PUBLIC ATTITUDES TO GLOBAL UNCERTAINTIES

A Research Synthesis exploring the trends and gaps in knowledge

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Executive summary

This research synthesis for the Research Council UK's (RCUK) Global Uncertainties Programme examines key findings from academic works and public reports concerning public attitudes in Britain on terrorism, cyber-security, threats to infrastructure, proliferation of Chemical, Biological, Radiological and Nuclear (CBRN) weapons and technologies, ideologies and beliefs, and transnational organised crime. The synthesis draws on public opinion data from private polling firms and media sources, as well. For certain themes, particularly terrorism, comparisons are made with research on public attitudes in the United States (US).

The key findings of this review are the following:

- There is little systematic inquiry of public attitudes across the topical areas covered by this review.

- While public attitudes are not a *primary* focus of academic works there are many references to public opinion and perceptions of risk. In general, there is greater analysis of public attitudes to terrorism, the proliferation of CBRN and certain aspects of ideologies and beliefs (relating to violence and extremism).

- Public attitudes to government responses to threats are an important area of academic study and public enquiry but are often uninformed by public attitudes to the actual threats themselves.

- A secondary focus of academic and public reports on public attitudes concerns the role of the media in shaping levels of public concern. However, there is less attention to the role of information networks more broadly and new media such as blogging and social networking in forming public opinion.

More specific findings for each of the themes are summarised below.

Terrorism
Public opinion research has not been an important focus in the study of terrorism in the United Kingdom (UK), with most recent academic work on public attitudes to terrorism concentrated in the US. Although the actual risk that people will be personally affected by terrorism is extremely small, polling indicates that a significant minority of people expressed concern that they will be a victim of a terrorist attack. Public attitudes both in UK and the US regard terrorism as a more important public policy priority in the aftermath of September 11th. Framing issues in terms of fighting terrorism increases support for specific laws, measures and policies. There is broad public support for post-September 11th counterterrorism measures although there are notable exceptions such as opposition in UK to government proposals to extend the pre-charge detention period for terrorism suspects and opposition in the US to government monitoring of personal phone conversations, emails and post. In the US, the literature indicates there is public

acceptance for measures that specifically target Muslims, and it appears the proportion of the public who express negative views of Muslims is increasing.

Cyber-security

There is no clear definition of cyber-security, which obscures rigorous study of public attitudes to the problem. Most of the work on attitudes to cyber-security is conducted by private Internet security firms and government agencies. The predominant focus of these is on attitudes of businesses to cyber-attacks and security measures they have adopted to address potential threats. There is otherwise very little evidence of public attitudes to cyber-security. In the academic literature, one notable thread of research examines the use of the Internet by criminal networks and terrorist organisations. These works critique suggestions in parts of the popular media that extremist and terrorist organisations may use the Internet to launch attacks. In turn, researchers have critiqued the use of the term 'cyber-terrorism' and explain that while terrorist groups are using the Internet, thus far they have shown little inclination to launch 'cyber-terrorist' attacks. A second thread of debate in the literature concerns government legislative and regulatory responses to the perceived threat of cyber-attacks even though there have been no confirmed incidents of physical infrastructure being compromised by 'cyber-terrorists'.

Critical infrastructure

The protection of critical infrastructure has recently entered public debate through related concerns of terrorism and cyber-security. It is feared that these might disrupt or destroy physical infrastructure such as public transportation, water supplies, and energy for industry and household uses. As the term 'critical infrastructure' has become more widely used in public debate, its meanings have also changed which makes it difficult to assess public attitudes to threats to critical infrastructure. At present, there is no systematic assessment of public attitudes to critical infrastructure protection, a field that is emerging and quite fragmented. There is also no coherent body of academic works or public reports on public attitudes to critical infrastructure. Like cyber-security, researchers have noted that the popular media and entertainment industry have helped heighten public concern that certain critical infrastructure is vulnerable to attack or of shutting down. Some studies have also assessed how responses to address the vulnerability of critical infrastructure, such as the creation of safety zones and barriers in urban planning, have generated greater fear among people and feelings of personal insecurity.

Proliferation of chemical, biological, radiological and nuclear weapons and explosives (CBRN)

Public perceptions of CBRN weapons are highly influenced by the Cold War era. They are often confused with weapons of mass destruction and, hence, lead to high levels of fear amongst the public. These weapons are seen as very specific and distinct from other weapons by the public in part due to the consensus and taboo around using CBRN weapons. Grassroots social movements have been and remain influential in shaping public attitudes to CBRN weapons, the Campaign for Nuclear Disarmament being an example of this. However, the taboo against using CBRN weapons may be eroding

slightly with the emergence of what some have termed 'non-lethal' chemical or biological weapons, such as a fentanyl derivative that was used with disastrous outcomes by Russian authorities during the Moscow theatre siege in 2002. Recent studies show that public opinion still regards nuclear weapons as a positive deterrent for peace and security and is against unilateral disarmament while supportive of multilateral disarmament. For chemical and biological weapons, ignorance essentially shapes public outlooks. The use of a particular terminology in the media (whether CBRN, 'poison gas' or 'bioterror') clearly shapes perceptions of these potential threats. A number of works on risk communication emphasise the need to balance the provision of adequate information to the public with the need to avoid overstating the threat, or adequate threat communication. Researchers of CBRN also stress that particular weapons will become more attractive to terrorists the more the public fears them. Thus, understanding public attitudes and informing them accordingly is a crucial part of their governance.

Transnational organised crime
Public attitudes to transnational organised crime are difficult to assess as it is a very specific category of crime that blurs with crime in general. In the UK, there is no survey programme that examines concern about 'organised crime' as a sub-category of crime in general yet public opinion polls indicate that a large majority of people consider organised crime to be a big problem. Further, opinion surveys show that 'crime' ranks in the top five issues that are of greatest concern to the British public. The importance of crime as a public policy issue increased perceptions of threats, with a growing proportion of the public feeling that levels of crime and insecurity are worsening even though official crime statistics show that crime levels are declining. Drugs are seen as the leading cause of crime in UK. Further, drug dealing and drug smuggling, two important areas of transnational organised criminal activity, are thought to be the most harmful to society when the public is asked to rank different types of crime.

Ideologies and beliefs
This review considers public attitudes to ideologies and beliefs relating to the perceived causes of conflict, social division and radicalisation. In particular, it focuses on the attitudes and beliefs of British Muslims, who increasingly have come to be viewed as a threat to security. Opinion surveys comparing the values and beliefs of the general public and British Muslims confirm that Muslims are more conservative than the general public on social issues such as abortion, sex before marriage and homosexuality. Surveys also indicate that Muslims are loyal to both country and religion and express confidence in democratic institutions, indeed more than non-British Muslims do for some institutions. While the attitudes by the general public of Muslims has not changed greatly after the September 11th and London July 7th attacks of 2005, the literature indicates there are growing concerns amongst the British public that Muslims are not integrating. This compares with distinctly more negative attitudes to Muslims in the US (evident in recent political controversies and media coverage concerning the proposed 'Ground Zero mosque' and the aborted burning of Qur'ans by a radical Florida preacher). Academic works have been strongly critical of US or UK policies and programmes (such as *Prevent*) to fight radicalisation and extremism under the rubric of counterterrorism. A

further strand of academic study examines how public views of Islam are altering state-society relations and undermining confidence in the multi-cultural model that has been the basis of Britain's citizenship regime and approach to social cohesion.

Chapter 1: Introduction

This report is a research synthesis for Research Council's UK (RCUK) Global Uncertainties Programme. It aims to uncover what the current academic literature and reports state about UK public attitudes to the six areas of the Global Uncertainties programme. The six priority areas of the review cover:
1. terrorism
2. cyber-security
3. threats to infrastructure
4. proliferation of chemical, biological, radiological & nuclear weapons (CBRN) and explosives
5. transnational organised crime and
6. ideologies and beliefs

The RCUK programme "Global Uncertainties: Security for all in a Changing World" is one of the six RCUK cross council themes. Global Uncertainties brings together the activities of the seven Research Councils in response to global security challenges. The research funded and activities supported under this programme will help governments, businesses and societies to better understand the complex nature of the drivers of security and provide new knowledge about how threats to security develop and how they can be predicted, detected, prevented and mitigated. Public perception and attitudes are key issues for the Global Uncertainties Programme as the prosperity and the security of UK citizens will be affected by responses to these challenges, both nationally and internationally.

Multiple methods were used including key word searches of academic search engines, hand searches of relevant academic journals and the publications of individual academics and research centres, personal communication with experts in each of the priority areas, and searches of the print media. These are explained in further detail in Annex 1.

1.1. Public perception and the methodological quandary

This report focuses on academic literature and public reports of public attitudes in the UK in six areas of interest within the Global Uncertainties programme. However, public attitudes, or 'perceptions' as the literature often refers to them as, are notoriously difficult to study. Perception is a main part of human intelligence and a key component to understanding human behaviour (Salvendy, 1997). It is the mechanism with which a person evaluates inputs from the external environment which in turn determines their behavioural responses (Cooper, 2003).

Risk

Traditionally, the study of public attitudes and perceptions of risk is concentrated in quantitative research. Drawing on psychometric research, studies have sought to objectively evaluate public attitudes and risk perceptions. Methodologically, researchers sought to measure individual perceptions toward the same objectively existing risks defined by scientists. What was meant by risk was pre-supposed by researchers without first questioning whether the research participants shared the same underlying meaning of risk. Thus, quantitative methods have struggled to capture the complexity of risk and impose prior assumptions that cannot themselves be tested. The results of such research methods can easily be interpreted in ways that misrepresent peoples' actual attitudes toward threats.

A deeply-engrained assumption in conventional analyses of public attitudes is that they are intrinsic to the individual respondent being questioned. Whether attitudes, beliefs or opinions are the object of interest, surveys assume that these exist objectively in the individual respondent and can thus be objectively measured. Yet, such meanings are open to negotiation, and attitudes or values associated with them likewise betray shifts, ambivalence, and openness to negotiation with others. That is, people's responses to questions about such significant issues as 'risks' (or 'benefits' or 'environments' or 'communities' etc) are not expressions of a complete and pre-existent position, intrinsic to the respondent as a disconnected, sovereign individual. How people view risks is open to negotiation when individuals interact with others. Attitudes are more complex, textured and less concrete than conventional survey methods based in quantitative approaches can uncover.

Wynne (2007) showed how standard attitude surveys and opinion poll methods fail to capture the range, complexity and rich texture of such concerns about risk and dependency. Using qualitative approaches such as 'sensitivity analysis', he scrutinised the findings of earlier public opinion polling undertaken in Cumbria. Wynne showed that although surveys indicated a local acceptance of nuclear industry development in Cumbria, peoples' views were more fatalistic, self-denigrating and negative than quantitative surveys of people's perceptions had indicated.

Recent insights into perceptions of risk suggest that attitudes toward specific threats cannot be divorced from the social and economic context within which they are situated. There is greater recognition now that public attitudes towards risks are as much based on material social factors (and, hence, fluid, conditional and ambivalent) as they are on perceptions of abstract and narrow technical definitions of certainties and probabilities (Royal Society, 1992). Sociological explanations of public risk perceptions suggest that

survey techniques may not capture, and indeed might inadvertently conceal, the important social, historical, socio-economic and psychological factors that influence people's experience and feelings about risk.

A few examples illustrate the shortcomings of quantitative approaches to understanding public attitudes to threats. Traditional surveys cannot distinguish social dependency from public trust. If, as is often the case, there is no observable public opposition to a hazardous activity, it is usually assumed that this means the public accepts the hazard and trusts authorities to manage the risk. Yet research shows this to be misleading. Very often people may be at best ambivalent about the hazardous activity and the extent to which it can be effectively regulated. However, they do not necessarily express their misgivings or opposition in public because they feel they would be denigrated and that their opposition would be futile. Another example in the political sphere is what appears to be a fundamental shift in public attitudes when opposition emerges may actually reflect a minor shift in opinion.

Attitude survey work tends to treat such contradictions as signs of weakness or incapacity, and indeed often overlook the fine-grained reality of how people understand risk. But these shifts in peoples' perceptions should be seen less as weaknesses or lapses from rational maturity than as authentic expression of conflicts and the different meanings of the issues themselves and people's experience of them. The way in which attitudes and beliefs are understood in conventional survey approaches is misleading. This is because the object of the question, for example the attitude of a respondent about risk, pre-supposes that everybody so questioned shares the same, supposedly objective meaning of the risk.

Social amplification of risk
The social amplification of risk is also an important component when analysing the public perceptions of the six security risks covered in this report. The comparison between cyber-security and terrorism is quite revealing. While the number of victims of cyber-security is much higher than terrorism, it is a minor issue in driving the policy process in terms of security protection. Indeed, risk events interact with psychological, social and cultural processes in ways that can heighten or attenuate public perceptions of risk and related risk behaviour. Behavioural patterns, in turn, generate secondary social or economic consequences but may act also to increase or decrease the physical risk itself. Secondary effects of threats create demands by political leaders for additional institutional responses and protective actions, or, conversely (in the case of risk reduction), impede needed protective actions. The social structures and processes of risk experience, the resulting repercussions on individual and group perceptions, and the

effects of these responses on community, society and economy compose a general phenomenon that has been termed the *social amplification of risk* (Kasperson et al., 1988).

1.2. Public perception of threats: a cross comparison

As stated above, this report addresses public attitudes of six fields of inquiry within the Global Uncertainties programme. Before considering evidence from academic literature and public reports on public attitudes in these areas, it is useful to consider opinion polling data on how the public in the UK perceives security threats. Ipsos MORI interviewed 2,138 adults aged over 18 across the UK in April 2007. The poll finds 62 per cent believe that Britain is under greater threat of violent attack than at any time since the Second World War. The MORI poll suggested that violent street crime, terrorism and serious organised crime are considered by the public as the greatest threats to Britain (BBC, 2007).

The following table shows the evolution of public perception according to opinion polls on the perception of most worrying topics in 1997, 2003 and 2007.

Which three of these topics do you find most worrying in Britain?			
	1997	**2003**	**2007**
Crime and violence	68%	50%	51%
Immigration control	15%	44%	45%
Terrorism	21%	42%	33%
Health care	N/A	40%	30%
Education	N/A	23%	21%
Poverty and social inequality	39%	23%	20%
Threats against environment	19%	14%	17%
Taxes	12%	18%	17%
Unemployment (and jobs)	45%	12%	12%
Maintaining welfare state	25%	17%	11%
Corruption/financial/political scandals	15%	11%	10%
Don't know	1%	0%	2%
Source: Ipsos MORI			

The Eurobarometer surveyed European attitudes to eight major risks (Table 1.1). Poverty and lack of drinking water was ranked the highest threat. International terrorism ranked fourth while the proliferation of nuclear weapons ranked eighth.

Table 1.1: European opinion-based evaluation of systemic risks (in descending order)
1) Poverty and lack of drinking water 69%
2) Climate change risk 47%
3) Economic crisis 39%
4) International terrorism 35%
5) Spread of infectious diseases 32%
6) Armed conflicts 29%
7) Increasing world population 24%
8) Proliferation of nuclear weapons 15%

Source: Eurobarometer, special Eurobarometer 313; Europeans' attitudes toward climate change; January-February 2009

Chapter 2: Public attitudes to terrorism

Summary points
- In general, public opinion research is not an important focus in the study of terrorism in Britain. Recent research on public attitudes to terrorism is concentrated in the US.   - Although there are relatively few studies that focus primarily on public attitudes to terrorism, a number of works do consider public perceptions and attitudes in relation to risk communication, behavioural changes in response to perceived threats, and the influence of elites and the media in framing issues as part of policy-making processes.   - There is a wide discrepancy between the actual risk that people will be personally affected by terrorism and the proportion of the public polled who express worry that they will be a victim of a terrorist attack.   - Public attitudes both in Britain and the US regard terrorism as a more important public policy priority in the aftermath of September 11th.   - There is broad public support in the US and UK for post-September 11th counterterrorism measures. Framing issues in terms of fighting terrorism can increases support for specific laws, measures and policies.

2.1 Introduction

This chapter examines public attitudes in the UK of terrorism. Some of the questions addressed here include: what were public attitudes to terrorism in Britain after the September 11th attacks, and are there notable variations amongst different social groups? Is there a connection between people's attitudes to terrorism and government responses to handle the perceived threat?

This section explores British academic and public studies to provide some insight into these questions, which are the crux of the debate on the right balance between security and liberty and appropriate government responses to the risk of terrorism. Public opinion polling and academic research on American attitudes to terrorism are also considered. Recent academic research on public attitudes to terrorism is concentrated in the US. It is perhaps because of Britain's long background of responding to terrorism, and hence a greater societal familiarity with terrorist attacks, that there has been less of an impetus to understand how recent terrorist attacks are shaping the public outlook.

2.2   British attitudes and responses to terrorism

Polls conducted

2.2.1   Public perceptions of the threat of terrorism

In July 2005, after the July 7th terrorist attacks on the London transport system, MORI conducted a survey for King's College London on how Londoners were affected. The survey finds that 51 per cent thought it was very likely that London would be attacked again in the near future. The survey also assesses how people learned about the attacks and their behavioural responses in the aftermath of the attacks. A MORI survey of 1,014 adults in London in late September 2005 two months after the July 7th attacks finds that 43 per cent thought it was very likely that there would be another terrorist attack in London while 39 per cent thought it was somewhat likely. There were mixed attitudes in responses as to what were considered to be appropriate responses to the threat of terrorism. Seventy-nine per cent thought it was acceptable to deport non-UK citizens who encourage terrorism. Forty-five per cent thought it was acceptable for the police to have a policy of 'shoot to kill' for suspected terrorists; 51 per cent thought it was unacceptable. A MORI survey in March 2004 of 1,000 adults aged 16 and older finds that 83 per cent were happy to carry identity cards, a government proposal at the time which was in part justified as a response to the threat of terrorism. Three in four (74 per cent) were either not very or not at all concerned that the introduction of cards could have a negative impact on their civil liberties.

YouGov conducted a poll in March 2008 on government proposals to extend the pre-charge detention period of terror suspects from 28 to 42 days. Only 13 per cent supported the government's proposal to extend the pre-charge detention period whereas 70 per cent agreed with the statement that 'The 28-day limit should remain, but the police should be allowed to question suspects further after they have been charged, if the police obtain fresh evidence on related offences'.

A YouGov/Sun poll in July 2010 assessed public attitudes to terrorism in Britain five years after the London July 7th attacks. In the five years since the attacks, 25 per cent thought that the threat of terrorism had increased whereas 17 per cent thought it had decreased. A majority (53 per cent) thought it had not changed. Fifty one per cent thought that the former Labour government effectively dealt with the threat of terrorism and extremism compared with 35 per cent who did not.

One aspect of public opinion polling in Britain in the post-September 11th context has been the assessment of Muslim social and political attitudes as well as attitudes toward

Muslims. John Adams, an eminent scholar on risk, explains, 'Terrorism is a *reflexive phenomenon* whose future course will depend on vast numbers of interactions, and reactions, in a complex web that, in a hypermobile world, contains all [of] the world's people, who view terrorism and its threats – *and promises* – through a variety of incompatible perceptual filters' (Adams, 2004). Thus, public opinion research has sought to better understand if there are important attitudinal differences of British Muslims and British non-Muslims concerning the threat of terrorism as well as government responses to deal with the problem. Given that the contemporary threat of terrorism has been framed by political leaders and the media predominantly as a problem of Islamic extremism, and high-profile government counterterrorism initiatives in the UK have targeted British Muslim communities, sections of the media and human rights activists have voiced concerns of a heightened risk of new social divisions being created.

The YouGov/Sun poll assessed public opinion of British Muslims in light of the July 7th attacks and the responses of British Muslims to the bombings. A majority (60 per cent) reported that their opinions of British Muslims had not changed whereas 33 per cent were more negative toward British Muslims. Further, 43 per cent thought that British Muslims had become less integrated into British society in the five years since the July 7th attacks; ten per cent thought that British Muslims had become more integrated and 36 per cent reported there was no difference in the integration of British Muslims into wider British society.

A MORI poll of British Muslims for *The Sun* newspaper conducted on July 21st and 22nd 2007 found that most identified strongly with both their British and Muslim identities; 46 per cent very strongly identified with being British and 40 per cent fairly strongly. Sixty eight per cent very strongly identified with being Muslim and 27 per cent fairly strongly. Regarding Muslim views on civil liberties, 67 per cent thought it was unacceptable to detain terror suspects without trial and 71 per cent agreed it was unacceptable to permit evidence obtained abroad by the use of torture to be used in British courts. There was a close split on opinions of whether terror suspects should be placed under house arrest, with 43 per cent agreeing it was acceptable and 39 per cent finding it unacceptable.

IPSOS MORI polled 1,505 Londoners, including 564 Muslims, in September and October 2007. The survey finds that the views of London Muslims are similar to the views of non-Muslim Londoners on a variety of issues ranging from democracy to concern about crime, and freedom of speech to pride in the local neighbourhood. 68 per cent of Muslims were very or fairly worried about another terrorist attack in London compared with 66 per cent of all Londoners. 86 per cent of Muslims thought it was very or fairly important for the Metropolitan Police to work closely with communities such as

the Muslim community to deter terrorist attacks compared with 91 per cent of all Londoners.

2.2.2 Public attitudes to terrorism

As explained above, there has been relatively little consideration of public attitudes to terrorism in recent British literature. This section reviews several notable works that do assess directly or indirectly recent attitudes to terrorism in the post-September 11th (and, for some, post July 7th) context. While public attitudes and risk perceptions of terrorism are not a central concern, many works have critically assessed the government's counterterrorism responses and their impacts on civil liberties and the rights of particular communities that have come under suspicion, particularly Muslims.

Attitudes to terrorism and civil liberties
The 2005 British Social Attitudes Survey assesses perceptions of the threat of terrorism and related these to public attitudes toward civil liberties. Fears of terrorism were not asked about in the survey before 2005. The London July 7th attacks occurred when the survey was in progress, permitting an assessment of how the bombings affected both the perceived threat of terrorism as well as attitudes toward civil liberties. Overall, 22 per cent thought the risk of terrorism was exaggerated compared with 43 per cent who did not (Johnson and Gearty, 2007). Unsurprisingly, those interviewed after the July 7th bombings were more likely to agree that the threat of terrorism was not exaggerated (68 per cent), whereas before the attacks more agreed that people exaggerated the threat.

