Guest Editorial Introduction
New Trends in Crisis Management Practice and Crisis Management Research: Setting the Agenda

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Introduction[1]

The world of crises and crisis management has changed considerably over the past decades. In 1989, a large volume of case studies was published, covering mostly crises that had occurred in the 1970s and 1980s (Rosenthal, Charles and 't Hart, 1989). The book analysed Cold-War confrontations such as the KAL 007 Korean airliner case, classic '70s terrorism (drawn-out hostage takings), natural disasters (the 1986 El Salvador earthquake), and the perennial street confrontations between authorities and radical or 'deviant' (one might also call them 'desperate') groups in society (Move, Brixton riots, Amsterdam inauguration day). The subtitle of the book said it all: 'managing disasters, riots, and terrorism.'

This year, a new volume of case studies appears with the same publisher (Rosenthal, Boin and Comfort, 2001). And the differences are stark. The classic crises are still represented, such as the LA riots, the Turkish earthquakes, disasters in industries (the oil platform Piper Alpha), and plane crashes (the Hercules crash in the Netherlands). But the emphasis of this upcoming volume lays on the new kinds of crises that are troubling Western societies and elites: the (post)industrial, postnational crises – of which Chernobyl was really the only hint in the first volume – such as Mad Cow disease, water depletion, IT breakdowns and viral pandemics.

We strongly notice the winds of change in our own country. The trends described below are undoubtedly shaped by living in Western Europe, which is integrating economically and politically. Western European countries have opened their mutual borders and are becoming more densely populated, while their economies are changing from industrial to service-based.

However, we should be careful to generalise the trends identified here without qualification. Not only are the classic crises – think of floods, famines, earthquakes, military coups and civil wars – still the dominant mode of misery in most of the world, there are also the idiosyncratic problems and political-administrative conditions of the new democracies of Eastern Europe. These societies are experiencing the peculiar problems of high-speed transition to capitalism, democracy and postindustrial society (Stern and Hansén, 2000).

But even within the West, developments are not fully uniform. Take quiet, relatively remote Sweden. There, as in all of Scandinavia, authorities, press and the general public are just waking up to the notion of emergency management and all it entails (Lintonen, 2000). Having lived in blissful prosperity and safety for decades, Chernobyl was their first wake-up call, followed by the traumatic assassination of Olof Palme. Nevertheless, it took gruesome incidents such as the *Estonia* ferry tragedy, a 'war' between rival biker gangs, and a major fire in a Göteborg disco with visitors of various ethnic background, to break through the widespread assumption that 'it cannot happen here,' which had reigned supreme in these and, for that matter, many other countries.

The situation has changed since these incidents. The Swedish presidency of the EU gently tried to place the topic of strengthening national and transnational crisis management capabilities on the European political agenda. The outbreaks of BSE and, more recently, Foot and Mouth disease have demonstrated that European crises demand a European approach (Grönvall, 2001). It is in this spirit that the European Crisis Management Academy (ECMA) held its first official conference in November 2001 (Stockholm).

Closing out the ninth volume of a journal that has done much to further the crisis research agenda, this issue focuses on the shape of current and future crisis research in the light of the changes taking place around us. What has been changing in the kinds of contingencies that crisis managers have been preparing for and

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responding to, and what has changed in the nature of crisis management activities? We identify nine areas of change in crisis management practices. Based on that list, we compile an agenda for the kind of research these ongoing changes seem to require in order to make sense of them and to, hopefully, accomodate the articulation of policy-relevant insights.

Trends in crisis management practice

We identify three main developments in crisis management practice, which bring new challenges to crisis managers. These are: the evolution of an industrial towards a risk society; a development from heroic to besieged crisis response; and a change from episodic to continuous crisis management.

