drought, wildfire, insect plagues, and ocean acidification, and factors that drive global changes in climate, such as land use, pollution, and over-exploitation of resources, all have important implications for the broader sociopolitical climate in which terrorism develops. More than 60 nations, mostly developing countries, face a risk of exacerbating tensions and conflicts over resources due to climate change, including the threat of environmental refugees. Countries that are now at peace risk the emergence of conflict triggered by the impact of climate change.[37] The impact of climate change could also bring unprecedented reversals in poverty reduction, nutrition, health and education.[38] These warnings suggest that many long-term counterterrorism strategies are vulnerable to being undermined over time by the impact of climate change. It is therefore imperative that even this seemingly remote policy area be considered in any long-term counterterrorism strategy.

Conclusion

The danger that terrorism poses to democratic values and the way of life that they permit stems not just from terrorist threats and violence and the vulnerabilities that terrorists exploit, but the ways in which societies think about them, talk about them, prepare for them, respond to them and recover from their impact. How people talk about problems, frame them, and conceptualise them often determines what they do about them. Conversely, the way people deal with problems can often limit the ways in which they perceive them, restricting their imagination and narrowing their options. These conceptual and ideological filters can make it more difficult to understand a problem in all its facets.

Counterterrorism cannot be merely reactive or coercive, otherwise it risks creating a bunker mentality, triggering resentment and backlash that risks promoting terrorist recruitment as a result, and missing the next new development. It must therefore be proactive, looking ahead and trying to out-smart the terrorist,

and plan ahead, thinking preventively. It must also be persuasive, convincing terrorists to abandon their destructive paths and supporters and sympathisers to seek other, non-violent ways to achieve their goals. counterterrorism must think in the long term, even as it acts in the short term to respond to attacks and outwit terrorist planning and targeting. And it must go beyond legal and military approaches, to include political, social, cultural, and economic initiatives aimed at undermining the viral spread of radicalising and violence-glorifying ideas that fuel the use of terrorism in social and political life.

The best way to achieve this is to move beyond the polarised discourse between ‘September 10’ and ‘September 12’ thinking and to look for ways to operate on several levels at once: locally and globally; tactically and strategically; politically and economically; publicly and privately; institutionally and individually; offensively and defensively. The basic choice is really between a comprehensive approach that recognises the complete range of options and understands when to use which, in what combination or order, and for how long, and a reductionist one which focuses exclusively on one or two options, remaining blind to all others.

If a comprehensive long-term strategy of counterterrorism is to truly become a reality, it will probably be by small changes at the local level that evolve and adapt over time and space until they become widespread and normalised as a universal value or practice. But they need to be allowed the space to develop and spread by legal frameworks that protect rights and provide opportunities to all. This can only be done by states working in concert, but non-state partners will increasingly play a central role in the process as well, and state actors will increasingly cooperate transnationally.[39]

For this reason, international cooperation in the fight against terrorism cannot rely solely upon a supranational legal order or regime, but must be able to function at several levels at once – supranational, regional, national, and subnational, including the very local. Such ‘transnational’ cooperation better reflects the nature of the terrorist threat, as well as the kind of response framework that can more effectively meet it. In a post-Westphalian world order, domestic politics plays an important role, and transnational interactions among multinational enterprises, private businesses, NGOs, civil society organisations (CSOs), and media organisations complement the more traditional domains of diplomacy and international summitry. International cooperation as traditionally conceived is increasingly complemented by these kinds of transnational cooperation, for example, in peacekeeping, conflict resolution and state-building. It should also happen in the area of counterterrorism.

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Analysing Terrorism from a Systems Thinking Perspective

by Lukas Schoenenberger, Andrea Schenker-Wicki and Mathias Beck

Abstract

Given the complexity of terrorism, solutions based on single factors are destined to fail. Systems thinking offers various tools for helping researchers and policy makers comprehend terrorism in its entirety. We have developed a semi-quantitative systems thinking approach for characterising relationships between variables critical to terrorism and their impact on the system as a whole. For a better understanding of the mechanisms underlying terrorism, we present a 16-variable model characterising the critical components of terrorism and perform a series of highly focused analyses. We show how to determine which variables are best suited for government intervention, describing in detail their effects on the key variable—the political influence of a terrorist network. We also offer insights into how to elicit variables that destabilise and ultimately break down these networks. Because we clarify our novel approach with fictional data, the primary importance of this paper lies in the new framework for reasoning that it provides.

Keywords: counter-terrorism, systems theory, methodology

Introduction

The war against terrorism [1] (“war on terror”) has lasted for over 10 years, costing approximately 1,5 million lives in Iraq and tens of thousands of lives in Afghanistan and Pakistan, demonstrating the obvious need for alternative anti-terror measures. [2] [3] [4] [5] [6] We argue that it is time to rethink counterterrorist measures and present an unconventional approach to understanding terrorism, by analysing it from a systems thinking perspective.

Maani and Cavana [7] define systems thinking as “a scientific field of knowledge for understanding change and complexity through the study of dynamic cause and effect over time.” Systems thinking is a method of capturing complex issues in a holistic way. Its focus lies on the interrelations of crucial variables in a given framework. This approach substantially facilitates the understanding of the behavior of complex systems, enabling us to make predictions about any system’s evolution and to propose potential measures for changing the system’s dynamics. Only one study thus far has connected terrorism with systems thinking modeling: Grynkewich [8] models the financial subsystem of the Salafist Group for Preaching and Combat. He focuses primarily on only one element of terrorism, fundraising. In contrast, we build a generic model that includes 16 key variables of terrorism.

We have combined and further developed the ideas of Vester [9], Gomez and Probst [10], and Huerlimann [11] to conceptualise our systems thinking approach. [12] In this study, we show the enormous potential of such an approach by applying it to terrorism. We illustrate this method with a model that combines different key aspects of terrorism. The idea for our model is derived from *The Art of Interconnected Thinking*, a 2007 book by Frederic Vester, originally a German professor of biochemistry and a member of the Club of Rome. Vester studied the control and regulation mechanisms in living cells, especially the causes of cancer. Following his academic career, he developed a unique approach to systems thinking, one that he called “interconnected thinking,” and adapted the biological model to the political sphere, including an analysis of terrorism. He called that model “terror prevention” and published the first results of his analysis just a few

days after September 11, 2001. Following that, Vester proposed to develop the model further in collaboration with the Technical Support Working Group of the U.S. Department of Defense. [13]

While using many of the same variables that Vester uses, we have adapted his model for our specific analysis. In contrast to the focus of Vester's model on the U.S. response to terrorism in the post-September 11, 2001 era, we build a more generic model that is not attached to a specific cultural context. In particular, we reduce the set of variables from 20 to 16 to enhance the structural clarity of the model [14]. Our modeling procedures are otherwise similar to the pioneering work of Vester on which they are based. Because we clarify our approach using fictional data, the relevance of our work lies in the analytical framework that it provides, not in any specific recommendations for policy makers.

We argue that one particular variable—the political influence that a terrorist network can garner—is the key variable, i.e., the most important goal for any terrorist network. After demonstrating the criticality of this key variable, we then ask and answer corollary questions:

- What other variables—in addition to the political influence of a terrorist network—have a substantial impact on our model and therefore represent possible intervention points for governments?
- What effects do these variables have on the key variable that we have identified?

Finally, we tackle the issue of how governments can destabilise terrorist networks:

- Which bundles of variables must governments eliminate or defuse if they are to undermine a terrorist network efficiently?

With the aid of simple algorithms, we can model the dynamics of a terrorist network. We argue that an intervention variable must be highly interlinked and should quickly disseminate changes throughout the system. Applied to our model are three variables suited for government intervention: “control of overreaction,” “effectiveness of anti-terror measures,” and “anti-terror support by moderate forces.” We have identified these variables after a series of highly focused analyses. The variable “control of overreaction” means that a country is capable of reacting proportionately to a terrorist attack. The danger always exists that governments make highly emotional decisions in such situations and tend to overreact. Often retaliation measures are disproportionately severe, hurting not only the terrorist network itself but also civilians, aggravating problems related to terrorism, and leading to a substantial boost in the recruitment of new terrorists. [15] [16] The second variable, “effectiveness of anti-terror measures,” is of crucial importance for the careful planning and executing of military operations. Retaliatory actions should strike the Achilles' heel of the terrorist network and weaken it over the long term but with the fewest possible civilian casualties. The third variable appropriate for intervention is “anti-terror support by moderate forces.” Moderate forces are population groups (within a hostile country, area, or organisation) that are opposed to terrorism. These groups are important allies in countries with active terrorist networks. [17] [18]

We describe in detail the impacts of “effectiveness of anti-terror measures” and “anti-terror support by moderate forces” on our key variable—the political influence of a terrorist network. Of the two, “effectiveness of anti-terror measures” is the most successful variable in reducing the political influence of a terrorist network in our model. In the final section, we analyse the stability of our model by removing single and multiple variables. To completely defuse our model, we must remove five variables: “recruitment of potential terrorists,” “impact of attacks,” “media reports,” “financial and material resources,” and “negative perception of industrial countries.”

Systems Thinking

A systems thinking approach [19] differs substantially from traditional reductionist approaches, which continuously divide the subject of interest into further specialised disciplines and focus on a small number of linear causal relationships between phenomena, explaining them in terms of their smallest identifiable parts (e.g., classical mechanics, cell biology, and axiomatic set theory). However, these traditional approaches often lead to incorrect results and create inappropriate incentives in conjunction with complex systems (e.g., problems related to a company). [20] In contrast, systems thinking concentrates on how a subject of interest interacts with other variables. Rather than breaking a system down into smaller components, systems thinking expands the view of a user, taking into account increasingly greater numbers of interactions.

Systems thinking implies that the variables of a system have to be considered in a dynamic way and requires thinking in terms of processes. Systems thinking focuses, on the one hand, on the interactions between the different variables in a certain system *and*, on the other hand, on the interactions between the different variables and the system as a whole. Feedback processes are very important. Those processes can be either direct or indirect and can dramatically influence the behaviour of a system.

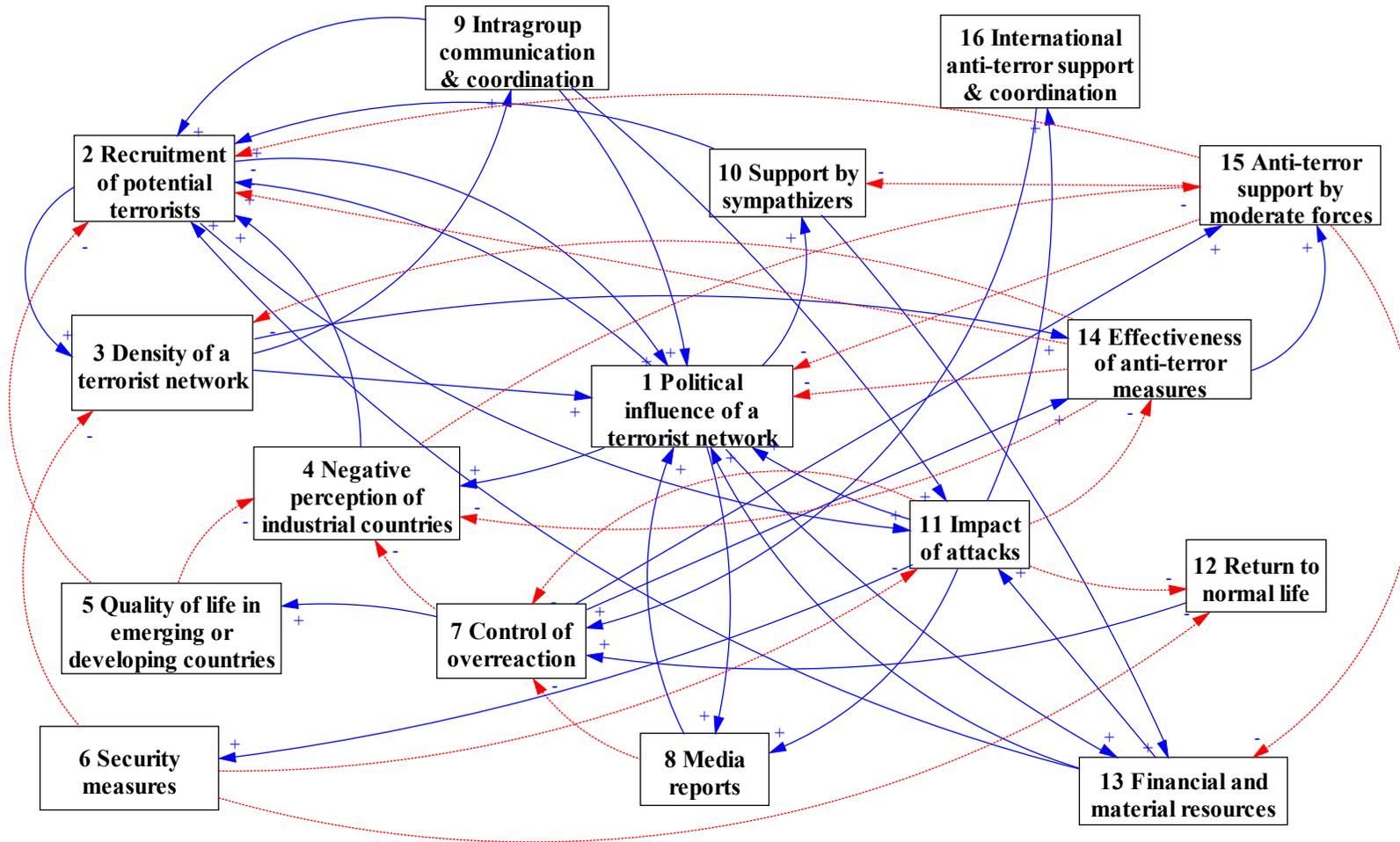
To use systems thinking, we establish a model of the most important stakeholders, their objectives, and their relationships. In general, the relationship between two variables can be either positive or negative. A positive relationship means that an increase in variable A leads to an increase in variable B; conversely, a negative one implies that an increase in variable A leads to a decrease in variable B. To perform our analysis, we must specify the type of relationship between two variables, the strength of their interaction, and the time required for one variable to influence another.

The systems thinking approach detailed in this article lacks the possibility of validation: the goodness or suitability of our results cannot be tested before they are actually implemented. This is a clear limitation compared to more quantitative methods like system dynamics, where simulation allows for the optimisation and verification of results. However, quantitative analysis methods require a great deal of data, which is very difficult to collect and severely limited in terrorism research. For this reason, our methodology is at the moment the best available option for researchers examining terrorism.

Modeling Terrorism

As previously stated, our 16-variable model is based on the one established by Frederic Vester. We have adapted his model (see Figure 1) to better fit developments in terrorism research over the past decade. Vester, a pioneer in systems thinking, was able to graphically depict the impact of the post-September 11, 2001, countermeasures taken by the U.S. government. In his preliminary conclusions—based on the model's dynamics—he emphasised that pursuing the head of a terrorist network has only a very small impact on that network and does not destabilise it.

Figure 1. The 16-Variable Model



Building on Vester’s model, we shift the focus to the international community, encompassing many states that could be affected by terrorism instead of assuming that the U.S. is the only potential victim of terrorist attacks. Our reason is that, since September 11, 2001, major terrorist attacks have taken place outside the U.S., such as in Bali (2002) and in London (2005). [21] [22] While the attacks in Bali and London claimed fewer lives than the September 11, 2001, attacks, they nevertheless had disastrous consequences. Al-Qaeda played an important role in both attacks: The London attack was carried out by a group with the same ideology as Al-Qaeda’s, [23] and the Indonesian terror branch “Jeemah Islamiah” was responsible for the Bali attack. [24] The model in Figure 1 presents the activities of a large, internationally active terrorist network such as Al-Qaeda.

Our model comprises 16 influencing variables containing all stakeholders involved in terror activities, i.e., stakeholders identified as aggressors, victims, or governments. The interconnections between the variables can be either positive (solid blue lines) or negative (dotted red lines). The model shows both the impacts of terrorist attacks and the impacts of countermeasures taken by governments. Our model is admittedly simplified but powerful enough to represent basic processes in a terrorist network.

The Variables in the Model

Table 1 presents the 16 variables in our model with a brief description of each.

Table 1: All Variables used in Model	
(1) Political influence of a terrorist network	A terrorist network’s attempt to increase or at least to stabilise its political influence [25] [26]
(2) Recruitment of potential terrorists	People’s willingness to join a terrorist network, and, in extreme cases, even to sacrifice their lives as in the case of suicide bombers [27]
(3) Density of a terrorist network	The number of terrorists per area (region/country) [28] [29]
(4) Negative perception of industrial countries	The level of denial and bitterness re Western standards and ideologies [30]
(5) Quality of life in emerging or developing countries	Factors such as political rights, freedom, education, GDP per capita, safety
(6) Security measures	All government measures for protecting the civil population from a terrorist attack
(7) Control of overreaction	Governments’ ability to avoid disproportionately severe reactions immediately following a terrorist attack.
(8) Media reports	Press releases covering terrorism
(9) Intragroup communication and coordination	Collaboration and knowledge exchange among terrorists in a network
(10) Support by sympathisers	Level of local support for the terrorist network, necessary to purchase resources. [31]
(11) Impact of attacks	Three factors for attack magnitude: symbolism of the attack, number of people injured or killed, and economic damage [32] [33] [34]
(12) Return to normal life	The population’s process of returning to “ordinary business” after a terrorist attack [35]
(13) Financial and material resources	Financial and material inflows into the terrorist network [36] [37] [38] [39]

(14) Effectiveness of anti-terror measures	Magnitude of both civilian casualties and damage to the terrorist network
(15) Anti-terror support by moderate forces	Level of support by moderate forces: anti-terror population groups in a hostile country, area, or organisation
(16) International anti-terror support and coordination	International anti-terror support and all anti-terror measures taken by allied governments, institutions, and organisations

Analysis of the Model

We build a model to illustrate how the different variables are linked. We want to know in which *direction* one variable influences another and whether this influence happens immediately or with *delay*. To quantify impact and time delay, we use two matrices: a cross-impact matrix and a cross-time matrix. The data within the matrices are solely for illustrative purposes, and do not represent validated data for one obvious reason: detailed data on terrorist networks is closely guarded (i.e., classified) government information and certainly not available to researchers restricted to the use of open sources. Therefore, we use illustrative details to show the usefulness of our model. The goal of this section is to present a new method as to how security experts and policy makers could approach terrorism. [40]

Impact of the Different Variables

To describe the influence of each variable, we use a cross-impact matrix. In contrast to Gomes and Probst [41] or Vester [42], we value only direct relationships. To indicate the strength of the relationships between the variables in our model, we use the following code:

Table 2: Codes for Describing the Impact		
-1	↔	inversely proportional
<i>Variable B reacts inversely proportionally in reference to a shift in variable A.</i>		
0 (empty)	↔	no influence
<i>No direct link exists between variables A and B</i>		
+1	↔	proportional
<i>Variable B reacts proportionally to a shift in variable A.</i>		

Consequently, we evaluate each link between two variables as either +1 or -1. Although we could also expand the range of code with “disproportionately” low (2/3) and high (3/2) impact values, for illustrative reasons we choose in this paper to use proportional and inversely proportional effects.

Table 3: Cross-impact Matrix

	Variable name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	AS
1	Political influence of a terrorist network		1		1				1		1			1				5
2	Recruitment of potential terrorists	1		1								1						3
3	Density of a terrorist network	1								1					1			3
4	Negative perception of industrial countries		1													-1		2
5	Quality of life in emerging or developing countries		-1		-1													2
6	Security measures			-1								-1	-1					3
7	Control of overreaction				-1	1									1	1		4
8	Media reports	1						-1										2
9	Intragroup communication & coordination	1	1									1						3
10	Support by sympathisers		1											1				2
11	Impact of attacks	1					1	-1	1				-1		-1		1	7
12	Return to normal life							1										1
13	Financial and material resources	1	1									1						3
14	Effectiveness of anti-terror measures	-1	-1	-1	-1											1		5
15	Anti-terror support by moderate forces	-1	-1								-1			-1				4
16	International anti-terror support & coordination							1										1
	PS	8	8	3	4	1	1	4	2	1	2	4	2	3	3	3	1	
	Degree of cross-linking (AS + PS)	13	11	6	6	3	4	8	4	4	4	11	3	6	8	7	2	

The *active sum* (AS in the last column on the right), is the sum of all of the direct influences (outgoing flows) that can be attributed to a certain variable, i.e., the sum of the values in the row of a single variable. The active sum thus indicates how strongly this variable affects or dominates the system, with a high active sum indicating great influence. The *passive sum* (PS second to last column) is the sum of all of the incoming flows and indicates how strongly the system affects or dominates a variable. To calculate the incoming and outgoing flows, one can take only the absolute values into account.

The *degree of cross-linking* depicts how strongly the different influencing factors are interconnected. A higher number indicates that a variable is more essential for the survival of the system. Thus the removal of a highly interlinked element from the system may lead to the system’s partial or complete collapse.

In our model, we are mostly interested in the dynamic evolution of the “political influence of a terrorist network.” This variable, which shows the highest degree of cross-linking (13), is crucially important. In addition, this variable has more ingoing than outgoing links, meaning that as an influencing factor it is very sensitive to changes in our model. The variables “recruitment of potential terrorists” and “impact of attacks” are also of particular significance. While both have a high degree of cross-linking, they differ in the ratio of the active sum to the passive sum (i.e., as “impact of attacks” has the highest active sum, the entire model is sensitive to any change in this specific variable).

These findings of the cross-impact matrix are not surprising. To maintain a certain level of political influence, a terrorist network must rely on the continuous hiring of new manpower and must execute terror attacks that feature high symbolic value. Therefore, these variables occupy a central position in our model.

Time Delay

In systems thinking, time plays a major role. We want to know how a system or network develops over time. If we adjust one variable, the effect will not spread immediately through the system. Therefore, we must include delays in our model. To accommodate time in this setup, we construct a cross-time matrix (see Table 5). The procedure is analogous to the construction of the cross-impact matrix. Again, for the sake of complexity and clarity, we take only direct links into account. The matrix is compiled with the data in Table 4.

Table 4: Codes for Indicating Time Delay		
0 (empty)	⇔	no influence
<i>There is no direct link between variable A and B; consequently, no delays can occur</i>		
1	⇔	short-term (< 1 year)
<i>If variable B reacts with a short time delay to a change in variable A</i>		
2	⇔	middle-term (1-3 years)
<i>If variable B reacts with a moderate time delay to a change in variable A</i>		
4	⇔	long-term (> 3 years)
<i>If variable B reacts with a long time delay to a change in variable A</i>		

To avoid bias, we must associate the time categories with real numbers and code the categories proportionally. Depending on the system, the time categories can refer to different times.

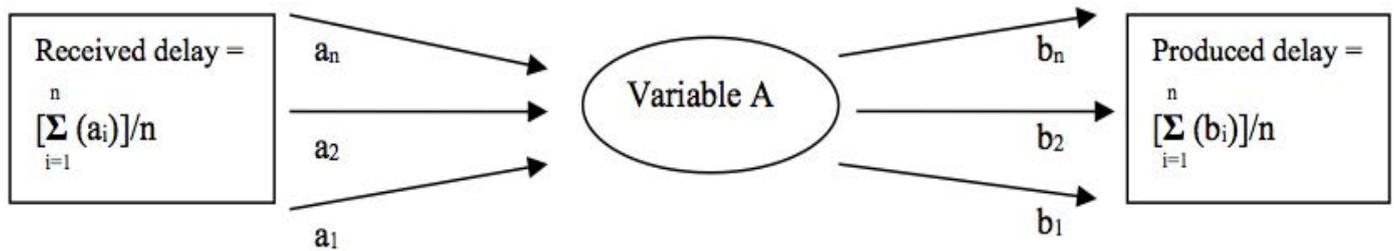
Table 5: Cross-time matrix

	Variable name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	PD
1	Political influence of a terrorist network		2		4				1		1			2				2.0
2	Recruitment of potential terrorists	2		1								2						1.7
3	Density of a terrorist network	2								1					2			1.7
4	Negative perception of industrial countries		4													1		2.5
5	Quality of life in emerging or developing c.		4		4													4.0
6	Security measures			1								1	1					1.0
7	Control of overreaction				1	1									1	2		1.3
8	Media reports	1						1										1.0
9	Intragroup communication & coordination	2	2									2						2.0
10	Support by sympathisers		1											2				1.5
11	Impact of attacks	1					1	1	1				1		1		1	1.0
12	Return to normal life							1										1.0
13	Financial and material resources	2	2									2						2.0
14	Effectiveness of anti-terror measures	1	1	1	1											1		1.0
15	Anti-terror support by moderate forces	4	2								4			4				3.5
16	International anti-terror support & coord.							2										2.0
	RD	1.9	2.3	1.0	2.5	1.0	1.0	1.3	1.0	1.0	2.5	1.8	1.0	2.7	1.3	1.3	1.0	

In Table 5, *produced delay* (PD - last column on the right) and *received delay* (bottom row) show the mean values of every row (produced delay) and column (received delay).

Figure 2 is a schematic representation of produced and received delay with respect to a variable A. Produced delay is the average time an impulse needs to reach a subsequent node from variable A. This is a measure of how much delay a variable causes in the entire system.