A series of eight questions were asked in the survey to assess people's views of civil liberties, including:
-   torture of suspected terrorists
-   banning peaceful protests and demonstrations
-   denying the right to trial by jury of people charged with a terrorist-related crime
-   banning certain people from saying whatever they want in public
-   having compulsory identity cards for all adults
-   detention without charge of terrorist suspects for more than one week
-   putting suspected terrorists under certain restrictions such as electronic tagging
-   wiretapping and other surveillance of terror suspects.

Of these, only two of the eight measures (torture and banning peaceful protests) had clear majorities of people who thought they were unacceptable. There was an even split among the public on banning free speech and denying a trial by jury to people charged with terrorist crimes. Large majorities agreed that it was a price worth paying to institute the

other measures. Johnson and Gearty (2007) did a multivariate analysis using logistic regression to determine the factors associated with different views of civil liberties. They found that views on counterterrorism measures were very much being shaped by current events, which notably included the London July 7th attacks. Those who thought that the risk of a terrorist attack was exaggerated were more likely to support civil liberties whereas those who did not think that the threat was exaggerated (a majority being those interviewed after the July 7th attacks) were more likely to agree that various security measures were a price worth paying. Importantly, they also explain that there has been a marked decline in public support for fundamental civil liberties in the Britain over the last twenty to twenty-five years predating both the September 11th attacks in the US and the July 7th London attacks. However, they observe that even the mention of something being a counterterrorism measure makes people more willing to agree that it is a price worth paying.

The main focus of British literature on public attitudes to terrorism is the social impacts of counterterrorism laws and measures. In 2010 the Home Office published a major review of studies that address perceptions of counterterrorism legislation enacted since 2000 (Dstl, 2010). It finds that there is support and acceptance for counterterrorism measures among the general population but that Muslims are less supportive and regard the impacts of counterterrorism measures negatively. However, it concludes that there is insufficient research on public attitudes toward counterterrorism measures across different social groups in Britain, and that the evidence base is biased toward the attitudes and perceptions of Muslims but that many of these works have methodological weaknesses.

An influential report with regard to the perceived negative impacts of counterterrorism on Muslim communities in the UK is an inquiry by the House of Commons Communities and Local Government Committee on Preventing Violent Extremism, more widely known as 'Prevent' (2010). This was the government's 'hearts and minds' response to the threat of domestic Islamist terrorism and was part of the overall UK counter-terrorism strategy (CONTEST). The report raises concerns that the involvement of the Department of Communities and Local Government as the lead implementing agency for *Prevent* has compromised its broader mandate in promoting community cohesion and capacity building to combat exclusion and alienation. It criticises the singular focus on Muslims in the Prevent programme and concludes, "any programme which focuses solely on one section of a community is stigmatising, potentially alienating, and fails to address the fact that that no section of a population exists in isolation from others. The need to address extremism of all kinds on a cross-community basis, dependent on assessed local risk, is

paramount." It also finds that the government had not been successful in countering the perception that preventing terrorism defines its relationship with Muslim communities.

The concerns raised in the report by Parliament are echoed in corners of the British media. A *Guardian* columnist writing in July 2010 argued, "Government policies born out of July 7th, perhaps informed by political expediency, have stigmatised Muslims en masse. This has led to further stereotyping and humiliation. The pressure created by policies such as Prevent has placed a terrible burden upon Muslims to identify, fight and root out terrorists from within their communities." It continued, "[t]he government's policies have not only stigmatised Muslim communities but also created such suspicion and discord that Muslim communities have actually been discouraged from talking about and reflecting upon extremism and terrorism" (Shibli, 2010).

A report published by the Institute of Race Relations (Kundnani, 2009) also examines the impacts of the Prevent programme, specifically with respect to Muslim communities. It argues that the programme, "constructs the Muslim population as a 'suspect community', fosters social divisions among Muslims themselves and between Muslims and others, encourages tokenism, facilitates violations of privacy and professional norms of confidentiality, discourages local democracy and is counter-productive in reducing the risk of political violence" (Kundnani, 2009: 8). It also likens the Prevent programme to "one of the most elaborate systems of surveillance ever seen in Britain" (ibid.). The report is cited in the House of Commons' report on the Prevent programme, and the author was interviewed by the Parliamentary Committee to give evidence. One concern raised in the report for Parliament is that the study was based on a limited number of interviews; nonetheless, it was seen to capture the perception of many Muslims that they have been unfairly targeted by counterterrorism measures.

Attitudes to risk of terrorism
Another thread of work examines the role of the media in heightening the perceived risk of terrorism and, related, military action. Lewis (2004) examines the role of television in shaping British public opinion to the Iraq War. He finds that public support for military action was aided by media coverage that repeated pro-war assumptions. Lewis observes that once the war began the debate in the British media shifted from one of open and wide ranging debate to a stance that was determinedly pro-war in its outlook. He explained that the embed programme of the US military and Ministry of Defence, whereby journalists were embedded with military personnel as they fought the Iraqi military forces at the beginning of the war, played an important role in shaping coverage that focused on progress in the military campaign rather than on the legality and efficacy of the war itself.

Risk society

A small body of academic work debates theoretical points concerning how the political debate about terrorism post-September 11th has been constructed and the implications this has for how states communicate with the public. Key analytical concepts that have been used include 'risk society' and 'governmentality'. Ulrich Beck, a German sociologist, has used 'risk society' to describe how modernisation processes and the transition from industrial societies has changed the ways in which people perceive risk as something all pervasive and beyond control. This different way of perceiving risk has affected a shift in governance, in turn, from the distribution of goods to preventing 'bads' such as the spread of disease and terrorism. 'Beck has claimed that September 11th drove home the lesson that we now live in a "risk society", a society in which there are uncontrollable and unpredictable dangers against which insurance is impossible' (Aradau and Van Munster, 2007).

Mythen and Walklate (2006) use the risk society thesis to understand how meanings of 'new terrorism' have been shaped by the state and presented by the media. They argue that 'distinct understandings about the nature of "new terrorism" have been created, and these understandings have themselves impacted upon both public opinion and the formation of domestic and international security policy' (Mythen and Walklate, 2006: 123). They point out that one manifestation of the risk society has been an intensification of interest in risk in the media, which has had problematic consequences as reportage focuses now on 'individual securities and fears'. However, Aradau and Van Munster (2007: 4) argue that Beck's understanding of risk, which was originally formulated in the context of environmental movements in Germany in the 1970s, 'does not travel well to the current practices and technologies of risk deployed in the war on terror'. Alternatively, they draw on the Foucauldian notion of 'governmentality', referring to 'the "conduct of conduct" or the social practices that attempt to shape, guide or affect the behaviour of persons', to argue that the emergence of a new 'precautionary element' has 'given birth to new configurations of risk that require that the catastrophic prospects of the future be avoided at all costs' (Van Munster, 2007: 5).

Risk communication

Public attitudes to terrorism are also addressed in the context of risk communication. Shepperd et al. (2006) are critical of what they describe as the media's tendency to suggest that people 'panic' in response to terrorist attacks, and they review public reactions to four terrorist attacks, including the London July 7th bombings, to show how people's responses were more orderly and rational than is supposed. However, they do suggest the limits of their findings, explaining 'that social and cultural backgrounds

between and within countries may influence the behavioural responses to terrorism' (2006: 220). To better understand people's responses to terrorist incidents, they address the literature on perceptions of risk. Crucial here is the 'social risk amplification' theory, as described in the Introduction, which explains how social interactions between institutions and individuals 'may amplify (or attenuate) psychological, social, physical, and economic impacts of an incident as part of an ongoing process of "risk communication" that flows among and between the members of a society' (2006: 225). Kasperson et al. (1988) who developed this theoretical position explain that behavioural patterns engendered by people's perceptions of risk may 'generate secondary social or economic consequences but may act also to increase or decrease the physical risk itself. Secondary effects trigger demands for additional institutional responses and protective actions, or, conversely (in the case of risk attenuation), impede needed protective actions.'

2.3   American attitudes and responses to terrorism

2.3.1   Public perceptions of the threat of terrorism

Public attitudes to terrorism are assessed by research and news organisations, particularly in the wake of the September 11th attacks and the subsequent pursuit by the US government of a range of domestic and international anti-terrorism policies. There was a sharp increase in public concern of the threat of terrorism in the wake of the September 11th attacks. Huddy et al. (2002a) note that terrorism was never a prominent national issue in the US before the September 11th attacks. One per cent or fewer of respondents mentioned terrorism as one of the most important issues facing the US in polls between 1995 up to September 2001. Although people felt more at risk of being a victim of a terrorist attack in the immediate aftermath of the September 11th attacks, by early 2002, the proportion of Americans who worried that they would be personally affected by terrorism had dropped to roughly the same number as those who were concerned in the late 1990s and early 2000s about being a victim of an Oklahoma City-type bombing (Huddy et al., 2002b).

Gallup tracks peoples' attitudes toward terrorism, both their feelings of personal threat as well as the likelihood of another terrorist attack in the US. It asks: *'How worried are you that you or someone in your family will become a victim of terrorism -- very worried, somewhat worried, not too worried, or not worried at all?'*[1] On September 11th, 2001, 23 per cent were 'very worried' and a further 33 per cent were 'somewhat worried'. A year

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[1] Gallup. 'Terrorism in the United States'. Accessed August 12, 2010.
http://www.gallup.com/poll/4909/Terrorism-United-States.aspx

later, in September 2002, those numbers had dropped to eight per cent and 30 per cent, respectively. In January 2010, nine per cent were 'very worried' while 33 per cent were 'somewhat worried'. Gallup also asks: 'How likely is it that there will be further acts of terrorism in the US over the next several weeks -- very likely, somewhat likely, not too likely, or not at all likely?' In September 2001, 22 per cent thought it was 'very likely' that the US would be attacked whereas 44 per cent thought it was 'somewhat likely'. In September 2002, 12 per cent thought it was 'very likely' and 48 per cent 'somewhat likely'. In November 2009, the perception of threat had decreased: 10 per cent thought it was 'very likely' that there would be further acts of terrorism in the US while 29 per cent thought it was 'somewhat likely'.

The Chicago Council on Global Affairs conducts large-scale public opinion surveys every two years that compare American and international public opinion on timely international issues, including terrorism. The 2008 survey was on 'US foreign policy'. A panel of 1,505 randomly selected households were questioned for their views on threats to the vital interests of the US in the next ten years, US foreign policy goals, and measures to combat international terrorism. In 2002, 91 per cent of respondents felt that international terrorism was a vital threat to US interests and a further seven per cent thought it was an important but not critical threat. In 2008, these figures were 70 per cent and 26 per cent. International terrorism ranked second, behind disruption to energy supplies, in a list of 13 threats (Chicago Council on Global Affairs, 2008). The ranking also includes Islamic fundamentalism, with 42 per cent feeling that it was a 'critical' threat and 43 per cent feeling that it was an 'important' threat, and Islamic extremism, with 60 per cent considering it to be 'critical' and 32 per cent feeling it was 'important'. Further, in a ranking of possible US foreign policy goals, whereas in 2002 91 per cent thought that combating international terrorism was 'very important' and seven per cent as 'somewhat important', in the 2008 survey 67 per cent thought it was 'very important' and 29 per cent as 'somewhat important' (Chicago Council on Global Affairs, 2008).

The Pew Research Center for People and the Press has surveyed people's attitudes toward terrorism as an important national threat, as well as perceptions of the adequacy of government responses to the perceived threat. In the wake of the failed Christmas Day terrorist attack on a US airliner in 2009, the Pew Research Center surveyed attitudes on anti-terrorism policies and the performance of the Obama administration on protecting the country from a further terrorist attack. In the survey, 58 per cent felt that government anti-terrorism policies had not gone far enough to adequately protect the country whereas 27 per cent were concerned that the policies had gone too far in restricting civil liberties (Pew Research Center, 2010). In November 2009, before the Christmas Day attack, nearly as many expressed civil liberties concerns (36 per cent) as national security

concerns (40 per cent). Furthermore, slightly more (28 per cent) felt that Obama administration policies had made the country safer than those who felt the country was less safe (22 per cent).

2.3.2 American literature on public attitudes to terrorism

An important focus of US academic work on public attitudes to terrorism focusses on the relatively large proportion of the population that feels personally threatened even though the risk of being personally affected is infinitesimal. A key author in this area is the political scientist John Mueller, who has written several works on the exaggeration of such risk assessments. Mueller (2005) notes that the number of people who die worldwide each year due to international terrorist attacks is in the hundreds. Since the late 1960s when the US State Department began collecting statistics, the number of Americans who have been killed by international terrorism is about the same number as those who were killed by lightning in that period, or in car accidents involving deer (Mueller, 2005). Mueller (2006) also stresses that the chance of an American being killed in their lifetime in an international terrorist attack is one in 80,000, equivalent to the risk they would be killed by a comet or an asteroid.

Merolla and Zechmeister (2009) conducted the most comprehensive study to date in the US on the connections between times of terrorist attacks and public opinion. They explain that the greater prominence of terrorism as a threat to personal and national security results in attitudinal, evaluative, and behavioural shifts, some of which can potentially endanger democracy (Merolla and Zechmeister, 2009). To test their hypothesis, they analyse a raft of public opinion data as well as conduct experiments designed to increase or decrease an individual's perceptions of threat. Respondents were presented with a news story designed to either increase fear through the use of alarming language and images emphasising a 'terror threat' or reducing fear by presenting soothing images and emphasising the 'good times' at hand.

Greater suspicion of Arabs and Muslims
Firstly, Merolla and Zechmeister (2009) note that public opinion shifted toward increased expressions of distrust, such as suspecting Muslims. American attitudes have been more patriotic since the September 11th attacks but people have become less trusting of American Muslims, as well as more supportive of policies that single out those who likely belong to this group. A work in this vein by Kalkan et al. (2009) assesses why Muslims were viewed much less favourably than most other religious and racial minorities. They argue that the negative attitudes many non-Muslim Americans express toward American Muslims is deeper seated than the September 11th attacks, which were

widely thought to have caused an upswing in negative opinions of Arabs and Muslims. They draw on social identity theory, which stresses that people are less likely to trust people who are different from themselves, to explain how Muslims are seen to be part of a '''band of others'' in the American mind'. 'Outgroups are the objects of negative opinions and hostile attitudes . . . and [they] are regarded as properly subordinate to ingroups' (Levinson, 1949, 20 quoted in Kalkan et al. 2009, 2). They reason that since Muslims are outside the Judeo-Christian mainstream of US society, 'Americans should connect Muslims to other cultural, racial, and ethnic minority groups—groups such as gays and lesbians, welfare recipients, illegal immigrants, and African Americans — [social groupings] that often are viewed as "outgroups," falling outside of the mainstream of American society' (Kalkan et al., 2009: 1). Using data from the 2004 American National Election Study and from surveys conducted by Pew from 2000 to 2007, they find that white Americans' views of Muslims are shaped by how they evaluate other minorities or outgroups. They emphasise that this was the case both before and after the September 11th attacks.

There are contrasting findings from Moore (2002), who surveys American attitudes toward civil liberties for the general population, and Arabs and Muslims specifically, in October and November 2001. Her survey shows that a majority of respondents did not regard the civil liberties of Arab and Muslim Americans any differently than they did the civil liberties of Americans in general. However, she also finds that nearly 50 per cent supported restrictions on Muslim immigration (Moore, 2002).

Using available public opinion data collected from the Roper Center's IPOLL database, Panagopoulos (2006) assesses developments in public attitudes toward Arab and Muslim Americans and Islam. He finds that, while Americans expressed more conciliatory feelings about Arabs and Muslims in the immediate aftermath of the September 11th attacks, positive feelings about Islam were on the decline and that Americans express less trust in Arab-Americans. Americans increasingly felt there were more violent extremists within Islam compared with other religions. Although majorities of Americans believe that Arab-Americans are no more sympathetic to terrorists than are other Americans, nearly one in three believe that Arab-Americans are in fact more sympathetic to terrorists.

Park et al. (2007) use the Implicit Association Test (IAT) to examine how social information about a realistic target group (ie, Arab-Muslims) is represented and processed to form implicit attitudes in intergroup contexts. This method measures implicit attitudes by examining relative automatic associations between attitude objects (eg, Blacks and Whites) and evaluative attributes (eg, pleasant and unpleasant words).

In their experiments, repeated exposure to information associating Arab-Muslims with negative attributes serves as the basis for forming automatic attitudes toward them. The most distinct information about Arab-Muslims, to which participants had likely been exposed, had to do with recent incidents of terrorism. Participants who expressed more negative attitudes to Arabs and Muslims showed greater anti-Arabic prejudice than those who did not. However, they also find that anti-Arabic prejudice is moderated when participants were exposed to positive information about Arab-Muslims prior to the IAT experiment.

Inflated evaluations of political leaders
A second significant way in which people respond to the perception of an increased threat of terrorism is via inflated evaluations of certain leaders. Merolla and Zechmeister (2009) explain that people who feel threatened project certain leadership qualities onto political leaders, a phenomenon that has been referred to within political science research as 'rallying around the leader' or 'rallying around the flag'. They note that the popularity of former US President Bush and New York City mayor Rudy Giuliani spiked after September 11th. Gallup data shows that approval of President Bush was 51 per cent on September 10th, 2001 and 86 per cent on September 15th, 2001, the greatest such spike in history (Willer and Adams, 2008). Hetherington and Nelson (2003) find that while President Bush was buoyed by a rally effect, the September 11th attacks did not result in a fundamental shift in political party identification. There was a spike in the level of trust in the federal government to 64 per cent, a level not seen since the mid-1960s. In the last national poll assessing trust in government before the September 11th attacks conducted in March 2001, only 29 per cent of the public indicated that they trusted the federal government to do what was right either 'just about always' or 'most of the time' (Chanley, 2002). However, levels of trust in government quickly eroded to near pre-September 11th levels (Hetherington and Nelson, 2003).

Willer and Adams (2008) examine how exposure to the threat of terrorism affected political support for Barack Obama and John McCain in the lead up to the 2008 US presidential election and concluded that the relationship between American attitudes toward terrorism and their political inclinations had changed greatly. They conduct a survey-based experiment on a random sample ($N = 1,282$) of a nationally representative respondent panel in May and early June 2008. Examining the different views of strong Democrats, moderates, and strong Republicans, they find that exposure to a terror threat decreased support for John McCain (a Republican) among moderates, a counter-intuitive finding given that Republicans have been traditionally viewed as the stronger party on national security issues. Willer and Adams argue that this was because support for the Bush administration's anti-terrorism approaches had declined significantly in the years

since September 11th. However, they do not expand on this explanation, for example by linking this trend of declining support for anti-terrorism policies to levels of trust in government, or to the increasing remoteness of the September 11th attacks as time passes.

A related thread of academic work assesses the importance of political elites in framing threats to national and personal security. Haider-Markel et al. (2006) find that *issue frames* [eg. how an issue is depicted by political leaders and the media] clearly influences perceptions of threat. They surveyed 1,641 adults between November 2001 and February 2002. Respondents were randomly assigned to one of four (treatment) groups. Respondents in each group were exposed to one of four issue frames designed to influence their perceptions of possible terrorist attacks. An additional control group, not exposed to any issue frame, was asked: '[T]o insure our safety, government officials have been reporting on the various possibilities for future terrorist attacks. What do you think the terrorists are most likely to do next?' (Haider-Markel et al., 2006: 547). The four treatment groups were asked the same question with an additional line included after the first sentence beginning: 'Terrorism experts suggest that the terrorists will most likely attempt an attack on America... [using hijacked airplanes/truck bombs at shopping malls etc].' Respondents exposed to an issue frame were more likely to predict an attack consistent with that frame.

Thus issue frames matter to policy-making processes because 'the presentation of frames by elites can assist citizens in taking positions on issues or in assigning blame for specific conditions in society' (Haider-Markel et al. 2006: 546). For example, Gershkoff and Kushner (2005) argue that a high level of support for the Iraq war (nearly 75 per cent supported the war in public opinion polls in the build up to the war) stemmed from Bush administration efforts to frame the conflict as an extension of the War on Terror. They conclude that, '[i]ssue frames affect beliefs and the relative importance individuals attach to beliefs' (Gershkoff and Kushner, 2005: 526). Other works have addressed the role of the media in framing security issues. Cho et al. (2003) find that television reportage was more emotional and influenced more negative emotions towards terrorist attacks compared with newspapers.

Increased support for counter-terrorism prevention measures
A third way public opinion shifts in response to terrorism is by demonstrating greater preferences for policies that protect the homeland, even at the expense of civil liberties, and active engagement against terrorists abroad. Merolla and Zechmeister (2009) explain that people more concerned about being a victim of a terrorist attack are more willing to trade civil liberties and more supportive of the US being active abroad. Darren Davis's book on *Negative Liberty: Public Opinion and the Terrorist Attacks on America* (2007)

examines how public perceptions of threat and vulnerability to being a victim of a terrorist attack influence the tradeoffs between civil liberties and security after the September 11th attacks. Davis argues that public support for civil liberties must be assessed in relation to other competing concerns, notably security, and what influences these calculations. 'In essence, it is about how the public views the *tradeoff* between liberty and security, rather than support for liberty in abstract or unconditional terms' (Nisbet, 2007: 693). Davis differentiates between personal threats to one's physical or material self and sociotropic threats, which are perceived threats to one's society. He argues that sociotropic threats moderate the effect of institutional trust on the public's willingness to trade liberty for security. As political trust in the Bush administration declined in the years after the September 11th attacks, the public's willingness to trade liberty for security also declined. Davis argues, 'support for civil liberties is neither immutable nor unequivocal: expose individuals to the appropriate stimuli and they will either support policies they would not ordinarily support or fall silent' (2007: 220).

Jenkins-Smith and Herron (2009) assembled a panel of 3,006 respondents in June 2007 to examine how political beliefs influence preferences and perceptions of the balance between US liberty and security, assessing the differences in opinions of liberal Democrats, moderates and conservative Republicans. Their findings show that liberal Democrats showed a preference for 'the normative balance to be weighted toward liberty over security, and they perceive the current balance to be weighted toward security over liberty' (Jenkins-Smith and Herron, 2009: 1116). In contrast, conservative Republicans preferred the normative balance to be weighted toward security over liberty, and they thought that the existing balance was distributed equally. Moreover, they find that not only do political beliefs influence peoples' attitudes regarding the balance between liberty and security but they also shape peoples' cognition about security from terrorism and the value of key civil liberties relative to the perceived threat.