From the industrial towards the risk society

1. *The proliferation of risk, complexity and tight couplings.* Globalisation, new technologies and economic growth have produced time-space compression (Harvey, 1989): as distances shrink, people and goods are moving faster and farther, communication networks become more complex and indispensable, and technological advances spill over from one domain into another almost effortlessly. There are obvious costs to these developments. Complexity reigns and couplings between system components become tighter and tighter, turning the world into an 'error-inducing system' (cf. Perrow, 1999). Not only are mishaps more likely to occur than before, they are more likely to escalate into full-fledged disasters when they occur.

   This development can be found, for example, in the air traffic control systems of most Western countries (Rochlin, 2001). In this sector, a race is going on between an ever more crowded air space and our technological and organisational capabilities to keep the system running both efficiently and safely. So far, air safety has been maintained, but one cannot help but wonder if and when a critical threshold will be crossed. The same goes for the case of food safety. The list of critical incidents in the food and agriculture sector increases, including: Salmonella, BSE, swine fever, Foot and Mouth disease; production failures and/or product tampering in beer, baby food, frozen food and olive oil; and speculations about the harmful effects of gen-modification. Also, it has become increasingly clear that just-in-time production, open borders, fierce competition for export markets, and lax regulatory and monitoring activities have played a major part in the genesis of

these incidents and the erosion of public trust. Institutional capabilities to control economic growth and technological innovation have been lagging behind these developments.

2. *The public discovery of the risk society.* Fifteen years after scholars such as Patrick Lagadec (1982) and Ulrich Beck (1986) signalled its arrival, the general public has discovered the reflexivity of modern technology. Ultra-modernisation makes us richer and safer at the macro level, as Wildavsky (1988) was keen to point out, yet at the same time concrete and dramatic incidents take place at the micro level for people to worry more instead of less about their health and safety in this post-modern world. By seemingly increasing our control over the forces of nature and of technology itself, we have lured citizens into aspiring to ever greater degrees of well-being. This boils down to the paradox of safety (Rosenthal, 1984): the safer a society has proven to be, the more vulnerable its people and institutions are when something bad does happen. Having banked on prevention for so long, societies are disempowered in coping with crises when they nevertheless occur. Improving safety statistics will not take away societal concern and fear of technology. 'Doing better, feeling worse' is an apt way of characterising the predicaments of the risk society (Wildavsky, 1984).

3. *The politicisation of risk management.* Since the political stakes are raised, elites in both business and government are forced to devote more time to crisis prevention and mitigation. When planning new airports and rail connections, planners are not just facing environmentalists protesting the loss of landscape and natural habitats, they also face ordinary citizens worried that accidents may happen. Throwing statistics at these worried citizens is not enough to calm them (Lambrozo and Lynch, 2000). Authorities will have to come to terms with the symbolic and mass-psychological dimensions of risk and safety debates — even to the point of fundamentally rethinking the desirability of some of their most-cherished 'grands oeuvres'. Large technological projects get bogged down in fundamental differences of perception and valuation between advocates and critics (Schön and Rein, 1994; Van Eeten, 1999). The planning process can no longer be dominated by engineers and other technical specialists; it is evolving into a time-consuming yet potentially instructive exercise in participative, deliberative democracy that goes right to the heart of the political centre.[2]

From heroic to besieged crisis response

4. *The trans-boundary organization of crisis response*. Even conventional crises have never observed the institutional borders of the crisis response system. They have always required delicate inter-jurisdictional co-ordination ('t Hart, Rosenthal and Kouzmin, 1993). Modern crises such as epidemics, refugee flows, food scares, IT breakdowns and eco-disasters are increasingly deterritorialised − they spread widely and rapidly, and thus challenge the crisis response system, which is still very much focused on the local, the regional and the national level. Today's crises have cross-border impacts and trigger cross-national contagion effects at the mass-psychological level (BSE and AIDS serve as examples). For authorities, this raises questions such as how to manage crises caused by 'others' or how to cope with major-scale crises that the state cannot possibly handle alone, no matter how strong the statist beliefs of elites or the statist tradition of the country they are running. National policymakers no longer get away blaming 'Brussels,' the United Nations or other 'foreigners' for all that goes wrong during a crisis. Whether we like it or not, we shall have to strengthen transnational arrangements for risk monitoring, early warning and crisis response.

