Journal of Terrorism Research

Special Issue - Assessing the Emergency Response to Terrorism

CSTPV

Articles   3

Book Review   62

About JTR   64

Articles

Introduction: Emergency Preparedness
by Sir David Veness

"Homeland Security in the UK" edited by Paul Wilkinson and published in 2007 remains a magisterial review of the terrorist threat, preparedness and response. The book is based upon a study on "The preparedness of the UK for future terrorist attack" funded by the Economic and Social Research Council and conducted between 2002 and 2006.

The Memorial Service for Paul Wilkinson was held on 16 February 2012 and was preceded by an event entitled "Assessing the Emergency Response to Terrorism". This conference had been instigated by Paul before his sad death.

In anticipation of chairing a session at the seminar, I re-read Paul's book. This prompted two thoughts. Firstly, the great debt owed to Paul by a generation of counter-terrorist practitioners for his unfailing inspiration, support and his encouragement to think more deeply and widely about the subject. In doing so, he made a vital contribution to public protection, safety and security.

Secondly, to ponder how timely it would be to conduct an exercise similar to that undertaken by Paul and his distinguished colleagues between 2002 and 2006. The key issues of concern remain pressing and relevant.

This special edition of the Journal of Terrorism Research includes an account of the presentations made at this impressive conference. The range of subject matter is striking. Whilst the programme was categorized into three segments – assessing the past, current and future threats – the presenters addressed a remarkable span of topics.

This breadth underlined the key feature of emergency preparedness. To provide public protection, it must function at global, regional, national and local levels. It must be multi-disciplinary encompassing diverse skills and specialisms. Furthermore, it is inherently a multi-agency challenge. Each of the speakers illustrated these topics from different angles.

My personal observation on this breadth and complexity was to note what organizational challenges this presents. Cross sector effort even at the level of just one national government has not produced a record of consistent success. When this challenge is repeated at multi-national tiers, the problems are even greater. There is no doubt that multi-disciplinary and multi-agency co-operation also requires systematic investment and constant maintenance.

The second challenge on which I pondered was that of terrorist innovation. Emergency preparedness is inevitably most effective in dealing with past threats. The tragedy of 9/11 itself was a remarkable demonstration of terrorist innovation combining the expected threat of aircraft hi-jacking with the dimension of ground attack. This was sufficient to defeat the defences of the world's greatest power. In the years since 9/11 innovation has continued, noticeably with the spread of suicide bombing and the intention to cause higher casualties. Fedayeen-style attacks have been conducted notably in Mumbai. There is no doubt that terrorists will use even more deadly forms of attack if they can make them work.

This means that emergency preparedness is especially vulnerable because it must not only address previous attacks but anticipate novelty. Herein lies a great susceptibility to terrorist developments in tactics, techniques and procedures in addition to attack methods and target choices.

The 9/11 Commission Report (Chapter 11) includes a description of a "failure of imagination" in counter-terrorism. Applying this statement to emergency preparedness it is difficult to conclude that the lessons have been fully learnt.

These twin thoughts of the complexity of emergency preparedness and its vulnerability to innovation were at the front of my mind as I listened to each of the excellent speakers. They provided insights which underlined these notions, but gave them much greater depth and balance. My conclusion was that this conference should be part of a process of continual assessment and development and I am certain that Paul would wish to see practical outcomes from this event, especially linking academic research with front-line response.

Sir David Omand in the opening presentation lucidly placed emergency preparedness for terrorist attacks in the much broader context of the widest range of major threats and hazards. He illustrated the different paths of "sudden impact" and "rising tide" events. Reflecting on the main lesson of the past decade, Sir David emphasized the "importance of affording time and effort to be best able to judge the underlying nature and potential gravity of a terrorist threat". The significance of this point was emphasized by the fact that it was clearly echoed in the contributions from Dr. Gilbert Ramsay and Dr. Anthony Richards who defined the threat and explored ideology, tactics and targeting.

Dr. Gilbert Ramsay's paper in this collection progresses an important aspect of the theme he presented at the conference. His general theme was the suggestion that the threat of international terrorism involves two Jihads: one Global and one more localized including Western venues. Whilst these may overlap, he identifies different operational and targeting agendas. In this paper he develops the debate about plots and attacks in the West. There are strands within this argument which are of clear relevance to emergency preparedness especially the rationale for diverse attack methods. From my perspective it would be useful to pursue further analysis on these aspects. One specific example would be to further evaluate the impact and consequences of different types of improvised explosive devices (IEDs) including remote controlled bombs in a wider range of target locations.

Dr. Anthony Richards cogently explains why counter-terrorism needs to be primarily engaged with combating violent actions. As emergency preparedness is immediately concerned with the impact upon victims of terrorism, the wisdom of his thesis will be readily understood by practitioners. This is especially pertinent in times of challenging resource limitations. He also explores flaws in the tendency to link terrorism with human vulnerability. This again echoes with counter-terrorists who would support the perspective that terrorism is calculated violence and that counter measures should address this reality.

The interplay between actions to achieve emergency preparedness at global, regional, national and local levels emerged clearly from the day's proceedings. Strikingly, Professor Malcolm Dando made a compelling case for greater political and academic effort to enhance the effectiveness of the Biological and Toxin Weapons Convention. Most soberingly, he explained the lack of awareness amongst life scientists on aspects of bio-security. His conclusion was that these deficiencies will mean that potential malevolent use of the life sciences by terrorists or others remains a persistent danger.

It struck me that this was a clear example of the linkage between the global and the local. Inadequate effort at the global level means that local emergency preparedness is made more

difficult. This difficulty is made worse by the likely local perceptions of the threat, competition from other risks and the expense of response mechanisms.

The multi-disciplinary dimensions of emergency preparedness were vividly described by both Simon Lewis and Montine Walters especially as regards the essential combination of talents drawn from security, medicine and victim identification. Montine Walters emphasized the vital contribution of first aid before professional first responders arrive at the scene of an incident.

Simon Lewis also set out the history and current practice of the multi-agency effort in London with particular emphasis on the lessons following the attacks of 7/7/2005. Montine Walters interestingly implied that we should also consider the crowd at an incident as an agency to deliver immediate assistance. This is an example of learning from one jurisdiction – Israel – which could be applied to other countries.

It was interesting that these themes of geographically linked endeavours, multi-disciplinary and multi-agency aspects resonated with the large number of emergency service practitioners who were present at the conference. They shared the view that untiring effort was needed to fit together the components of the overall effort. They also expressed concern that our preparations looked backward not forward.

The operators also emphasized that some problems with emergency response such as communication, inter-operability and comprehensive care of those impacted by an incident are persistent despite commendable progress on each theme. I know they will find these collective papers a valuable contribution to continuing development.

In conclusion, I commend this conference collection as an excellent source of important information and a spur to further work. A great debt is owed to each of the speakers, to the conference organizers and, above all, to Paul Wilkinson who inspired this gathering.

The terrorist threat to the UK in the post–9/11 decade

by Sir David Omand,

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The overall task for this special issue is to assess the emergency response to terrorism, in particular the threat posed by violent jihadist terrorism. Clearly, planning for emergency responses will have value against other threats and hazards, so it will be difficult to separate out the arrangements made to deal specifically with the aftermath of terrorist attacks, and those to meet other emergencies, for example major natural disasters. A sense of proportion is also needed when examining terrorist risks: the actions of greedy market-makers and incompetent bankers in the recent past is doing much more damage to our national welfare and national security than terrorism today.

Emergency response of one kind or another has been part of this author's working life, in the Ministry of Defence, as Permanent Secretary in the Home Office and finally as Permanent Secretary in the Cabinet Office where one of the duties of the UK Security and Intelligence Coordinator was to be the UK chief crisis manager operating from the Cabinet Office Briefing Rooms, or COBR[1] –arrangements that for managing the response to terrorist incidents date back to the early 1970s when a different form of international terrorism was concerning the world after the attack by Black September on Israeli athletes at the Munich Olympic Games.

Governments tend to dislike the term 'crisis' and prefer a term like 'disruptive challenge'. Crisis implies that events are out of control and headlines about chaos are not far away. Three words 'Crisis, what crisis' in the Sun headline helped destroy the reputation of the Labour government in 1979, even though the man generally thought to have uttered them – Prime Minister Jim Callaghan on the steps of his returning aircraft from the Guadeloupe economic summit - did not in fact do so. But the words caught the popular mood that the government had lost control during the 1979 Winter of Discontent with rubbish piling up in the streets and inflation rocketing. Today, national security itself can be defined [2] as a state of confidence on the part of the public that the major risks, be they malign threats or natural hazards, are being satisfactorily managed so that people can get on with making the most of their lives, freely and with confidence. For example, for a few days in August 2011 public confidence in the ability of the authorities to provide them with security was shaken in the face of the rioting and looting in English towns and cities. Public protection thus requires that there are effective emergency responses available against the widest range of major threats and hazards. Those responses in turn depend upon prior investment in the resilience of society and its critical infrastructure and networks, human as well as electronic. All emergencies are local in impact, a fact reflected in the provisions of the UK Civil Contingencies Act 2004 with its local resilience fora.

In considering how the nation can best respond to the terrorist threat it is illuminating to start with the experience, good and bad, of the last decade, applying the benefit of some historical distance from the attacks on 9/11. That learning can provide perspective in assessing how well the UK has done in responding to the threat, especially relating to emergency response capability.

It is a common finding of studies into crisis management that emergencies arise through two different routes: 'Sudden Impact' and 'Rising Tide'.[3] With 'Sudden Impact' events such as the bombs on the London transport system on 7/7, the Argentine invasion of the Falklands Islands or the Icelandic Ash Cloud external events burst upon us. There is no doubt in such cases that government faces an emergency and will be expected to respond promptly.

With 'Rising Tide' situations such as the UK foot and mouth disease outbreak in 2000 or the severe flooding in the West of England in 2008 the scale of emergency may not at first be apparent. Normal procedures have swung into action and only over time does it become apparent that the situation is beyond control and that emergency measures – bringing in the Armed Forces to help with the response, for example – are needed. The key, of course, to managing such situations is to have sufficiently *early detection* of the rising trouble so that the response can be organised before the situation worsens to crisis proportions. That is different from having *early warning* of the likelihood of trouble arising in the first place, allowing such advance measures as construction of flood barriers or the stockpiling of vaccines and planning mutual assistance between police forces.

That distinction between types of emergency can be applied, albeit crudely, to the UK and the US experience of terrorism over the last decade.

First of all, the threat from jihadist terrorism crept up on the public at the end of the last century as a 'rising tide' rather than a 'sudden impact'.

The first AQ car bomb attack on the World Trade Centre was in 1993. In the same year, the PIRA attacked Warrington gas works killing two children and then detonated a huge truck bomb in Bishopsgate causing around £1billion of damage. The AQ Bojinka plot in the mid–1990s was to kill 4000 people on airliners to be brought down in the Pacific. In that period PIRA set off huge bombs in South Quay in London's docklands then in the Arndale centre in Manchester. The US was becoming increasingly concerned with jihadist terrorism with the US Embassy bombings in Dar es Salaam and Nairobi in 1998, but political attention in the UK was understandably focussed on a PIRA ceasefire and the developing Northern Irish peace process.

The police and Security Service did monitor the radical preachers and known jihadist extremists, who were often motivated by anger over Kashmir – or, for some, the earlier plight of the Bosnian Muslims, or repression in Algeria and Chechnya. Bin Laden did have what was described as 'the media wing of Al Qaida' [4] in the UK and he gave interviews to the Al Quds al-Arabia newspaper based in London in 1996 and 1998 announcing his so-called fatwas declaring war on the Zionists and Western crusaders. The activities of Bin Laden were thus certainly a target for the specialists in the intelligence services, but AQ was not in the late 1990s a household term as the Provisional IRA was. It can be too readily forgotten that the first UK jihadist plot was disrupted in November 2000 when a Birmingham house and nearby lock-up were found to contain bomb-making instructions, equipment, and 100 kg of the chemical components of the explosive HTMD. But the major dangers from the 'rising tide' of jihadism were seen to be overseas.

So before 9/11, the jihadist terrorist threat to the UK itself was thought to be manageable by the level of response then available. In a similar way, despite the evidence of the earlier AQ attack on the World Trade Centre, the US assessed the the rising tide of threat to be to primarily to US interests overseas, which is where the centre of gravity of US intelligence effort was focussed.

9/11 changed all that. It was the 'sudden impact' emergency writ large. The politics of terrorism changed overnight with the unfolding into political and public consciousness of what Fawaz Gerges later called [5] the AQ strategy to attack the 'Far Enemy' in our own homelands. The impact on the

US – 'the Pearl Harbor effect' – was especially traumatic. The British public – in spite of the PIRA experience – shared then the fear of the enemy in hiding waiting to strike.

Public apprehension was heightened by the recognition that such suicidal jihadists would not have hesitated to use a dirty bomb or bio-terror weapon if they had them, or even a nuclear weapon if passed on by a rogue state. Western advanced societies appeared fragile and vulnerable, so improving resilience and emergency planning suddenly became a priority for government. The psychological ripples from the 9/11 impact spread of course much wider. For Tony Blair, as he explained to the Chilcot inquiry [6] , it was no longer prudent to wait for the proliferator to develop his weapons and for the enemy to strike the first blow.

The attacks on 9/11 provided the most dramatic call to arms possible to young radicals in Muslim communities around the world, stimulating them to action, some in conjunction with AQ planners, others largely independently. The prompt allied intervention in Afghanistan after 9/11 destroyed the AQ training camps and infrastructure that were turning out a steady output of a small number of determined professional terrorists, as well as larger numbers of foot-soldiers. That was very necessary for Western security. But one of the unwelcome consequences was the flight of AQ leaders to the FATA in Pakistan, making contacts easier between British based extremists of Pakistani descent, who could easily travel legitimately to Pakistan, and terrorist facilitators and trainers in Pakistan such as Rashid Rauf. The UK security authorities began to see more and more domestic networks of jihadist activists, with increasing talk of action against the UK itself.

That rise in domestic activism unfortunately coincided with the highly controversial 2003 US/UK invasion of Iraq that acted as an accelerant on young hot heads, as the JIC had warned it would if the UK joined the invasion. The effect was intensified by the imagery of the bloody aftermath of occupation, which the rapidly expanding internet carried globally.

UK extremists actively sought ways of getting involved in violent jihad and travelled to Pakistan to seek contacts and support. This bottom-up pressure to join the movement was of course eagerly exploited by AQ facilitators and planners. This was the period of a number of serious AQ-facilitated terrorist plots against the UK such as the terrorist plan to down half a dozen aircraft in the Atlantic using liquid explosives smuggled onboard in soft drinks bottles that would have killed more US citizens than on 9/11.[7]

The overall effect of these developments was to create a "severe" domestic threat of jihadist violence, meaning that a terrorist attack at any time was judged by the authorities (in JTAC) as highly likely. It would of course have been unrealistic to expect the security authorities to be able to frustrate every plot in advance. Met Commissioner John Stevens notoriously said to the media it was a question of when, not if. The London attacks when they came on 7/7 did not therefore arrive as a strategic surprise. Emergency responses had been prepared for just such an eventuality, including a live exercise at Bank Underground station. As Lady Justice Hallett's 7/7 inquest concluded, however, despite their best efforts the security authorities were still caught by *tactical* surprise.

Commentators sometimes write about the attacks on London transport on 7/7 as the UK's "wake-up" call over jihadist terrorism. That would not be true of the government and the security and intelligence community - and the media correspondents. They knew how close the nation had come in previous years to terrorist mass murder by the Crevice gang or by Richard Reid, the shoe bomber. The decision to increase greatly spending and effort on counter-terrorism had been taken two years before, including doubling the size of the Security Service, building new joint arrangements with the police outside London and investing heavily in the emergency services. It was, however, only in 2006 well after 7/7 that the UK government first published [8] a comprehensive account in a White

Paper of the counter-terrorist strategy CONTEST it had been following since 2003. So perhaps more might have been done to educate the public before 7/7 as to what the government was actually doing to keep them safe.

Continuing the narrative, the occupation of Iraq eventually ended. AQ in Iraq did not succeed in gaining power and were denounced by the Sunni community. A series of plots in the UK were uncovered and pre-empted or were launched but failed in their intent– perhaps as many as a dozen after 7/7 - and notable arrests and convictions followed. That pace of work by the security authorities has not faltered, and significant arrests continue to be made and suspects charged with terrorist offences.

In recent years, under President Obama, the intensified US intelligence-led drone and covert CT campaign has removed most of the top leadership of AQ in the FATA and elsewhere (and of course most recently killed Bin Laden himself in Pakistan). AQ's senior leadership has lost most of its major figures. The movement is more dispersed. It has also, in the eyes of the Arab street, been shown to be largely irrelevant to the Arab Spring in North Africa and Egypt, reducing its ideological appeal worldwide including the UK. The jihadist terrorist threat has shifted, with attention now focussed on Al Shabaab in Somalia and most recently on the Boko Haram group in Northern Nigeria. AQ supporters are engaged in active insurgency in Yemen, and some of them also have had contacts with would-be terrorists in the UK. In the UK there should be a sense of relief (whatever views may be held about the manner in which it happened) that their leader, Anwar al-Awlaki is dead, killed by a drone strike. He was the man behind the 2010 printer cartridge bombs one of which was recovered at East Midlands airport before it was able to explode. He was also editor of Inspire magazine, a glossy webzine that radicalised the 'lone wolf', Roshonara Chowhary, in her attempt to murder Stephen Timms MP as well as other would-be terrorists as evidence to recent court cases has shown.

The official UK jihadist threat level was reduced last year from severe to substantial – although this still means that a terrorist attack is a strong possibility (Olympic planning for 2012 is prudently based on the assumption that it could rise again to severe). It is also prudent to recall that the dissident Irish republicans have ambitions to cause trouble here. It would nevertheless be reasonable to look back over the last decade and reach the conclusion that, overall, the UK and the US are safer today than on the eve of 9/11, when it must be remembered AQ had its bases and training camps in Afghanistan, and had a cadre of dedicated and experienced terrorist operational planners to call on.

A more penetrating question would be to ask whether the UK government over-reacted over the last decade due to exaggerated perceptions of the AQ threat? Overall, my response would be in the negative. If anything, the authorities can be criticized for not pressing for a major increase in the security and resilience effort a little earlier. Although the number of deaths of British citizens caused by jihadist terrorism over the decade is, thankfully, small in relation to other everyday risk such as traffic accidents things would look very different if even a few of the major plots had succeeded.

