The Limitations of Risk Management dealing with disasters and building social resilience

This article explores the significance of social resilience in the light of the events of the 11th of September 2001. It examines the way in which evolving cultural contexts alter our perceptions of risk and disaster. It argues that the contemporary dominance of technically focused risk management led responses is limiting and may serve to undermine the ordinary human bonds that make us truly resilient. A political debate over societal values is required if we are to reengage the public in order to achieve this and hence deal appropriately with disasters and terrorism.

> **Bill Durodié**, Director of the International Centre for Security Analysis, King's College London

ince September 11th 2001 a good deal of focus has been placed upon the concept of resilience, understood as the ability to withstand or recover from adverse conditions or disruptive challenges. Politicians, emergency planners and others, talk of the need to 'build', 'engender', 'improve' or 'enhance' resilience in society (Durodié 2003).¹

Unfortunately, much of this debate is framed in the fashionable, but limiting, language of risk management and risk communication. Senior officials regularly point to the central role they attribute to risk reduction. This is understood in narrowly technical terms as consisting of horizon scanning, investment in equipment, training, business continuity planning, new legislation and the like.²

This outlook actually reveals a certain absence of purpose and direction in society at large. After all, risk reduction is a means, not an end. In the past, people were not so much focused on reducing risk as upon enhancing capabilities towards some wider goal. Risk reduction was a by-product of such broader purposes and activities.

It is also worth noting, that in recent times, the concept of risk itself has gradually altered from one that captured possibility and engagement in the active sense of 'taking a risk', to one that increasingly reflects a growing sense of doom and distance from events, as evidenced in growing reference to the passive phrase of 'being at risk'. Risk used to be a verb. Now it has become a noun.

This reflects a wider form of disengagement that has occurred across society at large. Gradu-

ally, our sense of will and agency have been removed from the equation. Risks are now conceived as being entities in their own right, only minimally subject to human intervention (Furedi 1999). If risks are conceived of as being inherently and implacably out there, coming our way, then the best we can do is to identify them and prepare to deal with them.

Social Responses

In fact, how we as individuals, and as a society, define and respond to risks and disasters, is only partly dependent upon causal agents and scale. Historically evolving cultural attitudes and outlooks, as well as other social factors, play a far greater role. In objective terms, risk may be defined as a function of hazard and probability, but that some product or event is perceived of as a risk, or is treated as a disaster, depends on subjective factors.

This human element is missing from mechanistic risk calculus. Technical definitions of risk and resilience not only omit key elements of understanding and response – such as our degree of trust in authority, in other human beings and in ourselves – but may also serve to further undermine such factors, which are crucial in responding effectively.

There is, for instance, a contemporary cultural proclivity to speculate wildly as to the likelihood of adverse events and to demand high-profile responses and capabilities based on worst-case scenarios.³ In the end, this only serves to distract attention and divert social resources in a way that may not be warranted by a more pragmatic assessment and prioritisation of all of the risks that we face.

14

ÅRGANG 8 : NUMMER 1 : MARTS 2004 15

BILL DURODIÉ

Technique and technology certainly help in the face of disaster, although the fact that particular societies both choose and have the capacity to prioritise such elements, is also ultimately, socially determined. More broadly, it is possible to say that resilience – loosely defined as the ability of individuals and society to keep going after a shock – is most definitely a function of cultural attitude or outlook.

Cultural values point to why it is that, at certain times and in certain societies, a widespread loss of life fails to be a point of discussion, whilst at other times or in a different society, even a very limited loss can become a key cultural reference point. This evolving context and framework of cultural meanings explains such variations as our widespread indifference to the daily loss of life upon our roads, as opposed to, for instance, the shock and national mourning that ensued across the globe from the loss of just seven lives aboard the Challenger spacecraft in 1986.