5. *The mediatisation of crisis response*. With the psychology of risk and unsafety becoming so prominent, crisis communication has come to rival operational decision making and action as the prime focus of attention for crisis managers (Rosenthal, 1998). Whereas in the old era authorities could concentrate on information gathering about the events themselves, governments now have to worry at least as much about the image the general public has of these events and their responses to them. Crisis management is, to an extent, becoming dematerialised: it is not just running the physical response operation that counts, managing the 'image fallout' that follows the outbreak of crisis has become important as well.

The media are the single most important factor in this transformation. Technological changes and increased competition have led to media proliferation and new reporting styles (real time TV, emotion TV). Reporters have become more knowledgeable about risk and safety issues, if only because they have been called upon to report more disasters and other crises than before. They know the drill of crisis reporting, the lingo of risk management and disaster planning, and the sociological and political regularities of crisis development. Elites can no longer get away with standard fact sheets and a restrictive information policy (Lagadec, 2000). If they do, media will ignore them, assume they have something to hide, and find their own news sources. Whether they like it or not, elites have to become more proactive in their crisis communication. In that sense, public sector crisis management has come to resemble private sector crisis management, which has always viewed crises primarily as 'public relations' problems (Fink, 1986).

6. *From heroes to villains.* One is tempted to believe that the very occurrence of a crisis gives crisis managers an opportunity to wield power otherwise kept in check by counter-vailing forces (Edelman, 1977; 't Hart, 1993; cf. Buzan and Waever, 1997). But crisis managers no longer get the benefit of the doubt, no matter how serious they claim the situation is. US presidents, for example, find it increasingly hard to escape from domestic troubles, even if they rhetorically construct foreign threats to national security, which then are said to require a military response (Bostdorff, 1997).[3] Whether the WTC/Pentagon bombings have changed all this remains to be seen.[4]

Media highlight the politics of crises and have become more critical in their reporting. Legislators and other political actors ask tough questions about prevention failures and errors of judgement in crisis response. They no longer wait until the dust has settled and formal accountability fora swing into action. Instead, they go on television instantly to make their claims. During floods, for example, political decisions to conduct preventative evacuations of endangered areas become the topic of intense controversy in various countries (Rosenthal and 't Hart, 1998). The same goes for decisions to deploy police during strikes, to use special bylaws and technology to combat protestors, to instigate meat export bans, to expel asylum seekers or to outlaw rightwing political parties. These and many other critical decisions taken under conditions of high uncertainty and time pressure have become part of political blame games, leaving crisis managers with the question how any government can respond effectively to crisis in low-trust, high-exposure environments.

From episodic to continuous crisis management

7. *From catharsis to quagmire.* With crises becoming more politicised, they tend to cast a bigger and bigger shadow in the public domain after the operational action has

abated ('t Hart and Boin, 2001). Crises are no longer written off as freak incidents, but become labelled increasingly as symptoms of underlying problems. With 'chance', 'nature' and 'God' no longer accepted as excuses, crises become policy fiascos almost by definition (Bovens and 't Hart, 1996). The common experience of adversity rarely fosters solidarity and unifies people, but, instead, seems to provide opportunity structures to critics of the existing status quo to 'get to the bottom of this.' The postcrisis arena is crowded with committees of wise men, victim associations, Ombudsmen, public prosecutors, parliamentary enquiries, investigative journalists, insurance experts and 'ambulance chasers' (damage compensation attorneys).

Often, the upshot of all this scrutiny is damage to the credibility of public officials and agencies acting in a crisis management function. Such public perceptions tend to refuel the sense of crisis, redefining it from a story of human tragedy to a morality play (Wagner-Pacifici, 1986). Seemingly incontrovertible evidence of their incompetence, ignorance or insensitivity places authorities under severe pressure to atone for their past sins, or, at the very least, to keep the lofty promises they made in the heat of the crisis. The crisis will not end; the authorities, desperate to 'move on,' feel caught in a maze.