Huddy et al. (2002b) find that while Americans were moderately supportive of increased surveillance, there was less support for governmental monitoring of people's telephone conversations, emails and post. This suggests that levels of trust in government are important in conditioning people's support for restrictive security measures. Davis and Silver (2004) assess people's willingness to trade off civil liberties to increase security. They surveyed 1,448 respondents aged 18 years or older between November 2001 and January 2002, with an over-sample of African Americans and Hispanics in an otherwise nationally representative panel. They find that the greater people's sense of threat, the lower their support for civil liberties. However, they find that this is contingent on people's trust in government. The lower people's trust in government, the less willing they are to trade off civil liberties for security, regardless of how they perceive the level

of threat. So, for example, they note that African Americans are much less willing to trade civil liberties for security than whites or Latinos, even with other factors taken into account. They also note that liberals are less willing than conservatives to trade civil liberties for security.

Huddy et al. (2002a) studied behavioural change in individuals and how this linked to feelings of personal threat and national threat. They surveyed 1,221 adults in Queens and suburban New York in October and November 2001. They find that 70 per cent were very or somewhat concerned that they or a family member would be the victim of a future terrorist attack but that men were significantly less likely than women to perceive the threat of an additional terrorist attack and less worried about being directly affected. Further, they find that individuals who felt personally threatened by terrorism did take or support actions that decreased their exposure to terrorism, consistent with evidence from research on crime victimisation, which finds that individuals who fear becoming victims of crime are more likely to adopt precautionary measures (Huddy et al., 2002).

Huddy et al (2005) examines the differing political effects of anxiety and the perceived threat of terrorism. Whereas anxiety leads to an over-estimation of risk and risk-averse behaviour, external and perceived threats are thought to increase support for outwardly focused retaliatory action. They conducted a *Threat and National Security Survey* with 1,549 adults between early October 2001 and early March 2002. They find that individuals who felt more threatened were more supportive of restrictive security measures targeting groups broadly with terrorism and policies that limit civil liberties for all citizens. In contrast, those who experienced high levels of anxiety were less supportive of aggressive military action against terrorists and were more disapproving of the performance of President Bush, who pursued a range of domestic security policies. Thus, anxiety did not heighten support for domestic anti-terrorism policies or heightened surveillance.

Lerner et al. (2003) assesses people's responses to the threat of terrorism, predicting that anger and fear would have opposite effects on risk judgments and policy preferences. They summarise existing psychological research in this area that shows fear arises from and evokes appraisals of uncertainty and situational control whereas anger is associated with appraisals of certainty and individual control. Based on a nationally-representative panel survey of 1,786 individuals (ages 13-88) conducted between late September and the middle of November in 2001, they find that experimentally primed anger activates more punitive preferences while fear enhances preferences for conciliatory policies and investment in broadly applicable precautionary measures.

A further thread of research on people's behavioural responses to the perceived greater risk of terrorism questions the assumption that people panic in response to a terrorist attack. Sorenson (2004) argues that people are not frightened into a state of paralysis, nor do they panic or engage in widespread antisocial behaviour. Similarly, Panagopouls (2006: 609) finds that there is little support for the notion that Americans overreacted to the September 11th attacks and that public opinion data suggests that people's initial responses reflected considerations for fairness, tolerance, and restraint.

2.4   Conclusion

There are important similarities as well as differences between British and American public attitudes to terrorism as well as government responses to deal with the problem. In both Britain and the US, although the risk is miniscule that someone will be personally affected by terrorism, significant numbers of people still worry that they or someone they know will be a victim of a terrorist attack. Both British and American academics have sought to better understand these unrealistic perceptions of risk, in particular drawing attention to the importance of issue framing by the media and political elites and how government agencies communicate risk. Public attitudes have been broadly supportive of counterterrorism measures in both Britain and the US, with some notable exceptions such as public opposition in the UK to government proposals under the Labour government to extend the pre-charge detention period for terrorist suspects.

An important difference in public opinion between Britain and the US concerns the attitudes to the general public toward Muslims in their own countries. Public opinion polls in the UK indicate that there have not been significant changes in public attitudes to Muslims, although public concern that British Muslims are not doing enough to integrate with the wider population has increased. In the US, public attitudes to Muslims have become distinctly more negative in the years since September 11th and people have become more supportive of counterterrorism measures that specifically target this social group. Recent political controversy in the US around the 'Ground Zero Mosque' as well as the aborted burning of the Qur'an by a radical Florida preacher points to the need to understand evolving public attitudes and check extremism in both countries.

Chapter 3: Public attitudes to cyber-security

Summary points
• The difficulties in defining cyber-security create confusion and a lack of public understanding
• Distinct concepts 'cyber-terrorism' and 'cyber-crime' are often lumped together under the term cyber-security
• There is very little assessment of public attitudes to cyber-security. Existing polling is often done by private Internet security firms and the methodology that is used tends to be lightweight. Furthermore, these tend to focus on business attitudes rather than wider public opinion.
• Governments have instituted a range of new legislation, policy and institutional frameworks, and regulatory responses to cyber-security threats even though there have been no confirmed incidents of physical infrastructure being compromised by so-called 'cyber-terrorists'.

3.1   Introduction

Cyber-security is a phenomenon that has gained prominence over the past twenty years as the Internet has increasingly become an important part of contemporary life. Although popular myths regarding the Internet abound, there has been very little rigorous research and no systematic opinion surveying of public attitudes to cyber-security in Britain. Yet, the term is now widely used to refer to a range of threats to personal safety and national infrastructure by individual criminals and extremists, organised crime and terrorist organisations. Cyber-security encompasses threats from 'cyber-crime', a term that was coined in the early 1980s within science fiction communities, and latterly 'cyber-terrorism', which has been defined as 'premeditated, politically motivated attacks by sub-national groups or clandestine agents against information, computer systems, computer programs, and data that result in violence against non combatant targets' (Pollitt n.d. in Conway, 2004).

This chapter examines public attitudes to cyber-security in Britain as well as academic work that touches on public opinions of cyber-crime and cyber-terrorism. In particular, the chapter considers academic insights on the role of the media in circulating and perpetuating certain myths of cyber-threats that have come to shape public imagination. Academic judgments on governmental responses in the US and UK to the perceived threat of cyber-attacks are also considered.

3.2   British attitudes and responses to cyber-security threats

3.2.1   Public perceptions of cyber-security

There has been very little polling done in Britain on public perceptions of cyber-security threats. This review has come across no data on public attitudes to 'cyber-security'; there is some, albeit patchy, on peoples' perception of risks online and privacy concerns, Internet security such as installing security software and updating firewalls, and regulation and control of the Internet. Private internet security firms such as Symantec (in the US) and Sophos, and consulting firms such as Pricewaterhouse Cooper have assessed business attitudes to cyber-security and the steps that large corporations and small and medium-sized businesses are taking to minimise their risk of exposure to attacks. Similarly, the UK Department of Trade and Industry carried out an Information and Security Breaches Survey (2006) that assessed business attitudes to cyber-security-related risks.

The Oxford Internet Institute (OII), which undertakes multidisciplinary work on the Internet and society, has conducted Internet surveys every two years, with data stretching back to 2003. These surveys assess public attitudes toward regulation and control of the Internet, including peoples' negative experiences online, whether they perceive the computer to be a threat to their privacy, and whether the government should play a greater role in controlling the Internet. In the most recent survey (2009), 45 per cent were concerned that the computer was a threat to their personal privacy, down from 66 per cent in the 2007 survey and 49 per cent in the 2005 survey (Dutton et al., 2009). The surveys found that, increasingly, people believe that their personal information is kept somewhere secretly without their knowledge. In 2007, 84 per cent believed that this information was 'probably' or 'definitely' kept, up from 66 per cent in 2005. The 2009 survey confirmed a trend of declining concern in threats such as receiving spam or getting a computer virus. In the 2005 survey, 80 per cent reported they were concerned about a virus attack on their computers (Dutton et al., 2005). Furnell et al. (2007) surveyed 415 home computer users' attitudes toward the risk of online fraud, asking whether they had the requisite knowledge to protect themselves. They found that 46 per cent thought that they were at risk of online fraud whereas 19 per cent did not know. A majority of respondents (63 per cent) reported that they had the knowledge to protect themselves. A survey of 1,000 Internet users for *Britain's Get Safe Online* initiative found that 87 per cent of respondents said that protecting their computer was a top priority but that a large majority (83 per cent) felt they did not have the knowledge to protect themselves (Furnell et al., 2007).

Those who debate regulation of the Internet argue either for official government regulation or for putting responsibility in the hands of the individual (Dutton and Helsper,

2007). There is no public consensus about whether the government should regulate the Internet although there is a trend of growing support for the government to play a greater role. A poll of 1,309 Internet users by the OII in 2005 found opinion split, with 29 per cent agreeing that the government should regulate, 27 per cent agreeing with self-regulation, and 35 per cent who were undecided (Dutton et al., 2005: 48). OIIsurveys in 2007 and 2009 found that support for government regulation had increased but these figures included Internet users (who tend to be less supportive of government regulation) as well as non-users (who tend to favour government regulation).

Slightly more than one third of respondents (36 per cent) in the 2007 survey thought the government should regulate the Internet compared with 30 per cent who thought the government should not and 33 per cent who said it depends (Dutton and Helsper, 2007: 32). Fifty one per cent of non-users thought the government should regulate compared to 31 per cent of users. In a 2009 survey, 71 per cent of non-users thought the Government should regulate the Internet more or far more, compared to 57 per cent of users. Women and retired people also showed strong support for government regulation: 70 per cent of women (compared to 50 per cent of men) and 73 per cent of retired people (compared to 59 per cent of employed and 39 per cent of students) agreed that the government should regulate the Internet more or far more (Dutton et al., 2009: 66). *The Get Safe Online* survey found that only 15 per cent of respondents believed it was their responsibility to protect themselves from cyber crime, with 11 per cent considering it to be the responsibility of the government, and 49 per cent feeling it should be down to big business (Furnell et al., 2007).

Sophos (2010: 15) considered people's opinions of the use of cyberspace in warfare reporting that 40 per cent believe it is acceptable for their country to spy on other countries via the Internet by hacking and/or installing malware but only in times of warfare - 23 per cent think it is acceptable to do so at any time, and 37 per cent think it is unacceptable. Furthermore, 54 per cent think that the government is not doing enough to protect the country from an Internet attack. However, a significant minority (40 per cent) are not sure.

3.2.2   Public attitudes to cyber-security

The academic literature in Britain that examines public attitudes to cyber-security is very limited. The literature on the topic is also quite disparate given the ambiguity of the term and because it is used so widely to refer to different things by different actors in the media, governments and regulatory agencies, as well as researchers. Therefore, the literature reviewed here does not refer to one coherent debate but rather to a range of

threats that are very different by their nature. These include the storage of personal information online and privacy concerns; the use of the Internet by organised crime, or by radicalised individuals and extremist organisations; the role of the media in shaping mythologies of cyber-threats; and the response of governments to the perceived risk of cyber-attacks.

Cyber crime
Furnell et al. (2007) examined computer users' awareness of online security threats and the extent to which they are protected. As above, they found that although many people are aware of online security threats, such as a virus, hacking, phishing, identity theft, or Trojan horse, and many claim to be knowledgeable and confident in protecting themselves, in practice many did not demonstrate effective security practices. However, the Oxford Internet Institute 2009 survey showed an increasingly effective self-regulation by users, such as the installation of anti-virus software (Dutton et al., 2009).

A further thread of research relating to public attitudes to cyber-security assessed people's perceptions of cyber-crime, as well as government responses to the perceived problem. Wall (2008: 48) explained, 'a number of popular myths about the Internet have become widespread and, while any factual basis that may have originally contributed to their creation may long since have disappeared, they still circulate and perpetuate the culture of fear and also distort our understanding of a new range of issues that are emerging in their place.' A popular assumption in the security community is that users need to be protected from themselves, from becoming victims or offenders, but this view runs counter to the findings of the *British Crime Survey* and *Offending, Crime and Justice Survey*, which found relatively little personal victimisation and offending (Wall, 2008). Still, high profile media reports of cyber-attacks have created widespread public concern and political pressure to institute measures to respond to the perceived threat. Wall (2008: 58) noted, 'Cyber-crimes scare us and we expect to be scared by them, a fear that is made worse by the gap that has opened up between our expectations of cyber-crime and our expectations of Internet security. Any attempt to close this "reassurance" gap tends to be thwarted by tensions in the production of our knowledge about cyber-crimes which serve to perpetuate both the culture of fear about cyber-crime and also the various myths that have emerged about it.'

Cyber security
Along with concerns about cyber-crime, recent literature has examined increasing public concerns of cyber-terrorism, which remains an ill-defined threat. Governments and the public alike tend to view cyber-space as the next major battleground between states and terrorist networks and extremist organisations. According to a 2001 study, 75 per cent of

Internet users worldwide believe that cyber-terrorists will 'soon inflict massive casualties on innocent lives by attacking corporate and governmental computer networks.' The survey, conducted in 19 major cities around the world, found that 45 per cent of respondents agreed completely that 'computer terrorism will be a growing problem,' and another 35 per cent agreed somewhat with the same statement (Poulsen, 2001 in Conway, 2004). There are growing fears that crucial infrastructures such as power supplies, food distribution, water supplies and sewerage, financial services, and transportation may be vulnerable to remote hijacking, unauthorised control and potentially devastating damage, as terrorists shift their focus to new areas to spread panic. There is public belief (echoed by governments) that these could all be attacked or would suffer if the 'national information infrastructure' were to be disrupted (Lukasik et al., 2003; Yar, 2006), a concern that relates to popular fears of a singular system that controls the nation. Yet, there have been no confirmed incidents of core physical services such as power and water supplies, nuclear power stations or traffic control systems being exploited by cyber-terrorists to date (Sophos, 2010). Conway (2005) explained how both technology and terrorism are perceived as more ominous than actual threats have shown because computers are seen to have taken over the role of humans. People have fears that computers are able to do much more than they actually can and that computers will become 'masters' over human beings.

Cyber terrorism
There is distinct confusion within the public as to what cyber-terrorism actually is. The media has labelled many acts of computer abuse as cyber-terrorism, such as sending pornographic e-mails to minors, stealing credit card information, posting credit card numbers on the Internet, and clandestinely redirecting Internet traffic to another site. Many of these could rightly fall under the category of 'cyber-crime', but some are not even criminal. This confusion can lead to further uncertainties and public fears of threat (Conway, 2005). Bruce Schneier (in Sophos, 2010), chief of security at BT, claims that cyber-warfare is a distant danger that has been overhyped and that what many have called 'cyber-warfare' or 'cyber-terrorism' is in fact simply 'cyber-espionage' or 'cyber-activism' rather than an all-out attack. Schneier has argued that internet security companies use the term 'cyber-terrorism' to boost their profits and scare clients. He calls cyber-terrorism a myth that has yet to become to a genuine threat to personal safety or national security: 'If you can't get e-mail for a day, you're not terrorized, you're inconvenienced ...We should save 'terror' for the things that deserve it, not things that piss us off.'

Defining cyber terrorism

This debate points to the lack of clear definitional criteria for determining what constitutes 'cyber-terrorism'. This is important because a lack of clear definitions clearly complicates the articulation of sound policy and law to deal with different sorts of cyber security threats. Conway (2004) identifies four stumbling blocks to defining it. Firstly, much of the debate on cyber-terrorism is driven by the popular media and has not been clearly defined. As Conway notes, many analyses of cyber-terrorism have been given to hyperbole (the labelling of cyber-terrorism as an 'electronic Waterloo'). Secondly, it means different things to different people. Thirdly, it has become common when dealing with computers and the Internet to create new words by placing the handle *cyber*, *computer*, or *information* before another word. This may appear to denote a completely new phenomenon, but often it does not and, rather, causes confusion. Finally, Conway notes that there is a lack of an agreed definition of terrorism to begin with.

Given the difficulty of defining precisely what actions constitute acts of cyber-terrorism, it is unsurprising that a range of online actions have been labelled as instances of 'cyber-terrorism' when many would not even qualify as cases of 'cyber-crime' (Conway, 2004), even though this term is also poorly defined. Wall (2008: 45) notes that public concern of the perceived prevalence of cyber-crime is partly due to the problem of defining what is actually 'cyber' about alleged incidents:

> 'Yet, all too often the claims made in [the media] about the prevalence of cyber-crimes lack clarification as to what it is that is particularly 'cyber' about them. Indeed, on the rare occasions that so-called cases of cyber-crime come to court – typically comprising Internet fraud, theft, pornography, paedophilia, even hacking, etc. – they often have the familiar ring of the 'traditional' rather than the 'cyber' about them.'

An example of the confusion concerning what constitutes 'cyber-crime' comes from a recent report in *the Times*. It reported in 2010 that in the previous 12 months, 75 per cent of businesses worldwide claimed to have experienced a 'cyber-attack', and now consider cyber-crime as the greatest threat to their wellbeing (Kendall, 2010). However, many of the recorded statistics on cyber-crime that businesses report concern ex-employees that keep company files and give these to competitors to undermine business.

One manifestation of this confusion includes the problem of defining Internet activity by radicalised individuals and terrorist networks. As Conway (2004) noted, there is an important distinction between 'cyber-terrorism' and the use of the Internet by terrorist elements. However, in spite of a vast amount of training-related literature online, there have been few organised efforts by Al Qaeda to train their followers by way of the

Internet. Stenersen (2008) explains that the Internet is not a 'virtual training camp' organised from above but rather a resource bank maintained and accessed largely by self-radicalised sympathisers. The Internet is a repository for religious and ideological-political literature, instruction manuals and videos on technical and tactical subjects, such as explosives making, guerrilla warfare, hostage taking, and operational and field security. The Internet is also used by terrorists for networking purposes and communications, just as the Internet is used by society more widely. However, the bulk of the evidence to date shows that while terrorist groups are making widespread use of the Internet, so far they have not resorted to cyber-terrorism, or shown the inclination to move heavily in that direction, even though public attitudes agree with such an assumption.

The current literature emphasises that the media has exaggerated cyber-security threats, particularly cyber-terrorism. Conway (2005) argues that the media has perpetuated public concerns that all of the functions controlled by computers will converge into a singular system that will be vulnerable to attack. This becomes a particular challenge in the context of electrically powered computer networks such as the electrical power grid, which is viewed as a particularly fearful threat (Conway, 2005). An issue that has been reported in the British media is that the Internet will be used by terrorists to launch a nuclear attack whereby terrorists will hack into defence systems and trigger a launch. This example underlines how the media plays upon the imagined fatal connectivity between virtual networks and physical infrastructures, evoking fears of cyber-terrorism (Conway, 2008). In her analysis of the influence of the media in shaping public perceptions of cyber-terrorism, Conway (2005) recites an example of how hackers themselves have begun to identify as 'cyber-terrorists'. The anonymous defacement of two US government web sites in 2001 read: 'we are not hackers, we are just cyber-terrorists.' Conway argued that it is almost unheard of for a terrorist organisation to refer to themselves as 'terrorists', preferring instead terms such as 'soldiers' or 'warriors'.

However, even though academics have identified the heavy media influence in shaping public attitudes to cyber-security, this review has found relatively few articles in recent years in the British broadsheets on either cyber-crime or cyber-terrorism. Academic analysis was not cited in the few articles that were found; rather, the media appears to make its own conclusions on the threat and risk assessments. Yet, at least one article suggested that the media and entertainment industries often confuse and exaggerate the risk of cyber-terrorism (Johnson, 2005).

A further theme in the academic literature relating to public attitudes to cyber-security concerns government legal, policy and regulatory responses to the perceived threats of

cyber-crime and cyber-terrorism. Fears of cyber-attacks have led to the introduction of a raft of policies, legislation, new institutional arrangements as well as significant investments in a range of cyber-deterrents. Many new laws, however, fail to distinguish between both crime and terrorism, and malicious hacking and cyber-terrorism. In February 2001, Britain updated the *Terrorism Act* to classify 'the use of or threat of action that is designed to seriously interfere with or seriously disrupt an electronic system' as an act of terrorism. Following the passage of the *Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act* (the PATRIOT Act), which authorised the granting of significant powers to law enforcement agencies to investigate and prosecute potential threats to national security, there is the potential for hackers to be labelled cyber-terrorists and, if convicted, to face up to 20 years in prison (Conway, 2007).

In the US, the formation of the Department of Homeland Security (DHS) in 2002 led to the establishment of an elaborate new infrastructure to address cyber-threats. The creation of DHS led to the merging of five agencies that shared responsibility for critical infrastructure protection in the US: the FBI's National Infrastructure Protection Center (NIPC), the Defense Department's National Communications System, the Commerce Department's Critical Infrastructure Office, the Department of Energy's analysis centre and the Federal Computer Incident Response Center (Conway, 2007). In June 2009, the US announced the formation of the US Cyber Command, an official military body dedicated to both defence against cyber-invasion and attacks against enemy computer networks. The UK announced its intentions to form its own equivalent of the US Cyber Command, to be known as the Office for Cyber Security, and refuses to deny that it attacks other countries in cyberspace. In July 2010, US senators approved legislation for the Protecting Cyberspace as a National Asset Act, which includes investigating the possibility of powers to shut down major portions of the web if the US feels threatened (Sophos, 2010).

Some media reports have criticised the government's response to the perceived threat of cyber-crime and the possibility that Britain's intelligence networks could be compromised by foreign spies (Richards, in *the Times*, 2008). It claims that Britain's cyber-security strategy falls short of setting out proposals that the security industry has called for, such as the creation of a specific national agency to tackle cyber-crime, as well as the introduction of disclosure laws compelling companies to tell customers when their systems have been compromised, as the US government requires. However, others have criticised the government for over-reacting to a threat that is poorly defined and that has yet to actually compromise physical infrastructures. Schneier (2009) has likened such robust security measures to 'security theatre', referring to measures that make people feel

more secure without actually doing anything to improve their security and safety. Schneier argues, 'Security is both a feeling and a reality. The propensity for security theatre comes from the interplay between the public and its leaders. When people are scared, they need something done that will make them feel safe, even if it doesn't truly make them safer. Politicians naturally want to do something in response to crisis, even if that something doesn't make any sense.'

3.3   Conclusion

The term 'cyber-security' is poorly defined, yet it is used to refer to a number of distinct threats to individual privacy and safety as well as national infrastructure. Given the abstract nature of this field, there are methodological challenges to accurately assessing public attitudes. There has been very little polling of public attitudes or risk perceptions relating to cyber-security. The little surveying that has been done is by private Internet security firms as well as government departments. Polling from recent years indicates that attitudes to cyber-security are informed by a perception that people's personal information is collected and stored somewhere without them knowing. Thus, attitudes have wavered on the government's role in regulating the Internet. Currently there is no public consensus about whether the government should play a greater role, something that might be explained both by popular suspicion that personal information is being stored somewhere without people's express consent, as well as uncertainty about the actual risk of being a victim of a 'cyber-attack'.

