Bringing 'complex terrorism' and 'corporate malfeasance' into a classification schema for disasters

*Prof. AJW (**Tony**) Taylor* reappraises new ways emergency management communities might view disasters in the aftermath of recent international events

This article argues that a reappraisal of emergency management systems might be of assistance to organisations concerned with risk assessment in all phases of disaster. Taylor suggests a revised classification of disasters might support risk organisations when managing the enormity and widespread effects of events such as those culminating in the terrorist attacks of September 11, 2001 and in the collapse of corporate empires. Taylor justifies his assertion by defining disasters, presenting a disaster classification system and identifying potential casualties in the aftermath of any major traumatic event.

In times of turbulence there is much to be said for putting traumatic events in appropriate context before considering their features in detail. For that reason, and if the idea is not too reprehensible to contemplate because of the negative emotions that prevail from the awareness of 2,823 fatalities, the terrorist attacks on the World Trade Centre in New York and on the Pentagon in Washington DC, and the concurrent but independent revelations of large-scale financial chicanery in the international conglomerates, can be considered in some ways, comparable catastrophes. The one can be regarded as the unlawful use of force by militant organisations for economic, ideological, political, and religious purposes, and the other as the large-scale manipulation of finance for purposes other than those approved by stakeholders.

Although the *modus operandi* of both types of calamity have yet to be unraveled, it is clear that their simplicity of conception, planning, and execution, exposed the vulnerability of the most economically and politically powerful country in the world to the depredations of a handful of militants and corrupt executives. Both had adverse effects that are still reverberating. Already they have obliged many other countries to consider how they might deal with such events were they to occur on a similar scale in their own territories (cf. *Background papers for the symposium: World terrorism and political violence: Implications for New Zealand and the South Pacific*, 2002: Monbiot, 2002). Consequently the author proposes emergency management communities might properly regard complex terrorism and corporate malfeasance as disasters – catastrophic events that seriously overtax the coping abilities of individuals, families, organisations, and wider communities.

Although terrorism has a long history, ' … the growing technological capacity of small groups and individuals to destroy things and people, and … the increasing vulnerability of our economic and technological systems to carefully aimed attacks' led journalist Homer-Dixon (2002) to describe terrorism's new form as 'complex terrorism'. In such matters the substantial 'David and Goliath' disparity between the resources available to the attackers and the attacked led the intelligence analysts O'Brien and Nusbaum (2002) to create the term 'asymmetrical terrorism' – but for present purposes the adjective 'complex' describing the methods of the terrorists is preferred to asymmetrical that refers to their comparative scarcity of resources.

In 1994, the International Federation of Red Cross and Red Crescent Societies (IFRC&RCS) drew attention to the 'disaster inducement' work of powerful self-promoting economic and political groups (*World Disasters Report*, 1994, p.52). A few years the organisation used the term 'disaster development' to describe the increasing alienation, degradation, famine, and poverty of people who are most vulnerable to major adversity, and it incorporated the economic component when defining disasters as 'exceptional events which suddenly kill or injure large numbers of people or cause major economic losses', and it included 'socio-economic dislocation' in its map of relief operations (*World Disasters Report*, 1998, p.12). In his introduction to the same volume, the Secretary-General of the IFRC&RCS commented 'As economic globalisation becomes a reality, and as the debate surrounding the role of civil

society evolves, opportunities are presenting themselves to governments and to other forms of civil action, to reduce risk and plan for a safer future' (*World Disasters Report*, 1998, p.8).

After September 11, several leading economists brought the economic component of terrorism centrally to attention (*LSE Magazine*, 2001), and in a flurry of expert opinions, none other than President James D.Wolfenson of the World Bank reiterated his concern that poverty and inequality were at the root of global ills that generated terrorism (Sullivan 2002). Then the World Economic Forum made terrorism the theme of its very next conference, and among its galaxy of speakers UN Secretary-General Kofi Annan (2002) appealed for the adoption of global citizenship with humanitarian as well as economic concerns to overcome 'the fragility of globalization'.

With the economic emphasis in mind, it is difficult not to think that the internal machinations of executives in bringing about the commercial collapse of certain leading international companies might rival the actions of terrorists[1]. The billionaire investors Warren Buffett and Charlie Munger, no less, are quoted as saying that they are disgusted by the way in which 'in the last few years … shareholders have suffered billions in losses while the CEO's, promoters, and other higher-ups who fathered these *disasters* (my emphasis) have walked away with extraordinary wealth' (*Reuters* 5/3/2002). Indeed there are so many malefactors that the US Department of Justice (2001) has provided a resource handbook for their victims (with an appendix that just might give people wrong ideas about crimes they could perpetrate!).

Now the seemingly invincible auditors that earned more from advising their clients than auditing the company books are attracting the attention of regulatory agencies for the apparent conflict of interest (Hilzenrath 2001: Cohen 2002) – although the financial investigator Widlake (1995) and the criminologists Dodd (2000) and Robertson (2000) challenge their competence for the task. Relevant professional bodies of accountants and auditors are also taking rapid action to rectify matters (cf. Institute of Chartered Accountants of New Zealand, 2002). However, because of the widespread and disastrous consequences for the casualties of those involved in financial plunder, it would seem appropriate to introduce the category of 'corporate malfeasance' in the classification of types of disaster.