The loss of Challenger represented a low-point in the cultural assessment of human technological capabilities. It was a blow to our assumption of steady scientific and technological progress that no number of everyday car accidents could replicate. It fed into and drove a debate that continues to this day regarding our relationship with nature and a presumed human arrogance in seeking to pursue goals beyond ourselves.

Hence, emergencies and disasters, including terrorist attacks, take on a different role dependent upon what they represent to particular societies at particular times, rather than solely on the basis of objective indicators, such as real costs and lives lost. In this sense, our response to terrorist incidents, such as that which occurred on September 11th 2001, teaches us far more about ourselves than about the terrorists.⁴

On the whole, the history of human responses to disaster, including terrorist attacks, is quite heartening. People tend to be at their most cooperative and focused at such times. There are very few instances of panic (Durodié and Wessely 2002). The recent earthquake and tsunami in the Indian Ocean serve as a salutary reminder of this. Amidst the tales of devastation and woe, numerous individual and collective acts of bravery and sacrifice stand out, reminding us of the ordinary courage and conviction that are part of the human condition. People often come together in an emergency in new and largely unexpected ways, re-affirming core social bonds and their common humanity. Research reveals communities that were considered to be better off through having had to cope with adversity or a crisis (Furedi and Roberts 2004). Rather than being psychologically scarred, it appears equally possible to be enhanced. In other words, whilst a disaster, including a terrorist attack, destroys physical and economic capital, it has the potential to serve as a rare opportunity in contemporary society to build up social capital.

"Our response to terrorist incidents teaches us far more about ourselves than about the terrorists."

Of course, terrorists hope that their acts will lead to a breakdown in social cohesion. Whether this is so, is up to us. Civilians are the true first responders and first line of defence at such times. Their support prior to, and their reactions subsequent to any incident, are crucial. Disasters act as one of the best indicators of the strength of pre-existing social bonds across a community. Societies that are together, pull together – those that are apart, are more likely to fall apart.

Whilst there is much empirical evidence pointing to the positive elements of ordinary human responses to disaster, it is usually after the immediate danger has subsided that the real values of society as a whole come to the fore. It is then that the cultural outlook and impact of social leaders and their responses begin to hold sway. These determine whether the focus is on reconstruction and the future, or on retribution and the past. A more recent development has been the trend to encourage mass outpourings of public grief, minutes of silence or some other symbols of 'conspicuous compassion'.⁵

Sadly, despite the variety of ways in which it is possible to interpret and respond to different emergencies, the onus today seems to veer away from a celebration of the human spirit and societal resilience, towards a focus on compensation and individual vulnerability. If we are to understand these contemporary preoccupations

16 TIDSSKRIFTET POLITIK

and perceptions of risk and disaster, as well as the consequential growth of narrow risk management solutions, we need to get to the sociological roots of our subjective outlooks.

Social Bonds

The key element shaping our perceptions of risk and the management of most policy issues today is a sense of isolation and insecurity that affects every layer of society. For the vast majority of ordinary citizens this takes the form of political disengagement and social disconnection. For the elite it is driven more by a sense of illegitimacy and purposelessness.

At both the formal and informal levels of social engagement, we can see that social bonds have been severely eroded over the last decade or so. We should be alert to this having quite dramatic consequences.

At the formal level, people in advanced Western societies are increasingly unlikely to participate in the political process. This effect is most striking among younger age groups. Electoral turnouts in many countries are at an all-time low and in the few instances where these are high, emotion appears to rule over reason. Few are active, or even passive, members of political parties or trade unions as their forebears were, and there is little attempt to engage in, or raise the standard of, debate. When people do vote, it is often on a negative basis – against an incumbent, rather than for a replacement.

At the informal level, the changes are even more striking. Many have commented on the growing pressures faced by communities, neighbourhoods, and families. In his book on this theme, '*Bowling Alone*', the American academic Robert Putnam also pointed to the demise of informal clubs and associations (Putnam 2000). Meeting up with friends, occurs less frequently than previously, too. In other words, people are not just politically disengaged but also, increasingly socially disconnected. This loss of social capital has occurred and been experienced within a generation.