Chapter 4: Public attitudes to critical infrastructure protection

Summary points

- Critical infrastructure protection, mainly focusing on the prevention of cyber-terrorism, surfaced in the US as a concern after September 11th and spread to the UK during its participation in the 'War on Terror'.
- A potentially costly issue, this type of terrorism has not received significant public attention. It has similarly received little attention from academics, and thus is still conceptually undefined and unbounded enough that it is hard to gain a clear idea of its public perception.
- The global media and the entertainment industry have contributed to a dominant public and policy discourse on infrastructure vulnerability and the inevitability of attack. The available research points to several key themes in this public concern: public freedoms and the erosion of civil liberties (which has been viewed as a barrier to policy reforms); reforms and public-private partnerships, and the perception of counterterrorist urban designs.

4.1 Introduction

Critical infrastructure protection is a relatively new topic which can largely be associated with September 11th and the subsequent terrorist plots in the US, Europe and the rest of the world. In this so-called 'War on Terror', infrastructures are viewed as potential critical targets for terrorism.

Although much of the focus up to now has been on potential threats to the physical elements of infrastructures (bombings, contamination, etc.), threats to systems as a result of cyber-terrorism now appears to be the major issue in critical infrastructure protection. McAfee Inc. released a report in early 2010 demonstrating that critical infrastructure is under constant cyber-attack (McAfee, 2010). The report claims that the risk of attacks against infrastructure such as electrical grids, oil and gas facilities, and the telecommunications and transportation sectors is increasing. The report also estimates the possible costs of such a major cyber-attack (in terms of systems' downtime) at US$6.3M per day.

Besides public facilities, infrastructural threats also represent a serious risk for the private sector. McAfee also performed a survey of 600 information technology security executives from critical infrastructure enterprises globally, and found that 54 per cent of them had suffered large scale attacks or stealthy infiltrations from organised crime gangs, terrorists or states. One would expect that this elevated perception of threat among professionals would translate into policy, research and media focus, and thus into public perceptions. However, this has not occurred. Despite a number of policy initiatives

around critical infrastructure protection in the UK and the creation of a Centre for the Protection of National Infrastructure, the issue has not been high on the political agenda or in national debates and the media. It is therefore difficult to gauge public perceptions. Moreover, critical infrastructure protection is a relatively new academic field and only a few UK researchers work on the topic.

This chapter is organised into three sections. The first provides an overview of the methodological difficulties in researching the field of public perceptions of critical infrastructure protection and focuses on the scope, definitions and field. The second section looks at the amount of attention paid to public perception in specialised academic journals on this subject. Finally, the last section summarises specific research on public perceptions of critical infrastructure protection.

4.2   Definition of critical infrastructure protection

Critical infrastructure protection is an American term first used in the political context by President Clinton in 1998. With the term, Clinton was referring to vital systems whose destruction or incapacity as a result of a physical and/or cyber-attack would critically affect the national or economic security of the US. Critical (national) infrastructure was thus brought to the US public's notice by the government as set of facilities and services that were critical to the functioning of the country and of society. These included the energy sector, water, telecoms, transport, the finance sector, and government and public services.

The terminology was not used in the European context until the European Union's decision to play a role in the 'war on terror'. It first appeared in the *Proposal for a Council Framework Decision on Combating Terrorism* in 2001 and then re-emerged in 2008 in a specific directive exclusively on Critical Infrastructure.[2] Over this period, the protection of Europe's critical infrastructure has been a central focus of the anti-terrorist effort.

The same is true for the UK, as demonstrated by the creation of the *Centre for the Protection of National Infrastructure* (CPNI) in 2007, an interdepartmental governmental body composed of experts with security and infrastructure responsibilities. The CPNI offers security and counterterrorism advice to the private and public institutions in the national infrastructure.

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[2] The Council Directive 2008/114/EC of 8 December 2008 on the identification and designation of European critical infrastructures and the assessment of the need to improve their protection.

Although security and safety issues around infrastructure protection have been debated for some time the term 'critical infrastructure protection' is new, especially in the European context, and reflects an evolution in the understanding of the perceived vulnerabilities of (mainly urban) infrastructure to new risks, specifically involving terrorism. This has a number of implications for studying the public perception of critical infrastructure protection. First, it is very difficult to disentangle the issue from that of terrorism. Second, and perhaps most importantly, the recent emergence of this term in the European context limits the amount of academic research available.

Box 4. 1. Definitions of critical infrastructure

US – USA PATRIOT Act of 2001 (P.L. 107-56): 'systems and assets, whether physical or virtual, so vital to the US that the incapacity or destruction of such systems and assets would have a debilitating impact on security, national economic security, national public health or safety, or any combination of those matters' (Sec. 1016e).

EU – 'Critical infrastructure protection in the fight against terrorism' 2004: 'Critical infrastructures consist of those physical and information technology facilities, networks, services and assets which, if disrupted or destroyed, would have a serious impact on the health, safety, security or economic well-being of citizens or the effective functioning of governments in the member states. Critical infrastructures extend across many sectors of the economy, including banking and finance, transport and distribution, energy, utilities, health, food supply and communications, as well as key government services.'

UK - Centre for the Protection of National Infrastructure, 2010: 'those key elements of the national infrastructure which are crucial to the continued delivery of essential services to the UK … without [which] the UK could suffer serious consequences, including severe economic damage, grave social disruption, or large-scale loss of life'[3]

Even though definitions of critical infrastructure are quite similar across different countries and supra-national institutions (see box 1), they are also very broad. This is particularly true in the US context, where the term shifted during the 1990s from denoting public works to homeland security, and has since been continually refined in terms of the sectors and assets it covers. The same has occurred in the European context. For the EU, critical infrastructure now serves a specific political agenda: advancing the interconnectedness of European commerce and livelihoods through transnational infrastructures. In the UK, following the events of September 11th and July 7th, the emphasis shifted from traditional territorial approaches to pre-emptive policies in order to embed a greater degree of resilience into both the physical design of structures and their

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[3] CPNI, http://www.cpni.gov.uk/About/whatWeDo.aspx, accessed 13 August 2010.

associated management systems (Coaffee, 2008b). Following *the West Review*[4] and new terrorist activities in Mumbai, the term 'critical infrastructure protection' came to include the security of crowded public places, perceived by UK policymakers and security services as one of their key priorities in the continuing 'war on terror'. As a result, one of the CPNI's responsibilities is to work to reduce the vulnerability of UK interests, at home and overseas, to terrorism, a brief which includes border security, protecting utilities, such as transport, and 'protecting people going about their daily lives in crowded places'.[5]

This brief history of the conceptual evolution of critical infrastructure protection shows how loosely the term is defined. This creates a number of methodological difficulties in terms of scoping a clear set of boundaries for the field, namely the lack of definition in an academic context, the obstacle this has posed to its emergence as an academic focus, and the resulting necessity for very broad studies of diffuse sectors in order to capture public perceptions of it.

4.3   Public perceptions of critical infrastructure protection

Research on critical infrastructure protection is collected mainly in three specialised journals: the *International Journal of Critical Infrastructure Protection,* the *Journal of Homeland Security and Emergency Management and* the *Journal of Contingencies and Crisis Management*. These journals focus on critical infrastructure protection as a key topic, unlike other journals on security studies in general. Indicating that the field itself is relatively new, these three journals are all fairly recent,[6] with the oldest, the Journal of Contingencies and Crisis Management (1993), is the least specialised in critical infrastructure protection, mainly covering larger topics.

The contribution of UK academics to these journals is limited: there are none on the editorial boards of the *International Journal of Critical Infrastructure Protection* or the *Journal of Homeland Security and Emergency Management*. In both cases, the boards are largely dominated by North Americans, with, on the European side, a number of academics working in Dutch universities. The *Journal of Contingencies and Crisis Management* is an exception, with six UK-based academics out of an all-European

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[4] In July 2007, the Prime Minister had asked Lord West (parliamentary under-secretary of state for security and counterterrorism) to undertake a review of how government could best protect 'crowded places, transport infrastructure and critical national infrastructure from terrorist attack.' The review, which was completed in November 2007, highlighted the need to improve the resilience of 'strategic national infrastructure (stations, ports and airports) and other crowded places, and to step up physical protection against possible vehicle bomb attacks' (Coaffee, 2010).

[5] CPNI, http://www.cpni.gov.uk/About/cpniContext.aspx, accessed 13 August 2010.

[6] The *International Journal of Critical Infrastructure Protection* and the *Journal of Homeland Security and Emergency Management* were created in 2008 and in 2003 respectively.

editorial board. The following graphs illustrate the number of articles by academics based in British universities are published in each of these journals.

International Journal of Critical Infrastructure Protection: one 'British' article
Robinson, 2010
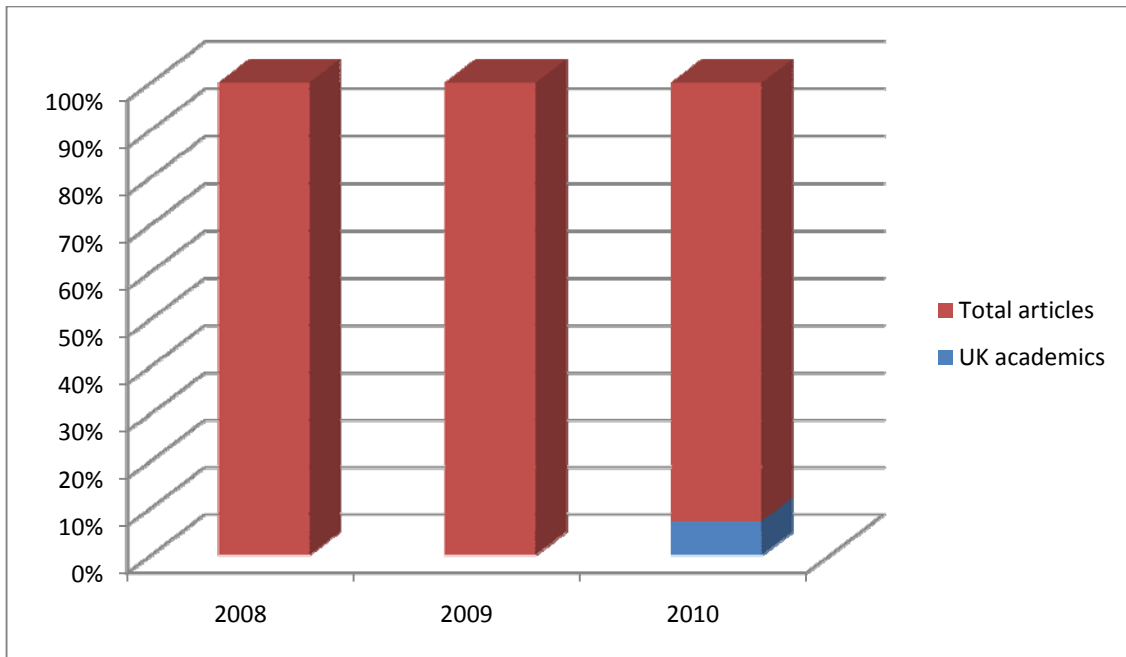
Journal of Homeland Security and Emergency Management: 3 'British' articles,
French & Niculae, 2005; Twigg, 2005; Siperco, 2006
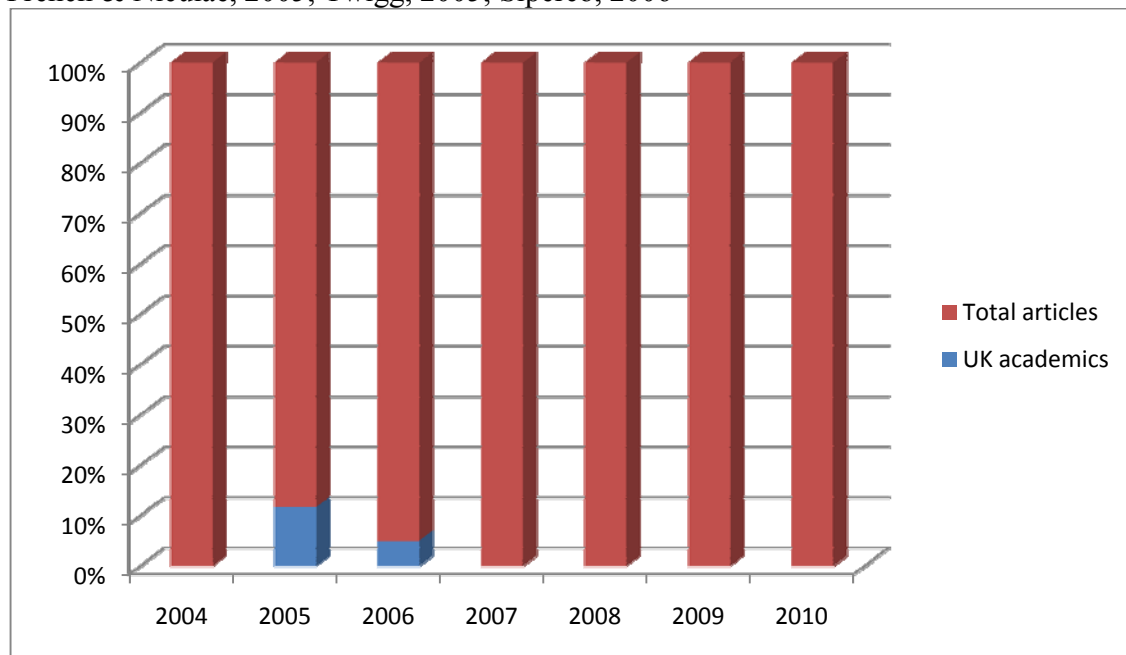
The ratio of articles from academics from UK universities in the *Journal of Contingencies and Crisis Management* is an average of 17 per cent per year, ie 62 articles out of the 360 published by the journal between 1993 and 2010. None of these articles by UK academics focus on public perception as a key topic in the title or abstract.

Overall, the topic of public perception is not seen as a relevant issue in specialised journals on critical infrastructure protection. It is either addressed as a secondary, minor topic within the larger debate on critical infrastructure protection, or is addressed in different journals either looking specifically at public perception or simply reacting to an event in a specific sector.

4.4   Public understandings of critical infrastructure and its safety

The public perception of infrastructure is a vast topic ranging from studies on perceptions of corruption and private sector participation in infrastructure (Martimort and Straub, 2009), to statistical models looking at user perception of infrastructure condition (for information on highways, see Shafizadeh and Mannering, 2006), as well as perception of risk from automobile safety defects (Slovic et al., 1987) and risk perception and construction safety (MacDonald, 2006). Therefore there is a challenge in identifying which aspects relate specifically to the field of public perception of critical infrastructure protection. To illustrate this two examples are used: public perception of nuclear safety and public perception of information security.

Nuclear Safety
A number of studies have looked at public perceptions of the nuclear industry as a possible risk. It was principally the Chernobyl disaster that raised the issue: Tønnessen et al (2007) have examined how the disaster was perceived in Europe; Stainer and Stainer (1995) looked at young people's perception of risks from nuclear power from a European viewpoint; Khripunov (2007) looked at perceptions of nuclear safety and risk in contemporary Russia; and finally Sjöberg and Drottz-Sjöberg (1991) examined knowledge and risk perception among nuclear power plant employees.

These studies show limited participation of academics based in British universities. However, there have been two studies in the UK on the public perception of the nuclear industry, one by Wynne et al (2007) on the present and possible future development of the nuclear industry in the West Cumbria area, and another by Pidgeon et al (2007) on the public perception of nuclear energy generation as a possible option for climate change mitigation. These studies demonstrate the issue of nuclear safety has clearly captured

public attention in the UK - at least among the older generation - since the UK suffered the world's worst nuclear accident before Chernobyl (at the Windscale site in 1957, now known as Sellafield), when a nuclear pile caught fire and burned for some days before being extinguished.

The Pidgeon et al (2007) study, based on a major British survey undertaken in the autumn of 2005, shows that the UK public see both climate change and nuclear power as risks. People express only a 'reluctant acceptance' of nuclear power as a 'solution' to climate change (Pidgeon et al, 2007). This indicates that while a significant proportion of the British public are prepared to accept nuclear power if they believe it contributes to climate change mitigation, this is a highly conditional view, with very few actively preferring nuclear power over renewable energy sources when given the choice.

Wynne et al (2007) also conducted a study in West Cumbria on the public perception of present and future development in the area. Sellafield had been the subject of continual controversies relating to its environmental discharges and workforce radiation doses. Through a review of socio-economic data, and interviews/discussion groups of sample local residents, the study draws conclusions about public attitudes toward risk arising from the relative dependence of the local economy on the industry, now and possibility in the future (Wynne et al, 2007). It shows that the apparent general support for the nuclear industry in the area needs to be interpreted with real caution and may reflect recognition of dependency rather than more positive endorsement. Issues of nuclear safety were clearly an important topic but rather than generating concern, they seemed to create mixed feelings of fatalism and dependency suggesting that people in the area had reached a state of subconscious denial where the recognition of risks was covered by layers of rationalisation.

Wynne (1992) also studied responses to scientific expertise after the Chernobyl accident, which showed that social networks had a strong effect on what people were prepared to believe. Interestingly none of these studies, in particular those by Wynne, mentions the issue of public perception of nuclear site security.

Public perception of information security
In the area of information security, current major concerns relate to viruses, hackers, spam, spyware, zombie networks and other threats. The few studies undertaken on people's perception of information security include one by Vyskoc and Fibikova (2001), who conducted a survey to find out how IT users perceive information security, and one more recently by Huang et al (2007) which investigated the factors influencing people's perception of different threats to information security. Neither study originated from

academics in UK universities, but each offers an idea of the extent to which information security (or nuclear safety) can be considered as critical infrastructure protection. In this regard, the Huang et al (2007) study is interesting which surveyed 602 people via a multiple regression analysis. The study concludes that the factors of 'Knowledge', 'Impact', 'Severity' and 'Possibility' had significant effects on the perceived overall level of threat.

These two issues bring together perceptions of infrastructural and personal security. While the risks attending nuclear power may manifest in the form of man-made errors, physical deterioration and lack of maintenance or natural disasters, they are not viewed as intentional, while breaches of information security may emerge due to weakness in the system and criminal activities. However, critical infrastructure protection measures are designed to guard against human intent (terrorism), and entail the protection of the physical infrastructure and the management system against potential cyber-attacks. Given the state of current research, it is difficult to gauge the degree to which the public perceive these two issues as intentional threats that are relevant to state security.

The role of the media
The global media has played an important role in raising the profile of critical infrastructure protection as a public concern. Since September 11th, the media has produced a stream of stories about public places as key targets of inevitable attack, with a dominant discourse on the inevitability of attack on critical infrastructure (Bodi, 2005; Cowan, 2004, The Independent, 2004). This also goes beyond the media, with novelists such as Tom Clancy (2000) and 'infowar specialists' such as Arquilla (1998) creating various scenarios that suggest the inevitability of an attack and the vulnerability of management systems to cyber-threats. In Arquilla's (1998) scenario, the electricity grid is one of the first infrastructures to be targeted by the attackers, and during the resulting cascading power failures the body count escalates rapidly due to everything from traffic accidents to the explosion of a chemical plant.

This is typical of such scenario-building exercises, which often include the potential breakdown of systems such as air traffic control (resulting in multiple plane crashes); overloaded digital networks (taking down finance and e-commerce networks); public infrastructure failures involving power grids, telecoms networks, road and rail systems and nuclear power generation. All this has certainly reinforced public perception of the perceived vulnerability of critical infrastructures. As highlighted by Boin and Smith (2006), the public perception of this risk has led to the formulation of new policies to manager perceptions of security in critical infrastructure:

'While the probability of being killed in a terrorist attack is infinitely lower than the risks associated with car travel, the issue has captured the imagination of the various publics and has generated a new set of task demands for public management. These demands take on particular importance in the context of critical infrastructures: a breakdown in these infrastructures, however brief, undermines the public trust in the ability of public management to provide and preserve a sense of security.' (Boin and Smith, 2006: 295)

However, as before, little research has been done by academics in UK universities on public perceptions of critical infrastructure protection. Nevertheless, we have found a number of studies that mention public perception. These studies cover public perception in the context of critical infrastructure reforms and public-private partnerships, socially acceptable norms in terms of critical infrastructure protection policies, and public perception of counterterrorist urban designs.

Public perception in the context of critical infrastructure reforms and public-private partnerships

The first topic was covered briefly in the study by Boin and Smith (2006). Their article looks at management issues linked to critical infrastructure protection in the context of public-private partnerships. They refer to 'western' public perception. The authors argue that public perception is a barrier to policy reforms for critical infrastructure protection because of 'widespread concern with the curtailment of those public freedoms that seem to be required in dealing with terrorist threats' (Boin and Smith, 2006: 297). They identify 'an apparent declining tolerance for failure that is emerging in many western societies. Citizens and media reporters are quick to blame incumbent politicians in the wake of even small failures, never mind large-scale policy problems (…), but they often show little interest in efforts to improve the defence mechanisms against terrorist attacks' (*ibid.*). The authors conclude that 'All this helps to create an environment in which public managers prioritize symbolic measures (…) rather than effective (if expensive) mechanisms' (*ibid.*).

This study is interesting in several aspects. Public perception is not its central topic, but is addressed as an opportunity and constraint for public policy reforms. It also shows various stereotypes and assumptions regarding public perceptions of toward critical infrastructure protection which are not based on clear scientific data. Public perception is thought of as originating from a homogeneous group with a single opinion on this issue.

Socially acceptable norms in terms of critical infrastructure protection policies

A second theme focuses on socially acceptable measures for counter-terrorism in critical infrastructure protection. *The West Review* emphasised that the protection of critical infrastructure could adversely affect the economic and political space upon which public life is predicated. Boin and Smith, from a contrasting but related perspective, suggest that civil society will tend to resist exactly those new technologies designed to promote public security (2006: 302).

Public perception of counterterrorist urban designs.

The third theme is that of urban design and the perception of safety zones, and more specifically contemporary counterterrorist protective design (part of the 'Protect' strand of the UK counter-terrorism strategy, CONTEST). Counter-terrorist protective designs are emerging in a number of countries. The US, starting with the attacks against the World Trade Centre in New York in 1993 has passed legislation making it easier to 'bomb-proof' federal structures, while in the UK, the CONTEST strategy has received increased prominence since the July 2005 terrorist attacks on the London transport network (July 7th), with the UK government now offering guidelines for urban planning and security specialists.