8. *From forgotten to exposed traumas.* Not so long ago, disaster victims were soon and easily forgotten as both the public and the political elites were eager to return to business as usual. All but the most directly involved went back to work; the victims were dealt with, if at all, in a rather low-key, bureaucratised manner — more recently with the help of psychologists (Gist and Lublin, 1989; Hodgkinson and Stewart, 1991). Public recognition, compensation or reconstruction support could not be taken for granted. Communities were often left to their own devices after the initial flurry of activity had died down and the camera lights had been shut off (Erikson, 1976; Geipel, 1982; Reich, 1991).

Today, victims tend to have stronger voices. Fed by some of the other developments mentioned above, they are less likely to be content with the treatment they receive. They are quite likely to organise and mobilise media attention, and join in coalitions with political entrepreneurs seeking to 're-open' the crisis (see f.i. Rosenthal, Boin and Bos, 2001). Since they are up against authority that has already been shaken during the crisis period, they stand a good chance of putting their traumas high on the public agenda, forcing authorities to endure another round of critical scrutiny and calls for urgent remedial action. In short, the aftermath of the postmodern crisis boils down to a politicisation of victims and a (renewed) victimisation of politics.

9. *The crisis-learning paradox.* Although they are quick to identify all kinds of psychological and organisational barriers, many crisis analysts still write hopefully about crises as learning opportunities (see f.i. Stern, 1997). It is easy to see why — if crises are commonly experienced as exogenously induced threats to a jointly valued status quo, then all parties concerned will be motivated to ensure that it will occur 'never again.' However, as we have seen, the postmodern crisis is very unlikely to conform to this picture. It is much more realistic to assume that it is a focal point for intense and protracted political contestation.

The more we know about a crisis, the less likely we are to learn from it. This is the case, because, in the politics of blaming, information is tailored to be ammunition. Data are not collected and analysed in order to improve future efforts aiming at prevention and preparedness. Instead data are selected and moulded to construct winning arguments in a battle for political-bureaucratic survival (Bovens and 't Hart, 1996; see also Majone, 1989). Individuals and organisations will tailor their memories according to the logic of responsibility assertion and avoidance: if it is opportune to remember, they will remember; if not, they 'forget' — unless and until other players in the blame game force them out of their strategic amnesia.

We may summarise these developments in two parallel trends: the politicisation of crises, and the 'crisification' of politics. Together, they make for a formidable challenge to public authorities. Risk and crises force political and bureaucratic elites to go back to the hard core of the state, i.e., the protection of life, property and society. At the same time we see that threats have diversified; national abilities to keep them in check may be lagging behind; and state elites are much more critically followed by an alarmed populace and a well-informed media. And therefore, the 'crisification' of politics takes hold: now that regional peace and economic prosperity are taken for granted, and it has been accepted that it is beyond the power of the state to guarantee social welfare and social justice to all, elite success in office is becoming more and more determined by public perceptions of their performance of the old nightwatch functions: crime control and safety management. Major incidents and crises in these domains become the

subject of political gamesmanship and electoral politics. As Robert McNamara sighed after the Cuban missile crisis: 'as of now, there is no longer such a thing as strategy, only crisis management' (Bell, 1971: 2).

Towards a new agenda for crisis research

These developments have not gone unnoticed in the academic community. Inevitably, there has been a considerable growth in scholarly attention devoted to the once utterly unfashionable, even esoteric, topic of 'unscheduled events'. Once the domain of a few disaster and urban sociologists, mass communication scholars, terrorism experts, civil engineers, applied psychologists and students of international relations and foreign policy, there now is a fully fledged, richly differentiated, multidisciplinary and increasingly institutionalised crisis research community. It has its own journals, professional societies, conference spots, handbooks and consultants.