Not so long ago, for example, it was still possible across most urban centres, to send children to school on their own, assuming that other adults would act 'in loco parentis' – chastising them if they were misbehaving and helping them if they were in trouble. Today, such a straightforward social arrangement can no longer be taken for granted. None of us ever signed a contract saying that we would look after other people's children. It was simply an unstated and self-evident social good. This loss of a social sense of responsibility makes the individual task of parenting harder.

Being less connected, also leaves people less corrected. It allows their subjective impression of reality to go unmediated or unmoderated through membership of a wider group or association. Without a sense of the possibility of social solutions, personal obsessions grow into all-consuming worldviews that are rarely open to reasoned interrogation or debate. In part, it is this that explains our recent proclivity to emphasise or exaggerate all of the so-called risks that are held to confront us (Furedi 1997 and 2002).

"Being less connected, also leaves people less corrected."

Rather than the world changing any faster today than in the past, or becoming a more dangerous, unpredictable or complex place, it may be our diminished, and more isolated, sense of self that has altered our confidence to deal with change and the problems it gives rise to (Heartfield 2002).⁶ In our technically networked world, we may be more aware – but we are also easier to scare than previously. Being more isolated leaves us more self-centred, as well as risk averse. In turn, these developments reduce the likelihood of our acting for some greater common good and end up making us less resilient, both as individuals and as a society.

From BSE (mad cow disease) to GMOs (genetically modified organisms); from mobile phones to MMR (measles-mumps-rubella triple-vaccine), all new developments are viewed through the prism of a heightened and individuated consciousness of risk.⁷ Nor are our fears restricted to the realms of science and technology. Age-old activities and processes have been reinterpreted to fit our new sense of isolation and fear. Bullying, sun-bathing, and even sex have joined an evergrowing panoply of concerns, along with maverick doctors, crime, food, and paedophiles.

Worse, this state of affairs has been exacerbated by the various authorities themselves,

17-03-2005, 10:45

16

BILL DURODIÉ

which suffer from their own existential crisis of isolation and insecurity. As we no longer vote, so ruling parties appear increasingly illegitimate and divorced from majority concerns. A less than 50% turnout when split two or three ways produces governments with at best a 20-25% mandate. The real figure as reflected by demographics, negative voting, and actual local election results is often well below this, languishing around the 10-15% mark.

This crisis of legitimacy has been further accentuated by a certain lack of purpose that has set in since the dissolution of the old Cold War divide. Then, an ideological divide separated a supposedly socialist Left from a free-market Right. The demise of the Left exposed the Right's own lack of ideas and dynamism.⁸ Now all parties fight for the centre ground and desperately seek issues that will re-connect with voters.

Latching on to the general climate of fear and insecurity, politicians have learnt to repackage themselves as societal risk managers around issues such as security, health and the environment. They pose as the people who will protect us from our fears and regulate the world accordingly. But the petty lifestyle concerns they focus on, as reflected in incessant debates about smoking, smacking, eating, and drinking are unlikely to inspire and engage a new generation of voters. Nor will doom-laden predictions relating to terrorism and global warming.

Indeed, the more such concerns are highlighted, the more it becomes impossible for the authorities to satiate the insecurities they drive. Hence, alongside disengagement and alienation, has come a concomitant disillusionment and mistrust in all forms of authority, whether political, corporate, or scientific. Healthy scepticism has increasingly been replaced by unthinking cynicism. In many situations today, the public tend to assume the worst and presume a cover-up. Rumour and myth abound over evidence and reason.