The hard, counter-factual, question is, of course, whether the UK could have been even safer after 9/11 if different counter-terrorism and foreign policies had been adopted. There can be more than one point of view on the matter. Iraq did worsen the radicalization process, although it did not create it. Bush-era rendition and interrogation policies helped create a sense of double standards over key Western values of freedom, democracy and human rights. The very term 'war on terror' may have helped create a sense of an inevitable conflict between the West and the world of Islam. Some measures in UK counter-terrorism legislation may have been counter-productive in

discouraging active intelligence cooperation from Muslim communities. There may therefore have been a higher price paid than need have been, but that is with the benefit of hindsight. Events never appear so clear at the time and – for example – had the US not acted against the AQ leadership and the US not been prepared to share its intelligence with the British authorities, and vice-versa, who can tell what attacks might have taken place?

The prevailing approach to domestic security planning in the UK after 9/11 was heavily influenced by the growing application of risk management as a planning tool in government generally. Risk management was built in to the British counter-terrorism strategy, CONTEST, that the author launched in November 2002. That driving logic may well be the main reason why CONTEST is still in force today under its third prime minister.

The CONTEST strategy used the risk equation to identify the different ways in which the risk to the public from terrorism can be reduced. The index of risk can be taken to be the product of different factors: likelihood of attack x vulnerability to attack x initial impact of an attack x duration of disruption that would result from an attack. Likelihood is reduced through strategic campaigns to improve intelligence and law enforcement to uncover terrorist networks and bring them to justice (Pursue) and by tackling the process of radicalization into violent extremism (Prevent). Vulnerability of critical infrastructure, transport etc is reduced by investing in protective security (Protect) and the impact and duration of disruption is minimized by improving the emergency response (Prepare). The CONTEST strategic aim reflects the risk management approach by having the objective being 'to reduce the risk' from terrorism so that people could go about their normal business, freely (that is, without having to interfere with individual freedoms and liberties) and with confidence (that is, with people still travelling by air and on the underground, visitors coming to the UK, confidence in the markets and so on). A very different approach from the US "war on terror" strategy, that sought risk elimination in relation to AQ.

As a result of all these measures, in addition to reducing the likelihood of a successful attack, the UK's vulnerability as a society to terrorism has been significantly reduced. Aviation security measures, improved building standards, new surveillance technology, protection for the finance sector and other critical national infrastructure, all the measures being put in place for the Olympics in 2012 help reduce the vulnerability to attack – and much of this investment also helps reduce vulnerability to other forms of non-terrorist disruption.

And the potential impact of an attack, both in terms of initial damage and the duration of disruption, has been much reduced by the careful preparation of emergency response: command and control, communications, emergency services training, medical services, consular services overseas and local resilience networks at home and so on. The coroners report on 7/7 went over the ground in great detail, and those lessons have been absorbed by the authorities. Most commentators would accept that the UK is prepared for managing the aftermath of a range of calamities in a way that was certainly not the case at the time of 9/11.

In applying the counter-terrorism strategy, it has been essential to have sound intelligence on the threat and how it has developed. The creation of the Joint Terrorism Analysis Centre, JTAC, has at the operational level improved the ability to learn how terrorists think, how they operate and about fashions in attack methodologies. That is operational information that is essential in emergency planning including for the protection of first responders.

A fundamental principle in thinking about crisis management is that all emergencies are local in their impact. Most emergencies in the United Kingdom can be perfectly well handled at a local level by the appropriate emergency services, local authorities and agencies, often involving local volunteers from St Johns Ambulance or the Red Cross, with no direct involvement from Central

Government. The command buck stops with the local Gold Command when it comes to decisions regarding the safety of the public. But in complex emergencies there will be decisions that even a Chief Constable does not have the authority to take. Examples might be taking powers under the Civil Contingencies Act 2004, making emergency grants from the Treasury's contingency fund, authorizing the deployment of the Armed Forces, negotiating with foreign governments and placing requirements upon the intelligence services. And more fundamentally, in major emergencies there is the important matter of selecting the national strategic aim for the management of the consequences and the subsequent recovery. The experience of the last decade is that the degree of media interest increasingly influences that level of central involvement.

The British authorities have learned lessons, some the hard way, about what could be described as the 'thermodynamics' of counter-terrorism: how the government can best exercise its primary duty to protect the public in the face of a severe terrorist threat and yet maintain civic harmony and uphold democratic values and the rule of law at home and internationally. There is a relationship between the vigour of emergency measures, taken to protect the public and to obtain intelligence to prevent attacks, and the level of confidence among all sections of the community in the government's commitment to protect the liberties and rights of the citizen.

As with the thermodynamic relationship between the volume, pressure and temperature of a gas, too sudden an application of force to compress it and the temperature may rise dangerously to explosive levels; too little pressure applied and the gas is uncontained and will expand out of control. The best approach may well be to cool things down as you gradually build up the pressure, and certainly not to do things unnecessarily that heat it up – the influence of the invasion of Iraq has already been mentioned. There is after all no such thing as a risk free world and attempting ever higher levels of security will become oppressive and counter-productive.

Without pushing such an inexact analogy further, the point to be registered is that there is an inter-relationship between a nation's counter-terrorism efforts, their effect on the spread of the violent jihadist ideology and on civic harmony, civil liberties, and human rights. The strategic narrative governments choose to tell about what is going on based on their assessment of the threat and of the effects of the response, direct and indirect, is crucial to getting the thermodynamic judgment right.

Terrorists are mostly creatures of habit, for which the public should be grateful. The manifestations of terrorism may well follow well understood past tactics: aircraft hijackings, car and parcel bombing campaigns, kidnappings and assassinations. There are very serious crimes and the public will rightly expect the perpetrators to be pursued with vigour. The first and main lesson from the last decade is, however, the importance of affording the time and effort at the outset to be best able to judge the underlying nature and potential gravity of a terrorist threat. Only then can leaders be in a position to be able to calibrate the response appropriately and proportionately across all the levers open to government at home and abroad. This will never be an easy undertaking and there cannot be a ready-made heuristic to apply.

Parliament, public and the media, will have (vivid) ways of expressing their own implicit risk appetites and in the aftermath of some atrocity these are unlikely to be the same as those of the security authorities. Only with a well-grounded and explicable view of the nature of the threat and the consequences of possible responses can the different considerations be brought into an acceptable equilibrium that the public will accept as the best possible in the circumstances.

The public should look to government to decide in good time whether to act to try to reduce the risk further, or to act to reduce society's vulnerability to it, or in some cases sensibly to decide to leave well alone. Anticipation places a great responsibility on the intelligence of those who are to provide strategic notice of emerging risks. That is certainly the case with terrorism, the threat that is the

subject of this conference. It places of course even more weight on the wisdom of those who have to decide whether and how to act upon such warning. As Machiavelli advised, 'a Prince who is himself not wise cannot be well advised'.

Looking back, I would argue that the relevant UK risk judgments in the period after 9/11 have been shown to be broadly correct in the light of hindsight, although with some bumps and hard lessons learnt on the way.

*About the author: **Sir David Omand GCB** is a visiting professor in the War Studies Department at King's College London. He was appointed in 2002 the first UK Security and Intelligence Coordinator, responsible to the Prime Minister for the professional health of the intelligence community, national counter-terrorism strategy and "homeland security". He served for seven years on the Joint Intelligence Committee. He was Permanent Secretary of the Home Office from 1997 to 2000, and before that Director of GCHQ. Previously, in the Ministry of Defence he served as Deputy Under Secretary of State for Policy, Principal Private Secretary to the Defence Secretary, and served for three years in NATO Brussels as the UK Defence Counsellor. He was educated at the Glasgow Academy and Corpus Christi College, Cambridge where he is an honorary fellow. His book, Securing the State, was published by C. Hurst (Publishers) Ltd on 1 July 2010.*

Notes:

[1] UK Government, *Central Government Arrangements for Responding to an Emergency*, London: Cabinet Office, March 2005, http://webarchive.nationalarchives.gov.uk +http://www.cabinetoffice.gov.uk/media/132685/conops.pdf

[2] David Omand, *Securing the State*, London: Hurst and New York: Columbia University Press, 2010

[3] Guidance on Emergency Procedures, Association of Chief Police Officers, 2009

[4] http://www.terrorismanalysts.com/pt/index.php/pot/article/view/14/html

[5] Fawaz Gerges, *The Far Enemy*, Cambridge: Cambridge University Press, 2005.

[6] http://www.iraqinquiry.org.uk/transcripts/oralevidence-bydate/110121.aspx, accessed 2 March 2012.

[7] A summary of terrorist plots in the UK can be found on the MI5 web-site, https://www.mi5.gov.uk/output/terrorist-plots-in-the-uk.html, accessed 1 March 2012

[8] Cm. 8123, *CONTEST: The UK's Strategy for Countering International Terrorism*, London: HMSO, 2006.

Emergency Preparedness – Working in Partnership

by Simon Lewis

Head of Emergency Planning and Response - British Red Cross.

I had the immense privilege to provide a presentation of the above title to a conference at the University of St. Andrews in February of this year. The conference, entitled 'Assessing the Emergency Response to Terrorism', was hosted by the University's Centre for the Study of Terrorism and Political Violence (CSTPV).

I am currently the Head of UK Emergency Planning and Response for the British Red Cross. Prior to this I spent over 30 years in the Metropolitan Police Service, the last five of which was as Head of Emergency Preparedness.

This article is based on my presentation and discusses how responders in the UK have learnt from past terrorist activity and built real partnership working and improved interoperability. I use the response to the Terrorist bombings in London on 7th July 2005, as a backdrop.

1973 is a perfect year to start in terms of demonstrating London's improved emergency preparedness. This was the year that the London Emergency Services Liaison Panel (LESLP) was formed. At the time of forming, only the Police, Fire and Ambulance Service were members. These agencies had, at this time, already responded to Irish Republican Terrorism attacks on the UK mainland in the aftermath of Bloody Sunday in 1972. LESLP produced a Major Incident Procedures Manual which detailed the roles and responsibilities of the three emergency services and provided protocols and clear command and control structures.

These command and control structures are based around three main responsibilities: Strategic, Tactical, and Operational, known as Gold, Silver, and Bronze, and are based on role, not rank or grade. These designated roles are intended to be carried out by the most competent person available. This allows organisations to overcome the possible cultural difficulties within some hierarchical organisations which may otherwise specify that a person's grade or rank takes priority. A Gold or Silver designated tabard is usually worn which helps to allow for absolute clarity to colleagues and partner agencies arriving on scene as to roles and responsibilities.

LESLP membership has grown over the years and now includes the Metropolitan Police, City of London Police, British Transport Police, London Fire Brigade, London Ambulance Service, Local Authorities, Port of London Authority, Marine Coastguard Agency, Royal Air Force, Military, and the Voluntary Sector.

LESLP and its Major Incident Procedures Manual are recognised as good practice amongst many responders across many countries. The manual is now in its 7th edition, recognising minor changes in light of responses since 1973.

It is worth remembering that whilst LESLP and its manual has learnt and grown (in terms of membership, maturity and experience), so have the responders. Responder's experience is something which cannot be taught and has been so vital in improving the way in which emergency

planning and response has improved in the UK over many years. The manual can be downloaded from the LESLP website.

Wind the clock forward to the terrorist attacks in the USA in 2001. These events had an understandable impact on how emergency planners and responders worked together in London and the UK. In early 2002 the London Resilience Team was formed made up of senior civil servants and secondees from relevant agencies. These agencies included all those listed under LESLP, above, but with the additions of the National Health Service, the Health Protection Agency, Utility Companies, Transport Organisations, Government, and Business.

This Team was organised into thematic Panels (originally named Sub Committees) and Task and Finish Groups (originally named Working Groups). The thematic Panels included, for example, a Business Panel, Utilities Panel, Voluntary Sector Panel, and Health Panel. The Task and Finish Groups were in place to advice on and write specific plans including, Mass Evacuation, Mass Fatality, Recovery Management, and CBRN (Chemical, Biological, Radiological, and Nuclear).

The Task and Finish Groups and thematic Panels report up to the London Resilience Forum which meets quarterly and is Chaired by The Mayor of London.

There was, and is, a real strength in bringing civil servants and subject matter expert responders, with other relevant partners, together under one roof to concentrate on this important work.

There is benefit in this team meeting so regularly, with its members having had personal experience of developing the plans. This provides true ownership.

To square the circle, this membership, meets in peace time and in time of crisis. The only difference is likely to be the Chair and the title. In times of terrorism the Chair would be a senior police officer and the title would be 'Gold Coordinating Group' or 'Strategic Coordination Group'.

In times of emergency this group would report to COBRA (Cabinet Office Briefing Room), which would be Chaired by the appropriate minister. More information about the London Resilience Team can be found at the London Prepared website.

When the Civil Contingencies Act was created in 2004, the structures and responsibilities mentioned above, including the Local Resilience Forum and the Strategic Coordinating Group, have all been included within the guidance to the Act. www.cabinetoffice.gov.uk/content/civil-contingencies-act

During the morning rush hour of 7th July 2005, the day after London was awarded the 2012 Olympic Games, four terrorist explosions took place in the capital. I had involvement in the management of the police response. Three of these explosions took place on the London Underground system near to Russell Square, Edgware Road, and Aldgate and one took place on a bus in Tavistock Square.

There was an hour between the three subterranean explosions and the explosion on the bus. No one will ever know whether the time difference and range of transport targets was planned or whether the fourth terrorist was excluded from the London Underground when the whole system was evacuated. If the latter was the case, this may then have been the reason to look for alternatives. Further attacks are always a consideration and this device, an hour later, certainly focussed minds.

Having mentioned that the whole London Underground system was evacuated, it is worth pointing out that being the morning rush hour, this meant that approximately 400,000 people were simultaneously spilling out into London's streets.

A Gold (Strategic) Coordinating Group (SCG) meeting was called. This took place in the Strategic Coordination Centre. Each member of the meeting, i.e. sitting at the table, was the Gold representative for their organisation/work-stream. Examples include Transport; Utilities; and NHS. Supporting these Gold representatives were an organisation/work-stream cell with phone/internet links to their home organisation(s). Ideally each cell should have live audio/visual coverage of the SCG. Each Gold representative should have a lap top to communicate with their cell. As actions are assigned within the meeting, each cell will then report back, live, with progress on actions.

There are obvious differences for emergency responders when comparing the attack on the London Underground to the attack on the bus. The London Underground, once evacuated, provided a closed scene allowing the emergency service and forensic examiners unfettered access where all forensic exhibits were contained. The fact that the media were excluded also had its advantages. The disadvantage though, was the heat, the dust, communication problems, and the health and safety risks over a protracted period. Using the explosion that took place in-between Russell Square and Kings Cross as an example, it is worth noting that the train was 457 metres from Russell Square Station and 261 metres from Kings Cross. It was also over 21 metres below ground level. This clearly meant that access and egress was a real issue. The bus explosion presented, in some cases the complete opposite. Examples include difficulty in maintaining privacy from media and difficulty in retrieving all forensic exhibits which were spread over a wide area. There was however, far easier access and egress.

One of the plans developed by the London Resilience Team and put into use after the London bombings of 2005 was the Mass Fatality Plan. This facility allowed for post-mortems and the identification process to take place at one site. Great care was taken in the planning and preparation of this facility to provide the highest possible dignity for the dead and the best care, consideration and psycho-social support for the bereaved.

Another facility that was provided but had not been planned for was the Humanitarian Assistance Centre. This was a converted exhibition hall in central London which was equipped with furniture, telephones, computers, internet access, confidential areas for psycho-social advice, catering and signposting. The following agencies, amongst others, contributed to the staffing of this centre: Police (including Family Liaison Officers), British Red Cross and other voluntary sector agencies, Coroner's Officers, Social Services, NHS Mental Health Services, Transport for London, and Victim Support. A Humanitarian Assistance Plan now exists. Other plans developed by the London Resilience Team include a Mass Evacuation Plan, Recovery Management Protocol, a Warning and Informing Strategy, Media Strategy and a Site Clearance Plan.

Since the attack and the emergency response, there have been several reviews and the Coroner's Inquest. These have provided identified lessons and recommendations which will help improve future responses to emergencies of this type.

I would just like to close by recognising the many heroes of 7th July 2005, many of whom were fellow passengers or passing members of the public, many too were emergency responders, all of whom played such a vital part in providing invaluable comfort to individuals and saving life.

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Formerly Simon spent over 30 years as a police officer with the Metropolitan Police Service (MPS). In his last 5 years with the police he was Chief Superintendent, Head of Emergency Preparedness at New Scotland Yard. During this time Simon chaired the London Emergency Services Liaison Panel.

Simon was Tactical Commander (Silver) for Trooping the Colour (Her Majesty the Queen's Birthday Parade) in 2006, 2007 and 2008. He spent a period of time as Silver for the London Bombings on 7th and 8th July 2005 and was Tactical Commander for the consequence management issues following the murder of Alexander Litvinenko.

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Characterising the UK Terrorist Threat: The Problem with Non-Violent Ideology as a Focus for Counter-Terrorism and Terrorism as the product of 'Vulnerability'

by Anthony Richards

Introduction

This article investigates two particular aspects as to how the terrorist threat in the UK has been characterised, arguing that they both challenge conventional academic wisdom as to how terrorism should be conceptualised. While such conventional wisdom should always be open to challenge, and policymaking perspectives are different to those of academics, these two particular aspects as to how the terrorist threat has been perceived in the UK merit scrutiny, especially as counter-terrorism strategies have been premised on them. They are: i) the contemporary and explicit concern with 'extremist' but *non-violent* ideas that are said to be 'conducive' to terrorism as a focus for a counter-terrorism response and ii) the notion that terrorism has increasingly been seen as the product of 'vulnerability'. The first, and the main focus of this article, appears to challenge the widely held view within terrorism studies that, when defining terrorism, reference to the cause or the perpetrator is unhelpful because terrorism should first and foremost (and more objectively) be seen as a particular *method* of violence that has been used by a wide variety of actors, regardless of the ideology or the belief systems of its perpetrators. The second aspect – the impetus towards viewing terrorism as the product of vulnerability or individual fallibility - arguably implies a diminished capacity for rational behaviour, which challenges a further commonly held view within terrorism studies: that terrorism entails the use of calculated and rational acts of violence.