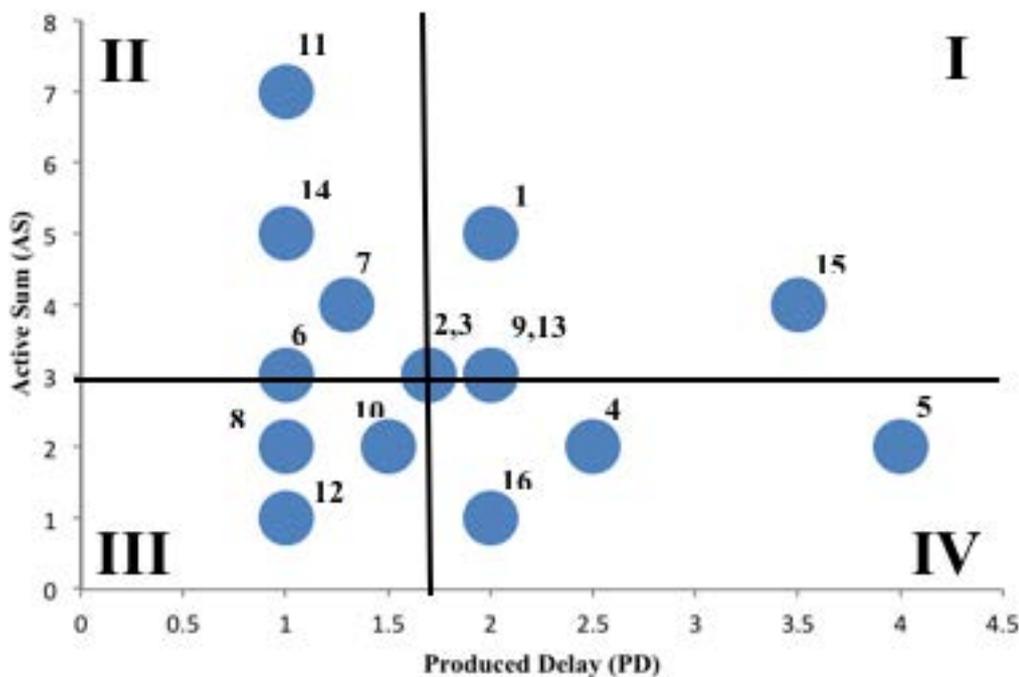
Figure 2. *Produced and Received Delay*



Intervention Variables

From a systems thinking perspective, determining which variables are suited for intervention is important. These variables must have a great impact on the entire system and act with little or no time delay. To identify such variables, we must combine the cross-impact and cross-time matrices. More precisely, we create a graph (see Figure 3) with the produced delay (time) on the x-axis and the active sum (impact) on the y-axis.

Figure 3. *Best Intervention Variables*



The graph in Figure 3 is divided into four quadrants [43], each representing a specific cluster of variables with respect to impact and delay. An ideal intervention variable should have a dominant position in the

system and thus a high number of outgoing links (high active sum). In addition, an appropriate variable for intervention should quickly spread stimuli throughout the system (low produced delay). Therefore, the best intervention variables are found in the upper-left quadrant, which is labeled with a Roman numeral two (II). Variables in the upper-right quadrant (I) can also be interesting for government interventions due to their high impact on the system. However, the effects of these variables on the system only unfold after a significant time delay.

By definition an intervention variable must be one that policy makers can control. This criterion excludes variables 11 (“impact of attacks”) in quadrant II and 1 (“political influence of a terrorist network”) in quadrant I from being ideal interventions, because individuals outside the terrorist network cannot influence these variables. Variables 14 (“effectiveness of anti-terror measures”) and 7 (“control of overreaction”) satisfy the criteria of being both ideal and controllable. In other words, for a government that actively fights terrorism, choosing the most effective anti-terror measures (causing minimal civilian casualties) to weaken the terrorist network is crucial. In addition “control of overreaction” is an essential variable in any terrorist network, because terrorists aim to provoke disproportionate and rash post-assault retaliations. These retaliations tend to facilitate the recruitment of new terrorists and damage the reputation of the retaliating country. Therefore, for government policy makers, the use of a control mechanism relative to premature and blind retaliation is very important. Variable 15 (“anti-terror support by moderate forces”) in quadrant I is another intervention option for decision makers. However although this variable has considerable impact on the entire model, it acts very slowly.

Due to their small impact on the model the variables in the lower quadrants, III and IV, are essentially useless for policy maker.

Path Analysis

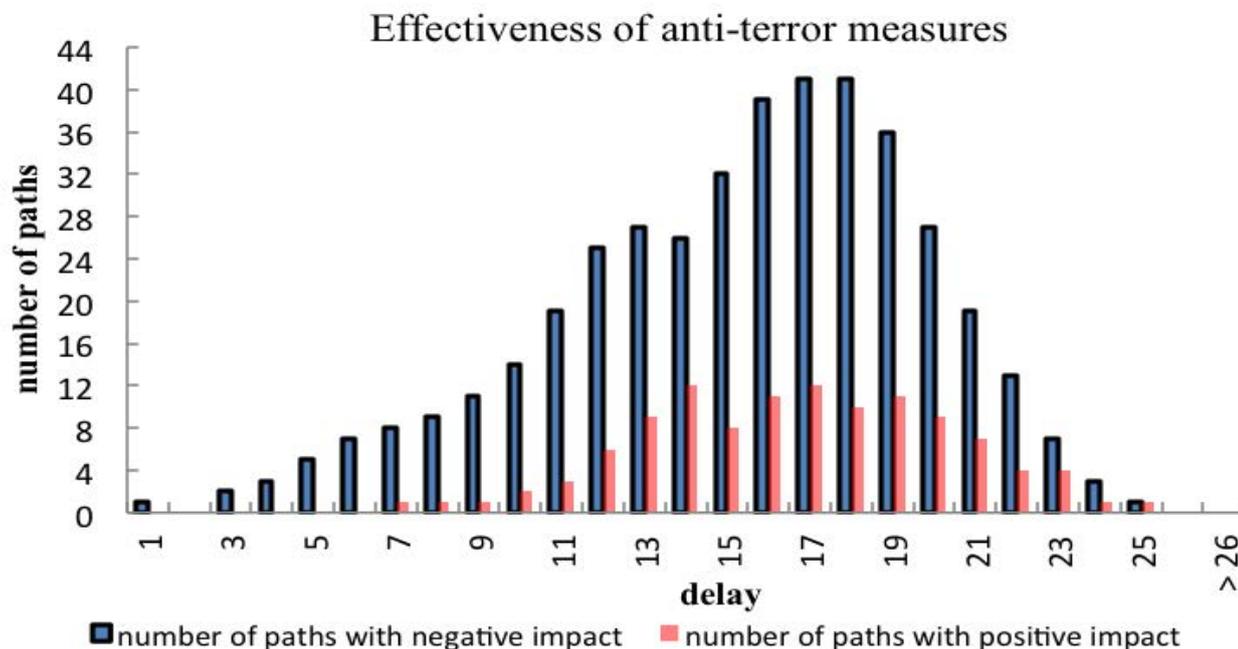
We now analyse the consequences of intensifying (i.e., positively stimulating) the intervention variables that we have identified. We are interested in measuring their effects on the most important variable: the political influence of a terrorist network (variable 1). To do so, we have to conduct path analyses. A “path” is a sequence of links connecting a starting variable to a target variable. [44] In complex networks such as our model, hundreds of paths potentially lie between two nodes. The following questions are of particular value in this context:

- How many different paths in our model exist from the intervention variable to the target variable (“political influence of the terrorist network”)?
- When do these paths arrive at the target variable (time delay)?
- What is their effect?

To calculate the different paths and their corresponding effect and delay, we applied a pathfinder algorithm. The algorithm takes the initial variable and searches for all possible paths toward a target node. [45] Each path is unique, and a node can be crossed only once per path.

Figure 4 displays the results of the first path analysis between the intervention variable “effectiveness of anti-terror measures” (variable 14) and the target variable “political influence of a terrorist network” (variable 1).

Figure 4. Frequency Distributions of all Paths between Variables 14 and 1



In total, 529 possible paths conjoin these two variables. Represented by dark, framed bars, the vast majority (416) of these paths have a negative impact on the political influence of a terrorist network. However, 113 paths boost the political influence of a terrorist network (bright, unframed bars). These results confirm the obvious: the better the effectiveness of anti-terror measures by a retaliating country, the less the political influence of a terrorist network.

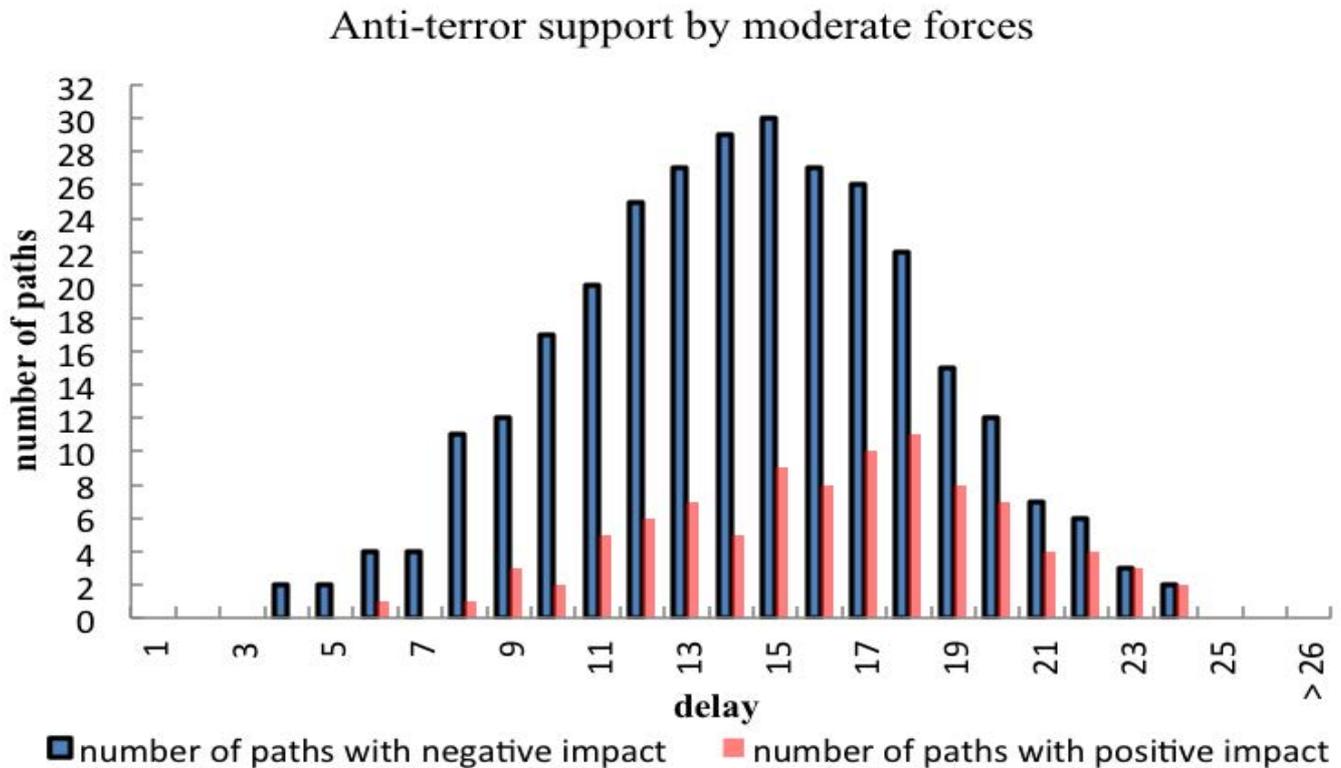
We propose that the ratio between the total number of negative and positive paths is a reasonable measure for comparing different intervention variables and for determining which is the most effective in reducing the political influence of a terrorist network. For variable 14 (“effectiveness of anti-terror measures”), this means:

$$\text{Total number of negative paths} / \text{total number of positive paths} = 416 / 113 = 3.68$$

Now we examine more closely the two distributions (dark and bright) that Figure 4 depicts. Although the delay values on the x-axis have no explanatory power per se, in relation to other distributions we can nonetheless make a statement using these values: The frequency distribution resulting from the negative paths is negatively skewed. In comparison with a Gaussian distribution, the left tail is longer, and the mass center is located on the right side. The extended left tail implies that improving the effectiveness of anti-terror measures will have a substantial and immediate negative effect on the political influence of a terrorist network. However, due to the asymmetry of this distribution, the median lies slightly to the right. Consequently, it takes a long time for the full effect to be measurable in the target variable. The frequency distribution resulting from the positive paths will never be detectable and is completely overlapped by the other distribution.

For comparison, we now show the results of a second path analysis between intervention variable 15, “anti-terror support by moderate forces,” and variable 1, “the political influence of a terrorist network” (see figure 5).

Figure 5. Frequency Distributions of all Paths between Variables 15 and 1



Between these two variables, we have 399 paths in total. The ratio between the total number of negative and positive paths is 3.16. Therefore, “anti-terror support by moderate forces” has a considerable negative impact on the political influence of a terrorist network, but it is certainly less striking than intervention variable 14.

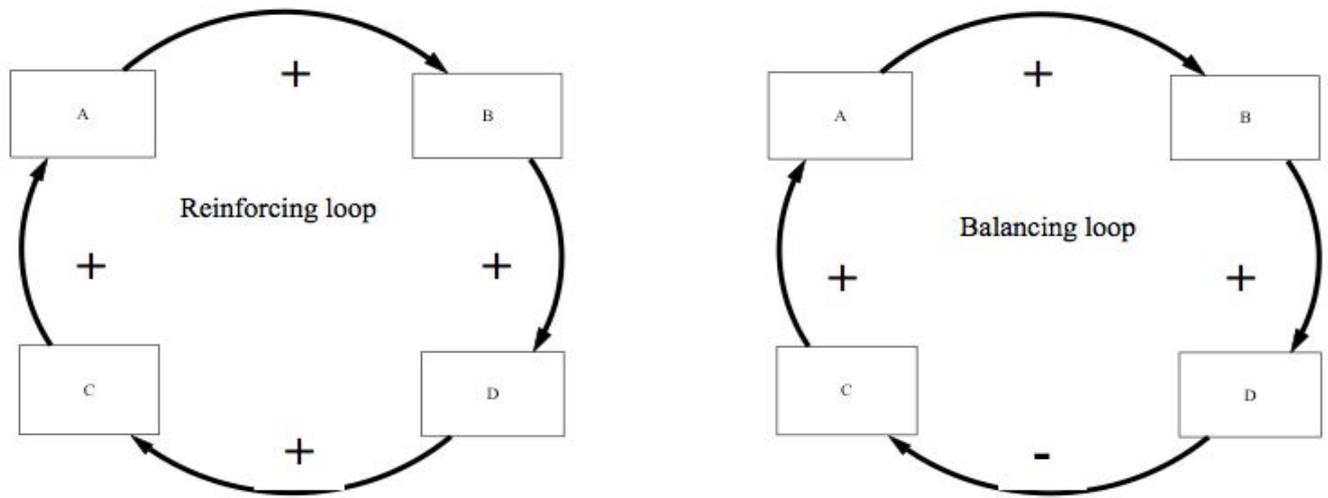
The dark frequency distribution is approximately bell-shaped, meaning that the tail regions are thin and that the mass is concentrated around the mean. Therefore, little or no negative effect is detectable within a short period. In contrast to variable 14, “effectiveness of anti-terror measures,” it takes less time for variable 15 to have its full effect on the target variable. Remarkably, the medians of the two distributions differ significantly. In Figure 5, when the dark distribution is peaking, the other is still rising. Consequently, we measure only little or no negative impact on the political influence of a terrorist network in the long run, because an increasing number of paths are aiding the terrorist network.

Model Stability

In this section we analyse the structure of our 16-variable model in more detail. In particular, we look at feedback cycles that play a crucial role for model stability. In systems, feedback loops are structural elements that mostly determine their stability. [46] Feedback cycles are closed loops starting and ending at the same node. This structure implies that a change in an involved variable affects not only subsequent elements but also the changing variable itself.

Feedback loops are generally classified into two categories: “reinforcing” or “positive” feedback cycles and “balancing” or “negative” feedback cycles. [47] Figure 6 illustrates the difference between these two different feedback systems.

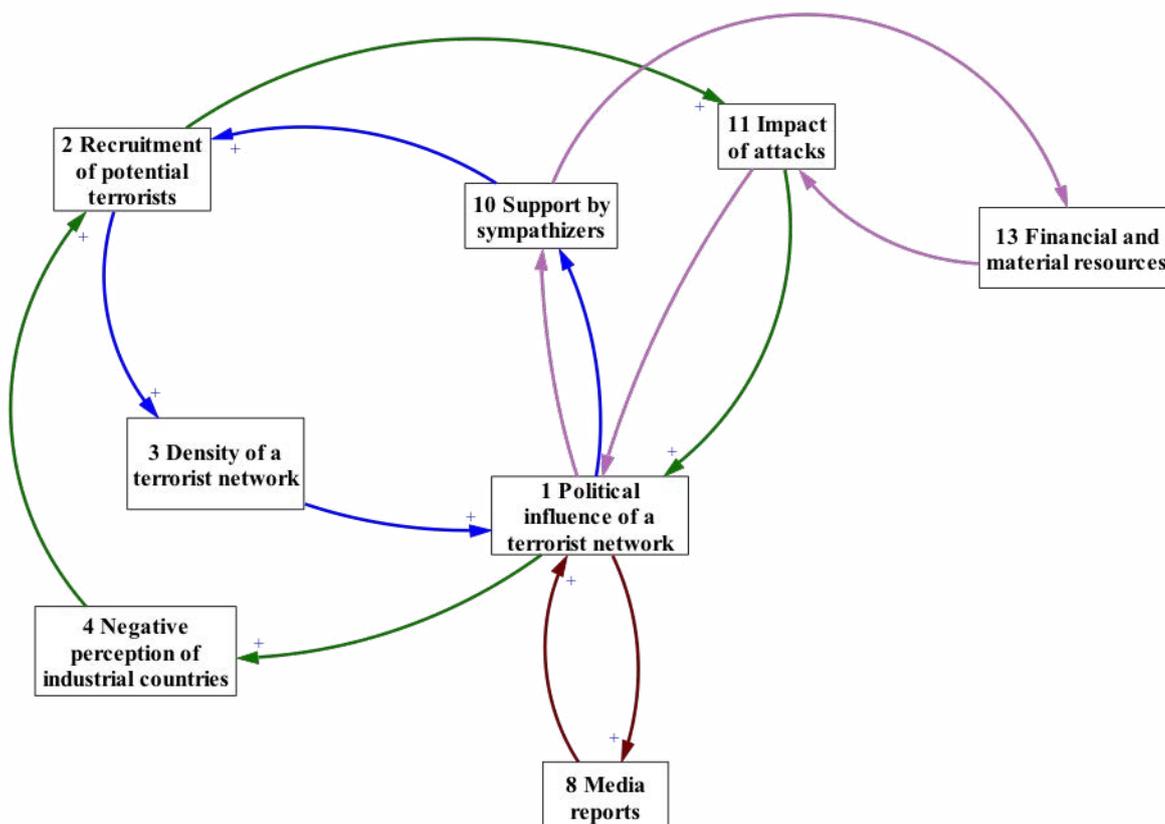
Figure 6. Reinforcing and Balancing Feedback Loops



Reinforcing feedback cycles are destabilising factors in a system. Each variable involved is either growing or declining over time. In short, positive feedback loops boost or amplify whatever is occurring in the system. In contrast to reinforcing cycles, balancing feedback loops equilibrate the system. If variable A is stimulated positively, the impulse will change polarity during the loop and have a negative impact on variable A. Therefore, negative feedback cycles are self-correcting and contribute to stability. [48]

Figure 7 depicts the four primary positive feedback cycles that increase the political influence of a terrorist network. For better visualisation, we add two additional links between the variable pairs 1/10 and 1/11.

Figure 7. Central Reinforcing Feedback Loops



There is one small feedback cycle, including variable 8, “media reports,” and variable 1, “the political influence of a terrorist network.” The remaining feedback loops are bigger, each containing four variables. Importantly, three variables (“recruitment of potential terrorists,” “support by sympathisers,” and “impact of attacks”) participate in two feedback cycles at a time.

To better explain the model’s structure, we apply a search algorithm on feedback cycles. [49] The following issues are important in this context:

- How many different feedback loops appear in our model?
- What is the ratio between reinforcing and balancing feedback loops?
- What are the consequences relative to model stability if single or multiple variables are removed?

The third point is of special value for policy makers. They need to know which variables or combination of variables they must focus on to break down any terrorist networks. Table 6 summarises the results of this particular analysis. The second row of Table 6 refers to the whole 16-variable model in Figure 1, showing the results if no variable were removed from the model. The entire model contains 2,450 feedback loops indicating a highly interconnected and complex network. A majority of these loops are reinforcing (1,824) and a smaller fraction are balancing (626). The smallest loop is composed of two nodes (min. path), whereas the biggest loop includes 13 nodes (max. path).

The last column in Table 6 shows the ratio between the total number of negative and positive paths incoming on variable 1, “political influence of a terrorist network.” We use again a pathfinder algorithm to count all possible paths connecting any node in the model with the target node—variable 1. As long as this value lies below 1, a net positive effect exists on the political influence of a terrorist network. For our entire model, this value is 0.81; there are more positive paths leading to variable 1 than negative paths, so the political influence of the terrorist network is generally strengthened by the variables in our model.

From the third row onwards, Table 6 shows the results if we start removing variables from our model. First we extract single variables, then bundles of variables to study the consequences of those removals for the number and composition of reinforcing and balancing feedback loops. The ultimate goal of this analysis is to find a combination of variables that, if removed from the model, causes the number of reinforcing feedback loops to drop to zero. This finding will reveal the particular combination of variables that, if they are addressed or diffused by a government, would efficiently fight the processes that boost the political influence of a terrorist network.

Table 6: Policy on/off Analysis

removed variable(s)	# feedbacks	# reinforcing (+)	# balancing (-)	min. path	max. path	# remaining feedbacks (in %)	ratio ingoing paths on 1
Intact network	2450	1824	626	2	13	100.00%	0.81
1	405	297	108	2	12	16.53%	-
2	296	232	64	2	12	12.08%	0.76
3	859	730	129	2	11	35.06%	0.68
4	937	707	230	2	12	38.24%	0.79
5	1911	1465	446	2	13	78.00%	0.69
6	1910	1430	480	2	13	77.96%	0.87
7	376	290	86	2	10	15.35%	0.73
8	1649	1179	470	2	13	67.31%	0.88
9	1560	1121	439	2	13	63.67%	0.85
10	1253	938	315	2	12	51.14%	0.85
11	192	128	64	2	11	7.84%	1.1
12	1798	1238	560	2	13	73.39%	0.9
13	694	545	149	2	12	28.33%	0.87
14	954	732	222	2	13	38.94%	0.64
15	568	434	134	2	12	23.18%	0.61
16	2124	1791	333	2	13	86.69%	0.68
8;10;13	267	199	68	2	11	10.90%	1
10;11;13	72	51	21	2	9	2.94%	1.08
4;10;11	49	35	14	2	9	2.00%	1.12
2;11;3	22	22	0	2	8	0.90%	1
2;10;11	18	17	1	2	7	0.73%	1.04
2;4;11	13	12	1	2	7	0.53%	1.05
2;11;13	11	10	1	2	6	0.45%	1.06
2;11;8	6	5	1	2	5	0.24%	2.05
2;11;8;13;4	1	0	1	2	2	0.041%	2.4

To effectively reduce the political influence of a terrorist network, one must break the central reinforcing feedback loops displayed in Figure 7. Variable 11 (“impact of attacks”), which is part of two positive feedback loops, has the greatest effect on model stability. If this variable is removed from the model, the total number of feedback loops will decrease by approximately 92%. This finding is not at all surprising, because each terrorist network plans and executes attacks to cause the most severe physical and psychological damage. Therefore, it is of great importance for every country threatened by terrorism to protect potential targets in the best possible way: by protecting particular buildings and places that have great historic value and those that attract many people. Another key variable is the “recruitment of potential terrorists,” the fuel in the terrorist network. Stopping recruitment would cause the total number of feedback loops to drop by roughly 88%. However, reducing or even stopping the inflow of new terrorists is a complex task, requiring both a large amount of time and resources and a deep understanding of the underlying motives that lead young people to join a terrorist network. Often, a lack of future prospects in poor and underdeveloped countries provides the breeding ground for joining a terrorist organisation.

However, the separate removal of variables 11 (“impact of attacks”) and 2 (“recruitment of potential terrorists”) does not lead to a complete crush of our model—both interventions reduce the number of feedbacks significantly but there remain hundreds of positive feedbacks in the model. This means that to perfectly break the model, we need to eliminate or defuse several variables until no single positive feedback loop—one that reinforces the political influence of a terrorist network—remains in the model. Already, Vester [8] has suggested that a complete dissolution of a terrorist network is only possible by simultaneously tackling multiple variables of these networks.

We achieve the best results by removing variables 2, 11, 8, 13, and 4 (“recruitment of potential terrorist,” “impact of attacks,” “media reports,” “financial and material resources,” and “negative perception of industrial countries”). Effectively targeting these variables completely crushes our model, leaving only one negative feedback loop remaining. Media reports play a crucial role in the context of terrorism. Attacks that generate a large amount of media reportage help to strengthen the political influence of a terrorist network. Therefore, the press should strike the right balance between informing and over-informing the public about terror attacks. Obviously terrorists are dependent on financial and material resources (variable 13). Experts have estimated Al-Qaeda’s budget for 2001-2004 at 20-50 million dollars, meaning that Al-Qaeda was at that time incredibly well funded. [32] Governments combating terrorism should try to identify the sources of these funds and cap them. In the end, countries threatened by terrorism should also ask themselves why they are so negatively perceived in those countries where the terrorists originate from (variable 4). Tackling this combination of variables also has a strong positive effect on the ratio between the total number of negative and positive paths leading to variable 1, as displayed in the last column in Table 6. This ratio rises to 2.4, implying that 2.4 times more negative paths exist than positive ones. In short, eliminating the combination of variables discovered by our analysis reduces the political influence of a terrorist network systematically for this particular network.

Conclusion

This article presents a new method for dealing with terrorism. As terrorism is a complex problem, simple solutions focusing on only one factor are destined to fail. Given that we must understand terrorism in its entirety, systems thinking offers tools for reaching this goal. The key to success thus lies in the modeling process. To accurately produce reliable outcomes, a model must reflect the most relevant influencing factors and their interdependencies. Our model does precisely that. [50]

Once a well-grounded model is available, policy makers can perform different analyses from the field of systems thinking. First, however, they must characterise each relationship and answer the following two questions: How strongly does one variable influence another? How long does it take for this effect to be measurable?

A graph in which time and effect are mirrored enables the deduction of the best intervention variables in the system. By definition, an intervention variable has a dominant position (high active sum) and quickly distributes stimuli throughout the system (low produced delay). In our model, we found three variables suitable for intervention: (1) control of overreaction, (2) effectiveness of anti-terror measures, and (3) anti-terror support by moderate forces.

Next, we studied in detail the effects of two intervention variables on the political influence of a terrorist network. Because more than one connecting path exists between the intervention and the target variable, we applied a pathfinder algorithm to reveal all possible routes. One astonishing result is that both “effectiveness of anti-terror measures,” and “anti-terror support by moderate forces” show not only a dominant negative effect but also a small enhancing effect on the political influence of a terrorist network.