Social Resilience

The list of measures commonly discussed as being necessary to enhance social resilience in the aftermath of September 11th 2001 consists, amongst others, of the need for better surveillance and intelligence, new detection equipment and protective clothing, more effective models for predicting behaviour, alternative modes for imparting information through 'trusted' sources, as well as new structures of government and integrated response systems.⁹

These are all largely technical in character, reflecting an alienated sense of risk as being external to us. Hence, even when discussing prevention, the assumption is that we are merely anticipating and building capacity for 'inevitable' challenges.¹⁰ In the words of some senior officials, it is 'only a matter of time', or 'when, not if', a terrorist atrocity will occur in the United Kingdom using some kind of crude chemical, biological, or radiological device.¹¹ The notion that it may be possible to shape conditions, or set the agenda, with a view to obtaining more desirable outcomes or altering our social mindset, independently of external forces, is rarely entertained.

Unfortunately, much of the rhetoric regarding the war on terror, far from being robust and resolute, reveals an almost resigned fatalism towards future events. There is no sense of changing how people will respond, simply a sense of preparing them to respond. This defensive responsiveness in turn can only further encourage, not just terrorists, but a whole host of other malcontents, loners, hoaxers, and cranks in their activities.

At best, our strategy is one of re-acting to the presumed actions of others. They drive – we follow, or mitigate. Despite occasional references to the need to 'defend our way of life' or 'our values', very little effort has been put into identifying what these might be.¹² They tend to be assumed, or glossed over, in some cursory fashion. At best, tolerance, which is the virtue of putting up with other people's values, gets misconstrued as a value.

No doubt, because societal aims and cultural values are deeply contested and debating these might appear to be divisive at a time when we need to act in unison, it is easier to face the other way. But this flagrant lack of clarification as to who we are, what we believe in, and where we are heading as a society, fundamentally undermines any technical attempt to be resilient.

Real resilience, at a deeper social level, depends upon identifying what we are for, not just what we are against. That way we can orientate society and seek to build upon it, not just anticipate what is coming and seek to respond. It

17-03-2005, 10:45

17

is precisely by establishing our aims and values and then pursuing these, that we stand the most chance of winning hearts and minds, not just at home but also amongst the disaffected abroad.

This is not to deny the need for a small layer of highly-trained professionals in society to deal with the problem of terrorism in the here-andnow. But the debate about who we are and what we are for is not some abstract philosophical issue waiting for present hostilities to be over. It is most urgent and necessary right now. Without an eye on the ends, just as much as on the means, we may take decisions that drive us further from our goals than we appreciate.

What we do in the present is inevitably shaped by our existing values, as well as the form of society we seek to create. There are already many signs that some of the actions that have been taken thus far have served to further exacerbate the deep mistrust and cynicism in government and authority that is already quite widely felt. Worse, despite good intentions, encouraging people to be 'alert', rather than alarmed, may well further erode the very social bonds of ordinary human trust we will need to depend upon if we are truly to be resilient as a society.¹³

None of these serve to shore up ordinary social bonds and hence real human and societal resilience. By encouraging the dominant paradigm of risk management in our understanding both of terrorism, as well as how to respond to it, we are encouraging a suspicion of others that effectively pushes people further apart and accentuates existing trends towards social atomisation. We have created a new bureaucracy but, as the figures show, we have failed to address the underlying insecurities (Durodié 2004a).

Above all we have focused solely upon the form that terrorism now takes in the modern world – that relating in some increasingly tangential way, to Al Qa'ida – and largely ignored its content – a vehement anti-Americanism, that rejects modernity and progress.

This latter reveals the real complacency of the dominant responses. One hardly needs to leave the West, to discover a whole host of other voices also expressing a hatred for America and enlightenment values. This division is internal rather than external. Islamist terror is merely its most visible manifestation. But once Stupid White Men had become a best-seller on both sides of the Atlantic, we should have been alert to a certain degree of cultural self-loathing at home (Moore 2001).

Timothy McVeigh and the Aum Shinrikyo cult pointed to our ability to create home-grown nihilist terrorism. And it is well worth reminding ourselves that the 19 hijackers from September 11th 2001 had themselves all spent considerable time in the West, imbuing our values – or lack of them – and had largely been educated here.