In terms of public perception, these new urban counterterrorism schemes have a number of implications. Firstly, the growing public awareness, as has been seen in the US, of domestic terrorism and local vulnerabilities (Coaffee and O'Hare, 2008). Secondly, they have altered people's sense of personal, as well as public, safety. The new security measures and protection of the US Embassy in London in Grosvenor Square are quite revealing, with some people moving house rather than live near what they perceive as increasingly risky terrorist target (Coaffee et al, 2009: 500). Urban designers have attempted to address this perception of insecurity, as in the case of the proposed design for the new American embassy in London which is based on a new counterterrorism philosophy as applied to the protection of urban areas and their critical infrastructure. It involves integrating protection into the design of buildings thought to be at risk of terrorism, increasing the importance of urban planners and architects in the process of reducing vulnerabilities. However, unobtrusiveness under these conditions is not always possible, so that cities, and city life, are increasingly likely to be reshaped by the demands of counterterrorism.

Given this shift, new programmes of research are looking at how security measures interact with public spaces and affect public perception and behaviour. Manchester

University's ESRC-funded research project, 'The built environment: mirror and mediator of radicalisation'[7], studies the interaction between visible security features and perceptions of public space, asking how people react to them, whether those reactions can themselves lead to extremism, and how to minimise this possibility.

In the US, critical infrastructure protection is more advanced as a debate, but public perception is similarly under-researched. This report does not pretend to have done an exhaustive search of all the existing US studies, yet, can offer only one study (Sindhav et al., 2006) directly related to public perception. It looks at air passengers' perceptions of the fairness of airport security measures following September 11th, and shows that perceptions of fairness are based on four dimensions: the distributive, which is a personal cost-benefit analysis of inconvenience vs. increased safety; the procedural, or whether one's own treatment differs from others'; the interpersonal, ie whether one is treated courteously and respectfully (a dimension which the authors found had the least impact on people's overall sense of fairness), and the informational, denoting whether one feels fully informed about the measures being taken. The last was found to be critical for acceptance of new security measures because it helped people adapt to the changes in procedures.

4.5   Conclusion

This synthesis demonstrates that public perception of risks to critical infrastructure has not yet come to prominence as an important topic by British academics, despite the incipient interest shown by the funding of a line of research at a major university. Sindhav et al. (2006: 328-29) offer an observation of a fundamental methodological difficulty in this type of research, which may explain why there has been so little research on the topic: the difficulty of getting permission from security officials to conduct empirical research on such a sensitive and highly regulated topic.

Another interesting issue is the dearth of quantitative studies looking at public perception of critical infrastructure protection. The only quantitative study so far on this issue is that of Sindhav et al. outlined above. In contrast, studies in the UK are not survey-based and generally lack the consistent and robust methodologies that facilitate evidence-building in a field. Instead they are largely based on assumptions rather than data, and fail to apply rigour to what is clearly an important and under-defined set of questions.

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[7] See http://www.sed.manchester.ac.uk/architecture/research/radicalisation/

Chapter 5: Public perceptions of Chemical, Biological, Radiological and Nuclear Weapons and Explosives

Summary points
• Research on the public perception of chemical, biological, radiological and nuclear weapons (CBRN) is highly fragmented: it is undertaken within various disciplinary fields, including policy, psychology and defence studies, and it draws from diverse epistemological perspectives.
• The taboos associated with CBRN and the media sensationalism that surrounds them influence the ways in which the weapons are perceived, but public awareness remains surprisingly low.
• CBRN terrorism has developed significantly as a field of enquiry during the past decade and research has often focused on public reaction. The main theme is the importance of correctly gauging public threat communication.
• Researchers support the idea that the more the public fear a weapon, the more attractive it will become to terrorists. This makes further research into public attitudes and communications an essential part of disarmament and non-proliferation efforts.

5.1   Introduction

This chapter reviews research outputs from the British government, academia and non-governmental organisations on the public perception of CBRN weapons. As its starting point it takes two sources of information. First, the Sussex-Harvard Information Bank (SHIB) at the University of Sussex was consulted for information regarding public views of chemical and biological weapons.[8] As many researchers consider chemical, biological, nuclear, and radiological weapons together, the archive provided information on the perception of all four categories of weapon. The second main source of literature was online search engines, the Web of Science and Google Scholar. In addition, and to fully embrace the large grey literature in this area, government websites as well as the websites of well-known academic departments and NGOs were systematically searched for articles relating to CBRN, both as a compound category and separately. For information on

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[8] SHIB is a living archive based upon the work of the Harvard Sussex Program and its two directors since the 1960s. Its holdings are drawn from deposits of private papers; the release of state papers, some of which are copied into SHIB by HSP researchers or associates; completion of new research projects; systematic monitoring and scanning of new sources by HSP researchers, associates or correspondents; and electronic publication. Literature-monitoring efforts of several types keep SHIB up to date, and a network of correspondents and collaborating literature-scanners worldwide ensures that the monitoring is broad in its international coverage.

recent media coverage of CBRN issues, a methodical search of the LexisNexis database was conducted using a number of search strings for the period between 2005 and 2010.

The review presented here does not form an exhaustive listing of all research addressing the public perception of CBRN proliferation, nor does it cover all the areas related to CBRN proliferation. One issue not addressed directly is the current government debate regarding the replacement of Trident, the British nuclear deterrent, sometimes described as a non-debate that is lacking in public interest. Nor will the review address the Iraq Inquiry, chaired by Sir John Chilcot, which explores actions taken by the British government in the run-up to the 2003 invasion of Iraq. The motivation for not including these policy issues is twofold: first, they are both incomplete and have not, so far, been the subject of academic scrutiny; and secondly, though they may provide interesting insights into public attitudes toward nuclear and chemical weapons, disentangling the various drivers that have fuelled and influenced these particular debates is beyond the scope of this report.

Although the focus of this review is on the UK, it is hard to ignore the international character of the literature on CBRN and the extended literature on public attitudes that exists in other countries, notably the US. Some reference is given to international literature where considered relevant.

The review offers an analysis of the taboos and norms that have framed CBRN including context on how, why and by whom the term 'CBRN' is used, a summary of the literature on public perception, and will conclude by drawing together literature from the fields of psychology and non-proliferation to examine the manner in which the public views the threat of CBRN terrorism. .

5.2   The problem of defining CBRN

Chemical, biological, radiological and nuclear weapons (CBRN) are often described as 'Weapons of Mass Destruction' (WMD), a term that suggests images of massive impacts and the Cold War. With the evolution of new uses of weapons in the current context of international terrorism, the risk posed by CBRN has changed but not disappeared. However since the end of the Cold War, the association of CBRN with 'weapons of mass destruction' has been carried forward and is very much still alive today, as reflected both in policy circles and in public attitudes . Even the simpler, less sensationalist term 'CBRN' continues to group the weapons together as did the 'WMD' terminology, but each of the weapons within this categorical construct of CBRN has a different history, a different governance system and is perceived differently by the public.

CBRN is therefore a loaded term, and this is reflected in its erratic usage in the academic and grey literature with some researchers actively avoiding it, as they did its predecessor, WMD. In other fields of research, such as in the military and defence industries, the adoption of the CBRN category has been much more widespread. In addition, most researchers, apart from those working in specific areas of the physical or biological sciences, who address this category of weapons tend not to focus exclusively on any one of them. Thus, given that CBRN is not a significant area of research in itself to call it such would mistake its fragmented character. Following some researchers' practice of grouping CBRN together, sometimes grouping them as CB or RN and sometimes dealing with each weapon separately, this review is organised by theme rather than by weapon.

In this chapter, a *chemical weapon* is taken to mean, together or separately:
- toxic chemicals and their precursors;
- munitions and devices specifically designed to cause death or other harm through the release of toxic chemicals;
- any equipment specifically designed for use directly in connection with the employment of these munitions and devices.

A *biological weapon* is taken to mean:
- microbial or other biological 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;
- weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.

Radiological weapons are:
- devices designed to cause harm by spreading radioactive material but are not nuclear weapons

Nuclear weapons are:
- devices that derive their explosive power through the release of nuclear energy.

5.3   Taboos, stigmas and norms

In spite of being relatively easy to make, the 'non-use' of chemical and biological weapons in modern wars (those of the twentieth and the twenty-first centuries except for WWI and the Iran-Iraq War) is commonly explained through the presence of a powerful taboo. This taboo formed the normative basis to hold in place the set of international

chemical and biological weapons regimes.[9] Although the existence of a taboo is widely acknowledged its origins as well as the extent of its relationship to public perception have been the subject of debate.

The literature suggests the governance of nuclear weapons is also governed by a taboo, but one different from the chemical and biological weapon taboo in two important ways. First of all, the chemical and biological weapons taboo is based on the ancient and normative proscriptions of the use of poison and disease in war, whilst the nuclear taboo is by comparison new. Second, the nuclear weapon taboo seems to be against use but not necessarily against possession. The existence of a taboo on radiological weapons is less clear from the academic literature.

These taboos have ancient origins. Chemical and biological weapons (CBW) have been distinguished from conventional weapons because they have been set against a wide-ranging moral and legal opprobrium (Perry Robinson, 1973) linked with an ancient taboo against the use of poison and infection as weapons. Although not necessarily synonymous, poisons and chemical weapons have been often used for the same purpose: chemical weapons as 'force multipliers', and poisons as 'equalisers of strength' when used by individuals to compensate for physical weakness (Price, 1995).

Jefferson (2009) uses the taboo as a framework to examine emotional and policy responses to CBW. By exploring the historical origins of the taboo, Jefferson demonstrates that the use of poison and infection were, throughout Classical Greek, Roman and early Christian times, perceived as morally ambiguous, underhand and in some cases mystical (Jefferson, 2009: 48).

A taboo on nuclear weapons also exists and has been documented, although largely in the US. Nuclear weapons are more modern than chemical or biological weapons, so any taboo against them has arisen relatively recently. But although their origins are very different, the manner through which the taboos against CBRN evolved during the twentieth century drew significantly from the influence public opinion had on state behaviour. Particularly important in this respect were movements operating both at grassroots and elite levels.

Social movements are influential in moving public perception on issues involving CBRN. Most studies on nuclear weapons that discuss morality and perception do so from the state perspective and predominantly address the concept of deterrence (eg Johnson,

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[9] These regimes are embodied by the 1972 Biological Weapons Convention and the 1993 Chemical Weapons Convention.

2010), or sometimes the role of ethics and religion (eg Goodwin, 1982). Tannenwald, who has documented the origins of the nuclear taboo, stresses that although not an ancient taboo, it has been very powerful; so powerful that uses that were at some point plausible policy options have become de-legitimised and are now unthinkable (Tannenwald, 2005: 5). Tannenwald underlines the importance of the international anti-nuclear movement - particularly its grassroots elements - that emerged during the 1950s led by a number of prominent individuals:[10]

> 'Both reflecting and fostering growing antinuclear public sentiment, groups such as the National Committee for a Sane Nuclear Policy and the Committee for Non-Violent Action in the United States, the Campaign for Nuclear Disarmament in Britain and the trans-national Pugwash group of scientists, as well as numerous church and peace organisations, subjected nuclear weapons to an onslaught of criticism and called for a test ban and a halt to the arms race' (Tannenwald, 2005: 21).

These movements contributed to the taboo in three ways: they provided information and alternative viewpoints on the wider effects of the weapons to the public; they cast the weapons as morally abhorrent and as capable of destroying all humankind; and they mobilised public opinion to pressure governments to justify their policy choices (Tannenwald, 2005: 24). Such was the effect of these movements that it prompted some governments to attempt to derail them through disinformation, sabotage and surveillance (see Schwartz, 1998, cited in Tannenwald, 2005).

Price (1995) approached the topic of taboo from the question of why chemical weapons were not employed on the western battlefields of the Second World War. Price (1995) asked how it was that an entire category of weapons had come to be so de-legitimised. He found that it was partly the association of chemical weapons with their small-scale predecessor, poison, that automatically generated the taboo. Price (1995) argued that this new taboo was practiced, promoted and then culturally and politically institutionalised after the First Word War. However, Jefferson argued that in addition to political and social phenomena, 'moral repugnance' has formed a basis for the prohibitions that have excluded the use of chemical and biological weapons throughout history. This is a different interpretation to previous studies such as that by Price (1995). This moral stigma is closely related to an instinctive disgust associated with the use of poison and infection as weapons: 'Not only does the use of poison weapons generate a visceral reaction of

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[10] Remarkable here was the call for society to "[r]emember your humanity and forget the rest. If you can do so, the way lies open for a new Paradise; if you cannot, there lies before you the risk of universal death." This was coined in the Russell-Einstein manifesto that marked the launch of the Pugwash movement.

disgust, the existence of the taboo surrounding their use also helps to strengthen their stigma.' (Jefferson, 2009: 71).

Whereas the norms governing chemical and biological weapons extend beyond prohibiting their use to non-possession, the international norms governing nuclear weapons do not. As Johnson has argued, the 'pressure imposed on those who seek (or persistently try) to acquire nuclear weapons may be considerable, but the possession— that is to say, the successful acquisition—of such weapons has become associated with national pride, independence, technological prowess and the "masculine" ability to punch above one's weight' (Johnson 2010: 430). However, though it is not so long ago that chemical and biological weapons were described as the 'poor man's atomic bomb', adherence to norms proscribing their possession is now almost universal. Taboos and norms evolve with public perception, and they will continue to do so.

Taboos can also be eroded over time, however. The direction of change of norms has become a significant theme of research in the field of security, especially for researchers of chemical and biological weapons. These studies share a concern that the powerful taboo could be eroded through state interest in so-called non-lethal weapons. A confluence of factors – including a better scientific understanding of the central nervous system and better drug delivery techniques, loopholes in relevant international conventions, and the transition from 'old' to 'new' wars – have led to a resurgence[11] of research into incapacitants and other 'non-lethal' chemical or biological weapons (see Dando, 2003; Wheelis and Dando, 2005; Crowley, 2009). The extent of this interest was thrust into the public sphere by two events in 2002: the disastrous Russian use of a fentanyl derivative during the Moscow Theatre Siege; and the lack of international condemnation in its immediate aftermath (Robinson, 2008: 228).[12] These events confirmed the advanced nature of state research into 'non-lethal' chemical weapons and added urgency to the movement against them. Since 2002, 'non-lethal' weapons have been a mainstay of the literature on chemical and biological weapons.

Some studies have drawn attention to the humanitarian appeal of 'non-lethal' weapons, noting that the ideal 'of war without death' is an attractive one to society. Robinson labels this as 'creeping legitimisation' and debunks it absolutely. He states that examples of this bogus phenomenon include:

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[11] Interest in 'non lethal' weapons is not new but has featured as a bizarre appeal to the humanitarian that has shadowed the chemical and biological weapon taboo throughout the twentieth and twenty-first centuries. For a history of research into these weapons, see for example Davison (2007, 2009).

[12] In October 2002, Russian military forces used an undisclosed fentanyl-type incapacitant in response to a mass hostage situation in a Moscow theatre during a performance of Nord-Ost. Pumped through the ventilation system, rather than subdue the hostage-takers, the chemical also claimed the lives of over 120 of the hostages as well as the terrorists. See Rieder et al., 2003.

'the 'tear gas' of police forces; the psychochemical weapons that, according to past US Army teaching, would cause the enemy to 'linger in overpowering reverie'; and the entirely mythical knock-out agents of 'war without death' that have figured in science fiction since the nineteenth century. Add to these chemicals the various infective agents that can induce highly debilitating diseases of low mortality, and a category of [chemical and biological weapons] is created whose features seem quite different from those of WMD, whose possession may therefore appear desirable, and whose constraint by treaty may thus come to seem a liability, notwithstanding the abyss into which the tailoring could also cast us.' (Robinson, 2008:237)

Jefferson casts this 'creeping legitimisation' as an example of erosion of the 'no poisons in war' norm and as moral nonchalance (Jefferson, 2009: 205-212). In addition to being the subject of academic inquiry, a number of organisations have condemned the concept of 'non-lethal' weapons purely on humanitarian grounds, particularly the International Committee of the Red Cross (ICRC) (Coupland, 2003; Fidler, 2005; Pearson et. al., 2007; Loye and Coupland, 2007).

The British Medical Association (BMA) has previously published information regarding the development of dual-use medical technologies (British Medical Association 1999; 2001; 2004) but after the Moscow Theatre Siege it reacted again and produced an extensive report that strongly condemned the use of drugs as weapons (BMA, 2007). Among its wide-ranging recommendations, the report concludes that:

'[t]he use of drugs as weapons presents healthcare professionals with a unique set of ethical considerations. Using medicines and medical knowledge for purposes such as harming or incapacitating people in combat situations has significant implications for the ethos and status of medicine and how doctors are perceived by the societies in which they work. Doctors risk losing their status as protected care-givers and will no longer be perceived as neutral but as active participants in combat.' (BMA, 2007: 23)

This highlights the risk that in becoming involved in the development and/or the application of such weapons, the position of healthcare professionals within greater society would be greatly affected. Given the clear connection between the establishment of international norms and public perception, there is clearly room for further research on how the public attitude is affected by new military utilities for weapons subject to taboo.

5.4   Public attitudes and awareness

In addition to the impressive activities of the Campaign for Nuclear Disarmament in mobilising public opinion on nuclear weapons, the more recent *Weapons of Mass Destruction Awareness Programme* was launched in 2004 by Rotblat (1908-2005), one of the prevailing figures of the anti-nuclear movement.[13] The programme continues to disseminate reliable information on CBRN weapons amongst the public, and with an emphasis on the younger generations it targets festivals and provides educational modules for schools.[14] It maintains its own website and is also present on various social networking sites, its Facebook fanpage stating that:

> 'We urge all nuclear weapon states to enter serious discussions aimed at achieving the ultimate abolition of all nuclear weapons worldwide. In the interim, action should be taken by the United Nations (UN) aimed at creating a full inventory of WMD and to place all WMD sites under UN guardianship.
>
> The UN must create an inspection and verification regime to monitor compliance with existing international treaties and law on Chemical, Biological and Nuclear weapons. The inspections must be intrusive, systematic and even handed, with ALL states being subjected to the same regime.'
> (WMD Awareness Programme Facebook, 2010
> http://www.facebook.com/pages/WMD-Awareness-Programme/ accessed on 3 July 2010)

Jenkins-Smith et al. (2004) carried out a quantitative analysis of attitudes toward nuclear weapons in Britain and the US. They found that although attitudes between the UK and the US are very different, they are correlated with the same core beliefs. In both countries, support for retaining nuclear weapons was growing, with 'increasing agreement that every country has to take care of itself; increasing assessments of external and domestic nuclear benefits; decreasing assessments of domestic nuclear risks; and beliefs that British nuclear weapons strengthen prospects for future European security.' (Jenkins-Smith et. al., 2004: 299) Other studies have explored British attitudes to nuclear proliferation in other countries; see for instance Johns' exploratory study of heuristic processing in student views of Iranian nuclear proliferation (Johns, 2009).

The manner in which the British public perceives nuclear weapons, according to the market research company Ipsos-MORI, has changed very little in the past 50 years:

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[13] See Hinde and Finney (2007)
[14] For instance, in 2010 the WMD Awareness Programme appeared for the fifth year running at Glastonbury Festival in Somerset. The Programme's website is http://www.wmdawareness.org.uk/ .

nuclear weapons are viewed as 'at best, a necessary evil, and one to be done away with if at all possible' (Byrom, 2007: 71). Through the analysis of polls taken in the past 50 years, Byrom finds however, that public opinion has been consistently *against* unilateral disarmament whilst being consistently *for* multilateral disarmament. Byrom argues that where attitudes may have changed is in the public's acceptance of the rationale for nuclear retention, and that the basis for the public's opinion in this case is a (false) assumption that the nuclear weapons serve only as a deterrent (Byrom, 2007).

In the case of chemical and biological weapons, a strange mix of ignorance and the fantastical often influences public attitudes. Through a sensationalist media, the public is fed 'doomsday' stories whilst often remaining completely unaware that chemical and biological weapons are comprehensively prohibited (Pearson, 2006). Radiological weapons seem to have attracted high levels of attention from the public, but Acton has argued that the public reaction to a 'dirty bomb' would not be so different to a conventional explosive device as the attack would appear conventional and the injuries would similarly be overwhelmingly conventional (Acton, 2007). Familiarity, therefore, is key.

As touched upon above, the media is often blamed for a poor public understanding of CBRN, the risks they pose and the level of threat associated with them. However, an analysis of news stories between 2005 and 2010 reveals the importance of semantics in the media's approach. When using the term 'CBRN', media articles are almost exclusively either defence publications or address response procedures for potential CBRN attacks. In contrast, when employing more colourful descriptive terms such as 'poison gas', 'bioterror', 'dirty bomb' or 'nuke', the focus of publications is often on more emotive issues such as risk and threat.

Such a difference in terminology may have consequences for public attitudes toward CBRN, since if members of the public receive incomplete information, this leads to a skewed interpretation of the risks posed by CBRN and of government policy responses. This tentative argument is supported by the literature highlighting the low levels of public awareness of CBRN as detailed above.

Research scientists represent another important public group for the question of awareness. Amongst researchers in the field of chemical and biological weapons, there has been constant recognition that as science and technology advances new ways of (mis)applying toxicity and infection will come to light. The capacity of science to avoid this mis-application depends to a great extent on those who practice it. A number of

researchers have explored how scientists view their research in the context of its dual-use potential.

In *Nature*, Dando (2009) writes that few scientists consider the possibility that their work may be misapplied. This observation is drawn from an extensive and international study of scientists' perceptions undertaken by Rappert (2009), which found that not only are scientists unaware of the risks of their research but they are reluctant to discuss the issue at all:

> 'With the exception of some of the US seminars, very few participants displayed knowledge of dual use policy discussions. Therefore, it was certainly more the exception than the rule that any participant at any time during a session would bring up biological weapons-specific considerations beyond what we as moderators presented.'(Rappert, 2009: 62)

Rappert argues that raising awareness, or educating, the public about dual-use issues can be problematic. He notes that difficulties arise 'about who has claim to what expertise and how that is forwarded' and concludes that further research into the effects of educational initiatives is required (Rappert, 2009:63).