Finally, we tested the model’s stability by removing single and multiple variables. To completely break down our terror model, we must approach the problem in five different areas: (1) recruitment of potential terrorist, (2) impact of attacks, (3) media reports, (4) financial and material resources, and (5) negative perception of industrial countries.

The methodology presented in this article addresses two important weaknesses of multidimensional analysis methods in the terrorism research literature [51]: First, our approach explicitly considers temporality as a crucial element in modeling terrorism, which has been neglected up to now. Second, by assigning positive and negative weights to all relationships in the model, we evade the problem of treating variables uniformly. The range of weights can also be expanded to include “disproportionately” low (2/3) and high (3/2) impact values—adding more specificity but also more complexity to the analysis process.

The model in Figure 1 is based on Vester’s work that combined key aspect of international terrorism threatening the United States at the beginning of this century. We have adapted his model by taking into account that terrorism matters for the whole international community rather than only the U.S., thus analysing “globalised” terrorism. Our model is not limited to that scale: it is easily adaptable to national or local forms of terrorism. The 16 variables used in our model are highly aggregated and would be changed if the focus were to be a national terrorist network. In such a case, the modeling process starts with the identification of all relevant stakeholders in the specific national terrorism context and with the deduction of new key variables representing stakeholder interests.

The one drawback of our method is its limited ability to employ validation tests. In contrast to simulation methods, our semi-quantitative systems thinking approach does not allow checking the validity of the results before they are actually implemented. Nonetheless, we strongly recommend that policy makers use our systems thinking tools to find long-term sustainable solutions for complex issues in business and society. [52] In addition, we emphasise that the method presented in this paper is an expert tool. A potential user needs to have extensive knowledge about the subject of analysis, otherwise no reliable outcome can be achieved.

At this point we can describe feedback in a qualitative and descriptive manner. Therefore, future research should be directed towards a better formal understanding of feedback structures in a complex system.

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Notes

- [1] This paper follows Paul Pillar's definition of terrorism as having four essential characteristics: (1) It always has a political character, thus ruling out violence in conjunction with financial interests; (2) the target choice is non-random, thus involving in-depth preparation and a planning phase; (3) terrorism strikes the civil population intentionally, affecting non-combatants; and (4) the terrorist network itself is composed of non-state actors. See Paul R. Pillar, *Terrorism and U.S. Foreign Policy* (Washington, D.C.: Brookings Institution Press, 2001), pp.13-20.
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- [13] Frederic Vester, op. cit., pp. 318-327.
- [14] We omit seven variables that Vester uses: „successful protection," "quality of life in democracies," "learning from the shock," "damages on civilians," "damages on economy," "U.S. anti-terror actions," and "acceptance of U.S.-actions." Instead we introduce three new variables: "media reports," "intragroup communication & coordination," and "support by sympathisers", taking account of current trends in terrorism research.
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Evidence-Based Counterterrorism or Flying Blind? How to Understand and Achieve What Works

by Rebecca Freese

Abstract

Many counterterrorism efforts in last decades, and especially since 9/11, have been plagued with doubts as to whether or not they actually make us safer. Unfortunately, the terrorism research that is needed to better plan and evaluate counterterrorism efforts has suffered from both a lack of sufficient rigour and lack of influence on policy-making. This article reviews the state of terrorism research and evidence-based practice in counterterrorism, and the challenges to both. A framework is proposed for the kind of research that needs to be conducted in order to develop evidence-based counterterrorism programs as well as the subsequent evaluative research on existing programs as part of a wider quality improvement program. The argument is made that there is a need for a concrete infrastructure of evidence-based practice and quality improvement in counterterrorism to ensure the best outcomes for national security. The components of a full spectrum quality improvement program in counterterrorism are described. Insights are garnered from the field of medicine, which has recently delved full force into evidence-based practice and quality improvement.

Keywords: counterterrorism, research, evaluation

Introduction

“Without big data, you are blind and deaf and in the middle of the freeway.”[1] This is how we need to think about the risks of not collecting and analyzing the extensive amount of data available in our modern world today. Data is the raw information that is transformed through analysis into “evidence.” And it is this evidence that paints the picture of what is truly happening in the environment so that one can make enlightened decisions to achieve the desired end results (and not get hit by that truck).

Evidence-based practice (EBP) refers to those practices, actions, and decisions that are grounded in objective evidence obtained from sound, scientific research and analysis. It works to eliminate the element of opinion, gut-instinct, guesswork, or emotion, which can be poisonous to the decision-making process. The goal of using EBP is simply to arrive at those decisions that can produce the most successful outcomes.

The concept of evidence-based practice originated in the field of medicine in the 1990s with what is known as “evidence-based medicine”[2], but its philosophical origins go back to at least the mid-19th century.[3] Evidence-based medicine is defined as the “conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients.”[4] Medical practitioners aim to treat patients with methods that have been shown to work and the concept and use of evidence-based medicine has become a deep part of the medical culture. Although there are still significant gaps within the medical field between the knowledge of evidence-based medicine and its universal use,[5] the momentum is always in the direction of using research to guide practice. Because of its importance, hospitals, training programs, and practitioners tout the use of evidence-based medicine as a badge of honor when communicating to their audiences. It has become accepted that in order to participate in the modern arena of medicine, practitioners must be focused on the application of available evidence as to what works in the daily care of their patients. This is not to say that individual patient scenarios and practitioner experience and judgment do not mix with the available evidence to ultimately lead to final decisions, but when possible, subjectivity and guesswork are removed

from the equation.

Because of the benefits of this informed and structured approach to decision-making, EBP has extended to many other fields such as psychology, criminology, and education. Although each field, whether a physical or social science, has its own individual characteristics, inherent nature, and unique challenges (as is true when comparing counterterrorism and the practice of medicine), the underlying principles of EBP are the same. That is to say, in any field, one searches for and employs the “conscientious, explicit, and judicious use of current best evidence” in deciding the most appropriate course of action for the purpose of arriving at the best outcomes. With the concept of evidence-based practice in mind, this article explores the state of counterterrorism (CT) efforts in relation to research, evidence, and practice and proposes infrastructure modifications that assist in EBP and the achievement of best outcomes in counterterrorism.

Counterterrorism in Action

Terrorism is not a new phenomenon and one can see prototypes, albeit with differing characteristics and tactics, throughout history. Modern terrorism of the 1960s and 1970s, which was mostly hierarchical, secular, and more discriminate has evolved and enveloped in religious ideology, become more decentralised, and manifests a greater determination to create large-scale death and destruction to achieve its goals. Unfortunately, the future of terrorism could be even more worrisome. The wave of suicide terrorism that began in the 1980s has the potential to morph into ever more destructive chemical, biological, radiologic, nuclear (CBRN), and cyber attacks. Therefore, it is prudent to understand how terrorism threats can most effectively be countered.

Although national governments have always invested in protecting their citizens' way of life, resources and energy devoted to counterterrorism have grown substantially since the attacks of 11 September 2001 on New York and Washington DC. In the wake of 9/11, the United States government created an entirely new agency, the Department of Homeland Security, to deal with the increasing threat. The range of counterterrorism efforts fall all along the spectrum from law enforcement, security of potential targets, emergency response systems, and treatment of victims to economic aid and sanctions, international resolutions, and media relations.[6] In the United States, one can see the results of counterterrorism policies everywhere, from the security checkpoints at airports to targeted killings via drone attacks in South Asia on the Al-Qaeda leadership to worldwide surveillance programs. Yet how can one really know whether or not these countermeasures are truly effective and achieve the desired outcome - enhanced security?

Recently in *Foreign Affairs*, two security studies experts debated whether drone attacks actually work in achieving counterterrorism goals. The argument for the use of drone attacks focused on the benefit of eliminating key Al Qaeda leadership figures, interruption of terrorist safe havens, and the fewer civilian deaths caused by drones in comparison to alternative modes of warfare.[7] The counterargument highlighted the damage the drone program causes to U.S. legitimacy, the loss of key intelligence during a strike, the enabling of jihadi recruitment, and the short-term perspective that hinders long-term strategy.[8] What was striking about this debate is that it was not based on much more than informed opinions. Frustratingly, it seems that much of our counterterrorism policy today is based on such hypotheses and speculation. How much more productive would the conversation be if determinations of when, where, and how to use targeted killings could be supported by actual evidence produced from objective scientific research? It is much easier to make an argument for or against something when you have evidence on your side.

*Analysis**Terrorism Research*

Since research is the foundation for the evidence needed to make informed decisions when developing and evaluating counterterrorism programs, it is imperative to understand the state of research in the field of terrorism studies (for the purpose of this article, “terrorism research” refers to both research on terrorism and its associated counterterrorism response).

For research results to be valuable and useful to decision-makers who formulate policies that drive counterterrorism programs, the research must be of high quality, with conclusions that are informative, applicable, based on factual data, and have sufficiently high validity and reliability. Much of the research that is most useful in creating this type of evidence is *empirical research*. Empirical research is a form of rigorous research that is “based on observed and measured phenomena and derives knowledge from actual experience rather than from theory or belief.”[9] The remarkable shortage of studies that are empirical in nature has been one of the most salient features of terrorism research.[10,11] Based on a comprehensive literature search of all peer-reviewed articles related to terrorism or political violence, Lum et al. found in 2008 that a mere 3% involved empirical analyses (either quantitative or qualitative); 1% were case studies, and 96% were what the authors described as “thought pieces.”[12]

Other shortcomings have been noted. Reviewing literature between 1995 and 2000, Silke found in 2001 that the use of statistical analyses in terrorism research in major journals was exceedingly low while the use of inferential statistics specifically never exceeded 4% of all articles [13]. The use of inferential statistics allows predictions to be made about the entire population based on the analysis of a sample studied [14] and therefore is important for justifying whether research conclusions should be used as evidence when formulating policy. Optimistically, the amount of terrorism research using inferential statistics has slowly been on the rise, with an almost quadrupling in the 7 years since 9/11, although still representing fewer than 12% of all articles examined.[15,16] Silke has also noted a conspicuous lack of methodological range being used in terrorism research, finding the counterterrorism field to be dominated by secondary data analysis using easily accessible sources of data (e.g. books, journals, and media) [17] with the creation of new knowledge only representing approximately 20 percent of the research conducted.[18] A follow-up analysis revealed that literature reviews continue to be the main mode of research in terrorism studies.[19] Schuurman and Eijkman also note the lack of primary research in the terrorism field as an impediment for progress, describing reliable primary data as “vital if we are to truly advance our understanding of terrorism: from its causes and precipitating dynamics to the best way to counter or prevent it.”[20] This is not to say that all research needs to involve primary data, be quantitative or involve sophisticated statistical analyses but it is crucial for published research to represent a range of methodologies. Such variation produces the most meaningful insights about terrorism and therefore can best guide practice.

The quality of terrorism research can also be examined as to whether or not it qualifies as “explanatory research.” Silke, expounding on work by Psychologist Colin Robson, describes research as progressing from *exploratory* (which helps start the process of building a foundation of knowledge and frequently consists of case studies) to *descriptive* and then finally to *explanatory* research, the later being the most scientifically rigorous, reliable, and applicable.[21] Silke notes that, “field areas which fail to make this final transition [to explanatory research] are left with constant gaps in their knowledge base and a fatal uncertainty over the causes of events and what are the truly significant factors at work”[22] and therefore cannot make the leap to producing results that are of predictive value.[23] Thus, without explanatory research, there is little upon

which evidence-based counterterrorism practice can be formulated.

Another issue of concern in terrorism research has been the researchers themselves. In 2001, Silke found that 90 percent of all terrorism research was done by a single individual, making the creation of time-intensive statistics needed for more substantive research exceedingly difficult.[24] During the entire decade of the 1990s, he found that 80% of all the researchers who contributed to terrorism journals only wrote one article pertaining to the field during that time.[25] To a large degree this can be explained by the fact that many of the articles have been written by researchers whose primary concentration was in another field, such as psychology or sociology.[26,27,28] Although, terrorism research benefits greatly from a multidisciplinary approach, researchers are needed who research repeatedly and consistently in the field. Since 9/11, there has in fact been an upward trend in these types of dedicated researchers as well as a greater degree of collaborative research.[29,30]

These weaknesses in terrorism research may be why Sageman laments that although there has been an increase in energy and commitment to terrorism research since 9/11, there are still fundamental questions about terrorism for which we have no good answers, particularly why an individual turns to political violence.[31] He argues that one of the problems is that the United States government has not provided sufficient support for the methodical accumulation of detailed and comprehensive data that is critical for answering many of these questions. Without sufficiently extensive, and varied databases and empirical, explanatory research utilizing varied methodologies, along with numerous, dedicated researchers in the field, the evidence needed for the formulation of evidence-based counterterrorism programs will continue to falter.

Evaluative Research

Not only are there weaknesses in the research needed to formulate counterterrorism programs, but there is also a lack of research that evaluates the effectiveness of these programs once they are in effect. Most research in the field tends to focus on the explanations, causes, and sociology of terrorism.[32] Lum, et al. determined that of the already small percentage of counterterrorism publications that met the criteria for empirical research, only a fraction of these were actually evaluative in nature.[33] Even as research in terrorism ramps up, it appears that very little research is being done to scrutinize whether or not established counterterrorism efforts are in fact achieving their intended goals.

By way of illustration, the University of Maryland's START (National Consortium for the Study of Terrorism and Responses to Terrorism) program, which is a Center of Excellence for the United States Department of Homeland Security, states on its website that their mission is to "advance science-based knowledge about the human causes and consequences of terrorism as a leading resource for homeland security policymakers and practitioners." [34] Evaluation of the effectiveness of counterterrorism programs is not explicitly stated in this mission statement. Horgan and Stern also do not emphasize evaluative research when discussing the goals of terrorism research. They claim that, "our role as scholars is to discover and understand what influences the changing nature of terrorism and the impact it will have." [35] Determining whether or not implemented counterterrorism programs actually work is conspicuously absent from this statement on the responsibility of academia. In their article they defend the slowly but steadily improving field of terrorism research by citing examples of the solid research that is occurring in understanding "who becomes a terrorist, why, and how many there are in the West." [36] None of the examples provided by them referred to evaluative research. Lum and Kennedy suggest that "even the most liberal governments are resistant to self-evaluation," [37] which is likely due to the clandestine nature of national security and may largely account for why research remains invested in the etiologies of terrorism and not the evaluation of how we respond to terrorism. What

results is an environment with less focus and interest by researchers on evaluative research despite the crucial importance it plays in overall counterterrorism strategy and its success.

Evidence-Based Counterterrorism

The paucity of research articles that address the question of whether or not counterterrorism efforts are evidence-based is in itself evidence of the lack of prevalence of this important concept within the field. The same handful of authors write repeatedly on this topic and the overall consensus appears to be that many of our counterterrorism efforts are, in fact, not effective. Sageman describes the “disappointing state of the field, largely consisting of wild speculations without foundation.”[38]

Most research that studies whether counterterrorism programs are effective has focused predominately on the effectiveness of *existing* programs [39,40] and not whether policy-makers are using research on terrorism as evidence to drive counterterrorism program development and implementation. Furthermore, the evaluative research that has been performed in the field of counterterrorism seems to have focused mainly on outcomes and not on processes or resource use. Very little is known about the cost-effectiveness of our counterterrorism efforts and how they can be improved.[41] It is about moving beyond whether or not our efforts work to understanding *how* they work. The lack of evaluation on resources and processes could be due to the fact that the data needed for this research has not been easily attainable. It is also likely that these measurements have taken a backseat to the more important measurement of outcomes as states struggle to come to grips with terrorism.

When Lum et al. performed an analysis of the limited but available evaluative research that was of sufficient rigour, it was found that most interventions either had no effect or were harmful (i.e. terrorism increased) [42], leading the authors to conclude that “programs are being used without any knowledge, understanding, or even attempts to determine whether they are effective.”[43] Interestingly, no study showed that military strikes worked. This highlights our need to better understand what works since there has been a propensity by states to rely on military means and force to fight terrorism. Another finding by Lum et al. underscores an important point. The results of studies conducted on the success of metal detectors and security screening were evenly split between either working and being harmful.[44] This disparity was likely due to how outcomes were defined in the different studies. If the outcome was defined as the level of hijackings, then the intervention was considered beneficial. However, if the outcome was defined as the level of non-hijacking attacks, then terrorism was found to increase. Once these security measures were put in place, it is likely that terrorists just resorted to different avenues for attacks. This stresses both the importance of defining goals when developing counterterrorism programs so that effectiveness can be measured against those specific goals as well as taking into account how unintended consequences can result from implementation of counterterrorism programs.

Adams et al. make the point that counterterrorism initiatives since 9/11 have focused more on questions of morality and legality (e.g. enhanced interrogation and ethnic profiling) with less scrutiny into whether the initiatives actually work.[45] The authors also note that evaluation has tended to focus predominantly on the success of overarching government policies and strategies with less attention to individual counterterrorism programs or tactics, making it difficult to decipher more precisely what works and what does not. In their own evaluative research, the authors determined whether the counterterrorism method met its particular aim as well as whether it was aligned with, or counterproductive to, overarching counterterrorism strategies such as “gathering useful information [favorable signal: noise ratio], prioritizing and coordinating intelligence, promoting state legitimacy, encouraging community-generated tips and support of bystanders,

and undermining terrorists' narratives." [46] This second dimension of measurement is a useful way to tackle the question of effectiveness without having to necessarily measure the end goal of an increase or decrease in terrorist plots or attacks, which is often hard due to the relative infrequency of these events as well as the difficulty in determining causal relationships between interventions and levels of terrorism. In examining specific U.S. counterterrorism activities since 9/11, Adams et al. determined that there was no credible evidence that the use of controversial counterterrorism tactics such as enhanced interrogation, preventative detention, and expanded search and surveillance powers have contributed to thwarting any terrorist plots since 9/11. [47] On the contrary, the most effective measures appear to be those that are least controversial like thwarting terrorism fundraising, denying safe havens, preventing access to port and border crossings, and bolstering state legitimacy.

After publishing their initial research, Adams, Nordhaus, and Shellenberger wrote in an article that indeed many of the controversial "War on Terror" tactics of the post-9/11 era were in fact "abandoned or dramatically scaled back based on overwhelming evidence" [48] after they were found not to be promoting the overall goal of greater U.S. security. The authors describe tactics like preventative detentions, pain-based interrogation and ethnic and religious profiling as being replaced with more "discerning and sophisticated practices." [49] The authors appear somewhat optimistic that this transition occurred although recognize the long, messy and unstructured process upon which these conclusion were finally drawn, they noted that forgetting lessons from history contributed to many of the more impulsive and reckless tactics. However, when the authors state that overwhelming "evidence" led to the abandonment of many of the controversial tactics, one must question the nature of this evidence. Certainly it does not seem that it was objective, scientific evidence that led to these conclusions but more of an overall sense that things were not working out. The problem with not relying on scientific evidence is that even if it is determined that a tactic is not working as intended, an opportunity is missed to understand *why* the tactic was ineffective. This understanding is what helps guide informed decisions going forward. Interestingly, the 2011 article states that, "multiple NSA data-mining programs have been abandoned as independent reports, most notably from the National Academies of Sciences, concluded that they simply push terrorist activity further underground." [50] In light of what was learned in June, 2013 about the widespread, clandestine phone and Internet surveillance programs run by the NSA, it serves as a reminder of the extent to which little is known or understood about the use of evidence-based practices in counterterrorism. Adams et al. state that "national security is still practiced more as a craft than a science" [51] and that the "House and Senate Intelligence committees... have never established any formal process to consistently evaluate and improve the effectiveness of U.S. counterterrorism measures." [52]

The reason that *development* of counterterrorism programs has not been evidence-based may be due to the lack of research of sufficient rigour and applicability to drive practice and/or that a sufficiently large disconnect remains between academia and policy-makers. It may also be due to the continued emotion-driven response to terrorism and an overreliance on unfounded assumptions based on gut-feelings about what "should" work. Furthermore, the fact that many *existing* counterterrorism efforts have not retrospectively been found to be effective is problematic, but not the main concern. What is more important for evidence-based counterterrorism is whether or not these finding are driving change in how one approaches the fight against terrorism.

Challenges to Conducting Terrorism Research

There are many pitfalls to conducting research in both the social and physical sciences and although researchers develop strategies to avoid these pitfalls and try to obtain results that approach the truth to the

greatest extent possible, results are never perfect. There has been much criticism as to the state of research in terrorism but in discussing its shortcomings and areas for improvement, it is important to understand the additional, unique challenges faced by terrorism research that makes the search for the truth particularly difficult.

One of the main challenges in conducting terrorism research is the clandestine and adversarial nature of the object of study that makes it difficult to collect reliable and systematic data.[53] Data collection through interviews or surveys, which is common in the social sciences, is extremely challenging in terrorism research. For those who do desire to work directly with terrorists, terrorist organisations, and local populations to gather information, it can be a risky and unpredictable endeavour. Another monumental challenge is that the nature of the field is extremely dynamic and diverse. The players and environment are in constant flux, especially as terrorist organisations work to continually adapt themselves to counterterrorism efforts.[54] Rigorous studies can often take a great deal of time to complete and it is possible that by the time results are published, the environment and therefore applicability may have changed. Other challenges for conducting research in terrorism is the lack of access by researchers to classified information,[55] the continued lack of a generally accepted (legal) definition of terrorism [56,57] and political obstacles that have prevented a full commitment, including financial funding and long-term perspectives, to terrorism studies.[58,59] Despite the challenges of terrorism research, it is argued that the field still lends itself to systematic, sound scientific methodology.[60]

Looking Forward

How do we get to Evidence-Based Counterterrorism?

Charles F. Kettering, the US electrical engineer and inventor once said, “A problem well stated is a problem half solved.” With a grasp on the deficiencies and challenges of terrorism research and the pitfalls of not having sufficient formal structures to connect research and practice, many of the solutions needed are better understood. In fact, some of the solutions have already begun to emerge.

First, it is clear that a commitment to conducting quality, rigorous, scientific research in the field of terrorism with university, government, and private program involvement is required. The START program at the University of Maryland is an example of progress on this front. The START program aims to tackle many of the shortcomings that have existed in this field of research by creating new databases and developing a range of rigorous methodologies. An increasing number of universities are also focusing on research in security studies such as CREATE (National Center for Risk and Economic Analysis of Terrorism Events) at the University of Southern California, and the Center for Terrorism and Security Studies (CTSS) at the University of Massachusetts Lowell.[61] In addition, the RAND Corporation is an institution that has created a significant body of knowledge in the field of terrorism to inform the public, first responders, and policy-makers.[62]

Research funding is also critical for facilitating the production of high quality research that will drive evidence-based counterterrorism. In 2011, the Department of Homeland Security awarded \$3.6 million to Maryland’s START program [63] and the National Institute of Justice has also awarded a total of \$3 million to 6 universities to conduct research on domestic radicalisation.[64] US federal financing of terrorism research is facilitated when academia can “demonstrate its relevance to policy and operational concerns”[65] and this connection between research and policy makers is another critical component of evidence-based counterterrorism. In order to prevent what Sageman calls “stagnation” in meaningful research on terrorism

and its causes due to a disharmonious relationship between academia and government, an infrastructure of coordination, collaboration, and communication must be maintained between researchers, policy-makers, and practitioners.[66] In fact, many of the academic organisations engaging in terrorism research are aiming to influence policy with the results of their work. One of STARTS's goals is to engage in outreach to policy and practitioner communities in counterterrorism. [67] Programs at Northeastern University and the University of Massachusetts at Lowell (CTSS) are also being developed to "bridge the academic-practitioner divide." [68] Merari, in analysing the disconnect between academia and government, stresses the importance of promoting influence not just indirectly, but with direct, consistent contact as well. [69] He also suggests the bilateral movement of professionals between academia and government as a means by which the two worlds can be better melded.

Researchers and academics themselves will also help advance the field of terrorism studies in critical ways and ensure that the research is relevant and applicable for decision makers. Merari notes that, "before we complain that the client does not appreciate our merchandise, we must be sure that the goods are good..." [70] Therefore, to improve the product, not only are more dedicated researchers, primary data and empirical studies needed, but researchers need to explore new and innovative methodologies and approaches for conducting terrorism research that will deal with many of its unique challenges. For example, Porter, White, and Mazerolle have developed sophisticated models in which to measure terrorism, accounting for both the frequency and impact of a terrorist attack as well as for determining the effectiveness of a given counterterrorism intervention. [71] Other work has included development of models for assessing counterterrorism policies by applying political uncertainty and complexity theory [72] and advances in the databases needed for evaluating both terrorism and counterterrorism. [73] English advocates the use of new procedures and technology to overcome many of the challenges in data collection to ensure "Information Quality Management." [74] In addition, Horgan and Stern have advocated interviewing former terrorists as a way to better understand why individuals turn to terrorism as opposed to inferring motivations from observed actions. They believe that this can be done both safely and effectively. [75] Having research associations and conferences, [76] especially international conferences, are a beneficial way for the research community to learn, collaborate and innovate to move the field forward.

Christakis takes a very interesting and important view on how to advance the social sciences that would have important implications for studying terrorism. [77] Christakis argues that it is time to move past the traditional social science subjects of sociology, economics, anthropology, psychology, and political science and "create new social science departments that reflect the breath and complexity of the problems we face as well as the novelty of the 21st century" - similar to the strides already taken in the physical sciences. [78] With what he calls changing "the basic DNA of the social sciences," new fields like biosocial science, network science, behavioral genetics and computational social science need to be created. [79] These new fields hold great promise for helping tackle many of the challenges of understanding terrorism. One can only imagine what sort of counterterrorism programs can be developed for better understanding terrorism with the assistance of input from fields such as behavioral genetics.

In order to advance evidence-based counterterrorism, a push for more evaluative research is needed. A better balance must be struck between investing efforts in research to understand terrorism and evaluative research; both are necessary for evidence-based practice and better outcomes. Evaluative research would also be facilitated if national security agencies created an infrastructure that incorporates research and researchers into clandestine programs. Processes that would allow researchers to obtain security clearance more easily could help achieve this goal. [80] In general, there needs to be a greater receptivity to research by security agencies. [81]

The Future of Evidence-Based Practice

The trend towards evidence-based practice is not going away. If anything, it is intensifying. In the field of medicine, the US government has taken strides to firmly embed itself in the world of evidence-based practice. In the field of medicine, the Centers for Medicare and Medicaid Services (CMS) have begun to base reimbursements on the use of best practices developed from research evidence. The Physician Quality Reporting System (PQRS) is a program that uses both incentive payments and payment adjustments to promote reporting of quality information by healthcare practitioners.[82]

In a sign of things to come, the US Office of Management and Budget has now planned to put in place a process in which dispersal of funds to agencies will depend in part on how the agencies evaluate the effectiveness of their programs. Bornstein reports that, according to the office, approval for budget requests will be more likely when evidence-based practice is in force [83] and goes on to ask, “could this be the coming of age of ‘evidence-based policy making?’”[84] It seems clear that evidence-based counterterrorism is the way to go.