"Once *Stupid White Merl* had become a best-seller on both sides of the Atlantic, we should have been alert to a certain degree of cultural self-loathing."

Cultural confusion as to who we are, what we are for, and where we are going will undermine our attempts at instituting social resilience. Society today is less coherent than it was a generation or more ago, it is also less compliant, but above all it is less confident as to its aims and purposes. This will not be resolved by training ourselves to respond to disasters, but by a much broader level of debate and engagement in society, not just relating to terrorism and other crises, but to far broader social issues.

Presumably, people are prepared to risk their lives fighting fires or fighting a war, not so that their children can, in their turn, grow up to fight fires and fight wars, but because they believe that there is something more important to life worth fighting for. It is the catastrophic absence of any discussion as to what that something more important is, that leaves us fundamentally unarmed in the face of adversity today. In that regard, risk management is both insufficient as an approach, as well as being fundamentally unambitious and therefore, dispiriting.

Social Solutions

Historical comparisons of disaster, such as responses to the Second World War 'Blitz', or to past episodes of flooding and epidemic disease, reveal a number of important lessons for today.¹⁴ Not least, is the extent and depth of social bonds and engagement at those times. During the war, there was also a clear sense of the need to carry on with normal life and everyday roles and respon-

17-03-2005, 10:45

sibilities, rather than developing some kind of shelter-mentality, (Jones at el. 2004), as is now encouraged.

However, the most striking change over the last fifty years has been in how we assume that ordinary human beings will react in a crisis. Beyond the grossly distorted belief in the likelihood of panic lies a more subtle, yet unspoken shift in cultural assumptions, that in itself undermines our capacity to be strong. That is, that in the past, the assumption on the whole, as born out by actual human behaviour, was that people were resilient and would seek to cope in adverse circumstances.

Today, there is a widespread presumption of human vulnerability that influences both our discussion of disasters well before they have occurred, and that seeks to influence our responses to them long after. A new army of therapeutic counsellors and other assorted professionals are there to 'help' people recover (Furedi 2003). This presupposes our inability to do so unaided. Indeed, the belief that we can cope, and are robust, is often presented as outdated and misguided, or as an instance of being 'in denial' (Furedi and Roberts 2004).

In some ways, this latter element, more than any other, best exemplifies and clarifies some of the existing confusions and struggles that lie ahead. If self-reliance is old fashioned and help-seeking actively promoted, for whatever well-intended reason, then we are unlikely to see a truly resilient society emerge.

This cultural shift is reflected in the figures that reveal that whereas in the United Kingdom, in the period of trade union militancy and unrest known as the 'winter of discontent' of 1979, there were 29.5 million days lost through strikes, in 2002 there were 33 million days lost through stress.¹⁵

We have shifted from being active agents of history to becoming passive subjects of it. This may suit social leaders lacking a clear agenda or direction. It may indeed be easier to manage the sick than those who struggle. But it also precludes the possibility of encouraging and establishing real resilience, resolve and purpose across society.

The standard way of dealing with disaster today is one that prioritises pushing the public out beyond the yellow-tape perimeter put up by the authorities (Glass and Schoch-Spana 2002). At best the public are merely exhorted to display their support and to trust the professionals. Effectively, we deny people any role, responsibility, or even insight into their own situation at such times. Yet, despite this, ordinary human beings are at their most social and rational in a crisis. It is this that should be supported, rather than subsumed or even subverted.

Handling social concerns as to the possibility of a terrorist attack is no easy feat. In part, this is because social fears today have little to do with the actuality, or even possibility, of the presumed threats that confront us. Rather, they are an expression of social isolation and mistrust, combined with an absence of direction and an elite crisis of confidence.

The starting point to establishing real resilience and truly effective solutions will be to put the actual threat posed into an appropriate context. This means being honest as to the objective evidence, as well as being able to clarify the social basis of subjective fears.