Alastair Hay has collaborated with the International Union for Pure and Applied Chemistry (IUPAC) to develop an educational module to raise awareness about the multiple uses of chemicals.[15] Their model deals with the illicit production of chemicals and the end uses of the chemicals produced. This differs from the model put forward by Dando and Rappert, whose focus is on dual-use research rather than the synthesis of dual-use chemical compounds.

In tandem with international endeavours, British scientific and research institutions have been part of efforts to raise awareness among scientific communities. For instance, a joint meeting between the Royal Society and The Wellcome Trust culminated in the publication of *Do no harm: reducing the potential for the misuse of life science research* (2004). This report highlights that bottom-up approaches that engage with broader society, including the scientific community, are increasingly important in preventing illicit applications of dual-use technology. The Royal Society has also addressed the role of scientific communities in nuclear arms control and disarmament. Through its programme on 'scientific diplomacy', the Society has focused on the specific role that international communities of scientists can play (Royal Society, 2010).

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[15] A presentation on this subject is available at http://multiple.kcvs.ca/

Another mechanism investigated for the promotion of awareness and self-governance in scientific communities has been codes of conduct. Various studies have advocated the use of these codes to reinforce the norms against chemical and biological weapons, and to institutionalise them through codification (Rappert, 2004; Pearson and Mahaffy, 2006; Pearson, 2008; Dando, 2008).

However, efforts to devise and introduce codes into scientific practice have not gathered the expected momentum and have sometimes been met with scepticism (see Royal Society, 2004). Rappert (2010: 14) states that 'this has been due to the lack of prior awareness and attention by researchers as well as science organisations to the destructive applications of the life sciences. Before codes can help teach, education is needed'.

5.5   Psychological, societal and cultural aspects

Recent research has focused on the psychological effects of chemical and biological weapons. For instance, an American study by Brewer et al. (2006) examines why Gulf War victims believe they were exposed to chemical and biological weapons (Brewer et al., 2006). In a related field, many researchers have explored what has come to be termed 'Gulf War Syndrome', the cause of which is still debated in the toxicology, medical and psychology research communities and which has a vast literature of its own (see, for example, Unwin et al., 1999; Iverson et al., 2007). Alexander and Klein (2005) have observed a similar phenomenon in other contexts. In what they term 'mass psychogenic illness' Alexander and Klein refer to two cases where the public believed they had been affected and were suffering the effects of radiological and chemical weapons respectively.[16]

The belief that individuals have been the victims of chemical and biological weapons has also extended into the minds of the wider public. In recent research on sociogenic illnesses, studies have highlighted a twenty-first century resurgence of sociogenic illness associated with chemical and biological weapons (Bartholemew and Wessely, 2002; Alexander and Klein, 2005). Some writing in this field claims that the psychological effects of false chemical and biological weapon victimhood may be comparable to those of real incidents (see Hyams et al., 2002). Such phenomena are often related to real threats, which in the current security climate are often represented by terrorism, something which is addressed in more detail below.

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[16] The two incidents cited were the 1987 Goiania radiation incident in Brazil (see Petterson, 1988) and the dispersion of sarin gas on the Tokyo subway in 1995.

A number of recent studies have focused on the concern that international terrorism may extend to the use of CBRN weapons. Again, the stigma of the weapons involved could make them both highly attractive to groups or individuals seeking attention and repulsive to the general public. As Cornish stated about chemical weapons, 'whatever the battlefield utility of [chemical weapons], and whatever the qualities of the different agents, as far as public opinion is concerned [chemical weapons] are a terrorist weapon par excellence – an observation that is not likely to have been lost on terrorist groups' (Cornish, 2007: 9).

Research on this subject has been less prolific in the UK than in the US or Canada, possibly due to differences in threats and in the funding of bio-defence. Boulton (2003) argues that although biological weapons are cheap to make, their dissemination is difficult and their effects are hard to predict. In the case of biological weapons there have also been cited failures in production, as demonstrated by Aum Shinrikyo's attempts to weaponise anthrax in mid-nineties Japan.

In choosing agents for terror purposes, terrorist groups would seek to minimise their efforts whilst maximising the effects of the weapon. Alexander and Klein (2005) identify six features that make CBRN weapons attractive to terrorists: they are cheaply produced; their detection is difficult; they are mysterious and unpredictable; they may have delayed effects; the attack epicentre may be hard to locate; and there is no clear 'low point' after which the situation would improve.

Ian Palmer writes that 'CBRN agents are weapons of terror. By its very definition, terror is a "mortal fear or dread" and the possibility of the use of such weapons by terrorists can create uninformed and irrational fears' (Palmer, 2004: 3, author's emphasis). Cornish cites a former head of Britain's Security Services who stated that 'tomorrow's threat may – I suggest will – include the use of chemicals, bacteriological agents, radioactive materials and even nuclear technology' (as quoted in Cornish, 2007: 2). Cornish argued that discussion of the possible use of CBRN weapons by terrorists against UK targets must be carefully mediated. He highlighted that the public must be provided with neither too much, nor too little information about threats, whilst stressing that 'a good deal of the effect of a terrorist attack in the UK using CBRN could prove to be self-inflicted by the victims of the attack – the general public, business leaders and government officials – or magnified by alarmist media' (Cornish, 2007: 3).

The principle attraction of CBRN weapons for terrorists is that they will induce public panic – due the taboos and stigmas outlined above –and that this will magnify the effects of any attack. Cornish states that 'while a terrorist attack using CBRN would certainly be

terrible for all those affected, in most cases the broader impact could be governed by the quality of the public reaction' (Cornish, 2007: 27). Therefore the use of chemical or biological weapons in any attack, even if botched and unsuccessful, would have severe repercussions in the public sphere.

The issue of how threat should be communicated to the public has been taken up by Rogers et al. (2007). They approach this from the perspective that public perceptions of risk, specifically of risks that provoke mass fear, have wider consequences for public health. Drawing on the risk perception theories of Ulrich Beck, Paul Slovic and Baruch Fischhoff, Rogers et al. (2007) find that terrorism is of great concern to the public, CBRN especially so, and that the public must not be excluded from information regarding threat levels and counterterrorism initiatives. Trust between the public and the government is crucial, as is the recognition that the public 'do not fail to understand scientific and expert communication, but rather that they often do not recognise it as relevant to their social selves or social world.' (Rogers et al., 2007: 286) The study concludes with a call for a better understanding of the public perception of government security policy.

The discussion of nuclear weapons within the context of CBRN terrorism is rather different, this is explained by Healy et al. (2009) who summarises that:

> '[f]irst, the overwhelming blast effect separates it from the insidious nature of the CBR group, perhaps making it closer to serious earthquakes in terms of response. Second, due to the rarity of special nuclear materials, fission explosions are much less likely to occur as accidents or within asymmetric warfare. Third, nuclear explosions have warranted dedicated response procedures while CBR procedures are often "bolted on" to the procedures of more likely threats' (Healy et al., 2009:121).

In terms of public perception, Healy et al. argue that the distortion of an event due to fear, dread and panic (in comparison to the likely physical effects of CBRN) is the greatest for radiological weapons. It then decreases in the case of biological, chemical and nuclear weapons.

However, the notion of a panic-prone public has been contested. Sheppard et al. (2006) concludes from research on five case studies – the 1995 Tokyo sarin attack, Hurricane Katrina, the September 11th bombings, the July 7th bombings and the 2001 anthrax letters – that panic is *not* inevitable and that treating it as such may prevent the effective management of risk through communication.

> 'Understanding and respecting the ways people make risk judgments as well as appreciating their fear and anxiety can help governments assist their populace frame risk perceptions (and ultimately behaviours and attitudes). Such perceptions, behaviours, and attitudes are critical for effective communication and engagement with the public following a major attack.' (Sheppard et al., 2006:241)

Sheppard highlights several social and cultural factors (such as social class, a developed resilience to terrorism etc.) that may influence how the public responds to a terrorist attack involving chemical or biological weapons, and identifies a need for further research to understand these.

In fact, of the four types of weapon in the CBRN category, only radiological weapons have been recently and successfully deployed on British soil. This instance - the poisoning of Alexander Litvinenko[17] - has been identified as 'likely the first provable act of radiological terror.' (Acton et al., 2007:151) The Litvinenko case was unusual however, because until then the public viewed radiological weapons very much in the context of explosive devices containing radioactive material (beta or gamma sources), ie so-called 'dirty bombs'. However, the ingestion or inhalation of radioactive material, such as Polonium-210, is a very different type of attack (Acton et al., 2007); one more akin to poisoning.

As radiological terrorism combines two very emotive fears, the risk associated with them is likely to be high. Yet some argue that the consequences of an explosive radiological attack – although the weapons seem to have grasped the attention of the public – would be limited (Cornish, 2007; Acton et al., 2007). Understanding public perception and effectively communicating information to the public are, according to Acton and colleagues, vastly important to public policy. The reaction of victims of radiological weapons may directly affect outcomes: if they are well informed the impact may be lessened, whereas if they are not, it may be exacerbated. This leads Acton et al. (2007: 162) to make three recommendations:

> '[f]irstly, to reduce the panic following an attack, governments should communicate that one must be exposed in order to be at risk. Secondly, although radiological terrorism can certainly be deadly, it cannot plausibly cause mass deaths in the thousands, or tens of thousands. In particular, radiological terrorism needs to be firmly divorced from nuclear terrorism in the public consciousness. Thirdly, governments should provide advice about what to do in the event of an attack'.

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[17] The incident referred to here is the murder of Alexander Litvinenko in London in November 2006 by ingestion of radioisotope polonium-210.

However, Acton claims that exaggerated fears are not so easily dispelled and the view that radiological weapons are 'Weapons of Mass Destruction' is correlated with the general fears regarding radiation.

Other research has drawn attention to the relationship between policy and threat perception: that policy reactions to the threat of CBRN terrorism may alter wider perceptions of the weapons and thus reinforce, or even create, incentives to employ them. Graham Pearson notes that in the specific context of bioterrorism, 'a policy of over-reaction, in which every suspicious event is assumed to be an act of bioterrorism, is not in the best interests of security. Indeed, it can suggest to the terrorists that they should resort to bioterrorism to attract public attention, because that is what appears to gain most publicity.' (Pearson, 2007: 73 – 74) With strong parallels to literature on risk amplification, Pearson's view goes further in proposing that social amplification may change the very nature of the threat. It is here that the role of the media is key in affecting and framing the public perception of CBRN.

It is worth noting that although the UK has produced some output on CBRN terrorism, other countries – namely the US and Canada – have been more prolific, reflecting different threat assessments and funding priorities for CBRN-specific research. The research from North America has tended to be more focused, often taking an agent-based approach and providing detailed recommendations for policy – whereas British research has remained for the large part at the general level.[18] The vigorous debate in the US certainly reflects two very different positions with respect to the level of threat posed by CBRN terrorism; on one side those who maintain it to be inevitable and on the other, those who like Leitenberg (2005) believe that the threat has been grossly exaggerated.

5.6   Conclusion

The fragmented nature of research addressing CBRN, especially in terms of where it is published and which CBRN weapons are covered, makes it difficult to review. Nevertheless, there are a number of features that – in varying degrees – characterise these

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[18] For some examples of North American studies see: Stern (2002) on dreaded risks and biological weapons; Glik et al. (2004) on public perceptions and risk communications of Botulism; Henderson et al. (2004) on public attitudes toward VX gas; Etchegary et al. (2009) on public responses in Canada; Gibson (2007) on preparedness levels in Canada; Lemyre et al. (2005, 2010) on psychosocial risk assessments; Wray and Jupka (2004) on what the public should know if terrorists used the plague; and Rodriguez and Lee (2010) on factors affecting the amplification or attenuation of public worry and dread about bioterrorist attacks.

weapons, influence the way they are perceived, and discriminate them from other weapons.

The notion of taboo is central, as is the fear of what is unfamiliar. Academic output in these areas has demonstrated that taboos and fears are dynamic concepts and that the direction of change is not necessarily straightforward. In this context, the issue of so-called 'non-lethal' weapons has been identified as a potential erosion of the chemical and biological weapon taboo. Similar forces may be at work in the nuclear weapon field where tactical technology such 'mini-nukes' and 'bunker-busters' challenged traditional notions of nuclear weapon utility. Questions that are relevant to current research output but are not answered by it arise, for instance: how do new military utilities for weapons subject to taboos affect public perception?

Another issue relating to the public perception of CBRN comes from a strange paradox: that although the weapons can elicit the most extreme feelings of fear and dread, levels of public awareness are extremely low. Why this is, is unclear; perhaps it is due to bias in the British media, or to the scientific community's neglect of non-proliferation issues. Current advice for policymakers recommends focusing predominantly on more efficient threat communication and greater trust, but this would not necessarily solve the greater problem of a lack of knowledge amongst the public. Though this question is being addressed at the international level, results have been mixed and it deserves further academic study.

The public perception of CBRN is especially important taking into account the attention-craving nature of international terrorism. The view that the more the public fear a weapon, the more attractive it will become to terrorists is perhaps a simplistic one but is not without some foundation. Understanding public attitudes and informing them accordingly is therefore a crucial part of governance in this area.

Chapter 6: Public attitudes to transnational organised crime

Summary points

- In common with the other areas covered in this report, public attitudes and opinions are not an important focus of academic work and public reports on transnational organised crime.
- Public opinion polling on crime assesses people's perceptions of crime levels, the causes of crime, policing departments, and confidence in the criminal justice system.
- Polling of public attitudes on the causes of crime does not cover transnational dimensions.

6.1   Introduction

Public concern and political debate over organised crime originated in the US and spread to Europe and beyond in the 1990s. There are more than 150 definitions of organised crime.[19] In the US, 'organised crime' is generally used to describe a group of people who act together on a long-term basis to commit crimes for gain using the threat of violence (Levi, 2002). The Serious Organised Crime Agency (SOCA) defines organised crime as 'those involved, normally working with others, in continuing serious criminal activities for substantial profit, whether based in the UK or elsewhere.'[20] The distinction between 'organised crime' and crime in general is significant with regard to understanding public attitudes as well as the actions and approaches of government departments and agencies to fight the problem, nationally and internationally (Dorn, 2009).

There is no clear understanding of what 'organised crime' actually is amongst the general public (Woodiwiss and Hobbs, 2009). This is unsurprising given that there are so many definitions of the term and, hence, ways in which it is used to refer to a variety of distinct activities and actors. This lack of clarity makes it more difficult to test public attitudes to the problem. The 'transnational' dimension of organised crime makes it even more difficult to assess public opinions on transnational organised crime. However, the term 'transnational' is typically used to refer to the various linkages that organised crime groups have created across national borders and otherwise explain how organised crime has become a global enterprise (Longo, 2010).

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[19] 'Definitions of organised crime.' http://www.organized-crime.de/OCDEF1.htm#duy. Accessed August 10, 2010.

[20] 'Organised crime groups.' Serious Organised Crime Agency. http://www.soca.gov.uk/threats/organised-crime-groups. Accessed September 15, 2010.

6.2.   Background

Organised crime groups and looser networks of criminals have been adept at exploiting the greater connectivity of banking, economies and societies in the age of globalisation. They frequently use violence, intimidation and corruption in carrying out their activities as well as sophisticated counter-surveillance techniques to avoid detection and undercut competing groups. In terms of a cash value, harm and damage caused by organised crime in Britain is estimated to at least £20 billion a year and potentially as high as £40 billion (Cabinet Office Strategy Unit, 2009). While serious societal harm is often caused by transnational criminal activity, for example, human trafficking, the construction of certain crimes as 'transnational' and, hence, an external threat obscures the origins of these crimes in the markets for illicit goods and services within the 'threatened' societies (Edwards and Gill, 2003). These nuances are the topic of debate in the academic literature – the 'criminologies of the other' and 'criminologies of the self'. It is important to understand how they constrain or enable alternative policy responses to the problem of transnational organised crime because they shape understandings of where the source of the problem rests (Adam and Pete, 2002).

National governments and multi-lateral institutions alike have created new structures to tackle the worsening problem of transnational organised crime, including to better predict and detect organised crime activity (Albanese, 2008, Williams and Savona, 1996). HMG Government outlined its response to organised crime in the March 2004 White Paper *One Step Ahead – a 21st Century Strategy to Defeat Organised Crime*, from where the SOCA definition of organised crime is derived. The most important aspect of this definition is that 'serious organised crime' affects everyone, which is reflected in public polling and questions on crime victimisation (Eades, 2006). More broadly, the *United Nations Convention on Transnational Organized Crime* adopted by the General Assembly resolution 55/25 date 15 November 2000 has been the main international instrument in the fight against transnational organised crime. It was opened for signature by Member States at a High-level Political Conference in Palermo, Italy in December 2000 and entered into force on September 29, 2003 (United Nations, 2004). Further, the Commission of the European Communities and EUROPOL have established a list of eleven characteristics of criminal organisations that are associated with the label 'organised crime' (Commission of the European Communities and EUROPOL, 2001).

Categorising criminal organisations involves listing different types of organised crime activities and this approach has been widely adopted in public attitudinal surveys on crime. The National Institute of Justice of the US Justice Department[21] also keeps a list of

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[21] http://www.ojp.usdoj.gov/nij/topics/crime/transnational-organized-crime/major-groups.htm

major transnational organised crime groups, categorised according to their involvement in activities such as drug trafficking, money laundering, human trafficking, illegal stock and trading bribery, torture, gambling, judicial and political corruption. According to the Serious Organised Crime Agency, the activities of organised crime groups range from drugs and organised immigration crime, through evasion of VAT and excise duties, financial and business fraud to intellectual property theft or counterfeiting.[22]

In Britain, crime has been a major focus for the government over the past decade, with a raft of new legislation implemented during the Labour government. Notably, this included the *Serious Organised Crime and Police Act (2005)* which led to the establishment of SOCA in 2006. SOCA resulted from the merging of the National Crime Squad, the National Criminal Intelligence Service, the National Hi-Tech Crime Unit, the investigative and intelligence sections of HM Revenue & Customs on serious drug trafficking, and the Immigration Service's responsibilities for organised immigration crime.

Overall, levels of crime have fallen in recent years (Flatley et al., 2010). But there remains a gap between official crime statistics that show crime levels are decreasing and people's perceptions that crime levels are rising. Increasingly, people fear that their personal safety and security is threatened and they blame the government. It is important to address the gap between actual crime and the perception of crime and why it exists. This gap between official crime statistics and people's perceptions of their own safety also highlights the need for more systematic assessment of public attitudes than currently exists.

Having briefly considered governmental and multi-lateral responses to the problem of transnational organised crime, this chapter reviews the very limited evidence of British public attitudes to the problem drawing on public reports and academic works in Britain.

6.3.   British public attitudes to transnational organised crime

In Britain, there is no survey programme that examines concern about 'organised crime' as a sub-category of crime in general (Bullock et al., 2009). Still, according to a recent Home Office poll, 84 per cent of respondents said that organised crime was fairly big problem in Britain, with one third stating it was a problem in their local area (Ipsos MORI, 2009). Furthermore, opinion surveys show that 'crime' ranks in the top five issues

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[22] 'Organised crime groups.' Serious Organised Crime Agency. http://www.soca.gov.uk/threats/organised-crime-groups. Accessed August 10, 2010.

that are of greatest concern to the British public.[23] Public polling since the middle 1990s shows that levels of concern of crime have increased. Official statistics on crime come from the police recorded series and the British Crime Survey (BCS), a nationally representative sample survey of more than 45,000 respondents covering households in England and Wales. Crime surveys are conducted separately for Scotland and Northern Ireland. The BCS does not cover all offences or all population groups whereas the police recorded series, covering a greater range of offences, do not include those crimes that are not reported to the police (Flatley et al., 2010). The BCS includes a chapter on public perceptions but it does not include any questions on 'transnational organised crime'. Further, it focuses primarily on measuring the extent of victimisation rather than on measuring perceptions of harm associated with crime types (Bullock et al., 2009). The Home Office Offending, Crime and Justice Survey, conducted between 2003 and 2006, measured levels of offending and collated information on criminal activities such as counterfeiting goods, internet crime, selling class A drugs and gang membership but it did not examine public attitudes on the causes of these crimes or the harm they cause (ibid.).

The public believes that levels of national crime are increasing, even in years where the level of reported crimes has remained the same or decreased. For example, both the 2009/2010 BCS and police recorded crime series indicate that overall crime was lower compared with 2008/2009. The BCS found that crime decreased by nine per cent (from 10.5 million crimes to 9.6 million crimes), and while police recorded crime decreased by eight per cent (from 4.7 million to 4.3 million crimes) (Flatley et al., 2010: 2). Further, although people thought that crime levels nationally were increasing, they thought that levels of crime in their local area were decreasing. The 2009/2010 BCS shows that a large majority of people (66 per cent) believe that levels of crime nationally have risen. Since respondents were first asked in 1996 about their perception of crime levels nationally, they have indicated that levels are increasing, which some commentators explain might relate to a lack of public confidence in the official crime statistics (ibid.). However, when people are asked about levels of crime in their local area, much lower proportions of people think crime has risen. The BCS also shows that only 10 per cent of respondents felt they lived in a high crime area compared with 51 per cent who felt they live in a low crime area, which suggests that people's views of crime in their local area are more realistic compared to their outlooks on crime levels nationally (Flatley et al., 2010: 7).

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[23] 'Ipsos MORI Issues Index.' September 2010. http://www.ipsos-mori.com/Assets/Docs/Polls/Sept10issuestopline.PDF. Accessed September 15, 2010.

Perceptions of crime levels nationally were influenced by different personal and household characteristics. Thus, readers of 'popular' newspapers were more likely to think that crime had increased nationally than readers of 'broadsheets' (72 per cent and 52 per cent respectively), the unemployed were less likely to think that crime levels had increased than did the economically active (53 per cent and 71 per cent respectively), and those 75 and older were more likely to think that crime levels nationally had increased than did those aged 16 to 24 (75 per cent and 64 per cent respectively) (Parfrement-Hopkins and Green, 2010: 113).

In general, public opinion polls show that people's perception of being a victim of crime is far greater than the actual risk. The BCS for 2009/10 shows there is a disparity between people's perceived likelihood of being a victim of crime and their actual risk, although it did not cover levels of worry about types of organised crimes. For example, the actual risk of being a victim of burglary is two per cent whereas 15 per cent of respondents in the BCS thought they were fairly or very likely to be burgled; 15 per cent thought they were likely to be a victim of violent crime whereas the actual risk was three per cent; 21 per cent thought they would be a victim of car crime although the actual risk was six per cent (Parfrement-Hopkins and Green, 2010: 115). Unsurprisingly, 'people living in the most deprived areas and those living in areas where physical disorder was assessed as high perceived a higher likelihood that they would be a victim of crime across all three crime types' (ibid.). The BCS shows that young men face a higher risk of being a victim of stranger violence (2.2 per cent of men compared with 0.6 per cent of women); that women are at greater risk of domestic abuse (7per cent of women aged 16 to 59 were victims in the past year compared with 4per cent of men); and that households living in urban areas face a greater risk of household crime than those in rural areas (18 per cent and 12 per cent respectively) (Flatley et al., 2010: 5).