The Evidence-Based Counterterrorism Framework

Two stages of evidence-based practice (Figure 1) are proposed for studying and applying terrorism research. The first part (“Stage 1”) is the scientific research, both qualitative and quantitative, that builds the foundation of knowledge. This foundation answers questions such as “what,” “how” and “why” and helps provide the necessary insights about terrorism, its causes, and its impacts, that assist in decisions on how best to develop and implement specific counterterrorism (CT) programs that have the greatest chance of success in the short and long-term.

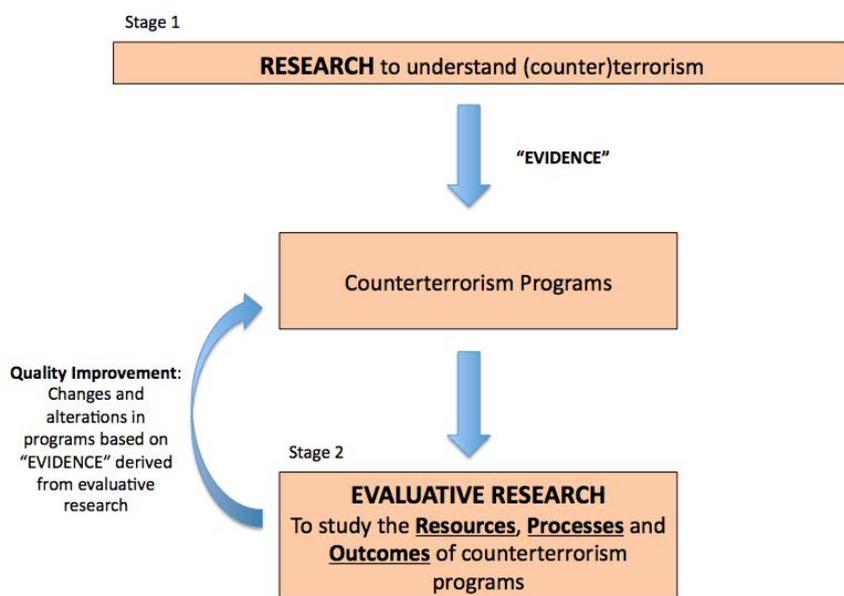


Figure 1. Evidence-Based Counterterrorism Framework

The second part (“Stage 2”) of evidence-based practice entails evaluative research. Evaluative research focuses on performing research on already existing programs to determine their overall effectiveness in practice so that new decisions can be made as to how to change, alter, or improve tactics and strategies going forward. Measurements in evaluative research focus on *resources*, *processes* and, most importantly, on *outcomes* (Figure 2).

Measurement	Use	Example for CT Programs
Resource utilization	Analysis of the use of money, materials, and staff. Drives efficient investment in resources and technology	Analysis of the money spent on a CT program, the equipment used or the number of soldiers and intelligence officers deployed abroad
Processes	Examination of the efficiency and effectiveness of how the system and its components work	Examination of whether a counterterrorism effort could be done in less time or with less collateral damage
Outcomes	Determination of the degree of success of the result(s) as per the stated goal(s)	The lack of or decline in terrorist plots or attacks or the degree of alignment with counterterrorism strategies

Figure 2. Measurements in Evaluative Research

What evaluative research is essential for, and has not been fully appreciated or described as such in the counterterrorism literature, is “quality improvement.” Quality improvement is a concept being used with increasing fervour in healthcare but is also prominent in fields such as Industry and Administration. Duke University Medical Center defines quality improvement as “a formal approach to the analysis of performance and systemic efforts to improve it.” [85] It needs to be an ongoing effort. With changing environments and new information, the cycle of quality improvement keeps practices adapting and advancing to consistently attain the most advantageous results possible.

Lum, et al. point out that, similar to the physical sciences, evidence-based social policy needs to be based on the use of scientific studies not only to determine the relative benefit of implementation of particular programs (Stage 1 above) but also to evaluate the effectiveness of existing programs (Stage 2 above). [86] To take this one step further, quality improvement then uses the knowledge gained from evaluative research to make proactive changes to improve resource use, processes, and outcomes. Therefore, evaluative research is part of a cycle that continuously assesses and looks for opportunities for improvement and then works to implement them. Agencies involved in counterterrorism both at the State and Federal level should have Quality Improvement departments, with dedicated leadership and agency staff, that would help bring greater structure and focus into the achievement of best practices. An infrastructure of quality improvement within the four walls of an agency would drive the effort to connect research evidence and practice and ensure that resources, processes, and outcomes are appropriately evaluated. Given the human life, economic, social, and international stability that are at stake, it seems that evidence-based practice and quality improvement should become a standard part of counterterrorism efforts.

Quality Improvement 2.0: A Full Spectrum Approach for Counterterrorism

The focus on fact-based evidence to drive continuous improvement in resource utilization, processes and outcomes is at the core of quality improvement. However, there are also other fundamental quality improvement principles (Figure 3) that can help by building an organisational environment that fosters best results. In this respect, practices can be garnered from the field of healthcare, a field that strives to use quality improvement principles in its quest to achieve patient safety, efficiency, and best outcomes.

Quality Improvement Principles
Evidence-Based Practice
Continuous Improvement
Application of "lessons learned"
Less focus on blame, more focus on systems
Customer Focus
Leadership Involvement
Employee Empowerment

Figure 3. *Quality Improvement Principles*

Lessons Learned

The medical field puts a great deal of emphasis on learning lessons from events that have occurred. There has been a long tradition of conducting "M&M" (Morbidity and Mortality) conferences on a frequent basis, often weekly. During these conferences poor outcomes *and* near misses (often referred to as "sentinel events") are reviewed in order to learn lessons and devise strategies for prevention and avoidance of similar events in the future. Although often difficult to foster, creating an open atmosphere to discuss errors actually serves to improve outcomes in the long run. The airline industry, also relentlessly focused on safety, has worked to create this type of environment. It is also important to note that successful efforts need to receive detailed reviews; equally important is to understand why they were successful as these evaluations assist in creating critically important best practices.

Governments have been known to form commissions and perform lengthy investigations into events where there have been bad outcomes (e.g. the 9/11 Commission), particularly those bad outcomes that are of a large scale and highly public. What is less clear is whether these types of reviews occur in the absence of such large and public failures, whether they occur on a regular basis, and whether near misses also receive thorough review. Near misses can point to faults in the system that if corrected can avoid errors and resulting failures in the future.

When it comes to counterterrorism efforts, learning contemporary lessons is important but not forgetting historical lessons learned when creating counterterrorism policy is also critically important. Silke notes that post-9/11, research with an historical focus decreased [87] and that, although understandable given the gravity of current terrorism threats, a diversion that lasts too long may lead to missed opportunities to spot important trends.[88] Historical cases applied to present-day contexts can offer valuable lessons that could drive astute strategic and tactical decisions on how to fight terrorism in the 21st century.

Focus from Blame to Systems

Quality improvement has also moved into an era that no longer focuses on blame. Where in the past a nurse or physician might be fired for a mistake that led to a patient death, a more sophisticated and nuanced understanding of errors, human nature, and systems has evolved. An environment not focused on blame is one that promotes open discussions and identification of problems and leads to productive actions for improvement. Short of malicious intent, prohibited behaviour, illegal activity, or a pattern of irresponsible behaviour, errors need to be looked at as opportunities for understanding what factors led to a mistake and

how these types of errors can be avoided in the future. In the Hillary Clinton Senate Hearing on Benghazi to review the events surrounding the death of Ambassador Chris Stevens and three other Americans at the consulate in Benghazi, Libya by those believed to be radical Sunni Islamists, Senator Rand Paul stated:[89]

One of the things that disappointed me most about the original 9/11 was no one was fired. We spent trillions of dollars, but there were a lot of human errors. These are judgment errors and the people who make judgment errors need to be replaced, fired, and no longer in a position of making these judgment calls.... Had I been president at the time, and I found that you [Hillary Clinton] did not read the cables from Benghazi, you did not read the cables from Ambassador Stevens, I would have relieved you of your post. I think it's inexcusable.

Contemporary facets of quality improvement would argue this mentality is counterproductive to the goal of creating effective counterterrorism measures and that in this incident, focusing on system failures is more useful than a focus on human failures. In fact, Senator Rand Paul mentioned that in investigating the incident, a review board found 64 things that could be changed about the way things were done. One of the goals of quality improvement is to proactively identify cracks in the system and fix them. It is often said that, "every system is perfectly designed to get the results it gets." [90] This is to say that changes must actually be made to the structure of the system and the way it functions in order to expect different results. Dr. Nielsen sums it up well by saying that humans are "an incredibly error-prone species. It's very hard to change human nature. It's really easy to change design, if you bother doing so." [91] In fact, it is more often the system that is bad, not the people. What this means for agencies involved in national security is that tremendous efforts should be made to examine and design their systems for counterterrorism so that it is much less likely that mistakes can be made (e.g. improved communication systems).

Focus on the Customer

Another core tenant of quality improvement is a relentless focus on the customer. Customers are any persons affected by an industry's activities and should always be kept in mind in decision-making to ensure best results. Although, the identity of the customer(s) is obvious in many fields (e.g. the patient in healthcare), customers can be identified in counterterrorism, as well.

Potential "customers" can be proposed for the counterterrorism field. The first are a nation's citizens. Although many counterterrorism activities are clandestine, the public is aware of many activities (e.g. drone strikes and Guantanamo Bay) and many programs affect the public directly (e.g. 3 oz. bottles of liquid at the airport and domestic surveillance programs). For these reasons, public opinion has a large influence on how the government goes about fighting terror. A case in point is the public uproar over the detailed images of the body that airport screeners were producing that led to all scanners being removed and replaced with new ones using a different technology [92] as well as the discovery of the secret NSA phone and Internet surveillance programs that has led to greater public discussion about how these sorts of programs should function. With consideration of the customer in decisions about security, implementation can often be better planned and potential issues dealt with up front.

In addition, it is believed that one of the main impediments to creating a more proactive (vs. the typical reactive) counterterrorism response is that it is difficult to garner public support (and, in the US context, bipartisan government support for that matter) to spend money on things the public is not worried about or on something that has not happened. It is the hope that with the use of evidence-based practices, the accumulated evidence can help sway stakeholders to the acceptance of appropriate proactive approaches. Lum and Kennedy support the notion of the public as a customer by noting that counterterrorism program

effectiveness is not only important in terms of outcomes but “also as to how citizens view the legitimacy of government actions.”[93]

Other critical customers are the local population where terrorists and their organisation reside and those individuals susceptible to radicalisation. The battle against terrorism is often believed to be a battle of perception and legitimacy. With this in mind, it seems quite clear that these individuals are indeed “customers” in counterterrorism efforts. Close attention must be paid to how counterterrorism tactics affect and are perceived by this group of people. Focusing consistently on the customer(s) will help the overall success and effectiveness of counterterrorism efforts.

Leadership and Employee Empowerment

Lastly, in order for a quality improvement program to be successful, it must have full support of top leadership and direct involvement of key leadership officials. This can provide the much needed legitimacy to the program and its activities. Although strong leadership is needed, most of the more progressive organisations today are taking on a more flat (vs. hierarchical) organisational structure. This environment is conducive to quality improvement because it empowers employees. Members of the organisation at all levels can have a critical impact in identifying areas for improvement and this atmosphere drives innovation and practical solutions for many of the obstacles that will help drive the field forward. In many operating room environments, it is no longer only the surgeon who runs the show. Many hospitals are empowering everyone from medical students, to nurses, to surgical technicians to speak up if they believe something might be wrong or could be done better.

Discussion

In 1988, Schmid and Jongman estimated that “perhaps as much as 80 per cent of the literature is not research-based in any rigorous sense.”[94] Almost two decades later, many experts have come to similar conclusions.[95,96] Although some of the more recent literature has shown some positive trends, it is hard to arrive at concrete conclusions about the most current state of counterterrorism research as little data is available regarding empirical and evaluative research that has been done in recent years. With the steep upward trajectory in counterterrorism research since 9/11, it is reasonable to conclude that analysis of research in the last few years may lead us to draw different conclusions. Further studies need to be conducted on the most current environment of terrorism research.

It is also important to note that one of the biggest pitfalls that seems to afflict counterterrorism tactics is that many tactics that are developed to achieve a particular aim, end up having other unintended consequences that have the potential to threaten the success of the overall effort. Much of this problem stems from only focusing on the connection between three points in decision-making. For example, since Al-Qaeda and its affiliates are responsible for a great deal of the terrorism threat today and targeted killings eliminate most of Al-Qaeda original leaders, then it is assumed that targeted killing will decrease the threat of terrorism. What is less clear, and what hopefully rigorous research can help elucidate in these circumstances, is whether the tactic is causing other results that are counterproductive, resulting in a net negative effect. These other results may be an increase in jihadi recruitment, greater sympathy for Al-Qaeda, or collateral civilian deaths that lead to decreased state legitimacy and an inability to recruit informants. The same argument can be made for the logic behind the decision to use enhanced interrogation techniques (i.e. information is needed to stop terrorist plots, enhanced interrogation leads to information, thus enhanced interrogation should help stop terrorist plots). By way of analogy, healthcare practitioners often prescribe medications to treat diseases, such

as high blood sugar or blood pressure, expecting a beneficial end result because these physiological states are bad for the body. Yet often further research reveals that use of these medications are also associated with an increase in other ailments such as heart complications or even death, thus mitigating the assumed beneficial effect. This is why research and evidence is so important. When analysed in an objective and scientific manner, sometimes things that appear to work in an obvious way and are expected to lead to a certain result, in fact do not do so.

Another reason why governments should be investing in evidence-based practice and evaluative research, is that finding out what works is not just important for counterterrorism. In a world where money and resources are limited, it is important to compare effectiveness across all areas of spending. The current state of evaluative research in counterterrorism does not allow any discernable connection to be made between money spent and increases in national security. Pegors, pessimistic whether counterterrorism efforts are truly making an impact, concluded “if we are truly concerned with protecting the lives of US citizens, then we must reallocate our resources to areas that have a greater impact on a larger number of people.”[97] He compares the approximate 3,000 lives lost from the attacks on 9/11, to the greater than 500,000 lives lost to cancer, 40,000 from car accidents, and 700,00 from heart disease that same year.[98] In fact, an estimated 26,100 people between the ages of 25 and 64 died prematurely in the U.S. due to lack of health care coverage in 2010.[99] Therefore, evidence-based counterterrorism is essential not only to achieving optimal national security but in terms of resources, understanding how to get the best outcomes as a society.

In writing about evidence-based practice it is vitally important to recognise its limits. Evidence-based practice is not a panacea. Research results do not prove anything with 100 percent certainty nor are they always perfectly applicable. In addition, researchers often come to conflicting conclusions and research designs can be flawed. Anyone in the field of medicine can tell you the limits of evidence-based practice. All too often, a recommendation will come out as to how best to treat a patient or prevent a particular disease, only to have a different recommendation come out a few years later because of new or conflicting evidence. This often leaves medical practitioners at a loss for how best to proceed. Things can be even more complicated in a field like terrorism where situations change with extraordinary rapidity due to adaptations and evolution by the enemy as well as environments in the midst of political change and conflict as can be seen currently in the Middle East. Rigorous research studies often take time and can possibly be less relevant by the time they are published. Because of the dynamism and challenges of doing research in the field of terrorism, it is even more crucial to conduct evaluative research of those counterterrorism programs that have already been implemented. If programs must be put into place quickly or without scientific evidence of their ability to effectively address the current security risk, then, as the program is implemented, evaluative research should be begun to verify whether it is accomplishing its intended goals. It is a sort of retrospective safety check. And even this evaluative research is not perfect. However, despite its faults, having evidence that is not perfect is better than functioning without any evidence at all.

Although it may be difficult to push for evidence-based practice before sufficiently rigorous research is available to drive these practices, we should recognize that, just as in business, demand drives supply. If national security agencies prioritise evidence-based practice and express a genuine desire for empirical research and primary data, the research needed will more likely materialise (especially if government funding is forthcoming).

Overall a quality improvement infrastructure can help ensure that resources are being applied to the tactics and strategies that lead to the best outcomes while eliminating or altering counterterrorism programs that are found to be counterproductive or harmful. The determination of the effectiveness of counterterrorism efforts ultimately needs a long-term perspective and therefore an ongoing cycle of quality improvement is necessary.

Creating a full spectrum quality improvement program incorporating many of the principles discussed is crucial for making the much-needed leap forward to achieving better outcomes in national security. It is an in-depth and lengthy endeavor that requires commitment and perseverance. The healthcare field has really only just begun to incorporate many of these principles into their practices and they still have a long way to go.

There are significant substantive differences between the fields of medicine and counterterrorism. Medicine (mutating bacteria that evolve to resist our antibiotics aside) mostly involves unilateral decision-making. Counterterrorism is decision-making in a game theory environment, where the terrorist side is trying to strategise, innovate, and outsmart the authorities at every move. Research in human biology and disease states and examining responses to interventions is inherently different than researching terrorism and evaluating effects of counterterrorism efforts. However, overarching strategies used in healthcare, as well as in other fields, in attempts to achieve the best outcomes, can indeed provide insights for fields like counterterrorism. Marrin and Clemente examined how practices in medicine could help improve intelligence analysis and described how looking at analogous professions, such as journalism, law and law enforcement can spark ideas that can prove beneficial to the field of intelligence.[100] In fact, important ideas can often come from seemingly unrelated fields. A.J. Jacobs, an author who read the Encyclopedia Britannica in an 18-month experiment, derived what he believed to be the six most important business lessons from all of history.[101] One of these was to “take ideas from far outside your field.” He writes how Isaac Newton came up with the idea that gravity worked at a distance and not like billiard balls colliding by reading about alchemy and magic and that Bill Gates often explores disparate fields to generate ideas. Hence, looking at analogous fields, and even some that do not appear so, may be a beneficial way to precipitate innovative and successful ideas and practices that will push the counterterrorism field forward, providing better end results.

Conclusion

The field of counterterrorism has suffered from a number of deficiencies in both Stage 1 and Stage 2 research as well as a lack of policy formation guided by objective, scientific evidence. The Evidence-Based Counterterrorism Framework presented here offers a promising approach for research, evidence, and quality improvement for entities involved in counterterrorism. Although there will never be one perfect answer as to how to best conduct counterterrorism operations, evidence will hopefully help guide practitioners as to which solutions are likely better than others.

What is needed is a greater awareness and a strong culture of evidence-based practice and quality improvement within the field of counterterrorism. It is time for the phrase “evidence-based counterterrorism” to be as familiar a concept to those in the field of counterterrorism as “evidence-based medicine” is to those in healthcare.

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Discovering bin-Laden's Replacement in al-Qaeda, using Social Network Analysis: A Methodological Investigation

by Edith Wu, Rebecca Carleton, and Garth Davies

Abstract

The removal of Osama bin-Laden created a leadership void within al-Qaeda. Despite the group's autonomous cell structure, an authoritative figure remains essential for promoting and disseminating al-Qaeda's ideology. An appropriate replacement should exhibit traits comparable to bin-Laden and have similar positioning within the structure of the group. Using a media-based sample and social network analysis, this study attempts to uncover the most probable successor for bin-Laden by examining the dynamics within al-Qaeda. The results indicate how the differential embeddedness of al-Qaeda members affects social capital, which in turn provides insights for leadership potential.

Keywords: social network, Al-Qaeda, leadership, methodology

Introduction

Following the death of Osama bin-Laden in May 2011, speculation immediately turned to the future of al-Qaeda. What would bin-Laden's death mean for the group he founded? Unsurprisingly, opinions varied. However, analyses tended to posit that al-Qaeda would survive bin-Laden's demise, in one form or another. Even before bin-Laden's death, al-Qaeda's core was already considerably weaker than it was on September 11th. Owing to the success of counter-terrorist strategies, particularly the CIA's drone strike program, the core of al-Qaeda has been further diminished; it is unlikely that it has the capacity to perpetrate complex, large-scale attacks in the West.[1] Instead, al-Qaeda has "transformed into a diffuse global network and philosophical movement." [2] Operations are now more the purview of the various organisations affiliated with al-Qaeda, such as al-Qaeda in Iraq, al-Qaeda in the Arabian Peninsula, al-Qaeda in the Islamic Maghreb, and al-Shebaab.[3] If al-Qaeda core proves incapable of maintaining its "single-minded focus on its ideology," it is possible that it could dissolve into a number of localized movements.[4] However, its more decentralized, diffuse structure may also allow al-Qaeda to continue to exist as an ideological catalyst. As evidenced by the appellations of various affiliates, the al-Qaeda brand still has cachet, particularly in relation to the global Islamist movement.

There is no doubt that bin-Laden was a formidable leader, unique in his ability to raise money, inspire recruits, and speak for the Islamist cause with authority. Yet he was not indispensable. For years prior to his death, he had been to a considerable extent cut off from the outside world, unable to engage in operations in any practical way; still, al-Qaeda persisted. There are numerous instances where the death or incapacitation of a charismatic leader has decimated a group. The Shining Path, for example, nearly collapsed with the arrest of its architect, Abimael Guzman, in 1992.[5] More generally, the targeting of extremist leaders, or decapitation, can be an effective element of counterinsurgency campaigns.[6] But the loss of a standard-bearer, even one with the mystique of bin-Laden, need not prove fatal for a movement. Several studies have concluded that decapitation is ineffectual, and may even be counterproductive.[7] Jordan argues that large, older movements rooted in religion are the least susceptible to destabilization via the decapitation strategy.[8] In other words, al-Qaeda is precisely the type of group that might be expected to survive the loss of its leader.

Inextricably linked to the question of group perseverance is the issue of leadership. The social dynamics of

terrorist organisations are rarely studied,[9] and few studies have explored the question of replacement. This study proposes to identify the most suitable candidate to replace bin-Laden, based on social network analysis (SNA). It assumes that bin-Laden occupies a unique position within al-Qaeda's network and uses SNA to try to better understand that position. It further presumes that the best successor would be the individual that is most like bin-Laden, in terms of his structural characteristics. Of course, this analysis was not conducted in a vacuum. With bin-Laden in seclusion, Ayman al-Zawahiri had been directing al-Qaeda for years. It was presumed that he would succeed bin-Laden.[10] Yet al-Zawahiri is a divisive and polarizing figure, and it is unclear whether he will be able to hold together al-Qaeda's various factions.[11] By including an evaluation of al-Zawahiri's qualities, this analysis further assesses the utility of SNA in the prediction of leadership replacement.

Conceptual Framework

Social capital is the ability to harness resources within an individual's social network to effect change.[12] Importantly, social capital is more than who you know; rather, it is derived from the cumulative resources that can be accessed through your immediate connections. Conceptually, social capital has both a tangible element (entity) and an intangible component (process): "as an entity, social capital originates in interactions within relationships, and as a process, it is mobilized by individuals or collectives in the pursuit of valued outcomes".[13] Social capital exists in all networks, both legal and illegal. Regardless of whether the network is criminal or not, "social capital is not the private property of the individuals who benefit from it, but it is a consequence of particular relationships; thus, it is not easily transferred or exchanged".[14]

The development of social capital is dependent upon the characteristics of the relationships between individuals within a network. As McCarthy, Hagan, and Martin note:

These [characteristics] include the type of relationship (e.g., family and kin versus others), its closeness or intimacy (e.g., strong versus weak ties), its durability (e.g., long versus short term relationships), the status differences between the people involved (e.g., associations with others from more prestigious occupations), and the location of the relationship and the participants' larger networks (e.g., creating a link between two distinct networks).[15]

Owing to their secretive nature, understanding social capital within illicit networks has proved more difficult than understanding social capital within legitimate networks.[16] Because the actors deliberately try to conceal the structure of their organisations, it is hard to understand the configuration of these illegal groups. Koschade contends that the objective of social network analysis research is to discern individual behaviours through an understanding of group dynamics.[17] In other words, illicit network analysis understands people through their relationships in terms of: the type of relation; closeness; durability; status differences; and location within the network.

Research demonstrates that the configuration of illegal organisations resembles a spider web.[18] Morselli suggests that such a structure presents flexibility, affording criminal networks the ability to adapt to situations in a more fluid manner than those offered by rigid hierarchies.[19] Because network positioning can change,[20] the focus then shifts to the relationships between the actors. The ties and associations within a network may provide a better explanation for the management and function of these criminal entities. As van der Hulst states, "social ties and connections are to a large extent crucial determinants for the performance, sustainability and success of both criminal and terrorist organisations." [21] Accordingly, social network analysis will be used to expose the terror network. With the removal of Osama bin-Laden, the primary objective is to assess the most likely subsequent successor within al-Qaeda.

Sample

A purposive sampling [22] technique is used to gather the data for the current analysis. The sample originates from a website which contains information about known al-Qaeda members and associates along with terrorist activities within the Middle Eastern region.[23] Although this non-random technique does not allow for generalization to a larger population, the sample provides an opportunity to explore the characteristics of known al-Qaeda members and is appropriate to answer the question of interest. Data are supplemented through additional sources, including websites, newspapers, media sources (e.g. Reuter’s database), and government reports. The final network of high-profile individuals (n=54) is the result of a selection process which includes those who have strong associations with the initial sample, and excludes those who have no additional evidence to illustrate a connection to al-Qaeda’s terrorist operations.

The vast majority (75.9%) are of Middle-Eastern origin (Afghanistan, Iran, Iraq, Jordan, Kuwait, Lebanon, Mauritania, Pakistan, Palestine, Qatar, Saudi Arabia, United Arab Emirates, and Yemen). A lesser portion (29.6%) are associated with the Northern African region (Algeria, Egypt, Libya, Morocco, and Sudan), and some actors hold multiple nationalities (16.7%; see Table 1).