The incessant debate as to the possibility and consequences of an attack using chemical, biological, radiological, and nuclear weapons is a case in point (Durodié 2004b). Whilst Western societies have debated such nightmare scenarios as if they were real, terrorists have continued to display their proficiency in, and proclivity to use, conventional weapons, such as high explosives, car bombs, and surface-to-air missiles.

"Ordinary human beings are at their most social and rational in a crisis. It is this that should be supported, rather than subsumed or even subverted."

Above-all, if as a society, we are to ascribe an appropriate cultural meaning to the events of September 11th 2001 – one that does not enhance domestic concerns and encourage us to become ever-more dependent on a limited number of 'expert' professionals who will tell the public how to lead their lives at such times – then we need to promote a far more significant political debate as to our aims and purposes as a society.

Changing our cultural outlook is certainly a daunting task. It requires people in positions of

authority to clarify and agree on a common direction and then to win others to it. The reluctance to engage in this fundamentally political process and the clear preference to concentrate instead upon more limited, technical goals, leaves us profoundly ill-equipped for the future. It speaks volumes as to our existing state of resilience and may serve to make matters worse. Bizarrely, few of the authorities concerned consider it to be their responsibility to lead in this matter. Nor do they believe such cultural change to be a realistic possibility. Yet, in the eventuality of a major civil emergency, they hope that the public will pay attention to the risk warnings they provide and alter their behaviour

THE LIMITATIONS OF RISK MANAGEMENT

accordingly. By then it will be too late.

Notes

¹The author is grateful for two years of funding from the United Kingdom Economic and Social Research Council, (Award Reference L147251003), for research into the Domestic Management of Terrorist Attacks, which in part supported the development of the ideas contained herein.

² As indicated in the UK Cabinet Office Draft Civil Contingencies Bill, available at; http://www.ukresilience.info/ ccbill/draftbill/ccbill.pdf

³ This approach has in effect been institutionalised through the advent of the politically charged 'precautionary principle' as a tool for decision-making, originally in the fields of the environment and public health. This so-called principle demands a tendency to err on the side of caution, which in its turn necessitates the constant use of worst-case assumptions and data.

⁴ Indeed, I have argued elsewhere that our contemporary proclivity to focus research more upon the assumed cultural outlook and psychological mindsets of the terrorists, rather than examining ourselves and our responses, fails to identify the links between these and to tackle the problem at its real root, that is in the advent of Western anti-Western ideology (Durodié 2005).

⁵ A mawkish yet ultimately shallow emotionalism for victims of tragedy and disaster that one never knew is a recent but growing contemporary trend. In response to the tsunami in the Indian Ocean, the European Commission instituted three minutes of silence, whilst nations competed to display who could provide the most financial aid, despite having had more muted responses to previous catastrophes such as earthquakes in Iran and floods in Mozambique.

⁶ This refers to British sociologist Anthony Giddens' suggestion that we live in a Runaway World (Giddens 1999). In fact comparisons of historical change over equivalent periods in the 18th and 19th centuries might suggest that if anything we witnessed a slowing down in the 20th century. ⁷ In recent years, each of these have become key cultural reference points in the public debate on risk. Space precludes a fuller discussion of how the presumed impact of each of these was grossly exaggerated.

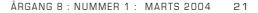
⁸ At the time, US conservative academic Francis Fukuyama famously heralded the 'End of History' (Fukuyama 1992). It took some time before the old Right understood quite what they had lost through the demise of their perennial bogeys on the Left.

⁹ Many professional risk communication experts point to the need for information to be imparted to the public by 'trusted' sources, either individual or institutional. Some even suggest that these should come from a variety of ethnic backgrounds in order to 'connect' with different communities. Both of these outlooks highlight the widespread contemporary belief that the medium itself is more important than the message. But elevating style over substance rather reveals the absence of any real content.