This is a welcome development. Crisis research has been one of the comparatively few areas of social science where scholars have been not only producing policy-relevant knowledge, but also communicating this quite successfully to those in need of it. This should not be too much of a surprise: if crises pose radical uncertainty if not anxiety for policy elites, science is an obvious place to turn to for clarity and consolation.

Be that as it may, the developments in the world of crises and crisis management signalled above force crisis analysts to cast aside whatever complacency they may have been lured into by their 'successes' of the past decades. More so than perhaps a decade ago, crisis scholarship implies shooting at a moving target. When crises become endemic, the borderlines between the familiar territory of crisis analysis and the vast expanses of mainstream political, administrative and organisational theory begin to blur.

Moreover, be it through intelligent induction from the wealth of recent crisis events they have been reporting on or through creative 'borrowing' from the works of crisis scholars, many of the better journalists and news commentators have internalised the lingo ('risk communication', 'mass convergence', 'media management', the FEMA phases), and the basic propositions ('the disaster after the disaster', 'collective stress', 'coordination is the problem, not the solution') of crisis scholars. Hence, crisis scholars are at risk of losing their distinctive competence in explaining to people how and why crises unfold in the way they do.

Where should crisis research go to, given these changes? We see a number of avenues:

1. If politics is infiltrating crisis management and vice versa, crisis researchers should be more acutely aware of the multiple parties, values, and stakes that are at play. They cannot simply presume that 'the government' seeks to prevent and contain crises as best it can, despite its inner complexities and faults. Instead they should critically examine the institutional make-up as well as the various calculi that public actors bring to a crisis. Likewise, they cannot go for a simple state-society dichotomy. They should become more versed in viewing issues of crisis management through the lenses of issue and policy networks, advocacy coalitions, bureaucratic politics, and intergovernmental bargaining. This is not to say that there is no longer any room for relatively neutral, technocratic knowledge about operational command decision making (Flin, 2001) or intelligent information management systems (Comfort and Sungu, 2001). What it says is that we cannot afford to leave it at that. Crisis researchers need to come to terms with the (mass-mediated) politics of crisis management — much as though they may deplore its existence.

2. Crisis scholars should extend their time frames. Many of us have tended to concentrate on minute reconstructions of information flows, decision making processes, and interaction patterns during the critical stages of crisis development, i.e, the response phase in FEMA terminology. If, however, we accept that crisis responses are heavily influenced by the shadows of both the past and the future, we should integrate those fully into our analytical approaches. The process nature of crises should be stressed (Rosenthal, Boin and Comfort, 2001): they are not discrete events but rather high-intensity nodes in ongoing streams of social interaction. Therefore we should pay more attention to setting crises in their proper historical and socio-political time, both in terms of sequence and synchronicity (Stern and Sundelius, 1993). This should go beyond the rather naive preoccupations with 'learning'. We should look instead at the dynamics of blame games, the modus operandi of accountability fora following crises, the negotiations about damage compensation, and the politics of crisis termination ('t Hart and Boin, 2001). This includes revisiting the sites and actors of a crisis repeatedly for long periods of time — something which requires a major research effort (see Erikson, 1976, 1994).

3. Closely linked to this is the need to study both the genesis and the impact of crises in terms of ongoing streams of politics, policy and administration. If crises nowadays are

predominantly viewed as man-made disasters, i.e. unintended consequences of past interventions, we can only really understand their occurrence when we study the rationale and the implementation of those past interventions (see Sieber, 1981; Hirschman, 1991). Likewise, if crises are 'windows of opportunity' for political catharsis as well as the initiation of policy and institutional changes in the sector or political system in which they occur, we should study how and why some actors seize those opportunities successfully and others do not (Boin and 't Hart, 2000).