The 2011 versions of Contest and Prevent

In June 2011 the British government's updated Prevent strategy was published and was followed a month later by the third version of its Contest strategy. Arguably, the most interesting and controversial theme running through the two documents is the increasing emphasis on ideology as a focus for a counter-terrorism response. In particular, counter-terrorism in the UK now appears to be concerned with 'extremist (and non-violent) ideas that are also part of a terrorist ideology' and that are 'conducive' to terrorism. In the context of a burgeoning policy interest with the concept of 'radicalisation' in recent years and its rather indeterminate scope (when it hadn't always been clear as to what precisely the remit of counter-terrorism had been), these new documents in 2011 represented something of a step change in that they more explicitly focus on ideology, and even *non-violent ideology*, as an important part of the remit of counter-terrorism.

Early in the Contest document it states that 'Greater effort will be focused on responding to the ideological challenge and the threat from those who promote it'[1] and goes on to argue that:

'We believe that Prevent work to date has not clearly recognised the way in which some terrorist ideologies draw on and make use of extremist ideas which are espoused and circulated by apparently non-violent organisations, very often operating within the law… preventing radicalisation must mean challenging extremist ideas that are conducive to terrorism and also part of a terrorist narrative.' [2]

The document makes it clear that radical action is required against those who are not just terrorists but who may have non-violent but 'extremist' views. Extremism is defined in the Prevent document as 'vocal or active opposition to fundamental British values, including democracy, the rule of law, individual liberty and mutual respect and tolerance of different faiths and beliefs.'[3] A clear distinction is made between terrorism and (non-violent) extremism but *both* are now, it seems, to be the focus of a counter-terrorism strategy: 'where people seek to enter this country from overseas to engage in activity in support of extremist as well as terrorist groups we will also use the Home Secretary's powers to exclude them.'[4] The document justifies this strategy by arguing that:

'The focus of Prevent to date has been on violent extremism and terrorism. It has not explicitly considered non violent extremism. However a significant percentage of people who engage in terrorism have previously been associated with extremist groups; some terrorist organisations – of all kinds – also share and make use of ideas which are popularised by extremists. In some cases extremist groups carefully operate within our laws, deliberately avoiding open support for violence but knowingly creating an environment in which people can be drawn into terrorism itself. We believe that Prevent work therefore necessarily has to deal with some aspects of extremism and this is clearly reflected in our new strategy. We emphasise here that we have no intention of labelling particular faith groups (and orthodox faith in particular) as inherently extremist. That is neither our view nor our purpose.' [5]

The revised Prevent document at the outset announces the intention to 'respond to the ideological challenge of terrorism and the threat from those who promote it. In doing so, we must be clear: the ideology of extremism and terrorism is the problem; legitimate religious belief emphatically is not', before going on to state that 'preventing terrorism will mean challenging extremist (and non-violent) ideas that are also part of a terrorist ideology.'[6] It is the notion of tackling 'non-violent' ideology as part of a counter-terrorism response that seems to be most controversial about the new strategy. It is justified on the grounds that:

'Some politically extreme organisations routinely claim that: the West is perpetually at war with Islam; there can be no legitimate interaction between Muslims and non-Muslims in this country or elsewhere; and that Muslims living here cannot legitimately and or effectively participate in our democratic society. Islamist extremists can specifically attack

the principles of participation and cohesion, rejection of which we judge to be associated

with an increased willingness to use violence ... Islamist extremists can purport to identify

problems to which terrorist organisations then claim to have a solution.' [7]

Prevent will, therefore, 'mean intervening to try to stop people moving from extremist groups or extremism into terrorist-related activity.'[8] It is this potential conduit between non-violent extremism and terrorism that the government is seeking to address:

'Some people who become members of terrorist groups have previously been members of

extremist organisations and have been radicalised by them. Others (though not all) pass

through an extremist phase ... Preventing people becoming terrorists will require a

challenge to extremist ideas where they are used to legitimise terrorism and are shared by

terrorist groups. It will also require intervention to stop people beginning to move away

from extremist but legal groups into proscribed illegal terrorist organisations.' [9]

The context of 'radicalisation' as a focus of C-T

The increasing emphasis on non-violent ideology has taken place in the context of a burgeoning policy interest in the phenomenon of 'radicalisation' in the past seven or eight years. This wider concern with radicalisation as a focus of the UK's counter-terrorism response facilitated the expansion of the remit of c-t beyond countering terrorism and into other policy areas such as those to do with societal cohesion and integration, although the latest Prevent strategy distances itself from the integration agenda. Yet, because there has been little consensus as to what is meant by radicalisation, or who the 'radicalised' refers to, the remit of counter-terrorism or 'counter-radicalisation' also lacked clarity - evident in a 'Prevent' strand of Contest that, prior to 2011, 'confusingly oscillated between tackling violent extremism in particular to promoting community cohesion and 'shared values' more broadly'.[10]

Despite the then broader 'societal' and ideological objectives to do with shared values within c-t strategy, the 2009 version of Contest restricted its definition of radicalisation to: 'the process by which people come to support violent extremism and, in some cases, join terrorist groups'.[11] This definition inextricably links radicalisation to violence rather than to any non-violent goals. It is perhaps even more surprising, then, given its more explicit focus on non-violent ideology and (non-violent) 'extremism', that the latest version of Contest also confines its definition of radicalisation to 'the process by which people come to support, and in some cases to participate in terrorism'.[12] This doesn't appear to tally with the implied (non-violent) meaning of radicalisation in the same document when it proposed that 'preventing radicalisation must mean challenging extremist ideas'. [13]

It seems reasonable to suggest, however, that, notwithstanding these narrow definitions, there are in fact both violent *and* non-violent forms of radicalisation. Demos concurred that 'the last decade in particular has also seen a growth in many types of what it called *non-violent* radicalisation' [italics added] and argued that 'a successful counter-terrorism strategy must be based on a clear understanding of these distinct forms of radicalisation'.[14] It also seems clear that the concern with radicalisation as a focus for a counter-terrorism response has expanded the remit of counter-

terrorism to tackling (non democratic) ideas as well as terrorism, and this has now been made more explicit in the updated versions of Contest and Prevent in 2011.

Terrorism as a particular *method* of violence

The characterisation of the terrorist threat in the UK as being something inherently linked to certain non-violent ideologies challenges conventional wisdom within terrorism studies on how terrorism is conceptualised - that it is best understood as a *particular method of violence* and definitions that make reference to the perpetrator or to the particular cause (beyond being political) are unhelpful. As Leonard Weinberg so rightly observed the notion of 'one man's terrorist is another man's freedom fighter' is confusing the goal with the activity.[15] So too, therefore, does the view (apparently articulated by the UN Secretary-General in March 1987 in relation to the Palestinian Liberation Organization and the South West Africa People's Organization) that 'sometimes it is difficult to tell where terrorism ends and the struggle for self-determination begins.'[16] It is also why many observers miss the point when they pose such questions as: 'where to draw the line between the quest for nationalist identity and an act of terrorism …?'[17] or when Yasir Arafat declared that:

> *'The difference between the revolutionary and the terrorist lies in the reason for which*
>
> *each fights. For whoever stands by a just cause and fights for the freedom and liberation of*
>
> *his land from the invaders, the settlers and the colonialists, cannot possibly be called a*
>
> *terrorist ....'.[18]*

The difference between the terrorist and the non terrorist *does not* lie in the reason for which one fights, as Arafat proclaimed. Otherwise we are conceding that terrorism really is 'violence that we don't like' (or whose cause we disagree with) and that there is in fact nothing qualitatively distinctive about terrorism compared with other forms of political violence. When faced with terrorist attacks, such as those of 9/11, 7/7, or Madrid, this is presumably a position that policymakers do not countenance.

Terrorism is a distinctive phenomenon that is not inherent to any particular non violent ideology. It has been used as a method in pursuit of a wide range of ideologies most of which are not inherently violent. There are, however, some ideologies where the use of violence is integral to the ideology itself –such as fascism, as in the cases of Hitler's Germany and Mussolini's Italy. This particular ideology has underpinned some of the most brutal campaigns of 'state terror'. The violence that may be integral to the ideology, however, is not necessarily terrorist violence. For example, in the context of sub-state neo-fascist groups, terrorism may be the *particular method* of violence used as the *means* to an end, even if that end entails the continued use of violence *through other forms* such as more widespread 'state terror' or 'political terror' as distinct from terrorism. In other words even general ideologies of violence are not inherently 'terrorist', though they may be more 'conducive' to terrorism.

There may also be ideologies that have been interpreted, adapted or distorted to explicitly justify the use of terrorism and where terrorism may then become ideologically embedded. In this sense one might indeed call them 'terrorist ideologies' where the use of terrorism is intrinsic to the doctrine. It could be argued that this is the case with Al Qaeda and the notion of terrorism and political violence as a religious duty, or indeed with the tradition of 'physical force' Irish republicanism – for example Patrick Pearse's proclamations of the notion of self-sacrificial acts as being a compelling symbol of

republican ideology - or left wing dogmas that aim to rouse the consciousness of the proletariat through the violent acts of the self-appointed vanguards of the anticipated communist revolution. But there are, of course, many nationalist, religious, left wing, right wing, and single issue (anti-abortion, animal rights, environmental) ideologies that are not inherently violent though terrorism has often been employed in their name. Terrorism is not something intrinsic to any particular non violent ideology but is a method of violence that has at some time or other been perpetrated in the cause of doctrines within all of these categories.

While one concedes that violence is intrinsic to some ideologies, and that, further, terrorist violence itself may be embedded in some doctrines, and that therefore one could indeed argue that some ideologies may be more 'conducive' to terrorism than others, the idea of a non-violent ideology as being conducive to terrorism, and therefore of concern to counter-terrorism, is more difficult to grasp. To reiterate, 'terrorism is a *method* of combat'[19] or as Martha Crenshaw, a respected scholar in the field, put it: 'The method, not the identity or ideology of the user, determines whether or not an action can be defined as terrorism.'[20]

Terrorism has been used by a wide range of actors (states, guerrilla groups, terrorist organisations etc.) in pursuit of an even wider range of ideologies (both violent and non-violent) and, when theorising terrorism, is therefore best seen as a particular method rather than inherent to any particular actor or ideology (and certainly not to any non-violent ideology). As offensive as we may find some ideologies, labelling particular non-violent causes or doctrines as conducive to terrorism, seems to be deflecting us away from the essence of terrorism as a method and, in doing so, to be broadening the remit of counter-terrorism beyond it. Pillar perceptively argues that terrorism is something that 'people (or groups, or states) *do*, rather than who they are or what they are trying to achieve' (author's italics).[21] Terrorism, as a method, should be 'defined by the nature of the act, not by the identity of the perpetrators or the nature of their cause.'[22]

Returning to the Contest and Prevent strategies it is 'extremist ideology' that is seen as conducive to terrorism and, to reiterate, extremism is defined as:

> *'vocal or active opposition to fundamental British values, including democracy, the rule of*
>
> *law, individual liberty and mutual respect and tolerance of different faiths and beliefs.'*

We can then perhaps infer from this that any undemocratic ideology or any ideology that contravenes British values can potentially be a part of a 'terrorist ideology', even if it is non-violent. To what extent, therefore, for example, are communist parties in democratic societies culpable for the activities of terrorist organisations who have the same ideological outlook but who use different methods? And on contemporary radical but non-violent views, Demos makes the critical point that 'Assuming that radical views constitute the base of the terrorist pyramid can allow for counter-radicalisation strategies against large numbers of people *who object entirely to al Qaeda's methods'* (italics added). [23]

The new version of Contest has set out to ensure that 'there is more effective challenge to those extremists whose views are shared by terrorist organisations and used by terrorists to legitimise violence'.[24] This would, of course, have been treated with consternation during the 'Troubles' of Northern Ireland if this was applied to the non-violent Social Democratic and Labour Party who shared a similar (nationalist) ideology with the Irish Republican Army, or indeed to the unionist parties because they shared an opposing nationalist ideology with loyalist terrorist organisations. The difference is that the British government had no particular aversion to either of these nationalist ideologies *but they did object to the methods used* by the IRA and the loyalist terrorist

organisations. In the face of the contemporary threat the British government *is* concerned with ideology, aswell as the methods used to pursue it. It is, however, debateable as the extent to which non-violent and legal ideological challenges to British democracy should be the concern of a counter-terrorism strategy in addition to any (terrorist) methods used to support them.

What, then, are the implications of characterising the terrorist threat in this way for counter-terrorism? The first logical outcome is that 'intervention providers' tasked with preventing individuals becoming terrorists are not permitted to share the same ideological outlook as them: 'intervention providers must not have extremist beliefs' and yet 'they must have credibility' and be 'able to reach and relate to' them.[25] While there is no evidence on this available to the author it does prompt the question as to how effective 'non-extremist' interveners are in comparison to 'extremist' ones, and to what extent, if at all, this exclusion of non-violent extremist interveners helps or hinders what should surely be the primary goal of counter-terrorism – preventing acts of terrorism.

While it is important to acknowledge the government's concern that a 'significant percentage of people who engage in terrorism have previously been associated with [non-violent] extremist groups', one has to question whether any non-violent ideology itself can be culpable for this, rather than those who would urge the adoption of terrorist methods to achieve it, or who would 'knowingly … [create] … an environment' that endorses the use of terrorism.[26] Moreover, the concern with non violent ideology as a focus of a counter-terrorism strategy diminishes the prospect of opening up radical but non-violent avenues for democratic political expression as an alternative to the use of terrorism. Writing on the clear distinction between 'disengagement' and 'deradicalisation', Horgan's empirical research found that:

> *'the disengaged terrorist may not necessarily be … 'deradicalized' at all … In fact, in the sample of former terrorists I interviewed from 2006 to 2008, while almost all of the interviewees could be described as disengaged, the vast majority of them could not be said to be 'deradicalized.'[27]*

Thus, what in counter-terrorism and security terms could be seen as a success would in deradicalisation (or counter-radicalisation) terms be seen as an abject failure. Yet, in preventing terrorism it is surely the former that we should be concerned with, and one has to question the extent to which any simultaneous focus on non-violent ideology as part of counter-terrorism negatively impacts on the prospects for disengagement, or in preventing terrorism in the first place, if avenues for expressing radical but non-violent views become blocked. Crenshaw, in her research on why terrorism might be abandoned, also found that 'in no case did groups abandon terrorism because they changed their ideological orientation or long-term goals[28]' and, interestingly, that 'Terrorism decreases as the potential for radical collective action increases'.[29]

Democracy and British values

It is, of course, important to challenge undemocratic ideologies and to promote British values. But, precisely because the United Kingdom is a country steeped in democratic tradition then these dissenting ideologies should be debated and dismissed in the public and political arena and not be tackled as part of a counter-terrorism strategy. Arguably, the existence and promotion of undemocratic doctrines serves the UK with a powerful opportunity to remind its citizens of the virtue of its own values and never to be complacent about them. But this should be part of a broader

endeavour to promote democracy within, whoever the domestic adversary – whether they be those advocating communism, fascism, or those that call for undemocratic forms of government based on a form of religious interpretation. Any self-confident democracy should be able to effectively counter those who use their legal and democratic right to voice dissenting ideological views. This self-confidence includes trusting the electorate to endorse British democracy at the polls at the expense of those who would undermine it.

These ideological challenges that are part and parcel of democratic life should not be the concern of counter-terrorism, whether they emanate from a communist party, the British National Party, or from those aiming to establish sharia law in the UK. It is a different matter, of course, if terrorism is used as the method, whatever the ideological cause might be.

On 'vulnerability'

Finally, and briefly, another persistent theme in the two strategy documents is the extent to which the terrorist threat in the UK is seen as emanating from 'vulnerable' people. In the second version of Contest the words 'vulnerable' and 'vulnerability' (to describe those individuals vulnerable to 'violent extremism') were used no less than 32 times. In the latest Contest strategy this figure fell to 24 but the updated Prevent strategy used the words vulnerable, vulnerability or vulnerabilities in this context a total of 75 times!

The author, in a recent article, has questioned why it is that those who aim to commit terrorist acts are assumed to be *vulnerable* – 'the idea that they have succumbed to (violent) extremist ideologies and that they need guidance so that they can be rescued from the manipulation of others (online or otherwise), and that they would not carry out such acts of their own volition'.[30] Hence the government's 'intention to provide early support to those *who are being drawn* into offending' (italics added).[31] In the latest version of Contest the notion of terrorism as somehow being the product of vulnerability or individual fallibility is further embedded through its emphasis on the role of 'Healthcare professionals' who 'may meet and treat people who are vulnerable to radicalisation',[32] while the Prevent strategy argues that:

> *'there are clearly many opportunities for doctors, nurses and other staff to help protect*
>
> *people from radicalisation. The key challenge is to ensure that healthcare workers can*
>
> *identify the signs that someone is vulnerable to radicalisation, interpret those signs*
>
> *correctly and access the relevant support.'[33]*

Yet, the 7/7 bombers, for example, could not be said to be vulnerable. [34] Indeed, in May 2006 the Intelligence and Security Committee report into the London terrorist attacks, concluded 'that the threat is as likely to come from those who appear well assimilated into mainstream UK society, with jobs and young families, as from those within socially or economically deprived sections of the community.'[35] This isn't to deny the manipulative influence of online preachers, such as the late Al Awlaki, on would-be recruits, nor to suggest that there haven't been cases of vulnerable people (however defined) who have posed a serious threat, such as that of Nicky Reilly, who had the mental age of a young child and who tried to set off an explosive device in a restaurant in Exeter in May 2008. But, as the author has previously argued,[36] these should not be seen as typical or as evidence of the general vulnerability of those who perpetrate acts of terrorism. The more credible (empirical) research on terrorists suggests that they are in general psychologically no different to the rest of us.[37] Yet, while any notion that terrorists are psychologically deranged or that they have

certain personality traits has been discredited, the emphasis on health care professionals 'treating' those vulnerable' to radicalisation or to committing acts of terrorism seems to be leading us towards an adaptation of this thinking.