¹⁰ London's Metropolitan Police Chief Commissioner, Sir John Stevens, described an attack on London as 'inevitable' on 16 March 2004, a few days after the Madrid bombings.

¹¹ All phrases used by Eliza Manningham-Buller, the Head of the UK Security Service in her first public speech to a conference at the Royal United Services Institute in Whitehall on 17 June 2003.

¹² Phrases used by UK Prime Minister, Tony Blair, in his speech available at; http://www.number-10.gov.uk/ output/Page1731.asp at the Lord Mayor's Banquet on 11 November 2002. He subsequently made similar remarks in a local constituency speech, failing each time to clarify what he actually meant. In a similar vein, US Department of Homeland Security supremo, Tom Ridge, consistently referred to Western values as being 'freedom' and 'democracy' in a speech given at King's College London on 8 November 2002.





BILL DURODIÉ

¹³ 'Alert, not alarmed' is the preferred slogan of the Police and other senior politicians and officials in the UK. As a phrase, this is entirely general and vague, as opposed to specific and practical.

¹⁴ 'Blitz' meaning lightning, is the term used to refer to the aerial bombardment of British towns and cities, predominantly London, by the German Luftwaffe during the Second World War.

¹⁵ The figures are available on-line at: http: //www.wsws.org/articles/2004/mar2004/minem05.shtml.

References

Durodié, Bill and Simon Wessely 2002, 'Resilience or Panic? The public and terrorist attack', *The Lancet*, 360:9349, pp. 1901-1902.

Durodié, Bill 2003, 'Is Real Resilience Attainable', *RUSI/Jane's Homeland Security & Resilience Monitor*, 2:6, pp. 15-19. **Durodié, Bill** 2004a, 'Panic in the Streets?', *New Humanist*, 119:3, pp. 18-19.

Durodié, Bill 2004b, 'Facing the Possibility of Bioterrorism', Current Opinion in Biotechnology, 15:3, pp. 264-268.

Durodié, Bill 2005, 'Cultural Precursors and Psychological Consequences of Contemporary Western Responses to Acts of Terror', in: Simon Wessely & Valery Krasnov (eds.), *Psychological Aspects of the New Terrorism: A NATO Russia Dialogue*, IOS Press, Amsterdam, in press.

Fukuyama, Francis 1992, The End of History and the Last Man, Free Press, New York.

Furedi, **Frank** 1997 and 2002, *Culture of Fear: Risk-Taking and the Morality of Low Expectations*, Cassell, London and Continuum, London.

Furedi, Frank 1999, 'A Sociology of Health Panics', in: Lorraine Mooney & Roger Bate (eds.), *Environmental Health: Third World Problems – First World Preoccupations*, Butterworth-Heinemann, London.

Furedi, Frank 2003, Therapy Culture: Cultivating Vulnerability in an Anxious Age, Routledge, London.

Furedi, Frank and Stephen Roberts 2004, 'Disaster and Contemporary Consciousness: The Changing Cultural Frame For The Experience Of Adversity', *Draft Report*, available from the author.

Giddens, Anthony 1999, Runaway World: How Globalization is Reshaping Our Lives, Profile Books, London.

Glass, Thomas and Monica Schoch-Spana 2002, Bioterrorism and the People: How to Vaccinate a City against Panic, *Clinical Infectious Diseases*, 34:2, pp. 217-223.

Heartfield, James 2002, The 'Death of the Subject' Explained, Perpetuity Press, UK.

Jones, Edgar, Robin Woolven, Bill Durodié and Simon Wessely 2004, 'Civilian Morale During the Second World War: Responses to Air Raids Re-examined', *Social History of Medicine*, 17:3, pp. 463-479.

Moore, Michael 2001, Stupid White Men ... and Other Sorry Excuses for the State of the Nation, Harper Collins, New York. Putnam, Robert 2000, Bowling Alone: The Collapse and Revival of American Community, Simon & Schuster, New York.