All of the individuals are male, and the majority of the sample members are between the ages of 26 and 55 (65%), with the overall mean age of 42. At the time of this study, and based on the known status of these individuals, 17 (31.5%) are at large, 15 (27.8%) have been captured and detained, while 22 (40.7%) are deceased. Those who are deceased and captured (68.5%) are retained in the sample. While they cannot become bin-Laden’s replacement, their relational ties remain pertinent to the overall structure of the organisation. Though physically removed from al-Qaeda, their embeddedness within the network has implications for social capital and possible connections among the individuals currently active within the organisation. In the sample, each member’s relationship to bin-Laden is identified as either i) family (5.6%), ii) close friend (14.8%), or iii) professional associate (5.6%). As these ties are not mutually exclusive, the strongest relationship is recorded.[24]

Table 1: al-Qaeda Terrorist Network Characteristics

<i>Variables</i>		<i>Frequency</i>	<i>Percentage</i>
Age	20-34	10	18.5
	35-49	22	40.7
	50<	9	16.7
	Unknown	13	24.1
Status	Alive	17	31.5
	Captured	15	27.8
	Dead	22	40.7
Nationality	Afghanistan	2	3.7
	Bosnia	2	3.7
	Egypt	9	16.7
	Iraq	2	3.7
	Jordan	2	3.7
	Kuwait	4	7.4
	Libya	2	3.7
	Morocco	2	3.7
	Pakistan	3	5.6
	Palestine	2	3.7
	Saudi Arabia	13	24.1

	Sudan	2	3.7
	Yemem	8	14.8
	Other	12	22.2
Relationship	Family	3	5.6
	Close Friend	8	14.8
	Professional	3	5.6
	Unknown	40	74.1

Given the covert nature of al-Qaeda, the exact involvement of each member is difficult to determine; therefore, data are included only if they can be corroborated. The majority of the sample (n=54) are recognized al-Qaeda members (74.1%). A small number participated in the Afghanistan-Soviet War (14.8%), and one-third have affiliations with other terrorist organisations, such as the *Egyptian Islamic Jihad* (Table 2).

An assessment of the roles within the network reveals a range of designations. A large portion of the members are involved with operations (29.6%; planners and leaders) and the military department (22.2%; trainers and researchers). Public relations and politics are merged because al-Qaeda’s ideological propaganda is primarily informed by politicians (11.1%) and theologians (9.3%). About 11.1% of the sample can be considered senior al-Qaeda members, while an additional 7.4% are designated as assistants. Though not official members, financiers share a common role within al-Qaeda (11.1%). As the sample is inevitably incomplete, the liaisons of the organisation (3.7%) may receive less emphasis than deserved. Finally, given the restricted knowledge regarding covert networks, it is not surprising that the role of 14 individuals (25.9%) remains unknown.

Table 2: al-Qaeda Terrorist Network Activities

<i>Variables</i>		<i>Frequency</i>	<i>Percentage</i>
Participation	Al-Qaeda Member	40	74.1
	Afghanistan-Soviet War	8	14.8
	Other Affiliations	18	33.3
Specialization	Operations	16	29.6
	Public Relations & Politics	6	11.1
	Finance	6	11.1
	Theology	6	11.1
	Assistant	4	7.4
	Senior Position	6	11.1
	Military – Training & Weapons	12	22.2
	Liaison	2	3.7
	Unspecified	14	25.9
Missions	September 11 th , 2001	14	24.1
	USS Cole Bombing	5	9.3
	World Trade Center ‘93	4	7.4
	Bojinka Plot	3	5.6
	Daniel Pearl	2	3.7
	10/28/02 and US Diplomat	2	3.7
	Other	11	20.4
	Unspecified/Unknown	25	46.3

Although a large portion of the sample have no known ties to terrorist incidents (46.3%), the majority of participants have engaged in a terrorist attack, including: the September 11 attacks (25.9%), the USS Cole

bombing (9.3%), the 1993 World Trade Center assault (7.4%), the Bojinka Plot (5.6%), the decapitation of journalist Daniel Pearl (3.7%), as well as the assassination of U.S. diplomat, Laurence Foley (3.7%). Other events were not taken into consideration because they lacked relevant connections among other actors in the sample network.

Analytical Technique – Social Network Analysis

Social network analysis is useful because it is capable of revealing group dynamics, patterns, and the collective actions of organisations. Researchers suggest that network analysis complements conventional approaches through its insights into terrorist organisations and their internal processes.[25] SNA views terrorist networks as social structures, with particular emphasis on the relations among network actors. This is especially useful in examining affiliate networks. SNA investigates multiple levels of analysis simultaneously.[26] That is, SNA assesses how actors are embedded and the manner in which structures emerge from micro-relations via nodes (actors) and links (associations).[27] Given that this research is both exploratory and predictive, traditional centrality measures are supplemented with a core/periphery analysis and an evaluation of similarity measures.

Al-Qaeda's composition and structure are examined through centrality measures. Centrality is useful for the analysis of criminal networks as it identifies key players within a group.[28] These measures highlight the structural importance of a node's embeddedness in a network.[29] Three common types of network centrality are used for the current work.[30] *Degree* centrality corresponds to the number of direct contacts, or ties.[31] It is a measure of quantity and in this context may be understood as connectedness. Those with high connectedness are in an advantageous position to access information due to the greater number of connections they have to others within the network. *Betweenness* indicates a position of brokerage. These liaisons control the flow of information and broker resources based on collective, as well as personal, interests.[32] Lastly, *eigenvalue* centrality indicates how strategically connected an individual is to "key players".[33] This is a measure of importance and is arguably the strongest indicator of influence. Important players are able to reach a larger portion of a network with less effort than those with diminished eigenvalue centrality.

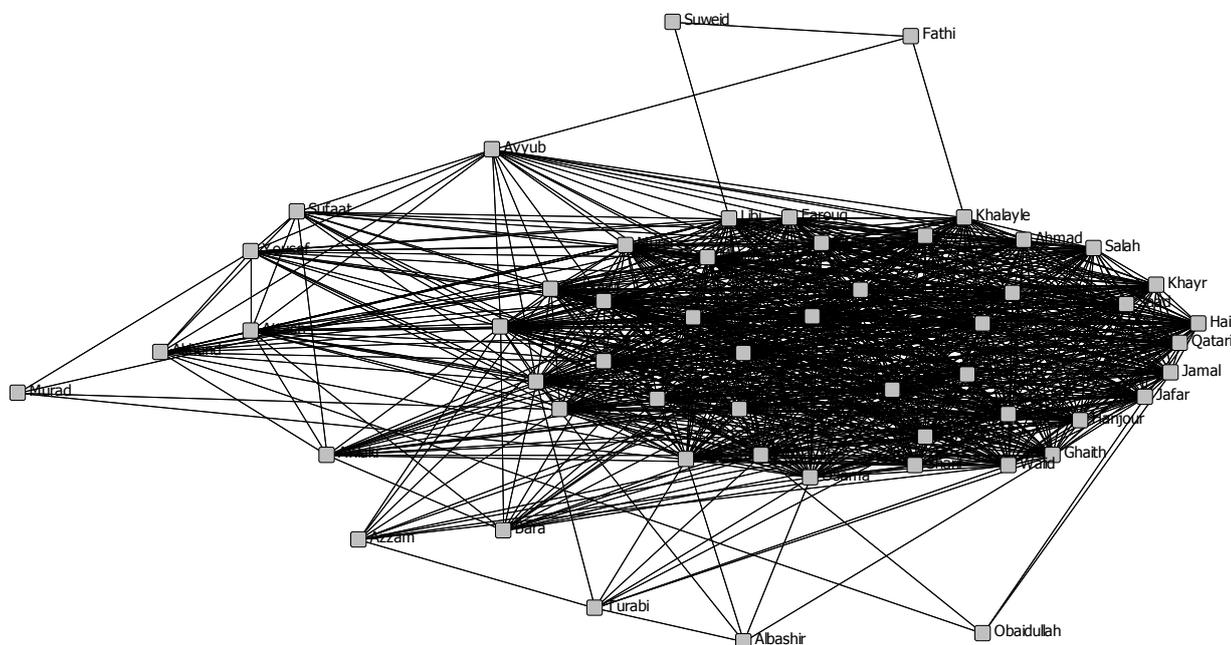
Core/periphery analysis is used to partition the network into two distinct categories, a dense cluster (core) and more loosely connected affiliates (periphery). This technique allows for an assessment of patterns of ties.[34] Finally, similarity measures, which examine comparable relationships based on binary relations, are used to identify possible candidates. This analysis compares the relational profiles of dyadic nodes, recording the number of times, or occurrences, where alters share a tie with an ego. An ego, according to Granovetter, is an arbitrarily selected individual.[35] Around each ego, there may be close friends and a collection of acquaintances, which are referred to as alters. For example, if A knows B (AB) and C (AC) then the alters, B and C, both have the same tie to the ego, A ($AB = AC$). The result is expressed as a percentage: that is, the number of nodes in common divided by the total number of possible connections.

Results and Discussion

The data are dichotomised and incorporate affiliations, missions, associations, roles and specialisations, nationality, and participation in wars. The sample al-Qaeda terrorist network is illustrated in Figure 1. Osama bin-Laden is highly linked with other members and is embedded within the cluster. In contrast, Yasser Fathi Ibraheem, Obaidullah, and Salem Sa'ed Salem bin-Suweid are the most isolated individuals, with fewer than three associations each. The nodes are positioned relative to one another using spring embedding,[36] where

the proximity of actors indicates similar patterns of contacts. Several patterns are readily identifiable; most notably the large off-centered cluster of participants. This dense interconnectivity may be attributable to al-Qaeda members (74%), while associated nodes are on the fringe of the network.

Figure 1. al-Qaeda Terrorist Network, members and links between members



In terrorist networks, high degree centrality, or connectedness, may identify influential actors who are most at risk of detection by law enforcement due to redundant ties. The centrality measures for individual network members shown in Table 4 reveal a notable amount of variability. At the lowest end of the continuum, Salem Sa'ed Salem in-Suweid is only connected to two actors (3.7%). Conversely, Said Bahaji is linked with 48 others (88.9%). The relative differences in connectedness offer varying advantages and disadvantages. Bahaji is the most able to significantly influence the network, but he also has the greatest exposure and so is most vulnerable to detection.[37] On the other hand, bin-Suweid is least susceptible to detection, but he is also the most isolated and therefore the least able to exert leverage.

Table 3: al-Qaeda Terrorist Network Centrality Measures, ranked by degree centrality

Name	Degree (rank)	Betweenness	Eigenvector
Said Bahaji	48 (1)	38.34 (3)	.163 (1)
Abu Salah al-Yemeni †	47 (2)	19.68 (7)	.163 (1)
Abd al-Hadi al-Iraqi*	45 (3)	14.39 (12)	.160 (3)
Muhamad Ibrahim Makkawi	45 (3)	14.39 (12)	.160 (3)
Ibn al-Shaykh al-Libi †	45 (3)	59.98 (1)	.159 (5)
Abu Basir al-Yemeni †	45 (3)	31.74 (4)	.159 (5)
Nawaf M. Salim al-Hazmi †	44 (7)	10.38 (17)	.159 (5)
Abu Mohammad al-Masri	44 (7)	9.98 (18)	.159 (5)
Midhat Mursi †	44 (7)	9.98 (18)	.159 (5)
Osama bin-Laden †	44 (7)	24.54 (6)	.157 (13)
Qaed Salim Sinan al-Harethi †	43 (11)	8.91 (19)	.158 (10)
Khalid al-Mihdhar †	43 (11)	7.51 (23)	.158 (10)
Ramzi bin al-Shibh*	43 (11)	7.13 (24)	.158 (10)

Khalid Shaikh Mohammed*	43 (11)	31.56 (5)	.155 (18)
Tawfiq Attash Khallad*	42 (15)	4.94 (29)	.157 (13)
Zacarias Moussaoui*	42 (15)	5.92 (25)	.156 (15)
Mohamed Atta †	42 (15)	5.41 (26)	.156 (15)
Saeed al-Ghamdi †	42 (15)	5.41 (26)	.156 (15)
Omar al-Farouq †	42 (15)	16.82 (9)	.155 (18)
Ayman al-Zawahiri	42 (15)	10.53 (16)	.155 (18)
Mohammed Jamal Khalifa †	42 (15)	18.87 (8)	.154 (28)
Saluiman Abu Ghaith	42 (15)	16.79 (10)	.154 (28)
Abd al-Rahim al-Nashiri*	41 (23)	4.22 (30)	.155 (18)
Ahmad Said al-Kadr †	41 (23)	3.99 (31)	.155 (18)
Zakariya Essabar	41 (23)	3.39 (33)	.155 (18)
Hani Saleh Hasan Hanjour †	41 (23)	3.39 (33)	.155 (18)
Ziad Jarrah †	41 (23)	3.39 (33)	.155 (18)
Shaikh Saiid al-Sharif	41 (23)	3.39 (33)	.155 (18)
Marwan al-Shehhi †	41 (23)	3.39 (33)	.155 (18)
Abu Zubaydah*	41 (23)	5.11 (28)	.154 (28)
Ahmad Fadeel Nazal al-Khalayle †	41 (23)	38.51 (2)	.153 (31)
Mafouz Ould Walid	41 (23)	8.01 (22)	.153 (31)
Tariq Anwar al-Sayyid Ahmad †	40 (33)	1.59 (39)	.153 (31)
Mohammed Salah	40 (33)	1.59 (39)	.153 (31)
Abu Jafar al-Jaziri †	40 (33)	12.57 (14)	.152 (35)
Abd al-Aziz al-Jamal	40 (33)	12.57 (14)	.152 (35)
Abu Zubair al-Haili*	39 (37)	.00 (48)	.152 (35)
Zaid Khayr	39 (37)	.00 (48)	.152 (35)
Hamza al-Qatari †	39 (37)	.00 (48)	.152 (35)
Saad bin-Laden †	39 (37)	.00 (48)	.152 (35)
Walid bin-Attash*	21 (41)	3.94 (32)	.068 (42)
Anwar al-Awlaki †	20 (42)	2.86 (38)	.069 (41)
Abu Ayyub al-Masri †	20 (42)	14.95 (11)	.065 (43)
Ramzi Yousef*	19 (44)	8.82 (20)	.061 (45)
Abu Bara al-Yemeni	17 (45)	.41 (45)	.062 (44)
Yazid Sufaat	16 (46)	1.43 (42)	.051 (46)
Mullah Obaidullah Akhund*	16 (46)	8.52 (21)	.048 (47)
Abdallah Azzam †	11 (48)	.75 (44)	.040 (48)
Hassan Turabi*	9 (49)	1.44 (41)	.029 (49)
Omar Albashir*	5 (50)	.00 (48)	.016 (50)
Obaidullah	4 (51)	.26 (47)	.013 (51)
Abdul Hakim Murad*	4 (51)	.00 (48)	.013 (51)
Yasser Fathi Ibraheem †	3 (53)	1.00 (43)	.006 (53)
Salem Sa'ed Salem bin-Suweid †	2 (54)	.33 (46)	.004 (54)

* = captured; † = deceased

Extending beyond direct ties, betweenness centrality reveals liaison or gatekeeper positions. Liaisons act as bridges between members and control the flow of information. The six individuals that have betweenness scores of 0 are heavily reliant on brokers to gain access to information. Brokers facilitate the transmission of ideas between actors who would otherwise be disconnected. Ibn al-Shaykh al-Libi holds the highest

brokerage; however, his high degree centrality indicates an abundance of redundant ties and mitigates his brokerage position. In other words, although he appears to be in an optimal liaison position, his removal would be inconsequential. Ahmad Fadeel Nazal al-Khalayle may be a more efficient liaison; he has the second highest betweenness score, but he has fewer connections than al-Libi.

Eigenvector centrality reveals which actors are associated with other well-connected members of the network. Among the 15 lowest ranked actors, 14 are not al-Qaeda members and are situated on the edge of the network. This confirms that the important individuals are those within the cluster. Abu Salah al-Yemeni and Said Bahaji share the highest score, while Salem Sa'ed Salem bin-Suweid has the lowest. Al-Yemeni and Bahaji are thus the most central and important figures in the network, as depicted in Figure 1.

Bahaji consistently scores high in centrality measures, ranking no lower than third in all three categories. Conversely, bin-Suweid has the lowest score in two of the three centralities (degree and eigenvector). To the extent that overall strength is indicated by high centrality measure scores across all three domains, the ranks suggest that Bahaji has considerably more strength within the network than bin-Suweid. Stronger terrorist members have more freedom, control, and leverage; however, their redundant ties affect brokerage. Actors with fewer connections, on the other hand, have more security, but also limited avenues and restricted access to information and resources. These centrality measures illustrate the variation in the levels of independence, opportunity, and influence within the sample network.

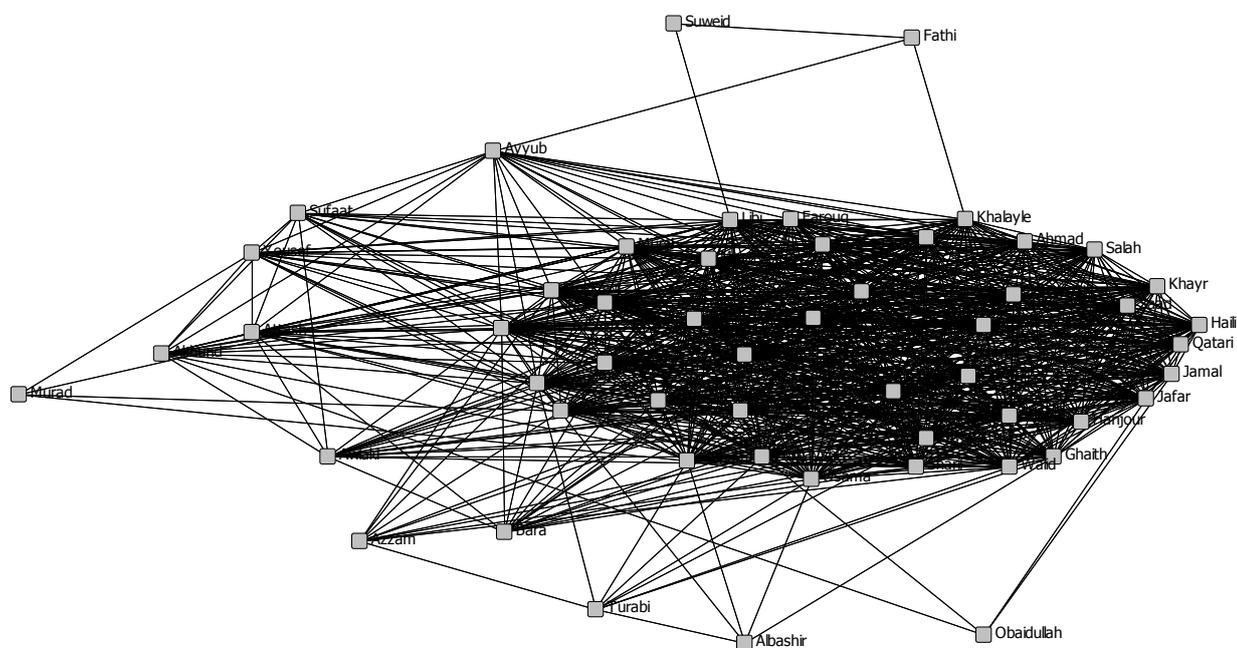
According to the centrality measures, there are several potential candidates to replace bin-Laden. Tawfiq Attash Khallad's rank is most comparable to bin-Laden in terms of importance; however, he was captured in 2003 and is currently detained in a CIA black site located in Guantanamo Bay, Cuba.[38] In terms of connectedness, Nawaf Muhammed Salim al-Hazmi, Midhat Mursi, and Abu Mohammad al-Masri have equivalent rankings to bin-Laden, but none of the three are viable replacements. Two are deceased: Al-Hazmi hijacked the American Airlines Flight 77, which struck the Pentagon on September 11th;[39] Mursi was a chemist and weapons researcher who was killed in Pakistan by a drone attack in 2008.[40] The third, Al-Masri, is currently being pursued by the Federal Bureau of Investigation (FBI) with a five-million-dollar bounty for an attack in 1998.[41] Bin-Laden's liaison status, on the other hand, is not equivalent to any other in the sample. The terrorists who have the closest ranks are Khalid Shaikh Mohammed and Abu Salah al-Yemeni. Mohammed is associated with a number of terrorist events (including the Bojinka plot, Daniel Pearl assassination, September 11th, and the World Trade Center bombing in 1993). He was captured in 2003 and also being held in a CIA black site.[42] Al-Yemeni, a logistics specialist and terrorist operations facilitator, was killed in Khost in 2002.[43]

From this assessment, one individual is at large and would appear to be capable of filling the leadership void. Al-Masri's similar connectedness to bin-Laden alone, however, is insufficient. Connectedness only considers the absolute number of ties, regardless of quality. By itself, it is a weak predictor of leadership potential. Ideally, the member to replace bin-Laden would have comparable centrality measures in all three domains. To further explore the research question, it is necessary to examine the patterns of connections within the network via a core/periphery analysis and evaluate the types of ties between actors.

The assessment of the embeddedness of nodes within the larger structure was further explored with core/periphery analysis. As expected, Figure 2 depicts a core (n=40) consisting of individuals presumed to be in al-Qaeda, and a periphery (n=14) containing the remainder of the sample.[44] It has been suggested that due to the secrecy involved with criminal networks, such organisations would prove most successful if decentralized.[45] A decentralized group has no distinct clusters. In contrast, a centralized network "is divided into a small core ("ringleaders") and a large periphery." [46] This type of structure is characterized by

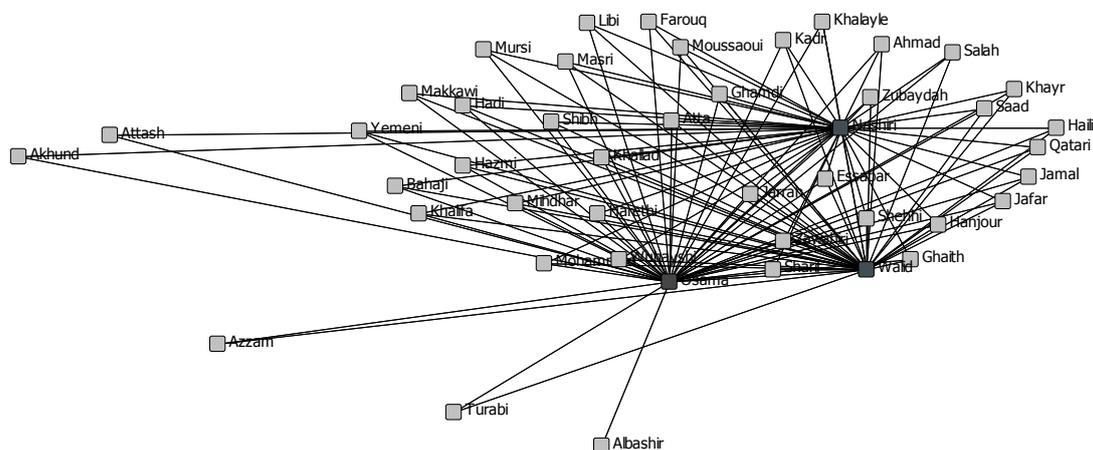
a concentrated group, where members are densely interconnected. Their peripheral counterparts have fewer associations and accordingly, these networks position leaders on the periphery to evade detection.[47] By this logic, bin-Laden would have been expected to be in the peripheral section of the network to avoid exposure. This is not the case with the current sample.[48]

Figure 2. *al-Qaeda Terrorist Network Core/Periphery, core indicated*



Morselli, Giguère, and Petit argue that “[t]errorist networks lack a core, whereas criminal enterprise networks, such as drug trafficking operations, are built outward from a core.”[49] The addition of members to an organisation, with the intent of insulating the core from detection, produces a sparse network. This does not hold true in the present study of al-Qaeda, however, as a distinct core emerges from the analysis. Moreover, contrary to expectation, bin-Laden is within the core. Although speculative, these results appear to point to structural differences between economically-based criminal enterprises and terrorist movements. Increasingly, al-Qaeda’s primary contributions to global terrorism have involved the dispersion of ideology and the provision of inspiration. These tasks are best accomplished by individuals with some type of relative standing within the movement. Presumably, prominence and standing are attributes vested in core membership.

Whereas the use of centrality measures helped identify each node’s positioning, core/periphery modeling helped narrow the range of possible leadership candidates. What remains unknown is the potential replacement’s ability to harness network resources as a function of network positioning. Similarity measures are concerned with direct relationships rather than positional embeddedness. An evaluation of bin-Laden’s comparable ties demonstrates that both Abd al-Rahim al-Nashiri and Mafouz Ould Walid [50] share 83.5% of the same contacts as bin-Laden. Figure 3 illustrates the relationships relevant to bin-Laden. Having similar contacts to bin-Laden suggests that al-Nashiri and Walid have comparable abilities to harness social capital. Because social capital is derived from the cumulative resources that can be accessed through their immediate connections, those individuals identified as having similar connections to bin-Laden would share 83.5% of the same potential resources.

Figure 3. *al-Qaeda Terrorist Network, similarities*

Contextualization

Given that al-Nashiri and Walid are essentially indistinguishable in terms of their similarity measures, supplemental considerations are necessary to determine who is the more likely successor. A native of Saudi Arabia, al-Nashiri was in charge of the terrorist operations in the Persian Gulf, a Taliban affiliate, the mastermind of the USS Cole bombing, and a participant of the French tanker attack in 2002.[51] The other candidate, Walid, is also a terrorist operations leader, as well as senior leader, respected Islamic theologian, scholar, and a close friend of bin-Laden and al-Zawahiri.[52] In the aftermath of September 11th, the Pentagon listed him as one of bin-Laden's top aides.[53] Aside from his known participation in illicit ventures, Walid is associated with the Institute of Islamic studies in Afghanistan and the el-Hijra Construction.[54] Given their characteristics, both in terms of network measures (social capital) and personal attributes (human capital), the two appear to be fairly well matched. Though seemingly an appropriate successor, the 47-year-old al-Nashiri was captured in 2002 and is detained in a CIA black site; he is thus not in a position to assume bin-Laden's role in the al-Qaeda network. This leaves Walid as the most probable replacement.

Based on similarity comparisons and the exclusion of improbable candidates, the 37-year-old Walid emerges as the presumptive leadership candidate. However, there are three reasons to be cautious of this conclusion: 1) Walid's ambiguous role within al-Qaeda; 2) his inconsistent application of the Islamic faith to the organisation; and 3) advancement within al-Qaeda may be based on a hierarchical or a chain-of-command structure. To lead a group, criminal or otherwise, the individual must be a member of the organisation. According to the United Nations,[55] Walid has been listed as an associate of al-Qaeda since October 6, 2001.[56] His status was last amended in 2011. Some media reports, however, indicate that Walid may have disassociated himself from Islamic radicals and al-Qaeda.[57] As well, he was under house arrest in Iran between 2002 and 2012. There is some question, then, as to whether Walid considers himself to be part of al-Qaeda.