4. If crises are increasingly transnational, so should crisis analysis. We need to move away from our traditional preoccupations with digging up more than anybody wants to know about single, history-making cases. In its place should come systematic efforts of sophisticated comparative research designs: comparing and contrasting morphologically similar crises (in the field of security crises, see the ICB-project led by Michael Brecher and Jonathan Wilkenfeld (2000)), comparing and contrasting different national and subnational institutions and practices of crisis management; comparing and contrasting different transnational crisis management operations in various policy sectors. This kind of research is hard to conduct without more intensive forms of international cooperation between crisis scholars. But the nucleus of a wider network is growing. The recent initiation of the European Crisis Management Academy (ECMA) promises to become a forum for more intensive discussions about common and comparative projects. These cooperative efforts are particularly useful to consolidate our understanding of the national and transnational dimensions of major crises, now and in the future.

This issue

This special issue consists of contributions that illustrate these developments and explore future challenges for crisis management practice and research. Three contributions in this special issue are part of forthcoming publications elsewhere concerning the characteristics and management of current and future crises. The papers by Abraham H. Miller and Jan Willem Honig will be published in the upcoming edited volume *Managing Crises* (Rosenthal, Boin and Comfort, 2001). The paper by Johan Eriksson will be published in an edited volume titled *Threat Politics, New Perspectives on Security, Risk and Crisis Management* (Eriksson, 2001). We express

our gratitude to Charles C. Thomas Publishers and Ashgate Publishers for their permission to publish parts from these forthcoming books in this special issue of the *Journal of Contingencies and Crisis Management*.

All contributors in this issue touch upon the general developments of the politicisation of crisis and the 'crisification' of politics. Our first contributor, Abraham H. Miller, studies the second-order causes of two Los Angeles riots. The author primarily focuses on the 1991 Rodney King riot, which followed the violent arrest of a black colored man after a high-speed chase on the LA highways. Miller's contribution deals with the politicised dimension of what seemed to be a matter of technocratic crisis management. Miller shows that the ineffective response of the LA police was caused by a combination of a deficient police preparation, bureaucratic and political struggles within and outside the force, and the politicisation of the racial issue.

Jan Willem Honig describes the fall of the UN-protected 'safe area' of Srebrenica in 1995 and the role of the Dutch army in this tragedy. Honig's article offers an analysis of a problematic attempt to manage a crisis in a transboundary manner. Again, interorganizational rivalry was an important cause of failed crisis management, as a result of multiple parties involved, pursuing multiple stakes.

In Johan Eriksson's contribution, the role of IT in security policies in Sweden is described. Eriksson's article teaches us how Swedish society became (or: was made) aware of a possible new threat to national security. The author shows how various parties in Sweden were successful in 'securitizing' the IT issue through processes of agenda setting and framing. Interesting in this respect is that the Swedish army was able to use the IT security threat as a window of opportunity to secure its position in the public domain, even after the end of the Cold War.

Eric Noji, in the third contribution to this special issue, directs our attention to an important threat to the world's health: the global resurgence of infectious diseases. Noji describes various trends in the spread of infectious diseases. In addition, his contribution points to the transboundary, complex, and tightly coupled character of infectious diseases and the political and administrative obstacles for fighting infectious effectively.

The special issue is concluded by a contribution of the distinguished disaster researcher Enrico L. Quarantelli. Quarantelli provides us with his look on future crises, therefore pointing our attention, once again, to the challenges that await crisis managers and researchers in the future.

Notes

1. An earlier version of this article was presented at the *CNRS seminar, Paris, 8–9 February 2001*
2. This may be more the case in, say, Holland, Denmark and Germany, where people love endless meetings and bargained consensus, than in France and most of the new Eastern European democracies, where authorities seem somewhat more able to impose their plans in classical top-down style.
3. Compare the fallout after Clinton's move to bomb alleged hideouts of Bin-Laden during the height of the Lewinsky scandal.
4. This article was written before the disaster in the U.S., September 11, 2001.

References

Beck, U. (1986), *Risikogesellschaft: Auf dem Weg in eine andere Moderne*, Suhrkamp, Frankfurt.

Bell, C. (1971), *The Conventions of Crisis: A Study in Diplomatic Management*, Oxford University Press, New York.