The impetus towards characterising the terrorist in the UK as largely the outcome of individual fallibility or 'vulnerability' implies a diminished capacity for rational behaviour which also appears to be at variance with conventional wisdom in terrorism studies - that terrorism involves the perpetration of rational and calculated acts of violence. As the author has also previously noted:

> *'it appears that the possibility that terrorism at home could also be seen as a rational act by the perpetrators in response to British military action abroad seems to be entirely absent from governmental discourse.[38] In this context one might be forgiven for thinking, therefore, that the use of the term 'vulnerable' has been politically motivated to imply a diminished capacity for rational behaviour - to facilitate the notion that nobody in their right mind could possibly react in such a way to UK interventions in Iraq and Afghanistan, that they must have been manipulated and that those that are being drawn into violent extremism (and are therefore not really acting of their own rational volition) need our help and protection for their 'recuperation' into mainstream society.' [39]*

The characterisation of vulnerability, like the focus on non-violent ideology, also has implications for the remit of counter-terrorism because 'it lends itself to a broader spectrum of response concerned with potentially numerous 'vulnerable' individuals'.[40]

Conclusion

This article has argued that two of the ways that the contemporary terrorist threat has been characterised challenge conventional wisdom on terrorism. Firstly, the idea of combating 'non-violent' ideology as part of a counter-terrorist strategy deflects us from the predominant academic understanding of terrorism as a *method* rather than being inherent to any particular doctrine, and especially to any non-violent one; and secondly, that the increasing emphasis on presenting terrorism as the product of vulnerability and personal fallibility, with a concomitantly enhanced role for medical health professionals in response, implies a diminished capacity for rational behaviour when it has generally been agreed within terrorism studies that terrorism entails the perpetration of rational and calculated acts of violence. Policy perspectives are, of course, very different to those of academia and it would be absurd if governments were not to scrutinise both the perpetrators and the cause in whose name terrorism was carried out. But one has to question whether a non-violent ideology itself can be culpable for acts of terrorism. It is surely those who choose to employ the *method* of terrorism that should be of concern, whatever the doctrine or cause might be. Finally, the international aspiration of achieving a universally agreed definition of terrorism would be further complicated by the notion that certain non-violent ideologies, though non-violent, have some intrinsic connection to terrorism.

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event security and lessons for the future (London: Routledge, 2011), and has published on a wide variety of other terrorist related themes including radicalisation, UK counter-terrorism, British public and Muslim attitudes towards terrorism and UK counter-terrorism, homeland security, and terrorism in Northern Ireland. He was previously at the Centre for the Study of Terrorism and Political Violence, University of St Andrews, where he worked on the Economic and Social Research Council project 'The Domestic Management of Terrorist Attacks in the UK', (three of his chapters have been published in the book version of the report: Wilkinson, P. (ed.), Homeland Security in the UK: Future Preparedness for Terrorist Attack Since 9/11, Routledge, June 2007).

Notes:

[1] UK Counter-Terrorism Strategy (Contest), 2011, p. 6, available at: http://www.homeoffice.gov.uk/publications/counter-terrorism/counter-terrorism-strategy/ (accessed May 15th 2012).

[2] UK Prevent Strategy, 2011, p. 12, available at: http://www.homeoffice.gov.uk/publications/counter-terrorism/prevent/prevent-strategy/ (accessed May 15th 2012).

[3] Ibid. p. 107.

[4] Op. cit. Contest strategy, 2011, p. 12.

[5] Ibid. pp. 61–2.

[6] Op. cit. Prevent strategy, 2011, pp. 1, 5.

[7] Ibid. p. 19.

[8] Ibid. p. 23.

[9] Ibid. p. 24.

[10 Richards, A., 'The problem with 'radicalization', the remit of 'Prevent', and the need to refocus on terrorism in the UK', *International Affairs*, (January, 2011), p. 143.

[11] 'Pursue, Prevent, Protect, Prepare', The United Kingdom's Strategy for Countering International Terrorism', March 2009, p. 11, available at: http://webarchive.nationalarchives.gov.uk/20100418065544/http://security.homeoffice.gov.uk/news-publications/publication-search/contest/contest-strategy/contest-strategy–2009?view=Binary (accessed May 16th 2012).

[12] Op. cit Contest, 2011, p. 36.

[13] Op. cit. Prevent, 2011, p. 12.

[14] Bartlett, J., Birdwell, J., King, M., *The edge of violence, a radical approach to extremism*, Demos, April 16th 2010, available at: http://www.demos.co.uk/files/Edge_of_Violence_-_web.pdf?1271346195, p. 7, (accessed on May 16th 2012). The Demos report describes non-violent radicalisation as 'the process by which individuals come to hold radical views in relation to the status quo but do not undertake, or directly aid or abet terrorist activity' (p. 8).

[15] Leonard Weinberg, Global Terrorism, *A Beginner's Guide*, Oneworld, p. 2.

[16] Romanov, V., 'The United Nations and the Problem of Combatting International Terrorism', Terrorism and Political Violence', *Terrorism and Political Violence*, Volume 2, Autumn 1990, No. 3, p. 295.

[17] Acharya, U., 'War on Terror or Terror Wars: The Problem in Defining Terrorism', *Denver Journal of International Law and Policy*, Volume 37, Issue 4, 2008–2009, p. 656.

[18] Arafat, Y., cited in Hoffman, B., *Inside Terrorism*, Columbia University Press, 1998, p. 26.

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[30] Richards, A., 'The problem with 'radicalization', the remit of 'Prevent', and the need to refocus on *terrorism* in the UK', *International Affairs*, (January, 2011).

[31] Op. cit. Contest strategy, 2009, p. 89.

[32] Op. cit. Contest strategy, 2011, p. 69.

[33] Op. cit., Prevent strategy, 2011, p. 85 . [34] 'The bombers', BBC News, (undated), available at: http://news.bbc.co.uk/1/shared/spl/hi/uk/05/london_blasts/investigation/html/bombers.stm (accessed May 15th 2012).

[35] Intelligence and Security Committee, Report into the London Terrorist Attacks on 7th July 2005, May 2006, p. 29 (available at: http://www.cabinetoffice.gov.uk/media/cabinetoffice/corp/assets/publications/reports/intelligence/isc_7july_report.pdf (accessed May 15th 2012).

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[37] See, for example, Crenshaw, M., 'The Causes of Terrorism', *Comparative Politics*, Vol. 13, No. 4 (July, 1981), p. 390; Horgan, J., *The Psychology of Terrorism*, Routledge, 2005; Silke, A., 'Becoming a Terrorist', in Silke, A., (ed), *Terrorists, Victims and Society*, Wiley, 2003; Horgan, J., 'The Search for the Terrorist Personality', in Silke, A., (ed), *Terrorists, Victims and Society*, Wiley, 2003.

[38] For example, Prime Minister Blair was reluctant to acknowledge the impact of the Iraq war on the terrorist threat at home while Prime Minister Brown, in his justification for the British presence in Afghanistan as 'protecting British streets', consistently failed to provide a more balanced assessment that would also have acknowledged the use of Afghanistan in Al Qaeda's narrative and therefore its value in terms of propaganda and recruitment.

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Targeting, Rhetoric and the Failure of Grassroots Jihad

by Gilbert Ramsay

In this paper I examine the apparent failure of Al Qaeda ideologues, not for want of trying, to incite a widespread campaign of 'individual jihad'. Not only are instances of genuinely 'leaderless' jihadist violence rare, they also tend to be more discriminate and less lethal in their targeting than the operations which Al Qaeda expresses a discursive preference for, and which it attempts to carry out. I argue that an explanation for the rather constrained nature of grassroots jihadist violence can be found, rather paradoxically, in the logic of collective action, which seems to underlie the rhetorical attempts of jihadist ideologues to incite violence. I then briefly examine the possible implications of this for understanding what makes for a successful 'leaderless' terrorist campaign.

J ihadist terrorism is supposed to be the pre-eminent threat to the security of Western countries. But it is a threat that, despite the very real and terrible suffering and loss experienced by the victims of those attacks which have taken place, is looking increasingly hollow. To some extent, of course, the prospect of an unstoppable wave of carnage by Islamist radicals has been a self-denying prophecy, since it has led governments to allocate enormous resources to preventing it. Even so, this is not quite explanation enough. Because a major part of the discourse about the Al Qaeda threat has been premised on the idea that Al Qaeda – like Arnold Schwarzenegger's mercurial antagonist in Terminator 2 – was such a supple and sophisticated opponent that it would render old-fashioned counter-terrorism techniques useless. Having 'mutated into an ideology, a 'youth movement',[1] a 'brand',[2] a 'meme',[3] a 'way of working',[4] it was no longer possible to stop Al Qaeda just by wiretapping and arresting people. Because as long as the group's ideology retained its appeal, terrorists would continue to spontaneously generate, bursting out violently where they were least expected.

If grass roots jihad actually did work this way, it would indeed be difficult to stop. While the idea that anyone can make an effective bomb simply by following instructions downloaded from the Internet now looks increasingly implausible, there are still plenty of readily imaginable ways in which a person, were he solely motivated by the aim of achieving terror and devastation. As the Al Qaeda ideologue Adam Gadahn has observed, there are many American states in which firearms are freely available.[5] A person prepared to fire even a handgun at close range into the crowd in a shopping mall could cause significant amounts of death and injury and certainly widespread terror. For those to whom firearms are not so readily available, the material culture of modern life would still seem to afford plenty of lethal options. There are, for example, plenty of ways to kill with a car or a larger vehicle and, without being too specific, there are various other types of machinery freely available which could quite readily be used to lethal effect.

In reality, jihadist terrorism as it has actually occurred in Western countries has been a much more limited phenomenon than apocalyptic pronouncements suggested it would be. It has been limited in two senses. Most obviously, the number of actually attempted attacks has been limited – and the number of attacks which were in any sense successful more limited still. By a generous definition of success, there have to date been twelve successful jihadist attacks on Western soil since 9/11, of which only four killed more than two people, and a further four of which killed no one at all.

That jihadist terrorism has not been more successful is good news, of course. But it does raise a troublesome difficulty. With so relatively much engagement in so-called 'violent extremism' occurring compared to the very limited amount of actual violent action, anticipating the terrorist attacks that will occasionally occur becomes a bit like looking for a needle in a haystack. This is made more problematic, moreover, by the fact that the potential range of acceptable targets and attack methods is so apparently vast. While guns and bombs remain the weapons of choice, jihadist discourse envisages the use of everything from nuclear weapons to rocks, from crippling the infidel's economy with cyberattacks to running him over with your SUV. As for targets, the only limits which seem to be regularly articulated are prohibitions on the deliberate targeting of children, women, religious leaders[6] and other Muslims. And, as the gun massacres that recently occurred in Toulouse remind us, that these limits are sometimes articulated offers no guarantee that they will actually be abided by.

And yet, if we look carefully at the targeting discourses that are articulated by Al Qaeda, and by would be entrepreneurs of global jihad more broadly, there are, nonetheless, some apparent tensions and inconsistencies to be observed between the sorts of violence which jihadists seem to be calling for, and the sorts of violence which Western jihadists actually undertake.

This disjuncture is not immediately obvious. As I have just noted, global jihadist discourses envisage a very wide range of possible attack scenarios, and this heterogeneity is ostensibly mirrored in real life (probably as much because of post-hoc approval of attack methods that have actually been used as the other way around). Real life jihadist attacks in the West have been actually been attempted by means as diverse as truck, arson, poison, knife and sabotage against targets ranging from nightclubs to politicians.

Where the tension seems to lie is in the level of discrimination in the attacks. Al Qaeda's communiqués do not constitute a single, fully coherent message with regard to targeting priorities. And this coherence unsurprisingly decreases if we extend our focus from the messages of Al Qaeda 'central' to other global jihadist ideologues such as Abu Mus'ab al-Suri. Nonetheless, it seems clear that the type of attacks Al Qaeda most wants to see are not directed attacks against particular, selected groups of people, but rather mass casualty attacks against Western civilians in general. The reason for this is not that Al Qaeda wishes it to be thought that it harbours any particular hatred for these people. On the contrary, Usama bin Ladin repeatedly observed that he did not harbour personal enmity towards the American people, and even (albeit for propagandistic purposes) expressed his sympathy for the families of 9/11 victims.[7] Rather, it is that Al Qaeda typically tries to present its jihad in strategic terms, not as a good in its own right, but rather as a contingent necessity – a means to an end which will stop once that end is achieved. Al Qaeda's violence is classic terrorism in the sense defined by Alex Schmid in that the targets of its violence are not the *real* targets which are, rather, the governments of the citizens targeted.[8]

Perhaps the best evidence of this is not to be found in Al Qaeda's bold announcements of terrible blows which it will strike any minute now against the hearts of the crusader nations, but rather in the way in which Al Qaeda communiqués seem to address the subject of much more limited and less ambitious methods of attack as, for instance, where Ayman al-Zawahiri points out in *Knights Under the Prophet's Banner*:

> *Tracking down the Americans and the Jews is not impossible. Killing them with a single*
>
> *bullet, a stab of a device made up of a popular mix of explosives, or hitting them with an*
>
> *iron rod is not impossible. Burning down their property with Molotov cocktails is not*

difficult. With the available means, small groups could prove to be a frightening horror for the Americans and the Jews.[9]

The methods which Al-Zawahiri is speaking of here, writing in 2002, are realistically simple. However, the basic purpose of the campaign he envisages is the same as that the much more ambitious martyrdom bombings which Al Qaeda leaders have called for on other occasions such as, for example, Bin Ladin's speech responding to the invasion of Iraq. It is an indiscriminate campaign of killing and destruction aimed at causing 'a frightening horror for the Americans and the Jews'. [10]

Al Zawahiri's exhortation anticipates the rather more detailed recommendations of Abu Mus'ab al-Suri, who, in *The Global Islamic Resistance Call*, calls for attacks on a wide range of specific Western targets, including political leaders, industrial centers, military bases, information networks, the media, tourist hotspots, and so on.[11] However, despite the range of targets, Al-Suri is, again, quite clear about the basic point of carrying out attacks, which he sees as straightforwardly coercive in aim. With the exception of Jews, whom Al-Suri apparently sees as intrinsically deserving of being targeted anywhere other than in synagogues, there purpose of attacks is, again, not to punish particular individuals, but rather to exert pressure on governments to withdraw their forces from Muslim lands.

Interestingly, during his time with Al Qaeda in the Arabian Peninsula, Anwar al-'Awlaqi seems to have influenced a slightly – though not entirely – different set of targeting priorities. The air freight bomb package plot of which Al-'Awlaqi was an important part looks like an attempt to please multiple competing interests in terms of targeting priority. It was aimed simultaneously at the American economy, at president Obama via an attack on his home city, and at two synagogues, one of which was a conservative congregation with the word 'Zion' in its name, and the other specialized in serving for gay and lesbian Jews.[12] Al 'Awlaqi also gave much more attention to cultural issues than other major Al Qaeda ideologues have characteristically done. While Bin Ladin and al-Zawahiri did issue threats against Denmark in response to the so-called 'cartoons controversy', they did not address the subject at any great length. Moreover, up to this point, blasphemy against Islam did not figure as a theme of any significance in Al Qaeda targeting discourse, despite the fact that, since the Rushdie Affair, which remained in the headlines through the 1990s, they could not have been unaware of it as an issue. Finally, the violent response they advocated remained essentially *strategic* in character – the indiscriminate targeting of Denmark as a whole. By contrast Al-'Awlaqi and his associates not only devoted a great deal of attention to the issue through speeches such as 'The Dust will Never Settle Down' and a special section of *Inspire* magazine,[13] they also made a point of emphasising the targeting of cartoonists as *individuals*. This is of course not to say that Al-'Awlaqi did not also call for indiscriminate attacks on civilians – quite the contrary. But the possibility of more expressive forms of violent action as an addition to the targeting repertoire of the 'global jihad' seems to have a higher priority in his work.

By contrast, truly indiscriminate attacks on ordinary civilians are a surprisingly limited part of the overall set of attacks attempted by jihadist terrorists in the West. Moreover, where there have been serious attempts (successful or otherwise) at such attacks, it has usually turned out that relatively formal organisations based in the so-called 'lands of jihad' have played are fairly significant role in making them happen. This has turned out to be the with regard to the Madrid and London bombings, as well as, for example, the transatlantic liquid bomb plot and the Times Square attempted bombing. Genuine, credible, self-starter attempts at mass casualty bombings by jihadists

in the West are, to say the least, few and far between, although the 21/7 attacks would seem to be an example.[14]

Indeed, jihadist attacks in the West appear to clump broadly into two types. The first are actual or attempted mass casualty bombings, often but by no means always intended as suicide operations and directed at ordinary civilians and public infrastructures. These operations, as just stated, almost always involve training and perhaps even command and control from abroad. The second type of operation is typically carried out using firearms, and is usually directed against targets which are in some sense discriminately selected, most commonly soldiers. These attacks tend not to involve foreign travel, training or direction, and the target may be quite opportunistically selected.

It is worth observing at this point that attacking soldiers based in their home countries (which would account for all but one of the incidents in which soldiers have been attacked by jihadists in the West), while it might appear to be in keeping with the strategic framing which Al Qaeda tends to give its calls for individual jihad, is arguably not an optimal choice from Al Qaeda's point of view. Attacking soldiers, while it may provoke outrage, is not likely to provoke widespread fear in a civilian population. Moreover, where soldiers are already committed to a conflict and are therefore risking their lives as a matter of course on the battlefield, it is highly unlikely that the death of a few of them at home will exert pressure on political leaders to bring them back.

Indeed, a careful examination of what jihadist targeting discourses have to say about attacks on soldiers and army bases in Western countries would seem to reinforce this. Al Suri, for instance, in calling for attacks on army bases, specifies particularly that these would ideally be directed against American troops stationed abroad (presumably in the hope that such attacks would be more likely to actually prompt a withdrawal).[15] Similarly, in praising the actions of Fort Hood shooter Nidal Malik Hassan, Adam Gadahn asks (perhaps a little ruefully) why similar actions are not being undertaken against American army bases in Arabic countries.[16] Naturally, Al Qaeda's leaders are not likely to turn up their noses at a domestic attack on US soldiers which falls into their laps, but there seems little reason to think that such attacks are a matter of particular priority for them to the extent that they are able to choose.

How can we make sense of all this? Decentralised, networked, even leaderless terrorism can be understood as a particularly extreme form of collective action dilemma. On the one hand, the individual is being asked to carry out a particularly risky and costly form of action. On the other, the ability of the organisation to compensate or exert pressure on him or her is virtually nil. It therefore lies at the very edge of what models of human behaviour can explain. The theorist must either accept a version of rationality bounded by a set of boundaries so bespoke as to seem almost arbitrary or, alternatively, to abandon any attempt at understanding the actions attempted as rational and look to some other model instead.