Of interest to this synthesis review, the BCS also examined people's perceptions of the causes of crime in Britain, although it did not specifically ask questions relating to emergent forms of transnational crime. These are summarised in Table 6.1.

A report by Bullock et al. (2009) for the Home Office examines public concerns about organised crime based upon data from ten two-hour qualitative focus groups and a telephone survey of a randomly selected sample of 1,000 members of the public aged 16 years and older carried out in 2006. Data were weighted to reflect national population and household demographics using updated 2004 population estimates. The report found that people did not believe that organised crime was confined to certain activities but that

Table 6.1 Public perceptions on the causes of crime in Britain

| Percentages	England & Wales, 2009/10 BCS	
	Major causes of crime[1,2]	Main cause of crime[1]
	Percentage perceiving this as a factor:	
Drugs	69	26
Lack of discipline from parents	65	27
Alcohol	53	9
Too lenient sentencing	39	11
Breakdown of family	36	6
Lack of discipline from school	34	3
Unemployment	36	5
Too few police	23	2
Poverty	25	5
None of these	0	n/a
Do not think there is one main cause	n/a	5
Unweighted base	*11,003*	*11,003*

1. Respondents were asked to select from a list the factors they thought were the major causes of crime in Britain today. If respondents selected more than one factor they were then asked which of the factors they believed to be the main cause of crime.
2. Percentages add to more than 100 as respondents could select more than one cause.

Source: Adapted from the 2009/2010 British Crime Survey, page 110.

some crimes were intrinsically more organised than others, such as drug dealing, human trafficking and credit card fraud (Figure 6.1). Nearly 70 per cent of respondents to the telephone survey agreed that the harm caused by organised crime is 'extremely serious' or 'very serious'. Further, 67 per cent thought that levels of organised crime are increasing (Bullock et al., 2009). Respondents did not differentiate between the harm caused by organised criminal groups and harm caused by crimes in general. For respondents, physical and emotional damage to individuals was seen to be most harmful, followed by a range of community-level impacts. Also, those crimes that impact primarily at the individual level were considered the most harmful and those that affect the wider, societal and business level the least harmful. Drug dealing, which is considered to be a leading cause of crime nationally and locally, also elicits high levels of individual worry.

Figure 6.1 Respondents agreeing that organised criminals were very or fairly involved in different crime types

Crime type

(Base: 1,000 respondents aged 16 or over in England and Wales)
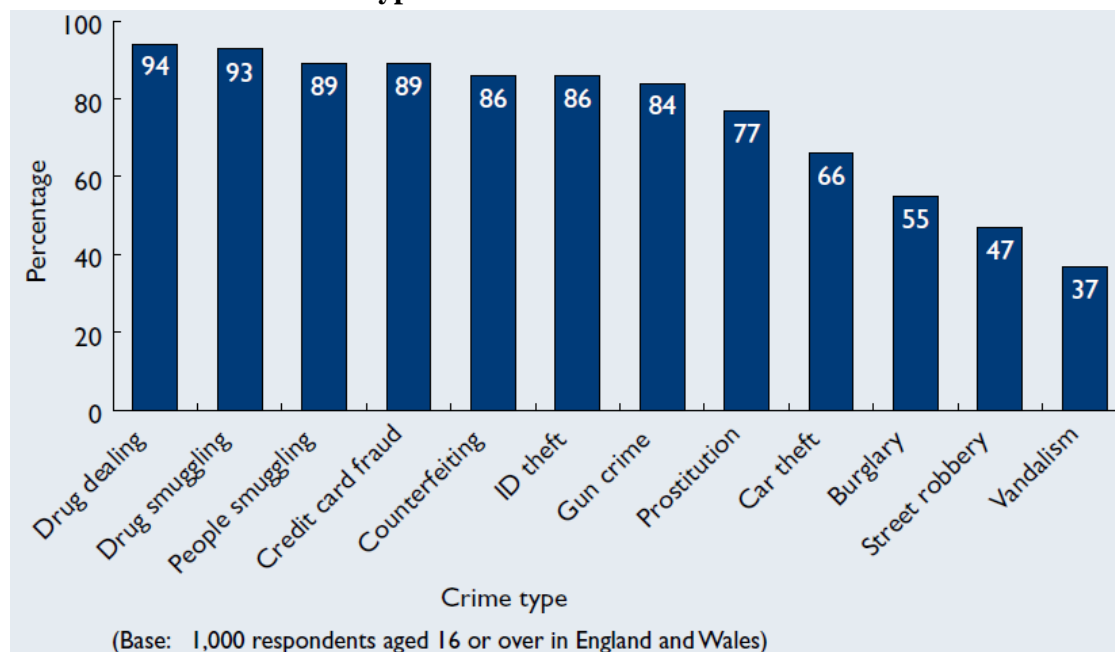
Source: Bullock et al. (2009: 3)

Drug dealing and drug smuggling, respectively, are reported to be the first and second most harmful types of organised criminal activity (Figure 6.2). This dovetails with a key finding of the British Crime Survey that drugs is the second most important cause of crime (Table 6.1).

Another Home Office report examined business views of organised crime (Tilley et al., 2008). The research examined the impact of organised crime on businesses located in three high crime residential neighbourhoods. It is based on a survey of 420 interviews with business owners and/or managers between November 2006 and January 2007 in London, the East Midlands, and the West Midlands. Although the report does not specifically address the perceptions of business owners of organised crime, it concludes that local businesses are vulnerable and more exposed to crime in high crime neighbourhoods, particularly by being exposed to stolen or counterfeit goods or to recurrent petty crimes.

Figure 6.2 Most harmful organised crimes (proportion of respondents who state that a particular type of crime is the *most* harmful)

(Base: 1,000 respondents aged 16 or over in England and Wales)
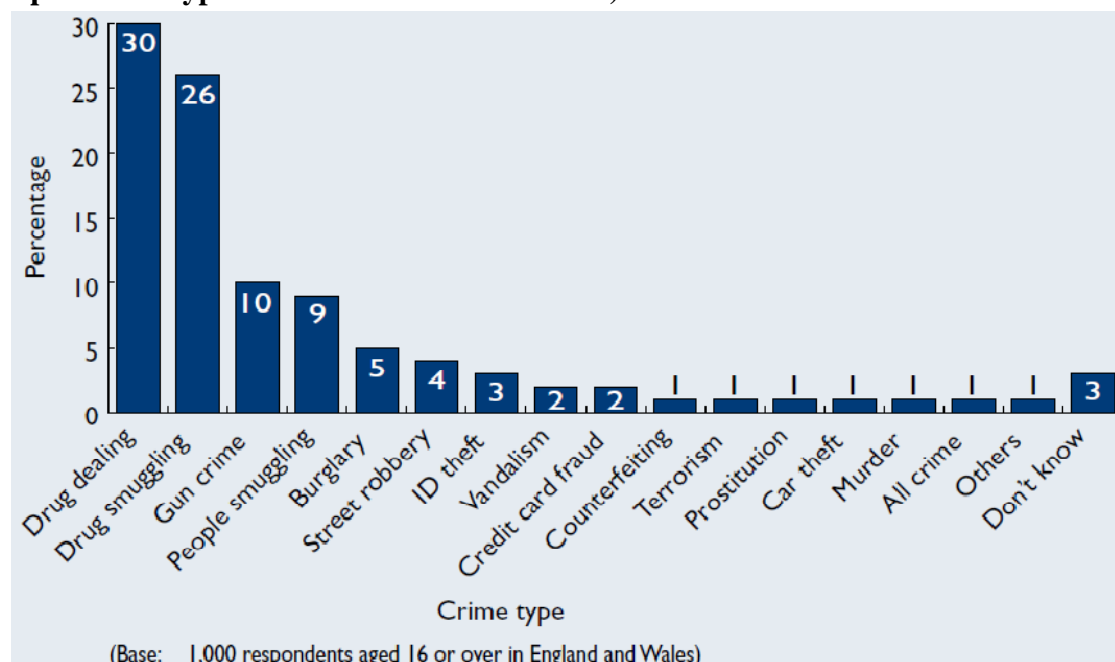
Source: Bullock et al. (2009: 6)

The Statistics and Research Branch of the Northern Ireland Office[24] conducts the annual Northern Ireland Omnibus Survey on 'Views on Organised Crime in Northern Ireland', which assesses public awareness and understanding about organised crime. In the most recent survey findings published in January 2009, 96 per cent thought there was a serious problem with organised crime in Northern Ireland, with 60 per cent regarding the problem as being very serious. Surveys from previous years dating to 2006 suggest that these perceptions have changed little. The main types of crimes associated with organised crime are drug dealing, armed robbery and money laundering. Fear and individual victimisation are both related with organised crime. Sixty seven per cent of respondents said they would report those associated with organised crime to the police; 91 per cent thought that this was the biggest factor in tackling the problem, as well. The importance of the police, particularly the Organised Crime Task Force that was established in 2000, is also regarded as raising the profile of organised crime in Northern Ireland.

The last Scottish Crime Survey was conducted in 2003, with the preceding survey conducted in 2000.[25] The survey includes a chapter on public perceptions of crime. It

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[24] http://www.csu.nisra.gov.uk/survey.asp79.htm
[25] http://www.scotland.gov.uk/Publications/2004/12/20379/48076

notes that public perceptions of local crime as well as crime in Scotland as a whole differ from the actual risk of becoming a victim of crime. With regard to crimes that might be considered to be 'transnational', drug abuse is considered to be an 'extremely' or 'quite' serious problem by 91 per cent of respondents.

Insurance fraud is also regarded as an important area of organised criminal activity. Ipsos MORI conducted a poll of public attitudes toward insurance fraud. It showed that while most people believe that a proportion of a typical insurance premium does go toward paying for insurance fraud, most overestimate the amount. More than half (54 per cent) believe that fraud adds more than 10 per cent to premiums, including 40 per cent of people who believe this figure to be over 20 per cent. In fact, the true figure is just 3.75 per cent, according to the Association of British Insurers.[26] Further, an Ipsos MORI poll from 2003 found that 64 per cent of the British public are against any form of counterfeiting. 59 per cent of the public said they are aware that counterfeiting can damage the economic well-being of businesses. The same percentage is also aware that some fake goods can put the purchaser at risk of injury or death. There is also a sense — shared by two thirds of the public — that the government should do more to tackle the problem of counterfeiting. [27]

6.4. Conclusion

Transnational organised crime appears as to be a very specific category which makes it difficult to disentangle from organised crime, if not crime in general. The distinction is not obvious in terms of public perception and this means that research on this topic is highly limited. One interesting finding which relates to public perception of crime in general is that there is an increased sense of insecurity although official crime rates statistics have declined. A recent poll by the Home Office seem to suggest that activities associated with organised crime (drugs, organised immigration crime, counterfeiting) are perceived as a major concern and contribute to this sense of general insecurity. Drugs are clearly perceived as a key cause of crime and drugs are largely associated with organised crime. On the perceived economic impact of organised crime, it was very difficult to find any specific information.

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[26] http://www.ipsos-mori.com/researchpublications/researcharchive/poll.aspx?oItemId=441
[27] http://www.ipsos-mori.com/researchpublications/researcharchive/poll.aspx?oItemId=763

Chapter 7: Public attitudes to ideologies and beliefs

Summary points

- This chapter examines British academic work and public reports on public attitudes to ideologies and beliefs relating to the perceived causes of conflict, social division and radicalisation. In particular, it focuses on the attitudes and beliefs of British Muslims, who increasingly have come to be viewed as a threat to security and the attitudes to the general public toward British Muslims.
- As with the other areas examined, academic publications do not focus directly on the topic of public perception. Public perception is dealt with indirectly in three areas, namely the relationship between radical Islam and the perceptions of detachment and alienation amongst the Muslim population in Britain; the effect of governmental policies, especially counterterrorist measures in shaping and/or changing these perceptions; the relationship between radicalisation, multiculturalism and Islamophobia.
- According to one recent survey (2009) on the state of relations between faith groups, religion is seen as making a positive contribution to society, especially for British Muslims. There is large gap in terms of public perception between non-Muslims and Muslims concerning the perceived loyalty of Muslim to the UK. British Muslims expressed strong confidence about key state institutions.
- Another survey revealed that religion, especially Islam, is not perceived by the general public as incompatible with the values of British democracy.
- The protection of the rights of ethnic minorities and civil liberties was a key concern in relation to counterterrorism policies and measures whether in polls or academic articles.

7.1   Introduction

This chapter examines British academic literature and public reports on public attitudes to ideologies and beliefs, focussing on those relating to the perceived causes of conflict, social division and radicalisation. In particular, there is a focus on the attitudes and beliefs of British Muslims, who increasingly have come to be viewed as a threat to security. The attitudes of non-Muslim British toward British Muslims, including issues of integration and community cohesion, is also considered.

Before considering British public attitudes to ideologies and beliefs outlined, this section provides some context to rising fears of terrorism, radicalisation as well as suspicions of Britain's Muslim minority.

7.2 Background

There is a long background to public debate and concern of foreign-born and second generation Muslims in the UK, who form the majority of the immigrant population in Britain. Muslim protests against Salman Rushdie's *Satanic Verses* in 1989 generated considerable public debate concerning the compatibility of Islam within the secular values of modern Britain, and heightened Islamophobia and the sense that Muslims were a security threat. In the 1990s, in the UK and elsewhere, a populist backlash grew against immigration. Mainstream political parties began advocating much tougher immigration policies, including proposing annual caps on immigration. This was in response to doubts expressed by the general public of multiculturalism and the perception that immigrants were taking advantage of welfare and housing benefits but not integrating into majority society.

Riots pitting mostly Asian Muslim youth against young White males in northern British cities in 2001 fostered concern that non-white Muslims were alienated and poorer. Muslims are on average amongst the poorest of large ethnic minority groups in the UK and remain strongly working class by occupation. A 2005 study by the Royal Geographical Society found that Asians, especially Muslims, living in enclaves had increased by 30 per cent in 10 years. Leiken (2005) argues that immigration in the post-war period in Europe has seen the creation of an 'internal colony'. Many young Muslim men in the UK, for example, have taken a harder oppositional stance to majority society and choose to embrace their Muslim identity whereas their parents had sought to integrate and establish themselves economically. The socio-economic position of south Asian Muslims has fed fears that they are poorly integrated, do not want to assimilate, and that feelings of alienation and separation within Muslim communities are giving rise to extremism and radicalisation.

The July 7th bombings in 2005, and the involvement of second generation British Pakistanis in carrying out the attacks, precipitated even greater concern and government efforts to tackle the suspected causes of radicalisation, including the poor socio-economic status of Asian Muslim communities and their linkages with radical groups in Pakistan. The policing and security responses to the July 7th attacks led to accusations that Muslims were being treated as a 'suspect community', as discussed in the chapter on terrorism. Paddy Hillyard first used the term 'suspect community' in his seminal study (1993) of Irish people's experience of the *1974 UK Prevention of Terrorism Act*. The term has gained new salience in the context of policing practices and counterterrorism measures and laws that are regarded as unfairly targeting Muslims. The UK has increased surveillance of Muslim communities and the police have been given greater stop and search powers to stop suspicious individuals. Further, recent counterterrorism legislation

has provisions banning hate speech as well as control orders and the deportation of foreigners found guilty of offenses under counterterrorism laws.

The July 7th attacks tested the multicultural model that has been the basis of UK immigration policy and moved the government to consider new policies on social and community cohesion. Tensions around the position of non-white Muslims in British society are evident elsewhere in Western Europe, including in France which was rocked by riots in late 2005 in predominantly immigrant neighbourhoods. In response to these riots, the ethno-nationalist British National Party released a statement claiming:

> 'The multicultural experiment... has well and truly failed, and all those European nations which contain a potential 5th column of inassimilable Muslim and African immigrants...must question just how those in charge of law enforcement are today prepared to deal with a similar situation' (Eatwell, 2006).

These tensions have engendered a sustained political attack on the multicultural model – which recognised and promoted the rights of minorities – that has been used in the UK and other countries to incorporate ethnic and religious minorities into formerly ethnically homogeneous and (increasingly) secular societies. While the multicultural model made it possible for Western European states such as the UK and the Netherlands to seem tolerant by extending rights to minorities, the argument runs that it has segregated them from, rather than absorbed them into, the rest of society. For example, American journalist Christopher Caldwell in a recent book *Reflections on the Revolution in Europe* argues that the reason why so many immigrants have failed to assimilate is because of Islam and that migration has brought with it 'militants, freeloaders and opportunists.'

In response to this type of populist thinking on immigration, governments across Western Europe are turning their backs on the liberal citizenship regime that enabled immigrant workers following the Second World War to acquire legal citizenship rights. They have strengthened their immigration policies and indicated a less permissive attitude toward ethnic minority immigrants who have different cultural and religious practices from ethnic majority populations in western European countries. Now Europeans, including in the UK, are asking Muslim immigrants to practice religious tolerance and adjust to the values of their host countries. In Britain, politicians have advocated that immigrants must take citizenship tests and embrace notions of 'Britishness', including values such as tolerance and moderation.

Yet Tariq Ramadan, a leading scholar on Islam based at Oxford, questions the role of religion and ethnicity that is presumed in debates on multiculturalism and social cohesion. He argues that cultural, racial, and religious dimensions are subordinate factors

but they are not the main causes of unemployment and marginalisation (Ramadan, 2008). He explains that the fact that a majority of Europeans who face unemployment or social marginalisation are black, Asian, North African, or Muslim does not mean that their religion, ethnicity, or culture explains their situation. He goes further to argue that young European Muslims do not have a problem with religious or cultural 'integration'. Instead, they are frustrated by the absence (or the failure) of social policies to address their needs.

Thus, the literature indicates that the integration of Britain's Muslim minority population has intertwined with security fears that young Muslims are being attracted to extremist ideologies and beliefs and establishing ties to terror networks and extremist organisations that threaten Britain. However, what are the attitudes to British Muslims concerning a range of social issues as well as their views of democratic institutions? Are the views of British Muslims irreconcilable with the values of a secular, multicultural nation? Further, how does the general public in Britain view Muslims? Are Muslims regarded as holding attitudes that are inherently out of step with the rest of society? How great is the social distance between Muslims and non-Muslims in Britain? The following sections consider evidence of public opinions from academic works and public reports.

## 7.3   British attitudes to ideologies and beliefs

7.3.1   Public perceptions of ideologies and beliefs

The Gallup Center for Muslim Studies partnered with the Co-Exist Foundation in the US to develop an index to assess the state of relations between faith groups in 27 countries, including the UK, drawing on data from the Gallup World Poll (Gallup Co-Exist, 2009). The study covered differences in the attitudes to European Muslims and their counterparts in the general populace, as well. The Index is based on respondents' level of agreement (on a scale ranging from 1 - strongly disagree – to 5 – strongly agree) with statements concerning an individual's respect and tolerance of people of other faiths. From the combination of their answers, Gallup classified populations as isolated (isolated individuals do not want to know about other religions and neither respect nor feel respected by those of other faiths), tolerant (tolerant individuals have a 'live-and-let-live' attitude toward people of other faiths, and they generally feel that they treat others of different faiths with respect), and integrated (integrated individuals believe that most faiths make a positive contribution to society, respect people from other faith traditions and also feel respected by them). In total, 1,001 individuals aged 15+ were interviewed in the UK in June 2008. Data were weighted based on gender, age, household size, and education to reflect the general population. Face-to-face interviews were conducted with British Muslims, aged 18 and older, during July 2008 in England, Wales, and Scotland in

areas where the Muslim population was five per cent or more based on the 2001 British census.

The Index scores for the UK are summarised in Figure 7.1. In general, there was little variance in the views of British Muslims and their counterparts in the general population. The most significant point of difference concerned the contribution of faith to society. British Muslims are more likely than the general public in Britain to agree that most faiths make a positive contribution to society (Gallup Co-Exist, 2009: 16). The survey found that British Muslims strongly identify with and are loyal to the UK. 77 per cent of British Muslims and 50 per cent of the general population in Britain either 'very strongly' or 'extremely strongly' identify with their country, whereas 75 per cent of Muslims and 23 per cent of the general public either very strongly or extremely strongly identify with their religion. There were significant differences in public attitudes between Muslims and non-Muslims in the UK concerning the perceived loyalty of Muslims to Britain. Eighty two per cent of Muslims respondents agree that Muslims are loyal, compared with 36 per cent of the general population who felt this way (Gallup Co-Exist, 2009: 20).

Figure 7.1. Gallup Co-Exist Index Individual Item Mean Scores
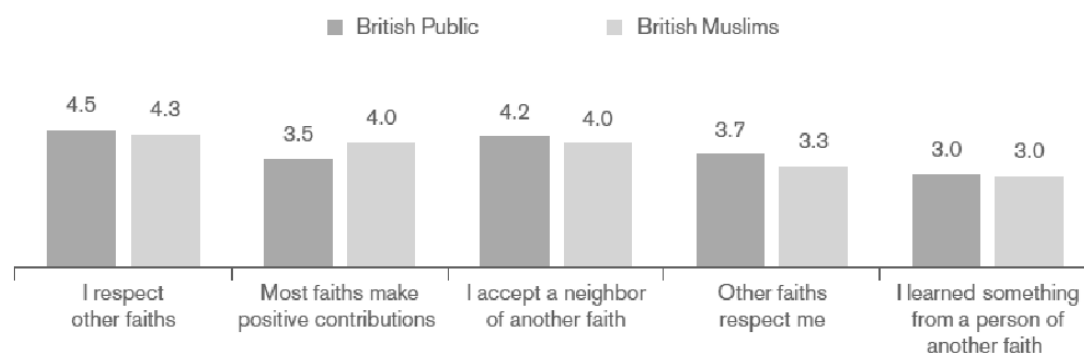
Source: Gallup Co-Exist (2009: page 18)

While religion is of far greater importance in the lives of British Muslims who were surveyed than in those of the general public, there was broad agreement between Muslims and non-Muslims on the most crucial aspects of integration including mastering the national language, having a job, and getting a better education (see Table 7.1).