Since a key function of terrorist organisations is the promotion and dissemination of a particular ideology,

the leader should promote a consistent dogma. Walid has made dissonant pronouncements. Prior to the September 11th attacks, Walid was one of three al-Qaeda seniors to oppose the assault, only to defend and justify it months later. He was known to try to persuade bin-Laden to desist from large-scale attacks against the United States, yet he has also made peculiar statements that indicate otherwise.[58] In a televised al-Jazeera interview, shortly after September 11th, Walid announced that

We [al-Qaeda] are not responsible for this act and therefore we are not responsible for [issuing] religious explanations for it ... However, many clerics ... have proved that if this act was carried out by mujahedeen Muslims, then it was an unblemished act of jihad.[59]

Despite claiming to oppose the September 11th attacks, as it involved civilians, Walid publicly praised the attack but denied the organisation's involvement soon after.[60] Inconsistencies such as this would make it unlikely that al-Qaeda would embrace Walid's leadership.

Although hierarchical structures are rarely found within other criminal networks,[61] it is possible that they are more salient for terrorist organisations. With hierarchies comes an increased likelihood of advancement based on seniority or rank. The difference between al-Zawahiri and Walid can be attributed to the nature of leadership; that is, to an emphasis on personal attributes and the context, in addition to an individual's connections. Media accounts of al-Zawahiri's succession of bin-Laden refer to al-Qaeda's official statements and discuss this transfer of command as a logical default.[62] Al-Zawahiri is the former second in command, head of the *Egyptian Islamic Jihad*,[63] advisor, and personal physician of Osama bin-Laden.[64] Furthermore, his role as al-Qaeda's public relations officer has intensified since the September 11th attacks. In 2008, he stated that Muslims should

attack the interests of the Jews and the Americans. Select your targets, collect the appropriate funds, assemble your equipment, plan accurately and then charge towards your targets. There is no place today for those who claim that the battlefield with the Jews is limited to Palestine. Let us hit their interests everywhere.[65]

Following bin-Laden's assassination in June of 2011, al-Zawahiri issued the following declaration:

We must continue on [bin-Laden's] path of jihad to expel the invaders from the land of Muslims and to purify it from injustice. The man who terrified America in his life will continue to terrify it after his death. You will continue to be troubled by his famous vow: You shall not dream of security until we enjoy it and until you depart the Muslims' lands. America is not facing an individual or a group, but a rebelling nation, which has awoken from its sleep in a jihadist renaissance.[66]

These assertions reveal al-Zawahiri's stance within al-Qaeda and are indicative of statements that would be made by somebody acting in a leadership capacity.

In comparison to Walid, who is currently being monitored after renouncing his ties with al-Qaeda,[67] al-Zawahiri is the spokesman and maintains the most prominent position within the terrorist organisation.[68] Though centrality measures suggest that Walid is the most apt replacement for bin-Laden, it is evident that leadership has a qualitative dimension that is not completely captured by numerical results. The analysis of networks is, however, inherently linked to the qualities of the relationships between nodes to greater or lesser degrees. In the case of al-Qaeda, historical considerations and the specifics of interpersonal relationships figured more prominently than did the metrics captured by SNA.

Given that there is support for the al-Qaeda network within other countries, such as Somalia; [69] future research could extend the sample to include a larger global distribution of al-Qaeda supporters. This would be particularly advantageous in understanding the geographical links within the network structure. Because

the identified network excluded a number of possible network members, future research should be directed to building an even larger and accordingly more comprehensive data set. This would allow for both the re-testing of the current results and exploration of the characteristics of a larger structure. While the present analysis did not identify the correct new al-Qaeda leader, this research does highlight some of the advantages to using social network analysis for understanding terrorist organisations. In particular, the analysis was able to identify two likely candidates which could have implications for law enforcement in terms of directing scarce resources to focus upon far fewer likely offenders. That is, a social network analysis approach lets us narrow down the pool of possibilities for network disruption practices.

Conclusion

Whether law-abiding, criminal, or terrorist, social networks are goal-oriented, and structural positioning within the network indicates a particular role. While non-terrorist networks could require the dissemination of a shared ideology, terrorist networks differ from other illicit networks in that the goal is not economic “but the destabilization of political, constitutional, economic or social structures.”[70] Accordingly, terrorist network structures place a particular demand upon a leader in that the positioning of a leader must be central enough to allow for the dissemination of influence and ideology. Social network analysis is useful for understanding the relations between actors within a network, but it also provides a tool with which the positioning of a leader can be systematically measured for the assessment of similarities in terms of the roles prescribed to individuals within the network.

The death of bin-Laden created a gap within the al-Qaeda network that required a replacement. While existing research into economically motivated criminal networks suggests that a leader would ideally be positioned on the periphery of such a network and thereby avoid detection, others have suggested that a terrorist network would not have a core at all. This did not appear to be the case for bin-Laden. Not only was a core group of network positions evident but the past leader was positioned within the core. Given the requirement that a terrorist leader occupy a central position to disseminate ideology, and given bin-Laden occupied such a position, it was hypothesized that any replacement would share a similar position and thus be able to act as a successor.

Several candidates were identified for purposes of succession. The ability to harness resources by virtue of a network position (social capital) was considered an important characteristic for the identification of a successor. However, an assessment of an actor’s social capital cannot be divorced from an assessment of the actors human capital. Human capital results from an appropriate “fit [between] the right people with the necessary competencies, skills and expertise into the right jobs in order to optimize overall performance.”[71] While SNA provided an indication of the possible candidates, or narrowed down the list, an assessment of human capital was useful in supplementing this insight.

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Appendix

Code Names of the al-Qaeda Sample

Full Name	Code (Alphabetical)	Status
Tariq Anwar al-Sayyid Ahmad	Ahmad	Deceased
Mullah Obaidullah Akhund	Akhund	Captured
Omar Albashir*	Albashir	Captured
Mohamed Atta	Atta	Deceased
Walid bin-Attash	Attash	Captured
Anwar al-Awlaki	Awalki	Deceased
Abu Ayyub al-Masri	Ayyub	Deceased
Abdallah Azzam	Azzam	Deceased
Said Bahaji	Bahaji	
Abu Bara al-Yemeni	Bara	
Zakariya Essabar	Essabar	
Omar al-Farouq	Farouq	Deceased
Yasser Fathi Ibraheem	Fathi	Deceased
Saluiman Abu Ghaith	Ghaith	
Saeed al-Ghamdi	Ghamdi	Deceased
Abd al Hadi al-Iraqi	Hadi	Captured
Abu Zubair al-Haili	Haili	Captured
Hani Saleh Hasan Hanjour	Hanjour	Deceased
Qaed Salim Sinan al-Harethi	Harethi	Deceased
Nawaf Muhammed Salim al-Hazmi	Hazmi	Deceased
Abu Jafar al-Jaziri	Jafar	Deceased
Abd al-Aziz al-Jamal	Jamal	
Ziad Jarrah	Jarrah	Deceased
Ahmad Said al-Kadr	Kadr	Deceased

Ahmad Fadeel Nazal al-Khalayle	Khalayle	Deceased
Mohammed Jamal Khalifa	Khalifa	Deceased
Tawfiq Attash Khallad	Khallad	Captured
Zaid Khayr	Khayr	
Ibn al-Shaykh al-Libi	Libi	Deceased
Muhamad Ibrahim Makkawii	Makkawi	
Abu Mohammad al-Masri	Masri	
Khalid al-Mihdhar	Mihdhar	Deceased
Khalid Shaikh Mohammed	Mohammed	Captured
Zacarias Moussaoui	Moussaoui	Captured
Abdul Hakim Murad	Murad	Captured
Midhat Mursi	Mursi	Deceased
Abd al-Rahim al-Nashiri	Nashiri	Captured
Obaidullah	Obaidullah	
Osama bin-Laden	Osama	Deceased
Hamza al-Qatari	Qatari	Deceased
Saad bin-Laden	Saad	Deceased
Mohammed Salah	Salah	
Shaikh Saiid al-Sharif	Sharif	
Marwan al-Shehhi	Shehhi	Deceased
Ramzi bin al-Shibh	Shibh	Captured
Yazid Sufaat	Sufaat	
Salem Sa'ed Salem bin-Suweid	Suweid	Deceased
Hassan Turabi	Turabi	Captured
Mafouz Ould Walid	Walid	
Abu Basir al-Yemeni *Wuhayshi	Wuhayshi	Deceased
Abu Salah al-Yemeni	Yemeni	Deceased
Ramzi Yousef	Yousef	Captured
Ayman al-Zawahiri	Zawahiri	
Abu Zubaydah	Zubaydah	Captured

II. Research Notes

Boko Haram's International Reach

by Ely Karmon

Abstract

Although most of Boko Haram's terrorist activity is focused, for the moment, on Nigerian territory, this Research Note argues that it is already an important international jihadist organisation. The watershed that marks Boko Haram's passage from a purely Nigerian phenomenon to an international jihadist actor is its attack on the United Nations Headquarters in Abuja, Nigeria's capital, on August 26, 2011. The bulk of BH's membership, the indiscriminate and cruel characteristic of its attacks, the complexity of the Nigerian religious and ethnic context, the sheer weight of the Nigerian state in an instable neighborhood - Cameroun, Niger, Chad, Mali - and its proximity to the jihadist battle front in the Sahel convert it into an immediate and infectious regional threat.

Keywords: Boko Haram, Nigeria

Introduction

Jama`at Ahl al-Sunna li al-Da`wa wa al-Jihad, popularly known as Boko Haram (BH), rose to international prominence in 2010 and 2011 when it carried out a series of deadly attacks against the Nigerian government and detonated a car bomb at a United Nations building in Abuja, the capital.

The year 2013 saw a major increase in the indiscriminate terror attacks by BH, which killed and injured thousands of innocent civilians, police and military officers, public officials and group members. Attacks between January 2012 – August 2013 included not only 50 churches and Nigerian Christians but also clerics or senior Islamic figures critical of Boko Haram and “un-Islamic” institutions or persons engaged in “un-Islamic” behaviour.[1] According to a UN humanitarian agency, attacks between May and mid-December 2013 killed more than 1,200 people, a figure that does not include insurgents killed during targeted military operations.[2] Boko Haram targets include police stations, government buildings, churches, politicians, newspapers, banks, and schools. Tactics include drive-by shootings on motorcycles, the use of improvised explosive devices, and starting in 2010, suicide bombings.

This Research Note will focus on the international dimensions of Boko Haram and the threat it represents to the international community. It will not deal with its history, the social, political and economic factors which led to its formation and its transformation into the most dangerous Nigerian salafist/jihadist organisation.

Although there is already some in-depth academic literature on BH, by Nigerian and Western scholars [3] the point of departure of this discussion will be Emilie Oftedal's report “Boko Haram – an overview,” for the prestigious Norwegian Defence Research Establishment (FFI).[4]

Oftedal's conclusion is that “Boko Haram has focused mainly on national grievances and targets” and she warns against “exaggerating Boko Haram's connections with foreign militants and considers the likelihood of Boko Haram becoming a major international terrorist threat in the near future to be relatively low.” However, the report also raises the possibility that BH or one of its factions—mainly the splinter group Ansaru—may become more internationally oriented and mount further attacks outside Nigeria. It claims that Ansaru “has conducted several attacks against Westerners and targeted soldiers going to Mali, and appears more globally

oriented than the 'core' BH movement led by Abukakar Shekau.” [5] In contrast, the Jamestown Foundation's Boko Haram expert Jacob Zenn has a different take than Oftedal concerning Ansaru. In his view Ansaru was created by al-Qaida in the Islamic Magrheb (AQIM) and has a close operational relationship with BH: “In many ways Ansaru is the internationalist component of Boko Haram; although, it may not exist as a distinct entity from Boko Haram, since the French intervention in Mali in January led to the two group's integration when Ansaru lost contacts with a retreating AQIM.” [6]

Another perspective, as argued in this Research Note, is that BH is already an important international jihadist organisation although most of its terrorist activity is focused, for the moment, on Nigerian territory. In fact, Oftedal also wrote a M.A. thesis about the transnational aspects of Boko Haram, where she analyses their significance for the group's capabilities and reach. In her discussion she refers mainly to the states bordering Nigeria that are threatened by the BH terrorist activities, namely Niger, Chad, Cameroon and Benin. [7] As described later in this analysis, the growing regional dimension of the Boko Haram threat represents a form of internationalization which, if remained unchecked, will have dire consequences in the years to come.

In August 2009, about a week after the death of its then-leader Muhammed Yusuf, Sanni Umaru, the interim head of the organisation, published an ideological declaration regarding its goals and methods of operation. This can be seen as a milestone in the organisation's move to the second phase, evolution toward an international orientation: “In fact, we are spread across all the 36 states in Nigeria, and Boko Haram is just a version of Al-Qaeda, which we align with and respect. We support Osama bin Laden, we shall carry out his command in Nigeria until the country is completely converted to Islam, which is according to the wish of Allah.” [8] Several years later, documents seized at Osama bin Laden's compound in Abbottabad in Pakistan showed that top level BH leaders had been in touch with Al-Qaeda “within the past 18 months.” [9]

In early 2010, Abdelmalik Droukdel, the leader of AQIM, publicly offered Boko Haram assistance in early 2010. [10] Then in early July 2010, Abubakar Shekau, Muhammed Yusuf's deputy, who was thought to have been killed by police in 2009, appeared in a video and claimed leadership of the group. He said he was ready to launch attacks on western influences in Nigeria. On July 13, Shekau issued another statement expressing solidarity with Al-Qaeda and threatened the United States. [11] In October 2010, AQIM's media arm published a statement by Shekau, the first time AQIM disseminated an official message from another group. AQIM and BH officials have referenced growing ties in public statements. [12] According to Jacob Zenn, Shekau is excellent in classical Arabic and well versed in Islamic scholarship. His sermons show a synthesis of local salafist preaching with calls for international jihadism and for breaking down the Western and U.S.-led world order. [13]

While these statements reflect various forms of international intentions, the watershed that marks Boko Haram's passage from a purely Nigerian phenomenon to an international jihadist actor is its attack on the United Nations Headquarters in Abuja, Nigeria's capital. On August 26, 2011, a suicide bomber drove a vehicle with an improvised explosive device to the U.N. headquarters in Abuja, killing 23 people and injuring more than 80 others. BH took responsibility for the attack, the first time it had targeted an international, non-Nigerian entity. The Nigerian State Security Service (SSS) named the alleged bombing mastermind as Mamman Nur, “a notorious Boko Haram element with Al-Qaeda links who returned recently from Somalia.” [14]

The SSS' claim fits with a June 2011 statement by BH that some of its members had gone for training in Somalia: “We want to make it known that our Jihadists have arrived [in] Nigeria from Somalia where they got serious training on warfare from our brethren who made the country ungovernable and forced the interim government to relocate to Kenya... despite the armoured carriers that they are boasting of, they are no match

with the kind of training we acquired in Somalia.”[15]

Two videos later emerged purporting to show members of BH preparing for suicide attacks, including Mohammed Abul Barra, the suicide bomber of the U.N. building, launching a vague warning to “Obama and other infidels”. The voice said to be Shekau’s calls the U.N. headquarters a “forum of all the global evil” while also offering praise for Osama bin Laden. [16]

The scale and method of the attack suggested that BH had adopted the tactics of AQIM, which took responsibility for a similar attack on United Nations offices in Algeria on December 11, 2007. The suicide attacks became AQIM’s signature and represented a combination of local and global terror. [17] By calling the Algerian U.N. headquarters a “Green Zone,” and labeling its staff a “den of international infidels,” AQIM itself symbolically relived the August 2003 attack by Al-Qaeda in Iraq on the U.N.’s mission in Baghdad, which killed Chief of Mission Sergio Vieira de Mello and caused the U.N. to depart from Iraq. [18]

According to Oftedal, Ansaru claimed responsibility for the December 2012 kidnapping of a French engineer from his residence in Katsina state, presented as retaliation for France’s ban on the Islamic veil and its role in the military intervention in northern Mali. In January 2013, Ansaru attacked a convoy of troops in Kogi State en route to deployment with West African forces in Mali trying to stop Nigerian troops joining Western powers. Meanwhile, she also gives examples that support the view of BH as an international jihadist actor. Like other researchers, she cites Malian security officials saying Boko Haram fighters were in the majority in the attack on the Algerian consulate in Gao in April 2011; Niger’s president Mahamadou Issoufou June 2012 statement that Niger had evidence that BH was running training camps in Gao, Mali; the Nigerian Air Chief Marshal, Oluseyi Petinrin, claim in June 2012 that BH had ties to AQIM, the first time a Nigerian top security official made such links in public. In July 2012, Gen. Carter Ham, head of the US military’s Africa Command, said there were signs that BH, al-Shabaab and AQIM were increasingly coordinating their activities.

Shekau’s November 2012 video, unlike his five other statements issued in 2012, was in Arabic and was posted on online jihadist forums, an indication that he was seeking to appeal to both the wider jihadist community and to Al-Qaeda’s leaders. Shekau refers to the fighters in the jihadist theaters as his “brothers” and addresses “the soldiers of the Islamic State in Mali ... our brothers and sheikhs in beloved Somalia ... our brothers and sheikhs in Libya ... our brothers and sheikhs in oppressed Afghanistan ... our brothers and sheikhs in wounded Iraq ... our brothers and sheikhs in Pakistan ... our brothers and sheikhs in blessed Yemen ... our brothers and sheikhs in usurped Palestine, and other places where our brothers are doing jihad in the Cause of Allah.” Shekau warns “Britain, America, Israel, and Nigeria” that the killing of jihadist leaders will not defeat the groups. Shekau says that BH is “with our mujahideen brothers” in their fight against “the Jews and the Crusader Christians.” According to Bill Roggio, an American commentator on military affairs, Shekau’s videotape is very similar to tapes issued by Somalia’s Al-Shabaab in 2008, when the group was making overtures to join al Qaeda. [19]

The December 2013 nighttime attack launched by hundreds of BH fighters on a Nigerian Air Force base in the city of Maiduguri, in which a number of security personnel were killed and several aircraft destroyed, is reminiscent of attacks by Al-Qaeda’s associates on important military bases in other theaters of war: the Pakistani Taliban’s attack on Pakistani Naval Station Mehran in Karachi in May 2011 and the Afghan Taliban’s assault on Camp Bastion in Helmand in September 2012.[20]

Speaking in Arabic, Hausa and Kanuri in a video disseminated on the Internet, Shekau took responsibility for the raid on the Maiduguri air base and claimed “the whole world” feared him - U.S. President Barack Obama, French President Francois Hollande, Israeli Prime Minister Benjamin Netanyahu and even the late

British premier Margaret Thatcher. He singled out in particular the U.S.: “You are boasting you are going to join forces with Nigeria to crush us. Bloody liars,” he said, adding: “By Allah, we will never stop. Don’t think we will stop in Maiduguri. “Tomorrow you will see us in America itself. Our operation is not confined to Nigeria. It is for the whole world.”[21]

The arrest of key figures of the group proved that its links with AQIM opened it up to funding from groups in Saudi Arabia such as the Islamic World Society and some prominent local businessmen. From the trial of Kabiru Umar, suspected mastermind of the Christmas Day bombing of St. Theresa’s Catholic Church, in Madalla on 25 December 2011, it appeared that funding came also from an Islamic group, Musilimi Yaa’maa, based in Algeria. [22]

The Regional Threat

The regional aspect of BH’s “internationalism” can be seen as the most immediate and infectious threat. It is of note that most of BH’s activities take place within the boundaries of the 19th century Bornu Empire which cover northeastern Nigeria, the northern tip of Cameroon, southwestern Chad and northeastern Niger. After the 2009 rising in Maiduguri documents found on the bodies of dead militants indicated that many of them had come from Niger and Chad. [23]

Leaders of neighboring countries such as President Biya of Cameroon and President Debi of Chad as well as leading diplomats of Niger who are devising regional mechanisms to attack BH, recognised it has increasingly become a regional issue. [24]

The ability of BH fighters to escape into other countries has greatly frustrated Nigeria. A Borno state official accused Cameroonian authorities of refusing to arrest or chase BH militants fleeing across the border after carrying out attacks in Nigeria. Some Nigerian security sources complain that Cameroon has shown little interest in the problem, while Niger and Chad do not have adequate resources to help. [25]

Cameroon

One of the main difficulties for the Nigerian security forces in patrolling the border with Cameroon is a lack of infrastructure, which allows BH to set up bases and training camps in the desert or forested areas of the northern Nigerian-Cameroon border region. Shekau has repeatedly appeared in video messages sent from his hideout, allegedly located somewhere in northern Cameroon, and BH has consistently used Cameroon as a rear base for carrying out attacks in Nigeria. For example, in February 2013 Boko Haram kidnapped a family of seven Frenchmen in Cameroon, near the Nigerian border, the first major incident by the group outside Nigeria. In the statement claiming responsibility for the attack the group made reference to the French-led intervention in Mali: “Let the French president know that he has launched war against Islam and we are fighting him everywhere. Let him know that we are spread everywhere to save our brothers.”

A missionary has been killed and several churches set ablaze in attacks by BH in Cameroon. The Nigerian missionary, David Dina Mataware, with the Christian Missionary Foundation (CMF), was killed on November 13, 2013 in a village which straddles the Nigeria-Cameroon border. He was murdered on the same day as the kidnapping of a French priest, but the death was not reported by the media even though both incidents happened in the same area. [26] BH claimed in a statement that it “coordinated” the kidnapping of French priest Father Georges Vandenbeusch with Ansaru. He was liberated at the end of December 2013. [27]

Most recently, on December 19, 2013, a convoy of BH militants crossed the border from Cameroon into Banki, Nigeria, and attacked the military Kur Mohammed Barracks in Bama. The attack was particularly traumatic because it came only days after Boko Haram destroyed parts of the Maiduguri air base.

Nigeria recently negotiated a security agreement with Cameroon to grant its troops access to BH settlements which has become the new haven for its fighters. The agreement ensures Nigeria is not accused of violating the sovereignty of Cameroon when troops launch air or ground assaults against BH hideouts across the border. [28]

The Cameroonian authorities have set up tighter border controls in the Far North region to guard against infiltration by BH fighters. A rapid response military unit has been deployed and some tourist hotels now have armed guards. However, the authorities admit that it is impossible to completely secure Cameroon's longest border. The two countries have agreed to conduct separate but coordinated border patrols. [29]

Niger

Authorities in Niger arrested 15 suspected BH members in Diffa in February 2012 and seized home-made explosives and grenades. Suspected BH members were arrested in the Zinder region in September 2012. [30] In May 2013, BH inmates in a prison near the Nigerien capital of Niamey, with support from comrades in Nigeria and Niger launched an attack on their prison guards. In October 2012, Niger and Nigeria signed an agreement on joint border patrols, with the aim of restricting movement of illicit arms and militants across the borders.

Chad

Chad President Idris Deby has warned of the insecurity in the Lake Chad region based on what he describes as “the permanent threat” posed by BH and AQIM, and has called for the creation of a joint deterrence force comprised of military forces from Nigeria, Chad, Niger, Cameroon and the Central African Republic. In January 2012, the Nigerian government ordered the temporary closure of its borders with Cameroon, Chad and Niger to prevent cross-border activities of BH militants and roving bands of Chadian deserters and former rebels who have made the region south of Chad their base of operations. [31]

Mali and beyond

BH fighters traveled to Mali in 2012, when the militant Salafist groups AQIM, MUJAO (Movement for Oneness and Jihad in West Africa), and Ansar al-Dine controlled the northern part of the country and established closer relations with these groups. [32]

The pattern of attacks that has occurred since then indicates the insurgents may have to a large degree scattered into more remote areas of the region. Dumba is located near Lake Chad and close to Nigeria's borders with Cameroon, Chad and Niger.

In August 2012 the imam of the Grand Mosque in Bignona, southern Senegal, claimed that Boko Haram was recruiting local youths. [33] There are indications that BH has recruited some militants from neighboring countries. Mamman Nur—believed to be second in command to Shekau—is from Chad, while Abubakar Kilakam and Ali Jalingo, responsible for major attacks in the northeastern Borno State, are said to be from Niger. [34] Interestingly, although there are large Nigerian communities in Europe and the United States there is no information about “foreign fighters” from Western countries traveling to Nigeria to join Boko

Haram, as Oftedal notes.

The International Context

The French Intervention in Mali

The French military and African Union states' forces intervention in Mali since January 2013 has provided new opportunities for the internationalisation of Boko Haram's activity and has brought it closer to other jihadist groups fighting in the Sahel: AQIM, The Movement for Oneness and Jihad in West Africa (MOJWA) and Ansar al-Dine. At the same time it presented the group with possibilities for training, combat experience and operational cooperation with these organisations.

United States Policy

A November 2011 report by the U.S. House of Representatives Committee on Homeland Security, Subcommittee on Counterterrorism and Intelligence, concluded that "Boko Haram has the intent and may be developing the capability to coordinate on a rhetorical and operational level with al-Qaeda in the lands of the Islamic Maghreb (AQIM) and Somalian Al Shabaab." The committee called for designating both BH, and its splinter group, Ansaru, as foreign terrorist organisations. The committee advised that BH "intent and capability to attack the U.S. homeland" be not discounted, warning the U.S. intelligence community to avoid repeating mistakes made with Tehrik-e-Taliban Pakistan and Al-Qaida in the Arab Peninsula – both groups were underestimated until they attempted to launch attacks on American soil. [35]

Already in June 2012 the U.S. had labelled BH commanders Abubakar Shekau, Khalid al-Barnawi and Abubakar Adam Kamar "Specially Designated Global Terrorists." According to the U.S. State Department Khalid al-Barnawi has "ties to BH" and "close links to AQIM." According to a source cited by AFP, Barnawi is believed to have run a militant training camp in the Algerian desert and was involved in the kidnapping of French nationals in Niger in 2011 and a Briton and an Italian in Nigeria in 2012.