Amongst attempts to understand terrorist actions through a rational choice framework at the *individual* level, we find the 'integrated framework' proposed by Dipak K. Gupta,[17] who in calling for an extension of rational actor theory to encompass 'the need to belong' essentially seems to be reinventing certain versions of the notion of bounded rationality.[18] In doing so, Gupta not only sacrifices the precision of neoclassical views of rational action, but also fails to provide anything more than a rather vague appeal to intra-group dynamics to replace it. Gupta's work references and otherwise recalls that of Sageman, but Sageman, who commits himself to 'middle range analysis' simply refuses to engage seriously with the level of the individual.[19] Sageman's 'bunch of guys' often seems to be a black box out of which radical behaviour simply emerges, without even a clear sense of the ingredients that went into it, let alone the mechanisms that forged them into terrorist action.

A more intellectually satisfying approach is to be found in the work of Eli Berman,[20] who, following micro-economically focused rational choice theorists of religion like Bainbridge and Stark [21] and particularly Laurence Iannacone,[22] argues that religious terrorism and behaviours like suicide bombing are to be understood as by products of organisations which have evolved to deal effectively with the 'free rider' problem in an environment otherwise highly conducive to corruption and defection. These organisations demand that people conform to a particularly stringent set of ideological conditions in order to weed out those who are not seriously committed. This makes them better able to provide for those who are within the charmed circle, which in turn provides an incentive for a rational, self-regarding actor to conform. But while Berman's work is interesting with regard to groups such as the Taliban or Hamas, he is, as he admits, at a loss to explain how a much looser entity like Al Qaeda functions, except to suggest that it parasitically recruits from previously radicalized and committed individuals.

This line of argument would bring us, with regard to Western contexts, to the work along the lines of that performed by Quintan Wiktorowicz on the movement *Al Muhajiroun* in the UK.[23] Al Muhajiroun were not explicitly committed to carrying out acts of terrorism and in Wiktorowicz's judgement this commitment was genuine. However, the movement did help to overcome some of the obstacles to jihadist mobilization by separating people from the support networks and social capital offered by mainstream society, systematically indoctrinating them with an ideological outlook closely related to Al Qaeda's, creating a close-knit group of like minded activists, and getting them used to engaging in regular, somewhat risky, political activities together. Wiktorowicz's analysis of Al-Muhajiroun presents the group as not dissimilar from a New Religious Movement in the way it started by exploiting 'cognitive openings' in potential recruits, before getting them involved in a set of behavioural processes aimed at causing them to gradually sink more and more costs into the movement, on the one hand by encouraging them to devote very large amounts of time and effort to the group's study sessions while, as a corollary, sacrificing ordinary work and leisure opportunities.

The problem with Wiktorowicz's work for understanding leaderless jihad is mainly that it is an account of how people joined Al-Muhajiroun, not an account of how people come to be involved in 'jihadism' per se. Indeed, he points out that while Muhajiroun were operating in the UK, they acknowledged the 'jihadist' to represent a rival, alternative option for radical Muslims, alongside the 'salafists' and Hizb al-Tahrir.[24] While some of those who got involved in jihadist plots have had histories of involvement with specific radical groups like Al Muhajiroun, this is by no means uniformly the case. On the other hand, even for people who have reached the point of being active members of a group like Al Muhajiroun it still remains very unlikely that they will actually go on to be involved in an act of terrorism. Even so, Wiktorowicz's conceptualization offers a significantly more insight into individual processes of radicalisation than do those we have just surveyed. His model of involvement in Al Muhajiroun is a perfect example of bounded rationality at work, whereby information asymmetries and human cognitive biases (like the sunk costs fallacy) work in conjunction with issue framing to produce collective action.

Given the looser nature of global jihadism, and the necessarily more spontaneous and informal forms of mobilization it employs, theories of collective action framing as originally put forward by Benford and Snow have come to be seen as particularly useful in understanding how influences such as radical propaganda might serve to move people towards violent action.[25] Even where framing theory is not explicitly drawn on, terms which recall the theory like discussions of which narratives 'resonate' are often deployed in discussing the effect of such content. However, the problem with such loose usages is that they often seem to treat framing as if it were simply another, more academically correct way to talk about the commonsense idea that radical ideas make people

do radical things. In fact, as understood within social movement theory, framing is a rather subtler process. It works not by giving people a new set of beliefs as such (while not all theorists of collective action framing agree on the precise difference between framing and ideology, all seem to agree that they are not the same thing),[26] but rather by causing people, within more or less pre-existing belief structures to see a certain issue in a different way. For instance, framing the Bosnian civil war as an attack on Muslims by Christians, rather than an attack on one former Yugoslav ethnic group by another.

The tendency to see jihadist radicalisation as a rather passive process resulting from the consumption of radical narratives has achieved perhaps its most rigorous formulation in the 'rapid evidence assessment' of Al Qaeda influenced radicalisation conducted on behalf of the UK Home Office by the criminologists Per-Olof Wikström and Noémie Bouhana.[27] In this review, the authors propose to understand the phenomenon through a theory called situational action theory. Situational action theory represents almost the perfect opposite end of the spectrum from neoclassical ideas of rational choice in so far as it conceives of human behaviour as primarily rule guided, with rational maximization of utility sidelined almost completely. Accordingly, Bouhana and Wikström interpret jihadist radicalisation almost as a public health issue, whereby individuals with certain forms of vulnerability are more susceptible than others to falling prey to a narrative which causes them to perceive terrorist acts as viable action possibilities.

This approach, it seems to me, suffers from an opposite problem to that faced by rational choice theories in seeking to explain radicalisation into jihadist terrorism. Whereas theories founded on a more or less classical conception of rational choice struggle to explain why people would carry out acts of terrorism at all, theories based on the idea that people act according to linguistically scripted rules seem to me to suffer from an opposite problem: they fail to accommodate the possibility of conflicts of interest between jihadist radicals and the Al Qaeda at the strategic level.

What I would propose is that we can arrive at a more nuanced alternative model more capable of accommodating individual agency by looking back at the actual implications of framing theory. 'Framing' is, albeit in a slightly different sense to that used in the social movement literature, an essential concept to the idea of bounded rationality as set out originally by Amos Tversky and Daniel Kahneman.[28] This is, in their work, because humans happen to have cognitive biases which mean that they consistently prefer one logically identical situation over another depending on how the two situations are presented to them (the glass half full is better than the glass half empty, saving the lives of 25% of a group is better than letting 75% of a group die). However, it may be suggested that it is also for a more universal and metaphysical reason, namely, that reason needs something to be reasonable about. A person who has read and taken to heart the book of Ecclesiastes may, for example, despair of life and consider everything to be mere vanity. If such a person then loses the will to eat, drink or look after his personal hygiene he is not being irrational. Rather, he is rationally acting (or not acting) within a different set of framing assumptions from someone who subscribes to the idea that life is worth living, and human company worth keeping. As, for example, the anthropologist George Marcus notes in this exploration of the idea of affective citizenship, emotion is not so much an obstacle to the action of reason, as a requirement for it to operate.[29]

By inviting a person to frame an issue differently, then, what one is doing is not so much demanding of her that she a in a particular way, but rather creating for her a different set of subjectively perceived goods to rationally pursue. To provide an example of what this might mean in practice, consider concepts such as glory or honour. These notions are wholly socially constructed. But to those who accept the ideological system which grants them meaning they are real enough.

Moreover, once they are brought into being, they acquire a reality which may go beyond the interests of those behind the ideological system which brings them into being. For example, the commander of an army might find it useful to inculcate a notion of glory in his soldiers as a way of getting them to do things in the absence of more concrete incentives. However, once established, there might well be situations in which the pursuit of glory would lead soldiers to act in ways that were counterproductive to the strategic interests of the army.

Indeed, if we look at the discourses which are used by Al Qaeda's central leadership, as well as other entrepreneurs of global jihad, in an attempt to 'incite' Muslims to take part in acts of so-called 'individual terrorism', there does indeed appear to be a clear recognition that the people they are addressing are rational actors who make active choices between the costs and benefits associated with pursuing subjectively constructed goods. Thus we find that discourses seeking to mobilise people to individual jihad pursue two main rhetorical strategies. First, they try to emphasise the benefits and downplay the costs of involvement in acts of individual terrorism, as well as to emphasise the merits of carrying out operations in the West over alternative courses of action, such as travelling to fight abroad. Second, they try to encourage less costly activities of roughly escalating intensity, such as participating in boycotts, supporting prisoners, participating in propaganda work, fundraising and physical preparation.[30] It is also worth pointing out that some of these activities (e.g. supporting prisoners) can also be seen as attempts, albeit limited, to offset some of the costs of involvement in jihadist activity by promoting a wider community of support. Indeed, in certain places, these calls to arms seem to reveal an acute awareness to some of the major obstacles to engagement as, for instance, where Adam Gadahn makes the following rather unconvincing attempt to downplay the significance of being imprisoned for terrorist offences.

And I would like this note of reassurance and encouragement: if it is Allah's will that you be captured, then it's not the end of the world, and it doesn't necessarily mean that you're going to spend the rest of your life in prison. And in fact, let me tell you something: over these past few years I have seen the release of many, many Mujahideen whom I'd never even dreamed that they would regain their freedom. Yet, as I speak, now they're back home with their families or back on the frontlines fighting the enemies. So, the unbelievers' plot, and Allah plots, and Allah is the best of plotters, and he is the best of guardians and protectors, and he is the one who answers the one in need when he calls on him.[31]

What might these discourses have to tell us about the limitations to grassroots jihadist targeting observed above? Firstly, we can observe an obvious contradiction which, so it seems, jihadists are themselves aware of and find troubling. If it is indeed possible to participate in jihad by non-violent means, then were does this leave the individual obligation to participate in jihad? As Abu Mus'ab al-Suri observes, many are needed to fight, and only relatively few to carry out acts such as propaganda.[32] Moreover, Al-Suri actually seeks to discourage propagandists from getting involved in violence on the grounds that doing so represents a threat to operational security. And yet, viewed as a process of engagement, lower risk actions such as propaganda are also apparently recognised by jihadists as a necessary transitional step on the way to physical involvement. Thus those who would seem to be the candidates most likely to be committed to violent action are precisely those whom al-Suri discourages from involvement and who also, on that account, possess a useful rationale for not being so involved. Moreover, since the jihad is, in reality, not a hierarchical army capable of assigning its recruits to roles by some rational process, there is no way to say for the case of a given individual that their actions are superfluous and therefore do not amount to discharging the duty of jihad.

Thus, rather than fulfilling their function of inciting people to action, jihadist discourses aimed at recruitment seem to contain within them the possibility of relatively stable, long term, behaviourally non-violent engagement. Moreover, another aspect of jihadist attempts at incitement would also appear to offer an explanation for why jihadists operating alone or as unsupported self-starter cells would be likely to choose more expressive and discriminate targets. This is that, in attempting to argue for the benefits of individual action to the individual, there is a tendency for jihadist discourse to emphasise religious and spiritual justifications more than the collective, strategic justifications characteristically provided by the Al Qaeda leadership's official discourse. A good example of this are the first two distinctively 'jihadi' pieces of work produced by Anwar al-'Awlaqi.[33] Indeed these texts are arguably doubly interesting in so far as they not only provide examples of a skilled and experienced ideologue trying to incite violence in an audience he knew well, but also, perhaps, some insight into the radicalisation process which he himself was going through at this point as he moved away from an explicit stance in favour of peaceful, if culturally distant coexistence between Muslim minority populations and the other inhabitants of countries they lived in towards an attitude in favour of all out war in such contexts. As such, it is telling that Al-'Awlaqi's first two texts were commentaries first on a book by the medieval 'embattled scholar' Ibn Nuhas, the title of which translates roughly as *Water Holes for the Feelings of Longing for the Battlefields of the Dear Companions* and the more contemporary *Constants in the Practice of Jihad* by the deceased former leader of Al Qaeda in the Arabian Peninsula, Yusuf al-'Uyayri. In both works the emphasis is very heavily on, as Al-'Awlaqi puts it in the latter work, jihad as 'a good in its own self'. In both, violent jihad is presented as a spiritual struggle in which victory is ultimately not of this world, but rather is achieved through the mujahid's victory over the temptations of earthly pleasures.

Formulated in this way – as a spiritual quest rather than the instrumental practice of a strategic campaign – the targeting priorities of jihadist violence would appear to look somewhat different. Most importantly, the kinds of attack which have come to be seen as paradigmatic of Al Qaeda – indiscriminate mass casualty suicide bombings move from being of central importance to being permissible, but suboptimal courses of action. Consider, for example, what Abu Muhammad al-Maqdisi, probably the pre-eminent example of a contemporary jihadi scholar, has to say about the permissibility of suicide operations.

> *I disagree with those who regard it as suicide and that the Effort should be made in using the latest technological methods like remote control bombing devices which minimise the number of victims in the ranks of the mujahidin, for this is obligatory upon them if it is attainable.*
>
> *The operations should focus on military targets which distress the enemy and should manifest the radiant image of Islamic Jihad by avoiding intentional killing of children and their like*
>
> *The motive behind such operations should be to establish a truly important benefit, or to repel a true blight… that cannot be repelled in any other way. executor is decreed to hellfire… however, what should be noted is that there are general, literal evidence that forbids self-killing under any circumstance, even if was not due to the abovementioned*

incentives… I directed the youth who are in charge of such operations to study the matter legally and seriously… [34]

He goes on to insist on a set of conditions for the justifiable use of the operational method:

1. Effort should be made in using the latest technological methods like remote control bombing devices which minimise the number of victims in the ranks of the mujahidin, for this is obligatory upon them if it is attainable.

2. The operations should focus on military targets which distress the enemy and should manifest the radiant image of Islamic Jihad by avoiding intentional killing of children and their like

3. The motive behind such operations should be to establish a truly important benefit, or to repel a true blight… that cannot be repelled in any other way.

The point is that Al-Maqdisi sees suicide bombing, both in its suicidal and its indiscriminate features not as impermissible, but as very much outside normative ideal of jihadist violence. Considered from the point of view of a rational actor then, albeit one whose rationality is bounded by the jihadist frame, one who is likely to get just one attempt at fighting jihad, it is not hard to see why such an action would not necessarily be seen as optimal. By contrast, actions which are clearly meaningful and just – killing soldiers, or clearly defined 'enemies of Islam' – precisely those actions which account for most acts by genuine grassroots jihadists can readily be seen as, from an individualistic point of view, as attractive targets.

As a final thought, it is of interest to consider whether the contradictions which seem to limit the success of attempts by Al Qaeda more broadly by global jihadist ideologues to inspire individual jihad are inevitably flawed, or whether it might, after all, be possible to build a more successful and therefore threatening leaderless campaign within the jihadist framework. One interesting common feature of most jihadist discourses which seem to be aimed at inspiring individual action is a recognition that the potential range of targets and methods for violent action is extremely broad.[35] Indeed, as attempts to incite violence, jihadist discourses produced by established ideologues are often surprisingly vague on the specific sorts of violence one might attempt, providing long lists of often generic targets rather than specific, focused targets with clear explanations of why attacking them is so worthwhile. To this there is one particular and rather interesting exception which I have already mentioned – Al-'Awlaqi's 'cartoons campaign'. Here, a very specific type of target is mentioned. Indeed, *Inspire Magazine* actually goes further, by listing the names of specific individuals. This sort of campaign is interesting in so far as it seems to bear a close resemblance to other campaigns of leaderless resistance such as those of the Earth Liberation Front, the Animal Liberation Front and, perhaps most relevant to our purposes, campaigns of anti-Abortion extremism fronted by ideological brand names like the Army of God.[36]

While, clearly, there is not space for anything more than the briefest sketch here, comparing anti-blasphemer violence by jihadists, and anti-abortion violence by militant Christians on the one hand, and the more normal targeting discourses of jihadist militancy on the other is instructive. In the former case, it can be observed that not only is the target of the proposed violence made clear from the outset but, moreover, both the ideological and instrumental purpose of the attack is clearly encoded in the act itself. When an abortion providing doctor is murdered, or an abortion clinic is attacked; or when a blaspheming cartoonist is murdered, or a blaspheming magazine office burned there is no need to provide further ideological explanation of the attacker's purpose or what he was trying to achieve. Indeed, such attacks are often recorded in databases simply as 'abortion related'. [37] The ideology of the attack is *encoded in the action*. Moreover within the action there is a clear

convergence of instrumental, ethical, and group-solidarity forming rationales: killing doctors who provide abortions is a good way of making abortion less available generally;[38] it is incontrovertibly just, provided that one accepts that abortion is murder and, moreover, for this very reason, it sits at a cultural fault line: those who accept that abortion is murder and those who do not may agree on many other matters; but this is a matter on which they can, for important reasons of principle, neither agree nor agree to disagree. Again, while the case of the blaspheming cartoonist or author is plainly less clear-cut, something roughly similar might be imagined to hold. The Western Muslim who might agree with her fellow citizens on almost every other matter, might still not think that the law should permit cartoons which insult her religion. A liberal citizen of a Western country who might think of himself as generally tolerant and broad minded might nonetheless view the right to lampoon religion as sacrosanct.

What can we then learn from the story of – so far at any rate – the overall failure of Al Qaeda's attempts to instigate acts of individual jihad? Perhaps the most important observation is that the dangerousness of a form of 'violent extremism' is not necessarily proportional to the militancy of its ideology, nor that the relationship between discourse and violent action can be seen as a simple process of internalizing the explicit beliefs which the discourse teaches. Discourses also do things and invite particular forms of engagement which, in turn, may make violent action more or less plausible. Secondly, assessing the potential impacts of terrorism is about more than body count or dollar count. Acts of terrorism – where they are effective – are themselves part of the cultural discourse of violent extremism. They are acts in and on culture, and it is where they threaten to strike areas of cultural 'criticality' that they are of most real concern.

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Notes:

[1] Olivier Roy, "Al Qaeda in the West as a Youth Movement: The Power of a Narrative", CEPS Policy Brief, No. 168, August 28, 2008

[2] Brian A. Jackson, "Groups, Networks or Movements: A Command and Control Approach to Classifying Terrorist Organisations and its Application to Al Qaeda", *Studies in Conflict and Terrorism*, Vol. 29, No. 3, 2006

[3] H. Keith Henson, 'Sex, Drugs, and Cults. An evolutionary psychology perspective on why and how cult memes get a drug-like hold on people, and what might be done to mitigate the effects'. *The Human Nature Review*, 2, 2002, 344–355

[4] Metropolitan Police commissioner Ian Blair, interviewed after the 7th July attacks in London

[5] AdamYahiya Gadahn, "You are only responsible for yourself", 3rd June, 2011, available from http://www.globalterroralert.com/al-qaida-leaders/834-as-sahab-media-you-are-held-responsible-only-for-thyself-part–1-.html

[6] It is interesting to observe that even this protection does not just extend to *Muslim* religious leaders. Thus there is no apparent contradiction in the thought of, e.g., Al-Suri or Abd al-Aziz al-Muqrin, between calling for the deliberate targeting of Jewish people, but disapproval of the targeting of Rabbis or synagogues. The reasoning seems to be that Islam is bound to tolerate Judaism *as a religion*, but that Muslims as a nation are at war with Jews *as a nation*.