Table 7.1. Outlooks of British Muslims and the general public of non-religious actions necessary for integration (percentage who say it is necessary)

	Mastering the national language	Finding a job	Getting a better education	Celebrating national holidays	Volunteering	Political participation
British general public	89	91	84	70	64	64
British Muslims	83	70	76	84	20	54

Source: Gallup Co-Exist (2009: page 22)

British Muslims were also more likely than their counterparts in the general public surveyed to express confidence in key institutions of the state, including:

- the judicial system and courts (76 per cent of Muslims and 55 per cent of the general public),
- the national government (40 per cent of Muslims and 32 per cent of the general public),
- financial institutions (62 per cent of Muslims and 56 per cent of the general public),
- quality and integrity of the media (53 per cent of Muslims and 38 per cent of the general public), and
- honesty of elections (83 per cent of Muslims and 57 per cent of the general public) (Gallup Co-Exist, 2009: 23).

In summary, 'it appears British Muslims are more likely than all populations surveyed to identify strongly with their nation, and to express stronger confidence in its democratic institutions while maintaining a high degree of religious identity. This suggests that strong religious identities do not prevent strong national identities in Europe, nor do they correlate with a rejection of national institutions,' (Gallup Co-Exist, 2009: 24).

A MORI/BBC poll on multiculturalism provides further evidence that the attitudes to the general public and Muslims in Britain regarding the requirements for the integration of immigrants are broadly similar. The poll was based on a nationally representative sample of 1,004 adults aged 16 years and older and a further 204 interviews were conducted with Muslims in August 2005.

Key findings of the survey are summarised in Table 7.2. British Muslims and the general public share a similar outlook on the expectations of immigrants in gaining citizenship, including integrating fully into British society (73 per cent of general public respondents

agree this is necessary compared with 69 per cent of Muslims). However, when asked whether immigrants should adopt the values and traditions of British culture, there was a significant difference in attitudes between the British public in general and Muslims specifically – 58 per cent of respondents in the general public versus 29 per cent of Muslims thought that immigrants in Britain should adopt the values and traditions of British culture whereas 35 per cent of the British public and 59 per cent of Muslims thought that immigrants should be free to live their lives by

Table 7.2. Outlooks of British Muslims and the general public on the requirements of citizenship in Britain (percentage of respondents who say it is necessary)

	Learn English	Pledge primary loyalty to Britain	Swear allegiance to the national flag	Swear allegiance to the Crown	Accept the authority of British institutions	Integrate fully into British society	Accept the rights of women as equal citizens
British general public	82	73	50	51	93	73	96
British Muslims	90	76	55	50	91	69	95

Source: **MORI/BBC Multiculturalism Poll. August 10, 2005.**

the values and traditions of their own culture. Like the Gallup Co-Exist survey, the poll found that few people either in the general public or Muslims agreed that Islam was incompatible with the values of British democracy (27 per cent of general public respondents and 18 per cent of Muslims agreed). When asked specifically about the threat of terrorism facing Britain, the general public (58 per cent) and Muslims (81 per cent) alike agreed that society as a whole should be more concerned about ensuring that the rights of ethnic minorities are protected.

A MORI poll for *The Sun* in July 2005 the aftermath of the July 7th attacks assessed the attitudes to British Muslims on issues of faith, democratic values and their perceived integration in British society. Two hundred and eighty two face to face interviews were conducted with British Muslims aged 16 years and older. The data was weighted by age, gender and work status to be representative of British Muslims according to the 2001 census data. Key findings of the poll are summarised in Table 7.3. Significantly, most British Muslims felt part of British society (77 per cent) while only two per cent agreed that the Koran justifies suicide bombings.

A Channel 4 News Survey on Muslim opinions on July 7th bombings conducted by GfK/NOP interviewed a random sample of 500 Muslims adults aged 18+ in April 2007. The survey found that 68 per cent of British Muslims did not agree that the Muslim community in Britain bore any responsibility for the emergence of extremists willing to attack UK targets (22 per cent did agree). However, it also found that 58 per cent of Muslims in the UK thought that the Muslim community as a whole could be doing more to address extremism compared to 32 per cent who were satisfied sufficient measures were being taken by British Muslims to prevent extremism.

Table 7.3. British Muslim attitudes (Percentage of respondents who agree and disagree with the following statements)

	Agree	Disagree
Islam is incompatible with the values of British democracy	14%	52%
The Koran justifies suicide bombings	2%	91%
Islam treats women as inferior to men	13%	74%
I feel part of British society	77%	10%

The survey confirmed the widely reported opinion of British Muslims that they are unfairly targeted by state security and policing practices - 45 per cent agreed that the tactics used by the police when arresting Muslim terror suspects are racist, while 33 per cent disagreed. However, the poll indicated that British Muslims remained committed to staying in the UK. A small minority (five per cent) indicated they had seriously considered leaving Britain because 'there was no future in Britain for Muslims' compared to 81 per cent who had not considered this at all.

In 2006, the Pew Global Attitudes Project of the Pew Research Center in the US assessed how people in predominantly Muslim countries and non-Muslim countries view each other, including the positive and negative characteristics that Muslims associate with Westerners – including the Muslim minority population in Britain – and the traits that non-Muslims associate with Muslims. 902 people were interviewed by telephone in April 2006, including a 412 Muslim oversample; the general public sample was weighted to be representative of the overall population. There was a close divide in views of British Muslims concerning whether there is a conflict between being a devout Muslim and living in a modern society (49 per cent agree there is, 47 per cent disagree). However, among British non-Muslim respondents, 54 per cent believe there is a conflict while 35 per cent do not think there is. The survey assessed support for suicide bombings: 15 per

cent of British Muslims agreed that suicide bombings were sometimes justified and a further 9 per cent thought they were 'rarely' justified. However, a large majority (70 per cent) thought they were never justified. Most British Muslims interviewed (56 per cent) thought that Arabs did not carry out the 9-11 attacks in the US, while 17 per cent thought they had. British Muslim attitudes toward people in western countries were more negative than were the views of the general public in Britain of Muslims. Majorities of British Muslims believed that people in western countries were selfish (67 per cent), arrogant (64 per cent), and violent (52 per cent). In comparison, minorities of non-Muslim British respondents felt that Muslims were fanatical (48 per cent), violent (32 per cent), or arrogant (35 per cent).

Gallup conducted a poll to compare *views on moral issues among the general public in Britain and Muslims living in London.* Telephone interviews were conducted between December and January 2007 with at least 1,200 adults, aged 15 and older. At least 500 face-to-face interviews were conducted between November and December 2006 with adults, aged 15 and older in London. In London, a probability sample of neighbourhoods where Muslim penetration was at least five per cent was used. Of Muslims surveyed, 88 per cent reported that religion was an important part of their daily life whereas only 36 per cent of general respondents said the same. The results of the poll are summarised in Table 7.4 reveals a chasm in moral values between general respondents in Britain and Muslims in London. London Muslims were the least likely to respond that homosexual acts were morally acceptable (four per cent) compared with 66 per cent of general respondents. The greatest difference in views concerned attitudes toward sex between an unmarried man and woman: 82 per cent of general respondents said it was morally acceptable compared to 11 per cent of London Muslims.

Table 7.4. Views on moral issues, British general public and Muslims living in London (Percentage of respondents who say it is 'morally acceptable')

	General respondents	London Muslims
Homosexual acts	66%	4%
Abortion	58%	10%
Viewing pornography	29%	4%
Sex between an unmarried man and woman	82%	11%

Source: 'Moral Issues Divide Westerners From Muslims in the West'. May 23, 2008.
http://www.gallup.com/poll/107512/Moral-Issues-Divide-Westerners-From-Muslims-West.aspx

Gallup polling data from June – December 2008 provides further evidence of the far more conservative views of British Muslims on moral issues. Nearly 60 per cent of British non-Muslims responded that homosexual acts were morally acceptable compared

to no Muslim respondents. Over half of general respondents said that abortion was morally acceptable compared with less than 10 per cent of British Muslims. Over 80 per cent of general respondents in Britain thought that sex before marriage was morally acceptable. Less than five per cent of British Muslims agreed. A key finding of the poll was that few British Muslims were satisfied with their lives. Using a broad measure of economic and personal well-being, 56 per cent of the general respondents in Britain called themselves 'thriving' compared with only seven per cent of British Muslims. (Notably, in the same poll, a much higher proportion of French Muslims were thriving and German Muslims were more likely than the general public to say they were doing well.)[28]

However, the 2007 Gallup poll showed there is common ground between London Muslims and general respondents on a range of other issues (Table 7.5). There was no statistical difference between the general respondents and London Muslim respondents in their views of honour killings and crimes of passion. Fewer London Muslim respondents (31 per cent) thought the death penalty was morally acceptable than the wider general respondents (43 per cent).

Table 7.5. Common ground between the British general public and Muslims living in London (Percentage of respondents who say it is 'morally acceptable')

	General respondents	London Muslims
Honour killings	1%	3%
Crimes of passion	2%	3%
Death penalty	43%	31%

Source: 'Common ground for Europeans and Muslims among them.' May 28, 2008.
http://www.gallup.com/poll/107521/Common-Ground-Europeans-Muslims-Among-Them.aspx

7.3.2   Public attitudes to ideologies and beliefs

The academic literature in Britain that examines public attitudes to ideologies and beliefs is very small. In common with other topics covered in this synthesis review, academic works do not focus primarily on public perceptions. There are three ways in which public perceptions are covered in the academic literature, namely:

- The relationship between radical Islam and the perceptions of detachment and alienation amongst the Muslim population in Britain;
- the effect of governmental policies, especially counterterrorist measures in shaping and/or changing these assumed perceptions; and

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[28] 'Britain's Muslims: pious, loyal and unhappy.' *The Economist*. May 7, 2009.

- the relationship between radicalisation, multiculturalism and Islamophobia.

The emergence of radical Islam has essentially been approached and explained through theories of alienation (Duffy, 2009). Gurr's (1970) explanation of radicalisation through perception of frustration is built upon but new research builds also on the collective dynamics of radicalisation. The process of alienation is both understood as the individual sense and perception of isolation (so the personal psychological state) but also the alienated individual's relationship with the wider social structure (so the type of social relationship).

Alienation is understood as the perceived or actual distancing of an individual from the wider social constructs and relates to radicalisation in the way that groups acting outside existing social constructs respond to and engage with these alienated individuals more than the state does (see for eg findings from Della Porta, 1992 on individual motivation to join radical organisations in Italy and Germany). As emphasised by Duffy (2009) in terms of individual perception:

> 'When an individual perceives themselves to be detached from and not represented by exciting social constructs, they will be more inclined to deviate from social norms and regulations or associate with groups which may deviate from the norms and regulations.' (Duffy, 2009: 133)

This individual perception of detachment from the political system can therefore lead (and is not contradictory) to collective social deviancy. This field of research on the perception (and motivation) of alienated groups is of course larger than radical Islam but terrorism has in certain ways prioritised research on this community of belief (see chapter two in this report).

The second axis of research which is linked to public perception in terms of ideologies and beliefs relates to the 'perceived' impact of governmental responses, especially in terms of counterterrorism, on these alienated individual and radical groups. There are two schools of thoughts: on the one hand, alienation and radicalisation is a fundamental element and natural part of politics and society which cannot be prevented (see in particular the writings of Gramsci, 1971); on the other hand, those who believe that governmental policies contribute to this process of alienation and radicalisation (see in particular the work by Gallis et al, 2005 which looked at citizenships laws, education in the UK might contribute to alienation and radicalisation). Of course, our focus is on recent studies but it is worth mentioning that there is a very large literature which has at

the impact of counter-terrorist policies and public perception of alienated individuals and groups. Hillyard (1993) for example looked at how the 1974 Prevention of Terrorism Act constructed a suspect community (namely in this case the Irish Catholic population). The same has been argued for the *2001 Anti-Terrorism, Crime and Security Act,* the *2005 Terrorism Act* and the *2006 Countering International Terrorism Strategy* which also created a 'suspect community' in the form of the Asian-Muslim community in Britain (Pantazis & Pemberton, 2009).

On the third point, Abbas (2007) explored how radicalisation in some ways led to the questioning of the multicultural model and how this reflects a certain general discourse linked to the rise of Islamophobia. Abbas (2007) argues that September 11th and then July 7th fundamentally reshaped Muslim and non-Muslim perceptions of 'the other'. Rai (2006) shows how British and US foreign policy has impacted on the perception of alienated young Muslims. However, Abbas (2007) points out how the Rushdie affair and more specifically pictures of the 'book burnings in Bradford' was certainly the first major event in shaping these negative perceptions and rising Islamophobia. The change however is that these perceptions are now in part changing the multicultural project toward a 'monocultural politico-ideological project' according to Abbas (2007) which has significant consequences on civil liberties as well as providing a blame-the-victim approach propagated by dominant media and political discourses. These discourses obviously have an impact on the general UK public perception of British Muslim communities but also about what it means to be British or English.

7.4   Conclusion

Polls and the academic literature have focused on two different aspects. While surveys have focused on comparing values and beliefs between the general public perception and UK Muslim perception, the academic focus has been on specifically understanding individual and group perceptions regarding alienation and radicalisation within Muslim communities.

On the survey side, although values and belief do not seem to affect the state of relations between faith groups and the general public, there is clearly an important gap in terms of public perception between Muslim communities and the general public on the perceived loyalty of Muslims to Britain. At the same time, Muslim communities have a great deal of trust and confidence in state institutions while the general public is concerned with civil liberties restriction and the protection of the right of minority groups especially in relation to counter-terrorist measures.

On the academic side, the focus has been on understanding the links between alienation and radicalisation. The impact of governmental legislation especially counter-terrorist policies is also another important strand of research which discussed to what extent these policies further alienated individuals and the resurgence of radical groups. Finally, the last strand of research have looked at how public perception of Islam has altered state-society relations and questioned state building models in relation to multiculturalism.

Chapter 8: Concluding remarks

This review has examined academic literature and public reports in Britain on public attitudes and risk perceptions on a range of 'global uncertainties' affecting Britain – terrorism, cyber-security, critical infrastructure, CBRN weapons and technology proliferation, transnational organised crime, and ideologies and beliefs relating to radicalisation and violence. As emphasised throughout this review, the evidence suggests that there is a lack of systematic polling and academic study of public attitudes on these areas. This is not to ignore the vital contribution of a small number of academic studies, public reports, and data from private polling firms. Yet it is difficult to form a longitudinal perspective given that polling has been done inconsistently over time and across social groups. Indirectly, many academic works refer to public attitudes, although this is often based on assumption rather than rigorous analysis. It is also of note that public attitudes have been researched through assessing public opinions of government responses to threats such as counterterrorism measures which infringe on individual civil liberties and the rights of certain groups such as Muslims.

Where appropriate, this review has also examined academic and public reports on public attitudes in the US, where current research on public attitudes to terrorism in particular is concentrated. On terrorism, there are important differences (as well as similarities) between British and American attitudes. This underlines the importance of extending and deepening research in the UK on public attitudes to the areas under the Global Uncertainties programme.

An underlying thread in several of the chapters is the important role the media plays in shaping public attitudes. Indeed, some academics argue that the media in certain cases sets public policy agendas. Therefore, systematic polling and analysis of public attitudes can contribute greatly to policy-making processes by providing concrete evidence of how the public perceived and understands threats.

While deeper and more extensive assessment of the public's perceptions of global uncertainties can improve policy-making processes, this report has drawn attention to a number of difficulties of doing so. A fundamental problem concerns the clarity of terms that are used by academics and officials to frame debate. As noted, some of these terms may not be well understood by the public, such as 'cyber-security' and 'critical infrastructure'. Thus, it is difficult to accurately measure public attitudes when there is no shared understanding of what these terms describe.

Another problem highlighted is the many ways in which data from public opinion polling is interpreted and reported by the media, often lacking adequate contextualisation. Public attitudes are sometimes inaccurately represented in the media due to their interest to frame issues in a way that advances a particular political perspective.

A further problem which emerged relates to methodology. The quantitative methods that are conventionally used to assess people's opinions do not sufficiently capture the nuance of public attitude. A proper understanding of public attitudes requires the use of mixed methods including survey techniques and deeper interviews with respondents from particular social and attitudinal groups, combined with sociological insights.

Acknowledgements

Annex I: Methodology

The methods used in this research synthesis consisted of the following:

1. Key word search using academic search engines
2. Hand searches of leading academic journals in each of the six priority areas
3. Hand searches of the publications of British researchers and academic departments working in each of the fields
4. Emailing and receiving feedback from experts
5. Searches of the print media in the UK.

Our search began by trawling electronic databases for academic works in the UK, including the ISI Web of Knowledge, Science Direct, Jstor, Project Muse, Google Scholar, Columbia International Affairs Online (CIAO), Lexis-Nexis, and Swetwise. Our search terms for each of the priority areas included 'public attitudes', 'public opinions', 'public perceptions', 'risk perceptions', 'risk communication', 'issue framing', 'psychological impacts'. We identified a number of sub-themes for each priority area, which we used to develop further search terms (see Table 1.2). Using a snowballing method, we uncovered additional sources from the reference lists and bibliographies of the initial documents we identified. Further, we followed the 'cited by' link on Google Scholar for particular documents to identify other sources.

Sub-themes used to develop search terms for each of the priority areas

Terrorism:
- International security threats to the UK
- Anti-terrorism measures
- Surveillance of suspect communities
- Civil liberties

Cyber-security:
- Hackers
- Privacy concerns (sensitive public records, such as details of children)
- Online banking
- Identity theft (credit card fraud)
- Online radicalisation and use of the Internet by terrorists

Public infrastructure:
- Attitudes toward transnational capital and control of critical infrastructure
- Fear – contamination of water supplies, blackouts
- Airport security – body search technology, no-fly terrorist checklists, liquids
- Security of public transport systems

CBRN Weapons:
- Disarmament
- Proliferation – terrorist networks and rogue regimes
- New threats – public expenditure, Defence Review

Trans-national organised crime:
- Human and drug trafficking
- Border security in the European Union
- Money laundering

Ideologies and beliefs:
- Radicalisation and counter-radicalisation
- Social and community cohesion
- Immigrants and assimilation
- Attitudes toward non-white Muslims

Another method we used was to identify leading academic journals in each of the priority areas and search their contents for relevant articles from the past ten years. The journals searched were:

- Cross-cutting journals: *Adelphi Papers*, *International Security*, *Journal of Conflict Resolution*, *Security Studies*, *Survival* and *Security Dialogue*.
- Ideologies and beliefs: *Conflict, Security and Development, Government and Opposition, Terrorism and Political Violence*
- Threats to infrastructure: *Journal of Homeland Security* and *Emergency Management, Journal of Contingencies and Crisis Management, the International Journal of Critical Infrastructures*
- Trans-national crime: the *British Journal of Criminology*, *Theoretical Criminology*, *Criminology* and *Public Policy*.
- Cyber-security, the *Journal of Information Warfare*; *Computer Fraud & Security*.

We also identified leading researchers and UK academic departments in these fields and searched their publications for relevant material. Universities and research institutes that we searched included:

- Armed Forces Communications and Electronics Association
- British Society of Criminology
- Cardiff Centre for Crime, Law and Justice
- Centre for Criminological Research at Keele University
- Centre for Defence Studies at King's College London
- Centre for Intelligence and International Security Studies at Aberystwyth University
- Centre for International Studies at Dublin City University
- Centre for Secure Information Technologies at Queen's University Belfast.
- Centre for Security, Communications and Network Research at the University of Plymouth
- Centre for the Study of Terrorism and Radicalisation at St. Andrews
- Chatham House
- Community Informatics Research & Applications Unit at the University of Teeside
- Department of Peace Studies at Bradford University
- Department of War Studies at King's College London
- Harvard-Sussex Programme on Biological and Chemical Weapons at the University of Sussex
- Institute of Communications Studies at the University of Leeds
- International Centre for Security Analysis at Kings College London
- International Institute of Strategic Studies
- Mannheim Centre for Criminology at the London School of Economics
- Network Research Group at the University of Plymouth

- Research Institute for Law, Politics & Justice at Keele University
- Royal Institute of International Affairs
- Royal United Services Institute (RUSI) for Defence and Security Studies.
- School of Law at the University of Westminster
- School of International Relations at the University of St Andrews

Other academic works were identified through searching the projects of the ESRC programmes on Religion and Society, New Security Challenges, and New Security Challenges: Radicalisation and Violence.

A further source of information was public reports from government departments and agencies, including the Ministry of Defence, the Ministry of Justice, the Ministry of Communities and Local Government, the Foreign and Commonwealth Office, the Centre for the Protection of National Infrastructure, and the Office for Security and Counter Terrorism in the Home Office.

Additionally, we sought to identify surveys (i.e., the British Crime Survey) for relevant statistical data and analysis of public perceptions conducted by relevant government ministries and agencies, public sector research organisations, and military colleges. These searches did not generate new material in themselves although contacts made with organisations did generate a few additional references.

We identified and contacted a number of people who have published in related areas and relevant stakeholders requesting further information. Many contacts responded that they were unaware of much research in the area, confirming one of the main findings of the review.

The research synthesis was also concerned with reporting of public attitudes in the British printed media. This is important in regards to issue framing and the role of the media and political leaders in communicating threats. Hence, we did key word searches online of the main national papers and current affairs magazines, including *The Times and Sunday Times*, *the Guardian*, *the Daily and Sunday Telegraph*, *the Independent, and the Economist*.

Given the lack of relevant works in some of the fields, we expanded our search to the US. For certain themes such as terrorism, it was useful to draw comparisons between British and American public attitudes and responses given these countries shared recent experiences of terrorist attacks and counterterrorism responses. However, it has taken

considerable additional time to expand the remit of the research synthesis. Therefore, although there is more published academic research and public reports in the US, we have not been able to systematically review these for each of the priority areas with the exception of terrorism. Rather, we can give an indication of the big themes and the broad ideas in this work.

In addition to the methodological difficulties discussed above, there were three other major challenges. Firstly, public attitudes are not an important area of work in any of the priority fields covered by this synthesis. Public perceptions are touched in some works but in many cases not mentioned in the abstract, and certainly not in the title. Secondly, the six key categories are not representative of discrete research fields. For example, critical infrastructure is not a research field itself and, moreover, is a recent area of academic study and public analysis. In terrorism and CBRN weapons, peoples' perceptions are significant but, paradoxically, given they are not studied in any systematic way and research remains diffuse and difficult to find. The final challenge was to ensure that research was from authors based at UK research institutions. A combination of search engines and university websites were used to determine the background of academics.

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