Since June 2013, the U.S. government has been offering \$23 million worth of rewards for information on key leaders of terrorist organisations in West Africa. BH's leader, Abubakar Shekau, heads the list with a reward of \$7 million for information leading to his location, some \$2 million higher than Mokhtar Belmokhtar, a veteran jihadi leader in the Sahel. This suggested a shift in U.S. thinking regarding threats emanating from BH. [36]

Opponents of the Foreign Terrorist Organisation (FTO) designation, like Rep. Patrick Meehan, perceived BH as "little more than a grassroots insurrection with no defined leader or structure." Some believe that the FTO designation could have negative implications for the U.S. and Nigerian partnership. John Campbell, Senior Fellow for Africa Policy at the Council on Foreign Relations, and former US Ambassador to Nigeria, suggests that BH "could acquire a jihadist character if the United States is seen as supportive of Nigerian security approaches." [37]

On November 13, 2013 the U.S. State Department finally decided to designate Boko Haram and Ansaru as Foreign Terrorist Organisations (FTOs) and as Specially Designated Global Terrorists (SDGTs), thus assisting U.S. Justice and Treasury Departments in collaborating with counter-terrorism partners to investigate and prosecute terrorist suspects or supporters in the United States, including charitable organisations providing material support to these terrorists groups.

The groups operate locally, but have international connections and resources. As the U.S. government views Nigeria as an important economic partner, Nigeria's security and stability has added importance to the U.S. Notably, Nigeria is the second largest African destination for U.S. foreign direct investment, and provides approximately eight percent of U.S. oil imports. Nigeria has also been a major stabilising force in Africa through its major contribution of UN peacekeeping forces. [38]

Nnamdi Obasi, a Nigeria analyst with the International Crisis Group (ICG) asserts that the move will encourage BH to aggressively target U.S. interests in Nigeria and further radicalise the movement and push it to strengthen international linkages with other Islamist groups. "Some Nigerians are also concerned that it could embolden the US military to launch military operations in the country unilaterally, much like they've been doing in Pakistan," he claims. [39]

At the end of December 2013, Canada joined the United States in designating BH as a terrorist organisation under its Criminal Code. By virtue of the listing, the assets of the groups and anyone associated with them in Canada will be "seized and forfeited."

Conclusion

Jonathan Hill, from the Defence Studies Department, King's College London, rightly compares the path of Boko Haram towards a bloody jihadist group with the Algerian model. The extreme violence and indiscriminate character of its attacks (burning or throat cutting of dozens of students) are re-enacting what has already happened in Algeria. The extreme forms of terrorism and cruel guerrilla tactics of the Armed Islamic Group (GIA) leading to the factionalism of its direct forbears, the Salafist Group for Preaching and Combat (GSPC) and finally the AQIM under the influence of Ayman al-Zawahiri could tie more closely BH to the Algerian jihadi group. [40]

Because Nigeria is Africa's largest oil producer and most populous state, the internal instability provoked by the expanding violence of Boko Haram could have major regional and global implications.

The bulk of BH's membership, the indiscriminate and cruel characteristic of its attacks, the complexity of the Nigerian religious and ethnic context, the sheer weight of the Nigerian state in an instable neighborhood (Cameroon, Niger, Chad, Mali) and its proximity to the jihadist battle front in the Sahel play in this direction.

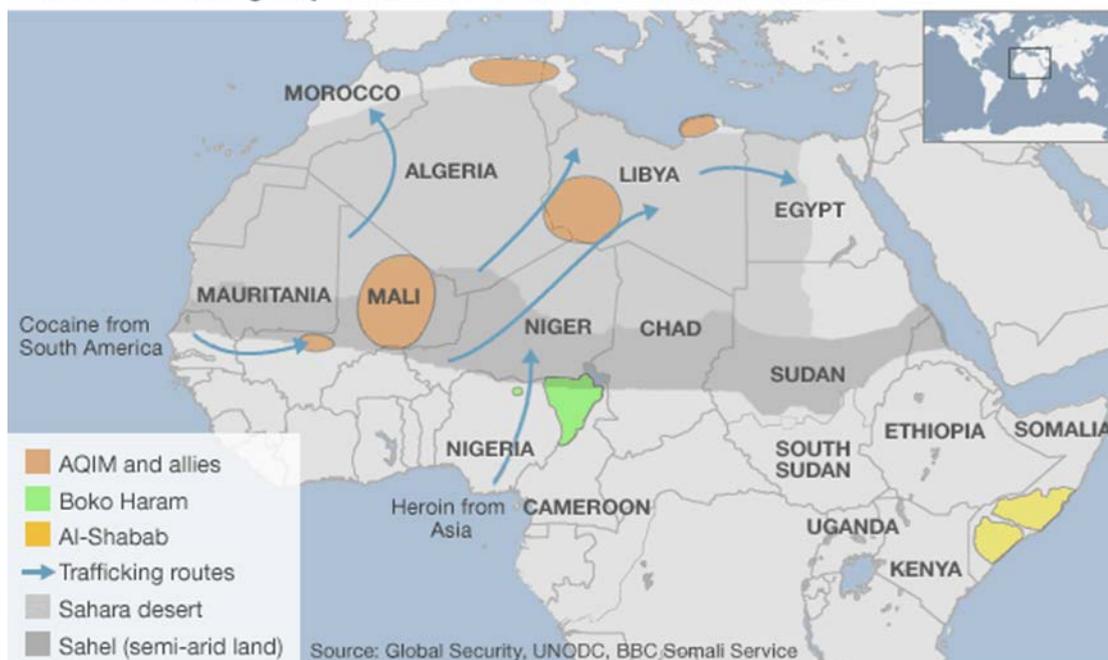
However, on the background of the forthcoming important presidential and legislative elections in Nigeria in February 2015, it is possible Boko Haram will make a special effort to expand its terrorist campaign to southern Nigerian Christian states in the hope of provoking a religious war and present itself as the defender of Nigeria's Muslims.

Paradoxically, if the Nigerian army and security forces succeed in curtailing BH's terrorist and guerrilla activities in the North and seriously weaken the organisation, the result could be enhanced activities outside Nigerian territory, fractionalisation and closer cooperation with foreign "brother" groups, as happened in the past to the GIA/GSPC in Algeria, leading to the Sahel-based AQIM, or the Chechen insurgents driven south to Dagestan, Kabardino-Balkaria and Ingushetia to form the so-called Islamic Caucasus Emirate.



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Islamist militant groups and their areas of influence in Africa



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Further resources can be found at individual universities. A selected of theses can also be found at the Library of Congress, Open Access Theses and Dissertations (OATD) database - <http://oatd.org/>

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Bibliography: Terrorism Research Literature (Part 1)

by Judith Tinnes

[Bibliographic Series of Perspectives on Terrorism - BSPT - JT - 2014 - 1]

Abstract

This bibliography contains journal articles, book chapters, books, edited volumes, theses, grey literature, bibliographies and other resources on the field of Terrorism Research, its sub-disciplines (such as Critical Terrorism Studies), central approaches and methods. Though focusing on recent literature, the bibliography is not restricted to a particular time period and covers publications up to mid of January 2014. The literature has been retrieved by manually browsing more than 200 core and periphery sources in the field of Terrorism Studies. Additionally, full-text and reference retrieval systems have been employed to expand the search.

Keywords :terrorism research, terrorism studies, methods, approaches, resources

NB: Websites were last visited on 19.01.2014. - See also Note for the Reader at the end of this literature list.

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Note

Whenever retrievable, URLs for freely available versions of subscription-based publications have been provided. Thanks to the Open Access movement, self-archiving of publications in institutional repositories or on author homepages for free public use (so-called Green Open Access) has become more common. It should be noted that the content of Green Open Access documents is not necessarily identical to the officially published versions (e.g., in case of pre-prints) it might therefore not have passed through all editorial stages publishers employ to ensure quality control (peer review, copy and layout editing etc.). In some cases, articles may only be cited after getting consent by the author(s).

IV. Book Reviews

“Counterterrorism Bookshelf” – 23 Books on Terrorism & Counter-terrorism Related Subjects

by Joshua Sinai

This column consists of two parts: capsule reviews of ten books recently published on terrorism and counterterrorism-related topics, and - continuing the series begun in the previous column of highlighting books by significant publishers (listed in alphabetical order) - capsule reviews of 13 important books published by CRC Press.

Note: Future columns will review books by publishers such as Hurst, Oxford University Press, Palgrave Macmillan, Polity, Routledge, Rowman & Littlefield, Springer, Stanford University Press, and the University of Chicago Press.

General Reviews

Gershon Baskin, with Ilene Prusher, *The Negotiator: Freeing Gilad Schalit From Hamas*. New Milford, CT: The Toby Press, 2013. 283 pages, US\$24.95 [Hardcover], ISBN: 978-1592643493.

This is a first-hand account by an American-Israeli peace activist of his role in arranging for the release of Gilad Schalit, an Israeli soldier who was kidnapped by Hamas in 2006. Schalit was released in October 2011 as part of an exchange deal by the Israeli government and Hamas for 1,027 Palestinian and Israeli Arab prisoners with a nexus to terrorist activity. Acting in his non-governmental capacity, Jerusalem-based Dr. Baskin was extensively involved (with other players) in the secret back channel negotiations between Israel and Hamas, with these dealings and the wider context in which they were conducted revealed in the letters, e-mails, and other documents that were exchanged between the players over the five-year period, which are contained in the book, thus making it a valuable primary source for those analyzing Israeli-Hamas relations. Regarding the future of the Israeli-Hamas conflict, Dr. Baskin concludes that “I remain optimistic. I believe Israeli-Palestinian peace is possible. This conflict is solvable. I also believe negotiations can succeed only via a secret direct back channel. So I continue my efforts.” (p. 277).

Robert J. Bunker and Christopher James Flaherty, *Body Cavity Bombers: The New Martyrs*. [A Terrorism Research Center Book]. iUniverse, 2013, 362 pages, \$23.95 [Paperback], ISBN: 978-1491703106.

With terrorist groups continuously attempting to innovate their bomb explosives and attack tactics in order to evade and penetrate their government adversaries' own innovations in hardening their defensive measures, one of the latest concerns in counterterrorism is the potential for terrorists to acquire the capability to surgically implant explosives in body cavities in order to evade new developments in detection technologies. Such a technological and tactical innovation would also produce a new type of undetectable suicide bomber. As I wrote (for full disclosure) in a blurb for this book's cover, that this is a highly innovative and authoritative account of this new terrorist tactic. The volume's chapters discuss subjects such as emerging adversary tactics (including by Al-Qaeda) in the use of body cavity bombers against high value targets, the blast effects of such explosive charges, technologies to detect body cavity bombs, and future trends in such warfare. The authors are associates at the Terrorism Research Center (TRC) (<http://www.terrorism.org/>).

Aage Borchgrevink [translated by Guy Puzey], *A Norwegian Tragedy: Anders Behring Breivik and the Massacre on Utoya*. Malden, MA: Polity, 2014. 300 pages, US\$25.00 [Hardcover], ISBN: 9780745672205

A highly detailed and authoritative account by a Norwegian journalist of the carefully orchestrated violent rampage by Anders Behring Breivik on July 22, 2011, in which 77 people were killed in the two successive attacks in Oslo and on the island of Utoya. To understand the paths that led Breivik to become a violent extremist, the author examines the roots of radicalisation in Norway, which he describes as “the holes in the net of our society” and which help to explain how “children from peaceful and prosperous societies end up as terrorists? (p. viii). He concludes that “Through my work on this book I have moved away from seeing 22 July 2011 as a reflection of a greater ‘reaction to globalisation and modernity’ and far in the direction towards seeing the acts of terrorism that day as the outcome of a deficit of family care, the intergenerational transferral of poor attachment patterns and a resultant individual mental illness. I no longer believe that Breivik’s radicalisation, his hatred, was due mainly to mass suggestion or to the ideological greenhouse effect of the counter-jihadist online community.” (p. 267) He adds that while this “does not mean that the terrorist attacks were not a political act,” mental illness and [extremist] politics are closely linked. (p. 269) The psychological issues raised by Mr. Borchgrevink account, which are backed up by his journalistic research on Breivik’s life and activities, make this book an important empirical and theoretical contribution to the literature on the study of radicalisation into violent extremism.

Dane S. Egli, *Beyond the Storms: Strengthening Homeland Security and Disaster Management to Achieve Resilience*. Armonk, NY: M.E. Sharpe, 2014. 248 pages, US\$74.95 [Hardcover], US\$34.95 [Paperback], ISBN: 978-0765641953.

A comprehensive, systematic and authoritative account of the importance of the role of resilience in protecting critical infrastructure against a spectrum of threats, ranging from terrorism to natural disasters. The chapters discuss issues such as the nature of threats (including terrorism, cyber-attacks, pandemics and climate calamities), the components of critical infrastructure protection, understanding resilience (including its strategic context and methodologies for data collection and analysis), public-private partnerships in building resilience, formulating a risk assessment framework and metrics for effectiveness in evaluating resilience programs, and strategic and operational recommendations for crafting resiliency frameworks at national and local levels. The concluding chapter includes case studies of the spectrum of threats against critical infrastructure, such as hurricanes, earthquakes and electricity blackouts that are intended to frame these situations within the relevant fields where establishing resilience is crucial, especially in preparedness, disaster management, emergency response, resilience, public-private partnerships, and collective action. “Beyond the Storms,” which also includes numerous figures and tables to illustrate the text, is an important textbook and reference resource on homeland security. The author is a national security advisor at The Johns Hopkins University Applied Physics Laboratory, and a former Coast Guard officer who served on the White House National Security Council staff on Homeland Security issues.

Hassan M. Eltahir, *Aviation & Maritime Security Intelligence*. Ottawa, Ontario, Canada: E&W Communications, 2012. 242 pages, US\$ 20.00 [Paperback], ISBN: 978-0978476014.

A comprehensive examination of the role of intelligence in aviation and maritime transportation security. The book is divided into two parts. The first part, which is primarily conceptual in nature, covers the subject of intelligence in order to explain how the intelligence process and intelligence methodologies work in identifying, assessing and prioritizing the nature of the threats (whether terrorism or piracy) against

these transportation sectors. The second part provides a practical application of intelligence in aviation and maritime security, with chapters covering topics such as terrorist and piracy threats against ships, ports and port facilities, international straits and waterways, as well as threats against the aviation sector. The concluding chapters focus on the components involved in building law enforcement and security partnerships in these transportation sectors, including a discussion of the operational capabilities of fusion centers in providing integrated response measures. The author concludes that to defeat the adversary and reduce the cost of protecting these sectors, “The bottom line for transportation security as well as intelligence professionals is to be able to identify the threat potential much, much earlier in the process, which is what we should always aim for. That is why intelligence has to be on the ball and ahead of everybody else.” (p. 183). The author, a security consultant, is a former high ranking aviation and maritime security official at the Canadian Department of Transport.

David Kilcullen, *Out of the Mountains: The Coming Age of the Urban Guerrilla*. New York, NY: Oxford University Press, 2013. 352 pages, US\$27.95 [Hardcover], ISBN: 978-0199737505.

An account of the challenges that need to be taken into account in responding to future violent conflicts around the world in terms of four megatrends that are likely to affect them: population growth, urbanization, coastal settlement, and their electronic and networked connectedness. With cities likely to become the critical unit of analysis and center-of-gravity for future conflicts, the author writes, it will be essential to build up a country’s resiliency to effectively respond to threats in such ever growing, dense, and conflict-ridden urban regions. Several case studies, including Mogadishu, Benghazi, Mumbai, and cities in Egypt and Tunisia that were instrumental in furthering the Arab Spring, are examined to test the author’s thesis, which he terms a theory of “competitive control.” According to this theory, violent groups such as drug cartels, street gangs, warlords, and terrorists attempt to increase their strength in such urban environments in competition against their [however weak and fragile] government adversaries. To address and defeat such future challenges, the author recommends a comprehensive program, including upgrading a response community’s knowledge of academic disciplines such as urban planning, systems engineering, renewable energy, and conflict resolution and mediation. The author is the CEO of Caerus Associates, a strategy consulting firm in the Washington, DC, region, and is a former Australian Army officer and counterinsurgency consultant in Iraq who has published several books on counterinsurgency.

Maajid Nawaz with Tom Bromley, *Radical: My Journey Out of Islamist Extremism*. Guilford, CT: Lyons Press, 2013. 296 pages, US\$26.95 [Hardcover], ISBN: 978-0-7627-9136-1.

A fascinating and well-written memoir by a former British Islamist, who had joined Hizb ut-Tahrir at age sixteen, eventually rising to become one of their top recruiters and spokesmen. In the aftermath of 9/11, he was arrested and imprisoned in Egypt (in the same prison that originally held Sayyid Qutb, one of the “fathers” of Islamist extremism). Yet after four years he renounced his extremist views and left prison determined to shape a new generation of moderate Muslim youth. Now, back in London, he was instrumental in co-founding Quilliam, a foundation and research institute that counters the narratives of Islamist extremism through publications and field work in Islamist conflict zones. Numerous important insights are sprinkled throughout the book, including the observation that “In perceiving the potency of ideas, Islamists vehemently oppose the rise of any intellectual alternative. They realise that if another idea were to take root in Muslim-majority nations, it would spell the beginning of the end for their own ideological stranglehold.” (p. 256) This important account provides the “intellectual narrative” that is essential in building the tool kits to counter Islamist extremism in all its manifestations.

Jonathan Schanzer, *State of Failure: Yasser Arafat, Mahmoud Abbas, and the Unmaking of the Palestinian State*. New York, NY: Palgrave Macmillan, 2013. 256 pages, US\$27.00 [Hardcover], ISBN: 978-1137278241.

An examination of the governance problems confronting the Palestinian Authority on its road to becoming an independent state. With the Palestinian Authority (PA), the interim body established in 1994 to govern parts of the West Bank the Gaza Strip relinquished by Israel, the author attempts to analyze whether it has become “an efficient, transparent, or financially viable authority that is prepared to function as a government for the Palestinian people” (p. 5) He concludes that “the answer, unfortunately, is ‘no.’ The reason: the PA and its antecedents have been beset by bad governance.” (p. 5) To remedy the “dysfunction” of the Palestinian Authority as it is currently configured (for instance, with the Palestinian territories of the West Bank and Gaza Strip “divided between two warring factions of Fatah and Hamas,” (p. 5), the author proposes a 14-point program to provide the Palestinians with “the kinds of durable government institutions that will allow them to subsist side-by-side with Israel.” (p. 195) Although this is a short book (consisting of 200 double spaced pages of text and 39 pages of endnotes), and the author glosses over the impact of Israel’s large-scale settlement program in the West Bank (including the vociferous opposition by many of its militant settlers to any territorial compromise with the PA in exchange of a peace agreement), Dr. Schanzer’s narrative deserves attention for the problems it raises about PA governance – problems that need to be addressed by those seeking to facilitate statehood for the Palestinian people. Dr. Schanzer is Vice President for Research at the Washington, DC-based Foundation for Defense of Democracies.

Jacob N. Shapiro, *The Terrorist’s Dilemma: Managing Violent Covert Organisations*. Princeton, NJ: Princeton University Press, 2013. 352 pages, US\$29.95 [Hardcover], ISBN: 9781400848645.

An innovative, comprehensive and empirically-based examination of the diverse methods used by terrorist groups to control their members and enforce discipline within their organizations. Such methods of control vary, according to the author, due to variations in how terrorist groups are structured (e.g., hierarchical or loosely affiliated) and how their political objectives interact with their particular operational environments. Understanding these methods of control is important, the author writes, because it also creates security vulnerabilities within these groups that can be exploited by counterterrorism services. These issues are examined through an application of agency theory (the relationship between management principals and their agents in an organisation), historical case studies, and terrorists’ documents and writings. The author is an assistant professor of politics and international affairs at Princeton University and codirects the Empirical Studies of Conflict Project.

Erroll Southers, *Homegrown Violent Extremism*. Boston, MA: Anderson Publishing, 2013. 142 pages, US\$29.95 [Paperback], ISBN: 9781455776436.

An insightful and authoritative account of the nature and threat of what is termed “homegrown violent extremism” (HVE), the conditions and vulnerabilities that produce it, and governmental and private sector approaches that are effective at mitigating such threats at the societal, community and individual levels. The book is divided into two parts, with the first part covering topics such as the motivations and ideologies of those who become homegrown violent extremists (e.g., racial supremacy, extremist religious and political ideologies), the components of the radicalisation process (including the role of leadership in radicalisation), the role of group behavior on perpetuating violent extremism, and how they calculate their terrorist attacks. The second part covers approaches and methodologies to counter HVE, ranging from leveraging academic disciplines in the humanities, the sciences, and social sciences, and what the author terms “a

mosaic of engagement” based on countering extremism models by the United Kingdom and the United States. The overall objective in countering HVE, the author points out, is to exert a positive influence on the environments that produce extremism, thereby reducing the risk of radicalisation in such communities. The author is Associate Director of Research Transition at the Department of Homeland Security National Center for Risk and Economic Analysis of Terrorism Events (CREATE), University of Southern California, and a former high ranking officer in United States law enforcement.

CRC Press

Frank Bolz, Jr., Kenneth J. Dudonis, and David P. Schulz, *The Counterterrorism Handbook: Tactics, Procedures, and Techniques*. [Fourth Edition] Boca Raton, FL: CRC Press, 2012. 529 pages, US\$ 93.95 [Hardcover], ISBN 9781439846704.

A comprehensive account of the nature and magnitude of the origins, causes, aims, tactics, weapons and tactics of terrorism and the strategies and techniques required for effective counterterrorism, such as establishing command and control, intelligence mechanisms (e.g., surveillance), managing bombing and hostage-taking incidents, and interviewing victims. The authors are veteran Homeland Security and law enforcement practitioners, making this an indispensable and authoritative reference resource for those involved in counterterrorism, whether in public safety or analytic communities.

Ann R. Bumbak, *Profiling Cop-Killers*. Raton, FL: CRC Press, 2014. 278 pages, US\$ 39.95 [Paperback], ISBN: 978-1482211412.

With a focus on training police officers to survive potential deadly encounters, this authoritative volume examines the sociological history, psychology, and motives of the cases of 50 murderers of police officers in 2011. To operationalize the conceptual framework, the author applies Erikson’s theory of life span development to examine the commonalities and differences between these groups of killers by their age, race, gang affiliation, criminal history, motives, and circumstances and outcomes of their incidents. One of the study’s findings is that there are “essentially three types of cop-killers...the criminal, the ill, and the unknown,” (p. 236) and that “Most cop-killers murder law enforcement officers to escape apprehension and avoid the consequences of their criminal acts.” (p. 236) Another finding is that while “Not every cop-killer can be stopped... there are warning signs that should be considered. Properly identified and counteracted, these would-be cop-killers might be pulled back from the edge of the precipice before they commit their final acts.” (p. 238) The book concludes with a five-part series of recommendations to identify and preempt such early warning signs of potential cop-killers. The author is the founder of Dynamic Police Training and a former police officer and federal agent.

James Ottavio Castagnera, *Counter Terrorism Issues: Case Studies in the Courtroom*. Boca Raton, FL: CRC Press, 2013. 266 pages, US\$99.95, [Hardcover] ISBN 9781466571921.

A comprehensive overview of the trials of ten significant terrorism-related cases in United States criminal courts from 1993 to 2011 in order to examine the effectiveness of the American judiciary’s handling of domestic terrorism. The case studies draw extensively on trial transcripts, witness statements, and judicial opinions. The author finds that overall, “our American courts have acquitted themselves admirably from the trial level to the highest courts of the land across the nineteen years covered here,” (p. 215) but that, nevertheless, judges must remain vigilant to continuously protect “our precious civil liberties.” (p. 216) The

author is a legal counsel at a New Jersey university and a consultant on legal issues.

Jayesh D'Souza, *Terrorist Financing, Money Laundering, and Tax Evasion: Examining the Performance of Financial Intelligence Units*. Boca Raton, FL: CRC Press, 2012. 232 pages, US\$ 79.95 [Hardcover], ISBN 9781439828502.

A comprehensive and detailed examination of the nature of terrorist funding (including by state sponsors) and the role of financial intelligence units (enabled by government legislation) in tracking and interdicting such illicit funding instruments and networks, which represent an important component in counterterrorism. Especially interesting are the author's discussion of how financial crime is committed and the application of a "balanced scorecard" method in measuring programmatic effectiveness in countering terrorist funding. Also discussed are how to set up and manage financial intelligence units and overcoming the various challenges facing them in order to improve their performance. The author is a specialist in public policy, finance and economics.

Amos N. Guiora, *Homeland Security: What Is It and Where Are We Going?* Boca Raton, FL: CRC Press, 2012. 199 pages, US\$ 83.95, [Hardcover] ISBN 9781439838181.

A practitioner- and academic-based examination of the components required for effectiveness in Homeland Security. The chapters cover topics such as defining Homeland Security, prioritizing threats and risks in Homeland Security, using cost-benefit analysis to measure performance effectiveness, the role of international cooperation, intelligence gathering, and threat assessment in counterterrorism, how terrorists fund their activities, the threats presented by illegal immigration and narco-terrorism, new trends in domestic terrorism, maintaining a balance between the requirement for counterterrorism and civil liberties, and upgrading business continuity in the midst of terrorism and other disasters. The concluding chapter presents a ten point proposal for developing the mechanisms for effective homeland security policy. The author is a professor of law at the S.J. Quinney College of Law, the University of Utah, and a former Judge Advocate for the Israel Defense Forces Home Front Command.

Amos N. Guiora, *Modern Geopolitics and Security: Strategies for Unwinnable Conflicts*. Boca Raton, FL: CRC Press, 2014. 181 pages, US\$ 79.95 [Hardcover], ISBN: 978-1466569232.

An innovative and important examination of the strategies required by states to defeat the threats presented by non-state actors, such as terrorist groups. Beginning with a discussion of new developments affecting sovereignty, intervention, geopolitics, and security in the evolving global environment, the author then examines how states have attempted to address them in significant historical cases such as the Israeli-Palestinian conflict, the intervention in Libya, non-intervention in Syria, the Northern Ireland Good Friday Agreement, the conflict in the former Yugoslavia, the Arab Spring, and the use of force while intervening in 'failed states.' The evolving global environment, the author points out, also affects domestic politics in Western countries, with "The triangle of immigration, extremism, and economic concerns [throwing] a curve ball into the foreign policy discussion because it requires decision makers to recognize combustible domestic issues." (p. 148) In view of such changes, the author concludes that "For that reason, we are in an era of the unwinnable conflict; the burden on decision makers is to engage in honest conversation and dialogue to begin the process of defining goals and missions in the context of geopolitics. Otherwise, the mistakes of today will, indeed, represent Tuchman's 'March of Folly.'" (p. 149) The author is a professor of law at the S.J.