[7] Usama bin Ladin, "9/11 Message to the American People", 13 September 2009

[8] Alex Schmid and Albert Jongman, Political Terrorism: *A New Guide to Actors, Authors, Concepts, Theories, Databases and Literature*, Amsterdam: Transaction, 2005, p. 3

[9] Ayman al-Zawhairi, *Knights Under the Prophet's Banner*, (translated and partially condensed by *Al Sharq al-Awsat*) p. 62

[10] Usama bin Ladin, "Message to Our Muslim Brothers in Iraq", 2003. This is specifically what Bin Ladin says on the subject: 'We stress the importance of the martyrdom operations against the enemy - operations that inflicted harm on the United States and Israel that have been unprecedented in their history, thanks to Almighty God.'

[11] Mustafa Settmariam Nasar (Abu Mus'ab al-Suri), *The Global Islamic Resistance Call*, p. 1389

[12] *Inspire Magazine*, no. 3, 2010

[13] *Inspire Magazine*, no. 1, 2010

[14] These remarks are based on ongoing research for the Home Office funded project *Cultural Constraints on Jihadist Terrorism*. However, for an example of how new information has dramatically changed our understanding about the role of central facilitation in Al Qaeda attacks in Europe see Fernando Reinares, "The Madrid Bombings and Global Jihadism", *Survival*, vol. 52, no. 2, 2010 pp. 83–104

[15] The Global Islamic Resistance Call

[16] "You are only held responsible for yourself"

[17] Dipak K. Gupta, "Towards and Integrated Framework for Analyzing Terrorism: Individual Motivations to Group Dynamics", *Democracy and Securit*y, Vol. 1 No. 1, 2005, pp. 5–31

[18] For a useful review of theories of bounded rationality relevant to collective action see Karl Dieter Opp, *Theories of Political Protest and Social Movements: A Multidisciplinary Introduction, Critique and Synthesis*, London: Routledge, 2010, p. 3–8

[19] Marc Sageman, *Leaderless Jihad: Terror Networks in the 21st Century*, Philadelphia: University of Pennsylvania Press, 2008

[20] Eli Berman, *Radical, Religious and Violent*, Cambridge, Massachusetts: MIT Press, 2009

[21] Rodney Stark and William Sims Bainbridge, *A Theory of Religion*, New York, P. Lang, 1987

[22] Laurence Iannacone, "Why Strict Churches are Strong", *American Journal of Sociology*, Vol. 99, No. 5, March 1994, pp. 1180–1211

[23] Quintan Wiktorowicz, Radical Islam Rising: Muslim Extremism in the West, Lanham, Rowmand and Littlefield, 2005

[24] ibid. p. 101

[25] See Robert Benford, "Framing Processes and Social Movements: An Overview and Assessment", *Annual Review of Sociology*, Vol. 26, August, 2010, pp. 611–639

[26] See e.g. Pamela E. Oliver and Hank Johnston, "What a Good Idea! Ideologies and Frames in Social Movement Research", *Mobilization: An International Quarterl*y, Vol. 5, No. 1, Spring 2000, pp. 37–54.

[27] Per Olof Wikström and Noémie Bouhana, "Al Qa'ida Influenced Radicalisation: A Rapid Evidence Assessment Guided by Situational Action Theory", Home Office, 2011

[28] Amos Tversky and Daniel Kahneman, "The Framing of decisions and the psychology of choice" *Science* Vol. 211, 1981, pp. 453–458.

[29] George Marcus, *The Sentimental Citizen: Emotion in Democratic Politics*, Philadelphia: Pennsylvania State University Press, 2002

[30] The obvious examples of this would be texts such as Isa bin Awshan's *39 Ways to Serve Jihad and the Mujahidin* and Anwar al-'Awlaqi's adaptation of this, *44 Ways to Serve Jihad*

[31] *You are only held responsible for yourself* (translation by Flashpoint Partners, 2011)

[32] *The Global Islamic Resistance Call*

[33] For a chronology of al-'Awlaqi's publications and their possible relationship to his own trajectory of radicalisation, see Alexander Meleagrou Hitchens and Jacob Amis, "The Making of the Christmas Day Bomber", *Current Trends in Islamist Ideology*, Vo. 10, 2010

[34] This statement comes from an interview quoted in the introduction to the Al-Tibyan translation of Al-Maqdisi's book, *This is Our Aqidah*, available from www.tawhed.ws. In the remainder of the quotation, he is drawing on the Arabic text of his response to an article published in the newspaper *Al-Sharq Al-Awsat* offering an Islamic critique of the legitimacy of suicide operations.

[35] This point is made directly, for example, in *Inspire 4* and, more directly, in Al-'Awlaqi's recently released posthumous piece on targeting in *Inspire 8*. It is also implicit in the very broad range of targets in, for example, *The Global Islamic Resistance Call* or Abd al-Aziz al-Muqrin's piece for *Al-Battar Military Camp* magazine, 'The Targets in Cities'.

[36] According to Carol Mason the Army of God is simply a name used by certain radical anti-abortion activists as a collective cover for their violent actions . See Carol Mason, 'Who's Afraid of Virginia Dare: Confronting Anti-Abortion Terrorism after 9/11", website claiming to represent the entity still remains accessible at http://www.armyofgod.com/.

[37] This the case, for example in the Global Terrorism Database. http://www.start.umd.edu/gtd/

[38] For an examination of the effects of anti-abortion violence on abortion provision see Mirelle Jacobson and Heather Royer, "Aftershocks: The Impact of Clinic Violence on Abortion Services", RAND Corporation, 7th July, 2010,*Journal of Constitutional Law*, Vol. 6, No. 4, 2004, pp. 796–817

The Creation of a Contagious H5N1 Influenza Virus: Implications for the Education of Life Scientists

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Abstract

The paper contends that the ongoing controversy surrounding the creation of a contagious H5N1 influenza virus has already exposed the severe limitations of the possibility of preventing the hostile misuse of the life sciences by dint of oversight of proposals and publications. It further argues that in order to prevent the potential wholesale militarisation of the life sciences, it is essential that life scientists become aware of their responsibilities within the context of the Biological and Toxin Weapons Convention (BTWC) and actively contribute their expertise to strengthening the biological weapons non-proliferation regime .

Key words: H5N1, life sciences, oversight, education, BTWC, bioterrorism

> *"…The race is on for scientists to find out as much as they can about H5N1 and detect any mutations that make it a human-to-human virus as soon as possible. At least then they will know exactly what it is they are fighting…. In many ways, it [influenza virus] is the perfect form of bio-terrorism - simple yet devastating."*
>
> Revill, J. (2005) *Everything you need to know about Bird Flu and what you can do to prepare for it.* (page 27) Rodale, London.

Introduction

By April 2012 there have been 602 laboratory-confirmed cases of human infection with highly pathogenic avian influenza H5N1 virus [1]. 355 of these people died, but sustained human-to-human transmission had not been demonstrated. Then in late 2011 it was reported that life scientists in The Netherlands and the United States had shown how the H5N1 virus could be made contagious through the air in mammals. This provoked a wide-ranging debate about whether, and how, the work should be published, or, indeed, whether it should have been carried out in the first place.

Whilst that debate has, at the time of writing this paper, not yet finished, it is our contention that it has already exposed the severe limitations of the approach to the responsibilities of life scientists which has dominated discussions of the hostile misuse of the life sciences since 9/11 and the anthrax letter attacks in the United States. This approach, which is typified by the Fink Report [2] on *Biotechnology Research in an Age of Terrorism* of 2004, suggests that as terrorists might misuse advanced life science research, such dual-use dangers can be prevented by restrictions (oversight) of project proposals and publications.

This paper begins by examination of the debate provoked by the attempt to publish the papers on contagious H5N1 and argues that there are good reasons why the bioterror/dual-use approach can only be relevant to a small part of the problem of containing the potential hostile misuse of the results of the ongoing revolution in the life sciences. That leads on to our suggestion that the real problem is that biotechnology, like other scientific and technological revolutions in the past, may, as pointed out by Professor Mathew Meselson [3] in 2000, be "intensively exploited, not only for peaceful purposes but also for hostile ones." In short, bioterrorism and the exploitation of the results of advances in the life sciences by terrorists has to be seen in the wider framework of the potential wholesale militarization of the life sciences, and a much wider set of responsibilities than oversight of projects and publications is required of life scientists if their work is to be properly protected from misuse.

For this reason, the paper then briefly introduces the history of offensive State-level biological weapons programmes during the last century and the gradual development of the prohibition regime centred on the 1975 Biological and Toxin Weapons Convention (BTWC). It is argued that life scientists' responsibilities have to be seen within this wider framework and the 'web of preventive policies' centred on the BTWC, and that the issue of dual-use and bioterrorism is better understood as part of this wider framework.

This then leads on to an examination of the discussions amongst State Parties to the BTWC about awareness-raising and education of life scientists during this century. The paper ends with our own reflections on what needs to be covered in the education of life scientists for them to be able to actively engage in effectively protecting their benignly-intended work from misuse and an illustration of what might be done now to assist State Parties in their deliberations on the implications of advances in the life sciences through to the Eighth Five-Year Review Conference of the BTWC in 2016.

The Contagious Lethal H5N1 Debate

The committee chaired by Gerald Fink produced its report on *Biotechnology Research in an Age of Terrorism* in good part because of the increasing concerns about terrorism. As the report noted [4] "[B]iotechnolgy represents a 'dual-use' dilemma in which the same technologies can be used legitimately for human betterment and misused for terrorism". Two points that are often forgotten are, first, that the committee viewed bioterrorism as only part of [5] "a wide spectrum of potentially dangerous activities" posed "by hostile individuals and nations", and, secondly, that the committee's first recommendation read as follows [6]:

> *"We recommend that national and international professional societies and related*
>
> *organisations and institutions create programs to educate scientists about the nature of*
>
> *the dual-use dilemma in biotechnology and their responsibilities to mitigate its risks."*

We will return to both of these points later.

However, the Fink Committee is chiefly remembered for two quite different points. First, it suggested that there were at least seven classes of (mainly microbiological) research that were of sufficient concern to warrant oversight prior to being undertaken or published in full after being carried out. These experiments included those which [7]:

"1. Would demonstrate how to render a vaccine ineffective…

2. Would confer resistance to therapeutically useful antibiotics or antiviral agents…

3. Would enhance the virulence of a pathogen or render a nonpathogen virulent…

4. Would increase the transmissibility of a pathogen…

5. Would alter the host range of a pathogen…

6. Would enable the evasion of diagnostic/detection modalities…

7. Would enable the weaponization of a biological agent or toxin…"

The committee went on to note, directly after listing these categories, that "[O]ver time…it will be necessary to expand the experiments of concern to cover a significantly wider range of potential threats" and this point was fully endorsed by the subsequent Lemon-Relman Report [8] of the US National Academies.

Secondly, the Fink Committee recommended the setting up of a national committee to [9] "provide advice, guidance, and leadership for the system of review and oversight we are proposing". This in turn led to the establishment of the National Science Advisory Board for Biosecurity (NSABB) which has actively endeavoured to fulfil this remit. One of the Board's first endeavours, in 2005, concerned the publication of the sequencing and synthesis of deadly Spanish Influenza virus. They approved publication, but it should be noted that the then editor of *Science* is on record [10] as stating "So would I…have published the paper even if the NSABB have voted otherwise? Absolutely…"

So it is against that background of widespread ignorance of, and opposition to, biosecurity considerations that current concerns about H5N1 have to be understood. And this is so even though in the years after 9/11 editors of leading science journal agreed to institute a biosecurity review of publications of concern [11], grant giving organisations began to ask applicants if they had taken biosecurity issues into account [12], the InterAcademy Panel published the principles of a code of conduct related to biosecurity [13], and The Netherlands Academy of Science published a specific biosecurity code of conduct [14]. Moreover, The Netherlands code had the text of the BTWC as its first appendix, and the lead scientist in the Dutch study on H5N1 was part of the group that produced the code.

Of course, it is not possible at this stage to give a full account of what happened in these H5N1 projects and attempted publications, but certain facts are already known and allow for some conclusions to be drawn as to the utility of the oversight system. The two studies first became widely known when an article appeared in *Science* in November 2011 [15]. From this article it was clear that both projects, at the Erasmus Medical Centre in Rotterdam, the Netherlands, and at the University of Wisconsin, Madison had been funded and approved for publication by the US National Institutes of Health before they were submitted to *Science* (and *Nature*) when the NSABB became involved. *The Guardian* quoted Paul Keim, chair of NSABB, as stating [16] "[I]f this virus were to escape by error or terror, we must ask whether it would cause a pandemic" and adding that:

"The probability is unknown, but it is not zero. There are many scenarios to consider, ranging from mad lone scientists, desperate despots and members of millennial doomsday cults, to nation states wanting mutually assured destruction options, bioterrorists or a single person's random acts of craziness."

According to the deputy editor of *Science* about 1, 000 scientists were already familiar with the details of the Dutch study [17]. This revelation is curious, not least because the Netherlands group seems to have deviated from the national Code of Conduct on Biosecurity and its provisions on 'Research and Publication Policy', according to which scientists should [18]: "Screen for possible dual-use aspects during the application and assessment procedure and during the execution of research projects."

Still, it can reasonably be argued that there has been a degree of 'over-hype' in regard to the capabilities of terrorists to replicate papers that report the results of cutting-edge research. For example, one of the original experiments that caused concern early in this century was the chemical synthesis of the polio virus [19]. However, on closer examination it was found that crucial tacit knowledge, which would not have been available from the published paper, was required to replicate the synthesis [20]. The team at the University of Wisconsin-Madison [21]:

"...created a chimeric virus with the haemagglutinin protein from H5N1 and the genes from the 2009 pandemic strain of H1N1. It was an artificial version of the same process though which wild viruses shuffle their genes, known as reassortment..."

The mutant virus spread easily among ferrets, but did not retain its virulence. The work in The Netherlands caused more concern. The virus genome was first altered so that the mutant strain could easily attach to mammalian nose and tracheal cells. However, the virus could not spread between individuals through the air. To overcome the deficiency, the researchers then exposed ferrets to the strain and used nasal fluids from the already sickened animals to infect others:

"...After 10 rounds, the virus could spread through the air to infect ferrets in neighbouring cages. The genome of the airborne strain differed from the original one by just five mutations..."

Moreover when this new mutant virus was implanted physically into the trachea or nasal passages of ferrets, the animals died. Ferrets are the surrogate organisms for such work on mammals and the use of passage through a series of animals is well known as a standard method of increasing the virulence of a pathogen. According to Michael Imperiale, a professor of microbiology and member of the NSABB, the technology of making influenza viruses from DNA clones is widely available and "while not simple, is not beyond someone with basic knowledge of molecular and cell culture techniques" [22]. This in turn implies that tacit knowledge requirements are unlikely to be as high if an attempt were made to replicate that part of the work. Moreover, the reason that so many people were thought to have knowledge of the Netherlands work was because it was presented at an international conference on Influenza research in Malta prior to being submitted for publication [23].

Throughout the period of dominance of the dual-use/bioterrorism framework of understanding the threat it has been suggested that oversight of projects and publications should be based on an

assessment of the risks as against the benefits of a research project or publication. Hence the researchers who carried out these H5N1 studies have argued that their work could help in detecting the occurrence of a dangerous new virus, like the ones they created, in nature, and in the development of vaccines against such a new virus. Some scientists, however, have dismissed such claims as 'hollow' emphasising that the "risk/benefit ratio is essentially infinite – high risk relative to zero or near-zero benefit" [24], As an editorial in *Nature* has underscored [25]:

> *"In practice, the immediate benefits are minimal. Surveillance of influenza in animals is slow and patchy at best, and follow-up sequencing of samples more so. And the mutations that we know about are likely to be outnumbered by those about which we are still ignorant..."*

And, further, that:

> *"...Current techniques can produce vaccines only six months after a pandemic emerges. Doing so faster and in much larger quantities is the most urgent public-health priority when it comes to planning for the next pandemic.*
>
> *The mutant-flu studies contribute little to this goal..."*

The calling into question of whether the H5N1 research has any benefits to society is more serious, perhaps, than many realise because the BTWC clearly bans work that has no justification for peaceful purposes. Article I of the Convention states that [26]:

> *"Each State Party to this Convention undertakes never in any circumstances to develop, produce, stockpile or otherwise acquire or retain:*
>
> *1. Microbial or other agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes..."*

Now it may be objected that the Convention does not prohibit research, but that is to ignore what State Parties have agreed at each Review Conference in regard to Article I since 1991. As the Final Document of the Seventh Review Conference of the BTWC in December 2011 stated [27]:

> *"The Conference notes that experimentation involving open air release of pathogens or toxins harmful to humans, animals and plants that have no justification for prophylactic, protective or other peaceful purposes is inconsistent with the undertakings contained in Article I."*

There certainly cannot be any doubt that some of these H5N1 experiments involved demonstrating that the deadly virus was contagious through the open air from infected ferrets to uninfected ferrets. The Netherlands group made it clear that this was their objective when they pointed out that [28] "[O]ur research program aimed to test whether A/H5N1 virus could acquire the ability to spread in aerosols in mammals, following similar genetic changes as those identified in previous pandemic

viruses…" Likewise, the primary goals of the US team were to "evaluate the pandemic potential of H5N1 viruses" and "identify the molecular features required for adaptation of avian H5N1 viruses in humans"[29].

It could, of course, be objected that what State Parties referred to in their common understanding was large scale open-air tests. However, as making an influenza virus contagious through the air is effectively to weaponise it there must be reservation about such an objection. Furthermore, Article III of the BTWC states that [30]:

> *"Each State Party to this Convention undertakes not to transfer to any recipient*
>
> *whatsoever, directly or indirectly, and not in any way **to assist**, encourage, or induce any*
>
> *State, group of States or international organisations to manufacture or otherwise acquire*
>
> *any of the agents, toxins, weapons, equipment or means of delivery specified in Article I of*
>
> *the Convention." (emphasis added)*

So it has to be asked whether publication of the H5N1 studies would assist those with hostile intent in the acquisition of what is banned by Article I.