Boin, R.A. and Hart, 't P. (2000), 'Institutional Crises and Reforms in Policy Sectors', in Wagenaar, H. (Ed.), *Government Institutions: Effects, Changes and Normative Foundations*, Kluwer Academic Publishers, Dordrecht, pp. 9–32.

Bostdorff, D.M. (1997), *Presidency and the Rhetoric of Foreign Crisis*, University of South Carolina Press, Columbia, SC.

Bovens, M. and Hart, 't P. (1996), *Understanding Policy Fiascos*, Transaction, New Brunswick.

Brecher, M. and Wikenfield, J. (2000), *A Study of Crisis*, University of Michigan Press, Ann Harbor.

Buzan, B., Wæver, O. and de Wilde, J. (1998), *Security: A New Framework for Analysis*, Lynne Rienner, London.

Comfort, L.K. and Sungu, Y. (2001), 'Organizational Learning from Seismic Risk: The 1999 Marmara and Duzce, Turkey Earthquakes', in Rosenthal, U., Boin, R.A. and Comfort, L.K. (Eds), *Managing Crisis: Threats, Dilemmas, Opportunities*, Charles C. Thomas, Springfield, pp. 119–142.

Edelman, M. (1977), *Political Language: Words that Succeed and Policies that Fail*, Academic Press, New York.

Erikson, J. (Ed.) (2001), *Threat Politics, New Perspectives on Security, Risk and Crisis Management*, Ashgate, Aldershot.

Erikson, K.T. (1976), *Everything in its Path: Destruction of Community in the Buffalo Creek Flood*, W.W. Norton & Company, New York.

Erikson, K.T. (1994), *A New Species of Trouble: Explorations in Disaster, Trauma and Community*, W.W. Norton & Company, New York.

Fink, S. (1986), *Crisis Management*, American Management Association, New York.

Flin, R. (2001), 'Decision Making in Crisis: The Piper Alpha Disaster', in Rosenthal, U., Boin, R.A. and Comfort, L.K. (Eds), *Managing Crisis: Threats, Dilemmas, Opportunities*, Charles C. Thomas, Springfield, pp. 103–118.

Geipel, R. (1982), *Disaster and Reconstruction: The Friuli (Italy) Earthquakes of 1976*, Allen and Unwin, London.

Gist, R. and Lubin, B. (Eds) (1989), *Psychosocial Aspects of Disaster*, John Wiley & Sons, New York.

Grönvall, J. (2001), 'Mad Cow Desease: The Role of Experts and European Crisis Management', in Rosenthal, U., Boin, R.A. and Comfort, L.K. (Eds), *Managing Crisis: Threats, Dilemmas, Opportunities*, Charles C. Thomas, Springfield, pp. 155–174.

Hart, 't P. (1993), 'Symbols, Rituals and Power: The Lost Dimension in Crisis Management', *Journal of Contingencies and Crisis Management*, Volume 1, Number 1, pp. 36–50.

Hart, 't P. and Boin, R.A. (2001), 'Between Crisis and Normalcy: The Long Shadow of Post-Crisis Politics', in Rosenthal, U., Boin, R.A. and Comfort, L.K. (Eds), *Managing Crisis: Threats, Dilemmas, Opportunities*, Charles C. Thomas, Springfield, pp. 28–46.

Hart, 't P., Rosenthal, U. and Kouzmin, A. (1993), 'Crisis Decisionmaking: The Centralisation Thesis Revisited', *Administration and Society*, Volume 25, Number 1, pp. 12–41.

Hirschman, A.O. (1991), *The Rhetoric of Reaction: Perversity, Futility, Jeopardy*, Belknap Harvard, Cambridge.

Hodgkinson, P. and Stewart, M. (1991), *Coping With Catastrophe: A Handbook of Crisis Management*, Routledge, London.

Lagadec, P. (1982), *Major Technological Risk: An Assessment of Industrial Disasters*, Pergamon Press, Oxford.

Lagadec, P. (2000), *Ruptures Créatrices*, Éditions d'Organisation-Les Echos Éditions, Paris.