Quinney College of Law, the University of Utah, and a former Judge Advocate for the Israel Defense Forces Home Front Command.

Ross Johnson, *Antiterrorism and Threat Response: Planning and Implementation*. Boca Raton, FL: CRC Press, 2013. 296 pages, US\$ 79.95, [Hardcover], ISBN 9781466512900.

A comprehensive and practitioner-based examination of the components required to prepare for potential terrorist attacks during the crucial pre-incident phases in order to prevent them from occurring. The author applies the U.S. Department of Defense's anti-terrorism methodology to assist security professionals in the private sector in protecting their companies, facilities, and infrastructures. To accomplish these objectives, the book's chapters cover topics such as the nature of terrorism, governments' roles in countering terrorism, the nature of the targeted community, the fundamentals of anti-terrorism planning, conducting threat vulnerability assessments, the components of security and response planning that need to be implemented, and case studies of anti-terrorism in the maritime sector, individual threat response planning, and preventing 'insider threats' (e.g., conducting background checks and managing access control). The author is a senior manager of security and contingency planning for Capital Power Corporation, a power generation company with assets in Canada and the United States.

David Low, Austin Turk, and Dilip K. Das (Eds.). *Examining Political Violence: Studies of Terrorism, Counterterrorism, and Internal War*. Boca Raton, FL: CRC Press, 2014. 408 pages, US\$ 99.95 [Hardcover], ISBN: 9781466588202.

The contributors to this important edited textbook apply a multidisciplinary approach (including criminology and criminal justice) to study terrorism and counterterrorism. Some of the volume's articles were previously published in the journal *Police Practice and Research*. The volume is divided into three sections: terrorism and counterterrorism (e.g., defining terrorism, radicalisation and profiling religious terrorism), countering terrorism since 9/11 (e.g., the localization of counterterrorism intelligence, policing terrorism, and counterterrorism in Canada), and policing revolutionary and secessionist violence (e.g., the use of informants, terrorism in Sri Lanka, and terrorist attacks against law enforcement). With many of the contributors coming from the disciplines of law enforcement, experts from the discipline of political science include Boaz Ganor and Stephen Sloan. The book is a co-publication with the International Police Executive Symposium.

Marie-Helen Maras. *The CRC Press Terrorism Reader*. Boca Raton, FL: CRC Press, 2014. 418 pages, US\$44.95 [Hardcover], ISBN: 9781466588325.

This interesting and comprehensive reader draws on the extensive writings of CRC Press authors to discuss the spectrum of issues involved in terrorism and counter-terrorism studies. The volume is divided into five parts: terrorism and terrorism history (e.g., the origins of terrorism, defining terrorism, the motivations and psychology of terrorism, domestic and international terrorism), terrorist tactics and terrorist capabilities (e.g., how terrorists are organized, terrorist planning, surveillance, targeting and operations, terrorism and weapons of mass destruction, and terrorist funding), countering terrorism (e.g., the role of homeland security, deterring and mitigating terrorism, the role of intelligence in counter-terrorism), regional focus on terrorism (e.g., the terrorist threats in Latin America, Europe, the Middle East, and Asia), and emerging issues and the future of terrorism (e.g., the impact of the Arab Spring on terrorism, suicide terrorism, terrorism and criminality, critical infrastructure protection, and the role of technology in terrorism and

counter-terrorism). The appendices include a glossary of international terrorist groups and domestic terrorist groups in the United States. The reader is recommended as a complement to courses in terrorism, counter-terrorism, and homeland security. The author is an associate professor at the Department of Security, Fire, and of Emergency Management at John Jay College of Criminal Justice, City University of New York.

David H. McElreath, Carl J. Jensen, Michael Wigginton, Daniel Adrian Doss, Robert Nations, and Jeff Van Slyke. *Introduction to Homeland Security*. [Second edition] Boca Raton, FL: CRC Press, 2014. 410 pages, US\$ 69.95 [Paperback], ISBN 9781439887523.

This textbook is a comprehensive account of the components of Homeland Security. The volume's chapters discuss how Homeland Security is defined, the threats it is intended to counter and manage, the foundations of emergency management, how Homeland Security is organized in the United States, the function and operations of organizations involved in Homeland Security, disaster response and recovery, threats to the homeland presented by international terrorism, domestic terrorism, border and transportation security, the role of intelligence in Homeland Security, and the future of Homeland Security. Each chapter begins with objectives and concludes with a summary, definition of key terms, discussion questions, and reference resources.

Rory J. McMahon, *Practical Handbook for Professional Investigators*. [Third edition] Boca Raton, FL: CRC Press, 2014. 580 pages, US\$ 99.95 [Hardcover], ISBN 9781439887226.

This practitioner-based handbook is a comprehensive and authoritative examination of all the components involved in becoming a law enforcement and counterterrorism investigator. The chapters cover topics such as what is an investigator, the methods that investigators use to obtain information, types of investigation, interviewing and interrogating suspects, legal investigations, fraud and computer crime, criminal investigations, due diligence, background investigations, the use of surveillance, testifying in court, getting licensed, and operating a professional investigative agency. The chapter on terrorism investigations discusses topics such as criminal activities by terrorists, government approaches and tactics in countering terrorism, the use of entrapment, and the responsibilities of investigators in properly representing their clients. The chapters include numerous case studies to illustrate their discussion. Two of the chapters were written by additional authors. The principal author is a veteran investigator who operates an investigative agency in Fort Lauderdale, Florida.

Scott Mire and Cliff Roberson, *The Study of Violent Crime: Its Correlates and Concerns*. Boca Raton, FL: CRC Press, 2011. 244 pages, US\$ 83.95 [Hardcover], ISBN 9781439807477.

This textbook provides a comprehensive discussion of violence and violent crime in the United States. The volume's chapters cover topics such as introduction to the study of violence, trends in violence, the correlates of violence (e.g., poverty and violence, level of education and violence), the sociological aspects of violence (e.g., social controls, strain theory and violence, cultural conflict and violence), psychological and psychiatric approaches to understanding violence, biological factors and violence, types of violent crimes (e.g., murder, voluntary and involuntary manslaughter, robbery, sex offenses, and assault crimes), gangs and violence, hate crimes, controlling violence by the use of punishment, and victimology and violence. Each chapter includes tables, 'action boxes' to outline concepts, review questions, and reference resources. The authors are veteran criminal justice academics.

Malcolm W. Nance, *Terrorist Recognition Handbook: A Practitioner's Manual for Predicting and Identifying Terrorist Activities*. [Third edition] Boca Raton, FL: CRC Press, 2014. 439 pages. US\$ 59.95 [Paperback], ISBN 9781466554573.

First published in 2003, this practitioner-based handbook provides a comprehensive and detailed treatment of terrorism and counter-terrorism. Divided into six parts, the chapters cover topics such as understanding terrorism in all its manifestations (e.g., how to identify terrorist operatives and their cells, how terrorists conduct training, terrorist motivations, strategies, tactics and target selection, preparations for attack, and types of weapons ranging from conventional to WMD), and the components of counter-terrorism (e.g., how to analyze intelligence collection and predict potential attacks. The appendices include a bibliography, a listing of terrorist groups, and a checklist of explosive components and their ingredients. The author is a consultant on counterterrorism and a retired military intelligence officer.

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V. Op-Ed

A Primer to the Sunni-Shia Conflict

by Philipp Holtmann

Which dispute is so resilient that it continues nearly 1,400 years after the original quarrel? It is the Sunni-Shiite dispute over the question who should succeed the Prophet Mohammed. The original struggle turns around the question if religio-political leadership should be passed on by bloodline (the Shiite *imamate*) or election (the Sunni *caliphate*). Today, this has become among some factions a fight over the monopoly to sacrifice and martyrdom, and it takes the form of a competition for political predominance in the Middle East between Saudi Arabia and Iran.

How did it all begin? In 657 AD the Ummayyad governor *Mu'awiyya* contested the reign of the fourth caliph Ali, son-in-law of the Prophet Muhammad, starting the first civil war among Muslims (*fitna*) that lasted until 661. Ever since, the Muslim community has been split into two major factions: Sunnis [1], who believe that there should have been an egalitarian right of any capable Muslim to head the caliphate, provided he has been chosen by consensus (*ijma'*). In reality, however, *Mu'awiyya* confined the inheritance of leadership strictly to members of his own family after he had usurped power, as did Abbaside caliphs and Ottoman sultans in later centuries. Shiites [2], on the other hand, consider it the exclusive right of male members of the family of Muhammad (*ahl al-bayt*) to head the *imamate*. The strongest and most influential of Shiite groups are the Twelver Shiites, named after their belief in the twelfth Imam, who allegedly went into hiding in 873; since 1979 this group rules in Iran.

The quarrel over succession continues today between many Shiites and Sunnis - the latter comprising around 85-90% of the world's Muslim population (which is estimated to be roughly 1,6 billion [3]). Both Sunni and Shia religious leaders, influenced by hardships endured by their communities over the course of history, have developed eschatologies full of apocalyptic doomsday visions and are obsessed with the hereafter. And yet, worldly matters are just as important, with leaders arguing that it is a divine obligation to install an Islamic political, economic and social system on Earth.

To understand the complex dynamics of the contemporary Sunni-Shiite conflict, one needs to understand both the historical and doctrinal context. This can shed some light on the kaleidoscopic nature of intra-Muslim conflict which plagues the Middle East today: A prominent current within Sunni Islam is Salafism, which is a puritan, purifying, fractionated and almost uncontrollable current that bases its doctrine on a literalist interpretation of the Quran and the life of the first three generations of Muslims (*al-salaf al-salih*). There are intra-Salafi conflicts as well as severe conflicts between Salafis and modern 'cultural' Muslims. Moreover, there is a particularly severe quarrel between Salafis and Shiites. On the other hand, there are currently no serious conflicts among Shiites. Their split into three major doctrinaire groups—the Zaidis (Hasan's and Hussein's line accepted leaders), Imamites (Hussein's line accepted leaders) and Ghulat ("exaggerators" who venerate some imams as quasi-gods)—does not stand in the way of coalition building among them - as exemplified in Iranian support for Yemenite Huthi-Rebels.

The historic Sunni-Shiite split originally led to the emergence of *three factions*. The *Khawarij* ("those who leave") regarded the faction of *Mu'awiyya* as infidel, because it had dared to challenge the authority of Caliph Ali. Moreover, they excommunicated Caliph Ali, son in law of Muhammad, for consenting to arbitration with the insurgents instead of battling them. Ali and his followers would later become known as the Shiites, while *Mu'awiyya* and the Ummayyad Caliphate would become the first representatives of the Sunni majority faction. The *Khawarij* would follow neither of them and even denounce the *sahaba* (the followers

of Muhammad), declaring them infidels and combating them by means of assassinations and guerrilla-type warfare. This introduced the doctrine of *takfir* into Islam (pronouncing someone as *kafir* [unbeliever] and excommunicating him), for which, according to competing legal interpretations, either the accused or the accuser is punishable by death.[4]. Today the doctrine is commonly used by Sunnis against opponents. *Khawarij* are often compared to today's Jihadi *Takfir*s, who form a sub-group of the militant Salafi-Jihad trend, who in turn are a sub-group of Salafi fundamentalists. For modern *Takfir*s (who declare other Muslims 'unbelievers' by judging their allegedly infidel actions as *kufir akbar* – “greater unbelief”) it is only a small step from the concept of spiritual purification of society to its physical cleansing. The *takfir* doctrine has become a type of ideological virus that threatens to tear apart Sunni Islam. Sunni-Muslim state clergy and quietist-evolutionary Salafis put the *Khawarij*-label frequently on political-oppositional Salafis and on Salafi-Jihadis. The latter throw the accusation back at them, claiming that the former are betraying all true Muslims. [5] Among Sunnis it is common practice to declare Shiites as infidels per definition—most do not even bother with the *takfir* accusation. For Salafis, like the internationally influential Bahraini sheikh Abu Sufyan as-Sulami, the ruling Alawites in Syria (who belong to the Shiite-Nusayriyya sect) are even “more infidel than the Jews and the Christians.”

Yet by isolating Shiites and labeling them infidels, Sunnis have actually helped their rivals to develop an identity on their own in the course of Islamic history. Ever since the fourth caliph Ali was assassinated and his son Hussein was murdered, Shiites have spiritually connected to the plight of these victims of sectarian strife and integrated the re-experience of their martyrdom into their belief practice (especially during the annual *Ashura* festival on the tenth day of the Islamic month of *Muharram*, which commemorates the murder of Hussein in 680 AD in Kerbala, located in today's Iraq). As a persecuted minority, Shiites in many countries have had to revert to practices of secrecy and became accustomed to suffering and discrimination when living in Sunni majority environments. [While Shiite communities can be found worldwide, most Shiites live in just four countries: Iran, Pakistan, India and Iraq.] At the same time, this adversity has helped Shiites to consolidate a common sense of identity and to find relative doctrinal and social cohesion.

In contrast, certain religious and political doctrines put forth by Sunni extremists since the 1960s have caused divisions and mayhem in their own ranks. The Sunni quest for identity started in the early 20th century with the abolishment of the caliphate by Turkey in 1924. It was intensified by Western colonialism, by failed experiments with state formation in parts of the Arab world and by five humiliating Arab military defeats against Israel. As a consequence of a long series of setbacks on several levels, Salafist fundamentalism has become a strong ideological alternative for many Sunni Muslims since the 1970s. In the course of the radicalisation and popularisation of Salafist concepts—which include a new sense of isolation, victimisation and martyrdom—some Sunnis are fostering doctrines which are similar to those of Shiites: they believe in hiding their true doctrine (*taqiya*) in order to protect themselves; they apply independent Islamic legal reasoning (*ijtihad*), although this leads to a jurisprudential anarchy (*fauda fiqhiyya*); they cherish martyrdom (*istishhad*); and they believe in miracles (*karamat*), especially with regard to slain martyrs. Paradoxically, the widespread use of suicide attacks today, and the saint-like veneration of martyrs by Sunni extremists were initially introduced into the Middle East by the Shiite Hezbollah in 1981.

Thus, while the 20th century witnessed the disintegration of Ottoman Sunni power and the emergence of new, disunited Sunni ideological currents, it also saw the strengthening and consolidation of Shiite power. Particular milestones in this process were (i) the establishment of a modern theological Shiite state (the Islamic Republic of Iran, founded in 1979), (ii) the creation of a formidable military sub-state force (Hezbollah), which by the mid-1990s controlled most of Lebanon and in 2006 slapped the allegedly invincible Israeli Defence Forces right in the face, (iii) a strong Shiite segregation movement in northern Yemen, (iv) Shiites in top political and military positions in Pakistan, and (v) a Shiite parliamentary majority

government in Iraq since 2005. With their centralised and more effective leadership styles in military, religious and political affairs, modern Shiites are well-positioned to become the winners in the region's Sunni-Shiite conflict unless Sunnis find a common religious agenda and political platform. Even if they do, Western and local military junta interventions in past Sunni attempts to build Islamist governments (see Algeria, Gaza and Egypt, among others) have proven that there are many obstacles on the way. On a tactical level, Shiite powers may lose some battles in the ongoing conflicts in Lebanon, Syria, Iraq, Saudi Arabia, Bahrain and Northern Yemen. Yet Sunnis seem incapable of re-establishing anything that resembles the lost caliphate. All that remains are hot pockets of resistance and insurgency, where the highest chains of command are those of Sheikhs who also battle each other about differences in doctrine and strategy. These battles produce ever more Sunni dissenters, who, out of frustration, often declare those surrounding them 'infidels', whether they are Sunnis or Shiites.

This *takfir* problem is especially severe among Sunni-Salafis, whose different branches maintain large transnational propaganda networks. The messages emanating from these networks often contain dangerous simplifications and lead to further radicalisation of doctrines. The Salafi cleric Hassan Dabbagh, who preaches via Pal Talk as well as in a mosque in Leipzig (Germany), complained recently that many Muslim youngsters in the European diaspora only believe in "*takfir* and Kalashnikov" – an interpretation that is fostered by the Internet-propaganda of Salafi clerics like Muhammad Mahmud, an extremist Austrian preacher of Egyptian origin. For Shiites, intra-Sunni disunity and hate campaigns are not a problem as long as these help to foster their own cohesion. For Sunnis, however, these internal splits are anathema to a common united front.

Sunni rebel groups are busy battling each other in northern Syria, in some instances with financial support and weapons from Saudi Arabia and Qatar. Meanwhile, Shiite powers are demonstrating united military and diplomatic fronts in Syria and Lebanon, and are gathering behind Iranian president Hassan Rouhani's diplomatic initiative for a rapprochement with the West. Part of Rouhani's initiative is to focus on stronger inter-Shiite relations, in order to present a unified base of support. Iran might even drop its long-term Sunni ally Hamas, whose leader was recently prohibited from visiting Tehran. It is not even inconceivable that Iran might prefer closer ties with the United States over maintaining its longstanding alliance with the Assad dynasty. [6] Peace in Syria and a new government that shares central strategic interests, such as the containment of the Sunni-Jihadi threat, are on top of the Shiite agenda. Shiites, it would appear, are making good progress on their very own political highway.

About the Author: Dr. Philipp Holtmann is an analyst specializing in the Middle East, where he has lived and worked in several countries. He conducts in-depth research on jihadist media as well as on Muslim conflicts and reconciliation issues and is a Research Associate with the Terrorism Research Initiative. His publications include 'Abu Mus'ab al-Suri's Jihad Concept' (2009), 'Virtual Leadership: How Jihadis Guide Each Other in Cyberspace' (2012), 'The Symbols of Online Jihad' (2013), 'The Use and Genre of Huda' (encouraging battle songs) versus Anashid (praiseful hymns) in Jihadi Propaganda' (2013), and 'Countering Al-Qaeda's Single Narrative' (2013).

Notes

[1] Lit. Ahl al-Sunnahwa-l-Jama'a = "People who follow the tradition of Muhammad and the consensus of the Muslim community?"

[2] Lit. shi'at 'Ali = "The Party of Ali."

[3] According to the Pew Research Center, "World's Population more Widespread than you might think" (June 7, 2013) Online at: <http://www.pewresearch.org/fact-tank/2013/06/07/worlds-muslim-population-more-widespread-than-you-might-think/>

[4] Ever since, there has been a doctrinaire battle in Islam, whether or not an infidel action is enough to excommunicate a Muslim or whether unbelief of the heart needs to be proven. The practice of the Khawarij was revived in different Islamic periods for political purposes. For example, some Sunni legal scholars in the 12th and 13th centuries used it as a label against Mongol Muslim converts, who attacked the Abbaside Caliphate at that time, and declared the Mongols infidels. The doctrine was also revived under the purist Wahhabi sect in the 18th century, which coalesced with the Sa'ud clan in their power struggle with other tribes over control of the Arabian peninsula.

[5] Among Sunni-Salafi sects the takfir-doctrine has been revived since the 1970s, and has been quoted as justification, for example, in the assassination of the Egyptian cleric Muhammad al-Dhahabi in 1977, the occupation of the Grand Mosque in Mecca in 1979, and the assassination of Egyptian president Anwar al-Sadat in 1981. In the Algerian, Iraqi and Syrian civil wars, the doctrine has played a decisive role as underpinning for the murder of tens of thousands of Muslim civilians. Also Saddam Hussein's brutal slaughter of Shiites in the Iran-Iraq war, in which the dictator mercilessly applied nerve agents, can be partly explained by it.

[6] "Nasser Hadian: Reasons Iran Wants Peace in Syria," United States Institute of Peace, February 4, 2014, accessed February 9, 2014, <http://iranprimer.usip.org/blog/2014/feb/04/nasser-hadian-reasons-iran-wants-peace-syria>.

VI. News from TRI's Country Networks of PhD Thesis Writers

Spain and Brazil

Spain

It has been six months since TRI-Sp.Net was created. In half a year, the site has become a welcome contact point for Spanish PhD students as well as accomplished scholars, CT professionals and armed conflict specialists, including members from the public, private and not-for-profit sector. The platform of the group already counts more than fifty members and can be found at < <http://www.linkedin.com/groups/TRISpNet-5142965/about> > .

TRI-Sp.Net has even been able to attract a number of participants from other countries than the Spanish-speaking ones - which has enriched the discussions. This is fully in line with the mission of the Terrorism Research Initiative (TRI), namely *enhancing security through collaborative research*.

Below is a short list of PhD theses currently in the process of being written or recently completed. For more information, please contact the Spanish country coordinator, Dr. M. Peco, at < coordinator@tri-sp.net > and visit < <http://www.terrorismanalysts.com/pt/index.php/pot/pages/view/phdresearchnetwork> >.

Carlos Setas Vilchez

La Frontera Noroeste de Pakistán, 2001-2011. El fenómeno terrorista en las áreas tribales y sus implicaciones para la seguridad de Pakistán y la estabilidad regional (Pakistan's Northwest Frontier, 2001-2011: Terrorism in the Tribal Areas and its Implications for Pakistan's Security and Regional Stability). Madrid: Instituto Universitario General Gutiérrez Mellado (UNED). Date of completion: December 2013.

Mario Toboso Buezo

El lobo solitario como elemento emergente y evolución táctica del terrorismo yihadista (Lone Wolf Terrorists as Emergent Element and the Tactical Evolution of Jihadist Terrorism). Madrid: Instituto Universitario General Gutiérrez Mellado (UNED). Date of completion: December, 2013.

Ana Celia Tarazona Tornero

Modelling with Uncertainty the Ideological Evolution of a Society with Extreme Groups. Valencia: Universidad Politécnica de Valencia. Date of completion: February, 2014.

Claudio Paya Santos

El analista de inteligencia y el proceso de toma de decisiones (The Role of the Intelligence Analyst in the Decision-Making Process). Rome and Barcelona: Universidad Luiss Guido Carli (IT) and Universidad Internacional de Cataluña (SP). Expected date of completion: June 2014.

Ana Belén Perianes

Working title: *The Global War on Terror* [Final title yet to be determined]. Madrid: Instituto Universitario

General Gutiérrez Mellado (UNED). Expected date of completion: 2014.

Antonio Marín Ortega

Un análisis de operaciones de estabilización basado en el modelo de ecuaciones. estructurales (A Structural Equation Model Analysis of Stabilisation Operations).

Lisbon: ISCT-IUL. Expected date of completion: 2016.

Brazil

A new TRI country network is in the process of being established in Brazil. Those interested in participation should contact Dr. Jorge Lasmar (Head of Department of International Relations, PUC Minas) at < jorgelasmar@gmail.com > .

National Networks of PhD Thesis Writers

The Terrorism Research Initiative (TRI) has established a number of national and (sub-) regional networks of PhD thesis writers. These are partly run by the PhD students themselves with the help of country-based, TRI-affiliated researchers have already completed a doctorate. Admission is open to all bona fide academic and professional researchers of post-graduate level working on (counter-) terrorism, political violence and armed conflict.

So far ten networks have come into existence:

- The United Kingdom. Country coordinator: [Gordon Clubb](#)
- The Netherlands and Flanders (Belgium). Country coordinator: [Daan Weggeman](#)
- Russia. Country coordinator: [Yulia Netesova](#)
- The United States. Country coordinator: [Neil D. Shortland](#)
- Canada. Country coordinator: [Nick Deshpande](#)
- South Africa. Country coordinator: [Petra Harvest](#)
- Australia. Country coordinator: [Levi-Jay West](#)
- Norway. Country Coordinator: [Cato Hemmingby](#)
- Spain. Country Coordinator: [Miguel Peco](#)
- Brazil. Country Coordinator: [Jorge Lasmar](#)

Should you be a post-graduate researcher from any of these countries and wishing to join your national/ (sub-)regional TRI network, you should contact the country coordinator directly. In all other cases, contact TRI Director, Prof. em. Alex P. Schmid who will then explore with you and other members of the TRI network in your country how best to set up a national network.

The benefits of being a member of a national TRI networks include but are not limited to:

- Enhanced awareness as to who is working on which topic at other universities, think tanks and foundations;
- Bi- and multi-lateral exchange of information between members of the network;
- Opportunity to engage in collaborative projects;
- Organisation of workshops, seminars and conferences;
- Developing joint grant proposals;
- Providing collegial support to each other in the research- and writing-phase of the thesis preparation;
- Advice from TRI's national and international network of subject matter experts.

VII. Notes from the Editors

About Perspectives on Terrorism

Perspectives on Terrorism (PT) is a joint publication of the Terrorism Research Initiative (TRI), headquartered in Vienna, Austria, and the Center for Terrorism and Security Studies (CTSS), headquartered at the Lowell Campus of the University of Massachusetts, United States of America.

PT is published six times per year as a free peer-reviewed online journal available at www.terrorismanalysts.com. It seeks to provide a platform for established scholars as well as academics and professionals entering the interdisciplinary fields of Terrorism, Political Violence and Conflict Studies. The editors invite readers to:

- present their perspectives on the prevention of, and response to, terrorism and related forms of violent conflict;
- submit to the journal accounts of evidence-based, empirical scientific research and analyses;
- use the journal as a forum for debate and commentary on issues related to the above.

Perspectives on Terrorism has sometimes been characterised as ‘nontraditional’ in that it dispenses with some of the traditional rigidities associated with commercial print journals. Topical articles can be published at short notice and reach, through the Internet, a much larger audience than subscription-fee based paper journals. Our free on-line journal also offers contributors a higher degree of flexibility in terms of content, style and length of articles - but without compromising professional scholarly standards.

The journal’s articles are peer-reviewed by members of the Editorial Board as well as outside experts. While aiming to be policy-relevant, PT does not support any partisan policies regarding (counter-) terrorism and conflict-waging. Impartiality, objectivity and accuracy are guiding principles that we require contributors to adhere to.

Editorial Team of Perspectives on Terrorism**Alex P. Schmid**, Editor-in-Chief**James J.F. Forest**, Co- Editor**Joseph J. Easson**, Associate Editor**Tim Pippard**, Assistant Editor**Joshua Sinai**, Books Reviews Editor**Eric Price**, Editorial Assistant**Judith Tinnes**, Editorial Assistant

Legal Note: *Perspectives on Terrorism* (PT) hosts articles that reflect a diversity of opinions. The views expressed therein, and the empirical evidence cited in their support, remain the sole responsibility of the contributing authors; they do not necessarily reflect positions and views of the journal's Editorial Team and Editorial Board or PT's parent organizations, the Terrorism Research Initiative (TRI) and the Center for Terrorism and Security Studies (CTSS).