After careful deliberation and several hundreds of hours of discussion in late 2011 the NSABB reached the conclusion that these papers could not be published in full because of the risks of subsequent misuse. As one of the Board members commented on the recommendation, "We don't want to give bad guys a road map on how to make bad bugs really bad" [31]. However, this decision was then discussed by 21 influenza experts and one ethicist at an international meeting at the World Health Organisation (WHO) and that meeting had reservations about what the NSABB had decided [32]. So upon a request by the NIH the NSABB again considered the issue at another meeting that was addressed by the senior scientists of the two groups. Following an intensive two-day discussion the members of NSABB decided that the papers should be published in full. A crucial factor for this decision was the new policy for oversight of dual-use research of concern [33], which the US Government issued on the first day of the NSABB meeting and which allowed classification of scientific work on security grounds. So, in the absence of appropriate mechanisms for disseminating research findings on a need-to-know basis, the Board was left with the option of either stopping or allowing publication, and in such circumstances they opted for the latter. One member of the Board was quoted as saying [34]:

> *"…the group would likely have still recommended that the studies be redacted - published*
>
> *in abbreviated form - but the NSABB, as others, have concluded that the option is*
>
> *unworkable."*

Even then, however, some members had deep concerns. The eighteen voting members of the Board were unanimously in favour of publication of the work carried out in the USA, but six voted against publication of the work done in The Netherlands. Similarly, the Dutch Government discussed whether the results of the work carried out there had created knowledge that might be too dangerous to export but eventually agreed to publication [35]. Meanwhile, one of the NSABB members recently voiced concerns about the way in which the second Board meeting (29–30 March 2012) had been organised. In a letter addressed to a senior NIH official, Professor Michael Osterholm stated that the meeting "was designed to produce the outcome that occurred" representing a very "one sided" picture of the risk-benefit of communicating the research results openly [36].

Specifically, he emphasises that "the Board received no formal or informal presentation from those on the front lines of H5N1 animal surveillance" and that the security briefing at which the risks of malevolent applications of the mutation data were discussed was "incomplete" and even "useless" [37].

Even though all of the NSABB deliberations took part behind 'closed doors' and were never given detailed media coverage, several Board members have commented on why they were opposed to the publication of the studies, especially the one conducted in the Netherlands. In their view, the main reason why the projects were problematic was that they fell into both the fourth and the fifth categories of research of concern listed by the Fink Committee. That is experiments that [38]:

> *"Would increase transmissibility of a pathogen… "*

> *"Would alter the host range of a pathogen…"*

In addition, it can be argued that making deadly H5N1 influenza contagious would also come under the seventh of Fink's categories. That is an experiment that "[W]ould enable the weaponisation of a biological agent or toxin". This follows because Article I.2 of the BTWC states [39] that the prohibition covers "[W]eapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict", whereby contagion though the air is clearly a means of delivery.

The reported views of knowledgeable members of the NSABB in the period after the WHO meeting and before the second decision of the NSABB are instructive in trying to understand why even in the constrained situation of the second meeting some people still voted against publication of the work of the group from The Netherlands. David Relman and Stanley Lemon co-chaired the follow-up report to that of Fink [40]. Relman was reported to have said [41]:

> *"My bottom line: Fouchier started with a highly worrisome and sometimes lethal virus to*
>
> *humans and appears to have enhanced its transmissibility by the respiratory route.*
>
> *Nothing said in recent days changes these facts…"*

And Lemon said bluntly [42]:

> *"The major concern has been about acquisition of the capability for aerosol transmission of*
>
> *the virus to a mammal."*

Now people who have looked at such experiments of concern in detail [43,44], state that it will frequently be possible for an oversight system to suggest modifications at the project proposal stage that can avoid these kinds of difficulty later.

It is, however, difficult to see how Fouchier's experiment could have been so modified because of its stated objectives. It has to be reiterated that Fouchier has been open about the objective of the work throughout the recent public debate [45]:

> *"Our research program on H5N1 virus transmission, which led to submission of one of the*
>
> *papers that has stirred up so much recent controversy, aimed to investigate whether and*
>
> *how HPAI [Highly Pathogenic Avian Influenza] H5N1 virus can acquire the ability to be*
>
> *transmitted via aerosols among mammals and whether it would retain its virulence…"*

Given the shambles amongst the scientific community it is hardly surprising that politicians have begun to step in on behalf of the wider society.

A senior US Congressman summarised the present disarray amongst life scientists with a series of questions to the White House science advisor. These questions well illustrate how little life scientists have been able to accomplish in protecting their work from hostile misuse over the last 10 years. The Congressman's questions were [46]:

> "1. How does NSABB weigh the potential risks and benefits of dual-use research? When does it advocate against publication?
>
> 2. What systems exist to identify and, if necessary, control early stage dual-use research?
>
> 3. ….What is the government's current system for disseminating legitimate dual-use research worldwide? How is that system being implemented with respect to the articles in question?
>
> 4. Is the NIH's review system adequate to identify potentially dangerous dual-use research? Why did it fail to identify the avian flu research until it was completed and submitted for publication?"

These are very difficult questions and might lead to the conclusion that oversight really is unworkable. If that position is accepted, then there is little need for dual-use/biosecurity education of life scientists because either everything that can be done is allowed, or politicians will decide what can be done. This particular example of the creation of a contagious lethal H5N1 virus, and the difficulty of agreeing what should be done about it, should certainly give everyone pause for thought. Meanwhile, it is noteworthy that the team in the Netherlands has already "identified an addition mutation that results in ferret-to-ferret transmission without the need for repeated passage of the virus in ferrets" [47]. However, we think oversight still has a role to play both in lessening difficulties by allowing modification of individual projects, but more fundamentally, in laying the foundations for a much wider understanding of the risks and the resultant responsibilities of life scientists. Above all, for research oversight to be effective, the life science community as a whole needs to be sensitised to the dangers posed by the potential misuse of life science knowledge and to how those can be mitigated. It is to such wider understanding, awareness-raising and education that should come out of the avian influenza debate that we now turn.

The Wider Responsibilities of Life Scientists

In contrast to the narrow view of the potential dangers enclosed in the dual-use/bioterrorism framework, for over two decades there has been a well-articulated view that what is needed to prevent the militarisation of the modern life sciences is an integrated "web of preventive policies" that will persuade anyone thinking of going down that path that the costs will far outweigh the benefits [48]. Furthermore, given that there were a series of offensive biological weapons programmes by major States in the last century [49, 50] it has to be understood that these policies have to be centred on the 1975 BTWC. The web of policies would, for example, include:

- Effective intelligence; -Co-ordinated export controls;

- As strong as possible BTWC implemented in-depth nationally;

- Sensible biodefence against validated threats; and

- A clear international determination to respond vigorously to any violation of the norm embodied in the prohibition regime.

What is of interest here is the State Parties' understanding of in-depth implementation of the BTWC nationally.

Article IV of the BTWC requires that State Parties take measures to prohibit and prevent what is banned in Article I, and the meaning of 'prevent' clearly involves life scientists. At the Second Review Conference of the BTWC in 1986 State Parties agreed, in relation to Article IV, that [51]:

> *"The Conference notes the importance of: - inclusion in textbooks and in medical, scientific and military educational programmes of information dealing with the prohibition of microbial or other biological agents or toxins and the provisions of the Geneva Protocol [of 1925]."*

And similar statements have been repeated at subsequent Review Conferences. So there is no doubt that an aware and educated life science community worldwide is essential for the strength of the prohibition regime. Clearly, there is much that such an educated and engaged community could contribute to preventing the hostile misuse of their work. For example, Synthetic Biologists have investigated measures that could help to ensure that those with hostile intent cannot easily order dangerous material from commercial companies [52].

However, it is also abundantly clear that most practicing life scientists have little or no understanding of the Convention, or of their responsibilities under the Convention. As a major Working Paper by 12 State Parties, including the USA and the UK, for the Seventh Review Conference states [53]:

> *"Life scientists do not often consciously consider the possibility that their work could be of relevance to a biological weapons programme or other wise misused to cause harm to people, animals or plants or to render critical resources unusable..."*

Unsurprisingly, therefore, State Parties considered what might be done to raise the awareness and education of life scientists in their annual meetings in 2005 and 2008 so that scientists could become better engaged, for example, in the development of codes of conduct and oversight systems.

Indeed, in 2008 State Parties agreed on the value of a series of educational measures that would include [54]:

> "(i) Explaining the risks associated with the potential misuse of the biological sciences and biotechnology;
>
> (ii) Covering the moral and ethical obligations incumbent on those using the biological sciences;
>
> (iii) Providing guidance on the types of activities which could be contrary to the aims of the Convention and relevant national laws and regulations and international law;
>
> (iv) Being supported by accessible teaching materials, train-the-trainer programmes, seminars, workshops, publications, audio-visual materials…"

In their 2011 Working Paper the 12 State Parties detailed what they had done in order to carry out such awareness-raising and educational activities [55]. Additionally, non-governmental organisations have reported their efforts to develop and make available relevant teaching materials, train-the-trainer programmes, and seminars and workshops [56]. Yet it is obvious that a great deal

more will have to be done in order to elaborate and implement comprehensive national strategies on education in biosecurity so that life scientists will be in a position to contribute their expertise to preventing the future militarisation of the life sciences.

In that context, it is hardly surprising that State Parties to the BTWC at the Seventh Review Conference agreed to have a Standing Agenda Item (SAI) for their meetings through to the next review on "Review of developments in the field of science and technology related to the Convention", and that two of the sub-items under this SAI would be [57]:

> "(d) voluntary codes of conduct and other measures to encourage responsible conduct by scientists, academia and industry.

[and]

> (e) education and awareness-raising about risks and benefits of life sciences and biotechnology."

Unfortunately, what is also evident is that, given the limited time available for the annual meetings at Expert and State Party levels, and the very crowded agenda, it is unlikely that State Parties will be able to make substantive and cumulative progress on these sub-topics before the Eighth Review Conference without considerable help from the scientific community in providing input to the meetings, and analyses of the outcomes, in 2012, 2013, 2014 and 2015.

Our view is that a comprehensive strategy on awareness-raising and education will have to be developed by each State Party and its implementation carefully monitored if significant progress is to be ensured [58]. However, if progress is well reported to the annual meetings of the BTWC, there is a hope that a rapid evolution of best practices will be possible. In that regard, our own experience strongly suggests that educational programmes need to begin by adding the issues of biosecurity and dual-use to the range of topics, such as plagiarism and fraud that scientist are increasingly made aware of and cautioned about in courses on the responsible conduct of research [59]. But we also consider that this basic awareness-raising has to be supplemented, whatever the problems of teaching such material to scientists [60], with some straightforward material on how philosophers deal with ethical questions [61]. It should then be possible for scientists to think more clearly about their responsibilities in relation to experiments that raise dual-use concerns. We have certainly found that scientists who have become aware of the potential dangers are very serious about their responsibilities in protecting the results of their work from misuse [62]. Nevertheless, as the H5N1 experiments of concern discussed here have demonstrated all too clearly, responsibility cannot be discharged solely at the level of the individual scientist's projects and publications. It is necessary that a wider framework of understanding is developed so that dual-use and bioterrorism are seen as only part of a much wider problem of protecting the life sciences from large scale militarisation. Then the much wider range of actions that can be taken will become available to the life science community as a whole. Of course, it is noteworthy that the challenge of dual-use is not unique to the life science, but arises in other fields of study, such as chemistry, as it has already been demonstrated [63].

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In the Face of an Emergency: What Makes a Responsive and Resilient Society?

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Introduction

This article intends to highlight the ways in which the response required to deal with terrorist threats of the 21st Century differs from that required to respond to threats the UK has faced in the past. In addition it will assess ways in which the UK may strengthen the population's resilience and the ability of the population to respond to emergency incidents.

The response of the crowd following a suicide bomb attack, including the ability of the spontaneous competent 'zero' responders to emerge from within the crowd prior to the arrival of professional first responders at the incident scene, helps build resilience. Responding to an emergency is time sensitive, therefore whilst waiting for the professional responders to arrive at the site and if necessary, receive safety clearance, the time taken to reach the casualties may impact the number of lives saved. Therefore, it is essential that members of the public surrounding the scene, or those who are directly caught up in the event, can act as the first responders, if safe to do so, providing they have had some degree of training or prior knowledge. Furthermore, there are additional challenges when the 'normal' response chain, in which professional first responders are summoned to the incident site and arrive promptly, is broken. Responders may be prohibited from reaching the casualties due to the location being difficult to access, because they cannot access the casualties without putting themselves in danger, or due to hostage situations in which terrorists actively deny access to the incident site. Perhaps current thinking on the response to terrorism needs to be modified. At times the affected crowd may need to fend for itself, drawing on resources, knowledge and skills that exist within the crowd itself.

Distinctions between the 'Crowd' and the 'Public'

It is important to highlight the difference between the 'public' and the 'crowd'. The public refers to the UK population in general and assumes that any crowd comprised largely of the 'public' will be typical of it. For example, if within the population as a whole approximately 2 percent have received formal first aid training at some stage of their lives, it can be assumed that this figure will be mirrored within any crowd, unless there is reason to assume that the individuals comprising that crowd are unrepresentative of 'the public' as a whole. Whereas 'the public' at the scene of the Tavistock Square bus bombing on 7/7 was not typical of the public, as the bomb exploded outside the British Medical Association where a meeting was taking place – full of individuals with a level of medical training, although different to what was required at the scene.[1]

The 'crowd' refers to the mass of individuals caught up in the incident itself. Usually 'the crowd' largely comprises of members of the public, yet there may be some individuals who have skills and roles specific to the situation depending on the location. For example, on-duty stewards and first

aiders at a sporting event, concert or festival or security staff at a large shopping centre. This 'crowd' correlates to the 'community of circumstance' and is identified within the current community resilience policy of the UK government's Civil Contingencies Secretariat, which shares a commonality only for the duration of the incident, in contrast to a 'community of interest'. The 'community of interest' may include worshipers of a local synagogue, mosque or church, members of a sport team or a community defined by geographic location, both of which share a common identity outside of the incident.[2]

New Threats: Crowded Places

The 21st Century marked a significant focus of the UK's approach to responding to the increased threat of terrorist attacks in crowded places, strengthening physical security by building barriers to entry and increasing the screening technology at airports in particular. Incidents such as the two failed car bombings during the summer of 2007 at the Tiger Tiger nightclub in London's Haymarket and the Jeep laden with propane gas which failed to detonate at Glasgow City Airport have catalysed the strengthening of physical security. Aside from the fact that the propane gas failed to detonate, it was the security bollards at Glasgow City Airport that prevented the Jeep from gaining entry to the airport.[3]

These attacks and others such as the Mumbai bombings of 2008 and 2011, cemented understanding that crowded places are becoming increasingly popular targets for Islamist attackers,[4] prompting the then Prime Minister Gordon Brown to commission Lord West of Spithead, then Home Office Parliamentary Under-Secretary of State for Security and Counter-Terrorism. Lord West made two fundamental recommendations. Firstly, in the short term there was a need for increased physical security around crowded areas and that physical resilience against terrorism was dependent on engaging with a wide range of local partners, including local authorities and businesses. Secondly, a more long-term approach to protection has been provided by the Centre for the Protection of National Infrastructure (CPNI). The agency runs free briefings and training courses for architects, engineers, planners, designers and other built environment stakeholders to encourage the strengthening of existing hard security measures. The CPNI also provides additional general security advice to businesses and the private sector.[5]

Initial Response: A Panicked or an Effective Crowd?

When assessing some of the 21st Century mass casualty terrorist attacks it is clear that the initial chaos following such attacks means that information flow can be difficult in the immediate aftermath. It can take time to establish exactly what type of incident has occurred, which emergency service is required and how many. It is also possible that even once information has reached the necessary channels that the emergency services can be delayed before reaching a scene, or the injured. This is what happened at the Hillsborough Football Stadium disaster in 1989. When the Hillsborough Disaster took place, it was not yet routine for emergency services, such as ambulance paramedics, to be present at the football stadium, although police officers were present. The police officers on site were excellent at dealing with rowdy fans and pitch invasions, as they still are today. However, they had limited first aid skills and were ill-equipped to assist or assess the casualties. The lessons taken from the Hillsborough Disaster have resulted in practical changes, such as a larger emergency services presence at today's sporting events and music festivals, and the like. There is also an increase in the number of stadia staff that under go first aid training, and the

presence of volunteer first aiders are required, which is certainly the case for the London 2012 Olympics.

It is clear that there have been marked changes in the approach to protecting against 21st Century mass casualty attacks. However, whilst the building of resilient infrastructure helps the response and prevention of successful acts of terror, it is also fundamental that civilians protect themselves. There are various views on the psychological state of mind of the population and their effectiveness in responding to an incident.

Richard La Piere suggested that "Danger may turn a passive audience into a shrieking, milling mass which clogs the aisles and jams the exits".[6] Historically, there has been the prevailing view that mass hysteria encompasses groups in times of crisis, with people often adopting Darwinian characteristics where individual survival would become the only priority at the expense of the crowd. In essence the belief was that the crowd would fall into mass panic therefore being of no assistance in a time of crisis, a hindrance rather than a help. John Drury sums up the premise of mass panic theorists. He suggests that they conclude 'human reactions to emergencies … lead to more problems (e.g. fatalities) than the danger that people are trying to escape from'.[7] Later theories explored the notion that actually in an emergency situation the public do not panic, instead they can make rational decisions that seek to garner the best possible outcome. For example, Mintz argued that individuals seek to be compliant in a crowd as long as the entire crowd cooperates.[8] However, once someone seeks to act individually and gains a benefit from that action it makes no sense for the rest of the crowd to continue acting cooperatively, as they will be disadvantaged. Thus what appears to be mass panic may be a reflection of calculated risk, selfishness and individualism become the rational responses but make the concept of the crowd as zero responders difficult to comprehend.[9]

Most recently, academic studies and other evidence has suggested that solidarity and communal spirit appears to be far more prevalent than previously thought. For example, during the Hillsborough disaster, football fans trapped in the pens helped each other to 'unofficial emergency exits' over two-metre high fences.[10]

Another example of camaraderie amongst crowds came from Davinia Douglass, whose face was severely injured by one of the 7/7 explosions. Davinia gave evidence in a written statement which explained that her fellow passengers gave her immediate assistance and led her from the bombed carriage.[11] Stephen Huckleberry has been honoured since his heroic efforts in the aftermath of the bombings by assisting his fellow passengers, after only one day of first aid training. Recognising that he had some skills, he felt compelled to assist.[12]

Historical Responders

It is evident that if a crowd can help themselves following an emergency situation, lives may be saved. Providing society with the skills and knowledge required to administer immediate response prior to the arrival of the professional responders is nothing new. During the Second World War, an extensive self-help attitude was adopted in the UK. The population took on public safety roles to respond to incidents caused by German bombing raids, including fire wardens and air raid wardens. [13] By March 1944, more than 1.5 million men and women where volunteering for home defence roles and an additional 5 million citizens were legally required to serve 48 hours a month as fire wardens.[14]

Sherer suggests that the reasoning behind an individual's decision to volunteer is due to contextual variables in the environment of the said individuals' social background, personality, situation and

social participation.[15] It is also suggested that the initial motivation to volunteer is due to the process of socialisation, as a result of ethnic and religious factors and due to self-perception and social expectations.[16] Notably, during the Second World War, risk and danger was widely recognised and accepted and in turn encouraged people to volunteer. Therefore in the UK it is clear that a widely accepted and believed risk may be needed before the public will volunteer their services and take an active role in resilience.