Lambrozo, J. and Lynch, C.G. (2000), 'Managing Scientific Uncertainty in Environmental Health: The Example of Electric and Magnetic Fields', *Journal of Contingencies and Crisis Management*, Volume 8, Number 4, pp. 229–233.

Lintonen, R. (2000), 'Crisis Management in Finland: Contemporary Challenges', *Journal of Contingencies and Crisis Management*, Volume 8, Number 3, pp. 161–169.

Majone, G. (1989), *Evidence, Argument and Persuasion in the Policy Process*, Yale University Press, New Haven.

Perrow, C. (1999), *Normal Accidents: Living with High-Risk Technologies* (2nd Edition), Princeton University Press, Princeton.

Reich, M. (1991), *Toxic Politics: Responding to Chemical Disasters*, Cornell University Press, Ithaca.

Rochlin, G.I. (2001), 'Future IT Disasters: A Speculative Exploration', in Rosenthal, U., Boin, R.A. and Comfort, L.K. (Eds), *Managing Crisis: Threats, Dilemmas, Opportunities*, Charles C. Thomas, Springfield, pp. 251–266.

Rosenthal, U. (1984), *Rampen, Rellen, Gijzelingen: Crisisbesluitvorming in Nederland*, De Bataafsche Leeuw, Amsterdam.

Rosenthal, U. (1998), 'Future Disasters, Future Definitions', in Quarantelli, E.L. (Ed.), *What is a Disaster? Perspectives on the Question*, Routledge, London, pp. 146–60.

Rosenthal, U. and Hart, 't P. (Eds) (1998), *Flood Response and Crisis Management in Western Europe: A Comparative Analysis*, Springer-Verlag, Berlin.

Rosenthal, U., Charles, M.T. and Hart, 't P. (Eds)

(1989), *Coping with Crises: The Management of Disasters, Riots and Terrorism*, Charles C. Thomas, Springfield.

Rosenthal, U., Boin, R.A. and Bos C.J. (2001), 'Shifting Identities: The Reconstruction of the Bijlmer Plane Crash', in Rosenthal, U., Boin, R.A. and Comfort, L.K. (Eds), *Managing Crisis: Threats, Dilemmas, Opportunities*, Charles C. Thomas, Springfield, pp. 200–215.

Rosenthal, U., Boin, R.A. and Comfort, L.K. (Eds) (2001), *Managing Crisis: Threats, Dilemmas, Opportunities*, Charles C. Thomas, Springfield.

Schön, D. and Rein, M. (1994), *Reframing: Towards the Resolution of Intractable Policy Controversies*, Basic Books, New York.

Sieber, S. (1981), *Fatal Remedies*, Plenum Press, New York.

Stern, E.K. (1997), 'Crisis and Learning: A Conceptual Balance Sheet', *Journal of Contingencies and Crisis Management*, Volume 5, Number 2, pp. 69–86.

Stern and Hansén (2001), 'From Crisis to Trauma: The Palme Assassination Case', in Rosenthal, U., Boin, R.A., and Comfort, L.K. (Eds), *Managing Crisis: Threats, Dilemmas, Opportunities*, Charles C. Thomas, Springfield, pp. 177–199.

Stern, E.K. and Sundelius, B. (1993), 'Penetrating the Elusive Small Decision Group: An Analytical Tool Set and Case Findings', Paper presented at the European Consortion for Political Research, April, Leiden, The Netherlands.

Van Eeten, M. (1999), *Dialogues of the Deaf: Defining New Agendas for Environmental Deadlocks*, Eburon, Delft.

Wagner-Pacifici, R.E. (1986), *The Moro Morality Play: Terrorism as Social Drama*, University of Chicago Press, Chicago.

Wildavsky, A. (1984), *Speaking Truth to Power: The Art and Craft of Policy Analysis*, Transaction, New Brunswick.

Wildavsky, A. (1988), *Searching for Safety*, University of California Press, Berkeley.