Though the UK's volunteer network began to swell following the Munich Pact, in 1938, it was not until credible new threats (such as the Korean War and the 1962 Cuban Missile Crisis) that volunteer numbers really increased. More recently, hurricane warnings issued to New Orleans, following the wake of Hurricane Gustav, resonated with residents who had personal experience with previous events and were more willing to believe that action was necessary.[17]

In the US for example, many volunteers receive first aid training, yet this is not something that has been given much priority in the UK, despite our long history of IRA attacks. The government attempts to draw in the private sector to assist with the response and resilience to terror attacks through initiatives such as, Project ARGUS (Area Reinforcement Gaining Used Scenarios) a project devised by the National Counter Terrorism Security Office (NaCTSO). It aims to raise awareness of counter terrorism issues amongst businesses and make communities more resilient to attacks by creating training packages focusing on safe evacuations of large venues.[18] Another project is Project Griffin, a police initiative to protect cities and communities from the threat of terrorism. It brings together, and coordinates, the resources of the police, emergency services, local authorities, businesses and private sector security industry in order to assist the police with evacuation procedures.[19] However, neither programme offers first aid training, despite the fact that they are perfect forums for teaching such skills. Nevertheless, the training and awareness they provide are fundamental components to building a responsive and resilient society.

The UK is virtually the only country in the European Union where training in first aid skills is not a compulsory part of the school curriculum. Despite its fundamental usefulness, first aid has only recently been added to schools (if at all) as a result of lobbying by the British Red Cross' campaign, 'Life. Live It', which forms part of the optional subject Personal, Social and Health Education. However the subject does not lead to a qualification and is therefore not at the top of the agenda for most schools.[20]

Whilst not specifically related to terror, Rosanna Briggs, Deputy Head of Emergency Planning at Essex County Council, devised a five day educational programme, known as the 'What if' campaign which can be altered according to individual school requirements and provides educational learning for school children helping them build response skills and resilience to emergency situations. The scheme has proven successful in its outreach to children however it is yet to tackle the engagement of young adults, partly due to funding as studies show that engaging children is far more effective than attempting to engage young adults.[21] Nevertheless, children carry the messages home and encourage response and resilience preparedness to take place when engaging their parents.[22] At the end of the five day programme the children were questioned about their experience. Statistics show that 82 percent of children felt more prepared to respond to an emergency, 78 percent of children knew what a risk centre was and 96 percent knew what a 'grab bag' was.[23] This level of responsiveness is a key stage in building a resilient and responsive civilian population for their generation.

The London Fire Brigade (LFB) has also put programmes in place to help train and build a resilient civilian population. In 2002 the LFB successfully set up the Local Intervention Fire Education (LIFE) programme in response to the poor relations with the community in Tower Hamlets, where

fire-fighters experienced frequent physical and vocal abuse from the locals.[24] The LFB's LIFE programme has since expanded to nine teams across London, running 260 LIFE courses and benefiting around 3000 young people from most of London's boroughs.[25] Engagement with young people is fundamental to building a resilient and responsive society, regardless of the threat. The success of LIFE has resulted in its implementation nationally and in New Zealand.[26] Engaging civil society in this way facilitates relationships between local communities and their fire services which are vital, particularly in an emergency. Although not first aid, the programme provides lessons of responsibility, danger awareness and the importance of the role the Fire Service provides for the youth of today. The question is, is this enough?

Health and Safety guidelines, at present, require just one qualified first aider per 100 employees in low risk environments and only one in 50 for environments deemed to be moderate or high risk.[27] At present, only around one in every 200 members of the UK population holds a current valid first aid certificate and around 95 percent have never had any formal first aid training. Yet, the benefit of embedding first aid knowledge within the population is clear. Immediate treatment is vital in preventing death from traumatic injury, particularly the severe bleeding from traumatic amputations and penetration injuries that are common effect of the type of explosive devices that are favoured by both the IRA and Islamist-inspired activists.

Israel - A Responsive and Resilient Population

The value of first aid skills is also well understood in Israel, where suicide bombers have detonated numerous devices in crowded places such as markets and nightclubs. Years of experience has created a resilient country and community that continuously improve their emergency services techniques, through lessons learned rather than forward planning, due to the exponential threat, and volumes of previous incidents to learn from.[28] As a result, Israeli emergency response frameworks are heavily focused on casualty management and this has led to a number of particularly interesting approaches. These include national drills that consider chemical, biological, radiological and nuclear (CBRN) response exercises in which the entire population takes part, such as Israel's fifth home front command drill last year, Turning Point 5. At least one of those scenarios will entail sustained rocket attacks on the Tel Aviv region, a geriatric hospital and/or the electrical power grid. In addition, Knesset members will also be expected to respond to a simulated attack on the Knesset in Jerusalem. However, even where the risk/threat is recognised and present, the population becomes complacent.

Israel's quick response to attacks is aided by the knowledgeable population and interoperability of the emergency services. In particular, there is a strong focus on what is known in Israel as 'market forces'. This is the ability of the general public to provide assistance to those injured in the attack with whatever resources are to hand. For example, the suicide attack on April 12 2002, saw a female suicide bomber detonate in the busy Machane Yehuda market in Jerusalem. The market was crowded with people, and in response to the incident, market traders and customers cleared tables to be used as stretchers.[29] This level of response is fundamental to Israel's formation of a resilient community, as particularly in this case, the narrow alleys that surrounded the area hampered the evacuation of the wounded, and consequently without the assistance of the bystanders, the response would not have been so rapid or life-saving.[30]

Aside from the basic rules of methodology and protocol, there is a general consensus that Israel's emergency services are able to facilitate a quick response as a result of their flexibility. Aside from the structured planned response, there are allowances made for decision-making at the ground level, as often individuals are in situations where they have to make their own decisions without seeking

advice from their seniors.[31] This level of responsibility adds to the fluid functionality of the response and the services ability to react as quickly as possible, which in turn creates an environment for building national resilience.

Naturally the involvement of the population raises concern as to whether they are experienced in perceiving secondary threats or not. However, experience creates a society that is not built on heroism but on safety and security. The population is alert and aware, and they are able take on roles that free up the first responders, which include: first report, first rescue, stretcher-bearers, and emotional support.[32]

Professor Isaac Ashkenazi of disaster medicine at Ben-Gurion University articulates an optimum level of response, which helps the community bounce back from a traumatic event. "In 20 minutes you clear the site of victims. In 60 minutes, all victims are treated in hospital. In three hours the area is completely clean of flesh and blood, but more important, in four days the area should be completely reconstructed."[33] The goal is to send a message to the perpetrators that even if the population is traumatised, they promote an image of 'business as usual.'

In recent years, this ability to harness a 'market forces' response has been formalised through the Multi-Casualty Response Vehicles (MCRV) owned by Magen David Adom (MDA), the Israeli Emergency Medical Service. When MDA was called to respond to a multi-casualty incident it sends MCRV, along with ambulances and paramedics. This model works in Israel because first aid is recognised to be very important due to its utility during mass casualty incidents, as suicide bombings are common and therefore such a response is actioned frequently.

Arming the Public

The Strategic Defence and Security Review cuts may result in sufficient cuts to frontline emergency services. Therefore the voluntary sector services such as St John's Ambulance, British Red Cross and Metropolitan Police Special Constables may be increasingly relied upon to deal with periods of high-volume call-outs. The role of existing Community First Responders—a Department of Health-run scheme in which local volunteers respond to 999 calls reporting heart attacks and treat patients until professional first responders arrive—may need to be expanded, with some local ambulance trusts needing to rely on them more heavily and for a wider range of assistance. First aid and casualty management training currently given to Special Constables could also be expanded to help them deal with mass casualty incidents.

The British Red Cross provides over 462 vehicles across the UK and much like St John's Ambulance, they support our emergency planning and response roles. The vehicles include: ambulances, fire and emergency support service vehicles, vans, coaches, people carriers and quad bikes. The British Red Cross work with the Fire Brigade by providing victim support to the fire service with emergency vehicles equipped with food, a shower, toys, a fridge, and clothes. The vehicles are essential, assisting the habitants, whose home is being extinguished in recovering from the initial shock and preparing them for the next step, be it returning to their homes or awaiting the council appointed temporary shelter.[34]

At present, there is the assumption that a conventional model of attack will comprise of an explosion, followed by a 999 (emergency) call, which summons professional responders to the scene. When a less conventional attack takes place, such as mass casualty incidents, the normal response chain can become broken or interrupted and this is where the complexities are likely to increase. For the UK to be sufficiently resilient to the threat of suicide terrorism current responsive training, resources and even basic first aid, needs to be extended beyond professional first

responders to ensure that the resources needed to deal with a mass casualty incident are readily available. Furthermore, there needs to be an acceptance that the affected crowd is frequently capable of taking a proactive role in the response, particularly if previously exposed to the right tools, for example a first aid course.

Conclusions

It is evident that even if a percentage of the crowd can act as a zero responder, those requiring immediate medical assistance could be given an increased chance of survival. Previous mass casualty incidents provide us with many lessons and can uncover benefits of seeing the crowd as a potential solution, rather than part of the problem. It is worth noting that, despite their ability and efficiency, professional responders are unable to arrive at the scene of a major incident instantaneously. The sheer logistics of having to call them, awaiting dispatch, travel to the scene, all takes time and this does not take into consideration traffic, managing equipment and the safety assessment of the scene. Further delays also occur if attacks take place simultaneously, or in close succession, as they did in Madrid in 2004 and in London in 2005.

It is essential that the 'public' and therefore the 'crowd' develop the skills to be safety aware primarily and then become responsive and resilient in any emergency situation. The Scottish Ambulance Services are training their society by developing resilience in local communities to help manage major day-to-day challenges. In 2011 the Service developed a Strategy for Community Resilience, which is committed to strengthening the partnership by working with community members, NHS Boards and the wider NHS, other statutory services, Volunteer Development Scotland and the voluntary sector to support and foster community resilience. This strategy sets out how the Service will take this forward. By providing the general public and subsequently the 'crowd' with the skills, knowledge and training to assist in future attacks. This may become a very important resource in responding to future terrorist attacks or any kind of emergency situation.

During a major incident, the affected crowd or community needs to come together and assist where necessary in order to free up the essential emergency services, so that they can focus on the most severely in need. This form of self-reliance is a model of unified assistance that has proved effective in UK previously, for example during the Second World War.

Problems

At present in order to achieve a quick response to mass casualty incidents the 'crowd' must have some knowledge, as well as the blue light services having extensive interoperable training, to ensure fluidity. Budgets restrict that. However, a centralised governmental committee that pools resources of the blue light services to make time and funds available solely for interoperable training may be a solution. Effective communication during an emergency is also a challenge, therefore utilising the media is essential. The emergency services require media training. Furthermore it is fundamental that the services build relations with the media so that they can be relied upon to deliver accurate and productive messaging to the civilian population. Finally, society today is lacking education in first aid, response and resilience, there is a lack of desire to engage. Therefore it is essential that education starts from the bottom, up. Educating children at school and providing lessons for them to take home to their parents is an effective method of educating the parents. Additionally, incorporating first aid training into existing training for special constables, project ARGUS and project Griffin would also be exceptionally beneficial. Finally, utilising the

skills and services of the voluntary sector is essential, be it military veterans or volunteer organisations such as the British Red Cross or St John's Ambulance.

*About the Author: **Montine Walters** first became interested in this area having trained and served with the Israeli National Ambulance Service, Magen David Adom. Montine worked within the United Nations Office for Disarmament Affairs in New York prior to graduating with a Distinction for her Master's in Intelligence and International Security, from the department of War Studies at King's College London. During her Master's Montine enjoyed interning with numerous think tanks including the Royal United Services Institute within the National Security and Resilience department. Montine has since worked as a Risk and Security consultant for Diligence LLC and is now enjoying a role with the Greater London Authority as an Olympic Resilience Officer. Montine enjoys working within the risk and security field, understanding threats and building resilience, and hopes to further nurture her interests in crisis management, resilience, protective and business intelligence, threat analysis, business continuity, travel security, public safety and terrorism.*

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Book Review

Anthony Richards, Peter Fussey and Andrew Silke (*eds*.).
Terrorism and the Olympics: Major event security and lessons for the future.

Reviewed by Robert W. Hand University of Aberdeen Istanbul, Turkey

As the London Olympics and Paralympics start dates rapidly approach, the practitioners of counter-terrorism for major sporting and entertainment events are intensely focused on making the 2012 Games and their associated gatherings safe and incident free. The planning, preparations, and exercises started months ago are continuing, and the vital links for international cooperation are being established or strengthened so that a comprehensive effort to protect venues, competitors, spectators, and transport systems across London and at UK points of entry can be effectively mounted. In as much as it is possible, we can take comfort that our anti- and counter-terrorism professionals, seen and unseen, are doing exactly what is required for our security during this summer's events.

In advance of much of this milieu of practical activity, in the summer of 2011 Routledge published a hardcover, edited volume that includes submissions from eleven noted academics, anti-, and counter-terrorism practitioners with the goals of; (1) producing a volume that would fill gaps in our studies of terrorism within the environment of the Olympics, Paralympics, and major events, and by doing so, (2) publishing what might be considered a complete primer covering the full spectrum of interrelated aspects of anti- and counter-terrorism efforts not only germane to the Olympics but to all major, mass-audience events. *Terrorism and the Olympics: Major event security and lessons for the future*, edited by Anthony Richards, Peter Fussey and Andrew Silke, has most certainly attained the first goal through its unique and comprehensive approach, and it has definitely accomplished the second in that it *is* that much-needed primer.

As one of the superb series Political Violence, edited by the late Professor Paul Wilkinson, *Terrorism and the Olympics* faithfully follows a standard formula. It is a high-quality and academically-sound volume that examines a specific theme in great detail by lucidly taking the reader through the issues and arguments of its subject. The chapters' applicability also extends beyond the Olympics/Paralympics to include any major sporting or mass entertainment event. As a result, the book covers such critical issues as an examination of terrorism specifically directed at the Olympics (Chapters 2 and 13), the potential for and methods of attacks by Al Qaeda and jihadist terrorists (Chapter 3), terrorist targeting (Chapter 4), the practical side of securing and conducting surveillance for the facilities and transport (Chapters 5–7), and the practical measures underway to provide the complete legal and internationally-coordinated efforts to yield a secure environment (Chapters 8–12).

As an edited volume, *Terrorism and the Olympics* presents the reader with a logical flow of well-written chapters that, by their order and the breadth of topics covered, facilitate the reader's understanding and grasp of the editors' purpose. While the book suffers somewhat from the most common shortcoming of edited volumes (an occasional unevenness of writing styles between the chapter authors), the strength of the editors is evident in the consistency of concepts, definitions, and terminology used by the chapter authors throughout the volume. Likewise, the editors have done a superb job of including the correct topics and selecting quality authors who can represent the full spectrum of the discipline within the framework of the Olympics, major events, and mass gatherings. And this quality is exactly where *Terrorism and the Olympics* shines. In our discipline, it is rare to find a compilation of chapters joined together in one themed-binding and written by separate authors that efficiently bridges the divide between theorists and practitioners. This edited volume is one of those few rare cases. *Terrorism and the Olympics*, however, does more.

The editors of *Terrorism and the Olympics* have not only produced a volume that covers the theory *and* the practicalities of the topic by using a holistic approach to the subject, they have somehow managed to do so in a way that encourages the reader to research further. For example, Afzal Ashraf's chapter "Al Qaeda and the London Olympics" is an amazingly lucid and well-written description of the motivation, means, methods, and more for this international threat. While necessarily limited for the purposes of this book, this chapter is one of several that enticed this reader to read and explore other texts in this very specific discipline. Certainly, anyone wanting a synopsis of Al Qaeda should read this chapter. Likewise, Silke's excellent chapter on "Targeting", Swain's detailed chapter "Securing the Public Transport", and Weston's *essential* chapter regarding, "The challenge of inter-agency coordination" are three examples of cogent, concise, and well-written chapters that inform while engendering in the reader an intense desire to know more.

If there is a negative to *Terrorism and the Olympics* it is that as a part of the Political Violence series, the hardcover version is excessively expensive (Amazon.co.uk lists it as £68.50-£81.00). This might be acceptable for some readers and their budgets. But the idea that comes across clearly in the organisation, design, and written text of this book is that it is intended to have practical as well as academic-theoretical uses. To produce such an expensive volume and expect wide reading for practical purposes is counter-intuitive in today's economic environment. Fortunately, the paperback back version is due out in April 2012 and should be available for around £25.00.

Beyond cost, however, there is nothing negative of any consequence to say about this unique work, and much more positive than can be written about it in this short review. For anyone studying terrorism and mass-audience events *or practicing* anti- and counter-terrorism for them, *Terrorism and the Olympics: Major event security and lessons for the future* is an absolute must-have in your library as soon as you can possibly get a copy.

About JTR

In 2010 the Centre for the Study of Terrorism and Political Violence launched the online Journal of Terrorism Research. The aim of this Journal is to provide a space for academics and counter-terrorism professionals to publish work focused on the study of terrorism. Given the interdisciplinary nature of the study of terrorism, high-quality submissions from all academic and professional backgrounds are encouraged. Students are also warmly encouraged to submit work for publication.

Authors who wish to have an article considered for publication should consult the submission guidelines or email gm39@st-andrews.ac.uk for further information.