Disasters in general

According to the *OED* (1989, vol. 4, p.723), the word disaster came first into usage late in the 16th Century and was defined simply in astrological terms as an 'unfavourable aspect of a star or planet; an obnoxious planet'. Although today the complexity of the topic suggests that in the search for causes, any simple reliance on astrological phenomena, devilry, or divine retaliation is anachronistic, in Roman times all such calamities were attributed to the displeasure of the Gods to whom proper respect was not paid (Ogilvie, 1986, ch.4). Subsequently disasters were interpreted as divine punishments imposed for the moral transgressions of believers (cf. Bowker, 1970: Gavalya, 1987: Taylor, 1998). Nowadays some still derive support from the phrase 'acts of God' that appears as a standard feature of many commercial and insurance contracts – without realising that the term is used there legalistically rather than theologically to exclude cover of events that are unpredictable, unavoidable, and beyond the control of individuals (Williams, 1993): like the term 'force majeure', the phrase is intended to relieve designated parties of certain liabilities and obligations regarding catastrophe while still requiring them to make a reasonable attempt to overcome its consequences.

With the advance of science and technology, causative explanations other than the astrological and the metaphysical were invoked to account for disasters that arose. Such was the case when the adverse side-effects of early industrialization included numerous dam bursts, factory explosions, fires, mining tragedies, and various transport accidents (Hoehling, 1973; Perkes, l976; Kingston & Lambert, 1980). Similar explanations were advanced for later technological developments such as the pollution of the land, sea, and air by toxic waste, with the haunting spectre of a nuclear winter affecting distant parts of the world (Taylor, 1989, chs. 7 & 8: Granot, 1998). The implication was that contemporary mankind had to shoulder responsibility for having brought tragedy about directly through incompetence, ignorance, and negligence, rather than indirectly by misfortune or moral turpitude.

Drabek (1986) gave a lead to those adopting an empirical approach when in a monumental task he scanned more than 1000 published reports of all disasters in search for their essential components. Subsequently he identified four major phases of disaster that he called preparedness, response, recovery, and mitigation – each of which he subdivided and related to

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1 Consider for example the debacles of the Bank of Credit and Commerce International, the Barings Bank, and the insider trading at Lloyds in the UK, of the Allied Irish Bank, Enron Energy, Xerox, and Worldcom. in the USA, and of Ariadne, Reid Murray, and the HIH Insurance Company in Australia – to say nothing of the celebrated cases of JBL, Equity Corporation, and Ansett NZ, plus others that sailed close to the wind in the heady days of global free-market de-regulation.

The World Trade Centre burns after the terrorist attacks in September 2001.

the individual, group, organisation, community, society, and nation (Table 1). Then he went on to set priorities that he suggested others might take up – viz. automated information retrieval systems, taxonomies of disaster events and response systems, access to comparative international data bases, linking theory of human behaviour with practice, and increased practitioner/researcher interaction – and he included the mental health needs of the first responders to a disaster scene among the list of research topics requiring top priority (Drabek, 1986 ch.10).

Table 1: Phasic Responses to disaster

1. *Preparedness*:	3. *Recovery*:
a) Planning	e) Restoration
b) Warning	f) Reconstruction
2. *Response*:	4. *Mitigation*:
a) Pre-impact mobilisation	e) Hazard perceptions
b) Post-impact emergency action	f) Consequent adjustments

The present paper does no more than applaud the diligence and perspicacity of Drabek, while picking up two of the items to which he drew attention – i.e. the classification of disasters, and the mental health needs of

those on the scene. Consideration of both topics should help those in positions of responsibility to put the effects of terrorism into perspective before planning organisational moves to cope with it.

Classification

Classification is at the heart of every intellectual, empirical, and pragmatic endeavour. Paradoxically it helps to establish the boundaries of a given topic and enables the whole topic to be broken into manageable parts for closer scrutiny and comparison. It is a process to be used when modeling complex problems before creating practical solutions, and is a prerequisite for considering the adequacy of resources to meet the clinical and organizational needs of any firm or community that has been affected by catastrophe.

But before using any classification scheme three warnings need to be given. The first is that some classifiers, like the contentious medieval scholars of old, have insufficient flexibility of mind either to clump or to split the components according to the pattern of material presented, and they are inclined doggedly to seek either general factors or the unique (Schachner, 1962, pp. 19–24). They are unable to accept that in some ways components are all alike, in other ways they are similar, and in other ways they are unique. The second are the assortment of prehistoric iconoclasts and the scatter-brained at work who deny the value of

classification altogether. At best they approach each situation *de novo*, and at worst they do not learn from experience – much less contribute to the training of others. The third is that the process of classification can itself become a seductive preoccupation for establishing and maintaining a reputation while avoiding the test of reality.

With regard to the classification of disasters, it might be objected that disasters are multi-causal and they do not therefore fit into neat categories. But for practical purposes it is often possible to identify a single major natural, or industrial/technological, or human trigger, cross-matched with earth, air, fire, liquid, or biological elements, with the phase of preparation, response, recovery, and mitigation at which they were researched (Table 2). But some disasters have a succession of precipitants, such as when a policy of defoliation leads sequentially to deforestation, soil erosion, landslides, the reduction of water absorption increasing run-off and

causing delta floodwater problems lower downstream. Recently the paleoarcheologist Keys (1999) presented a most cogent argument for a volcanic eruption about 535/536 AD having caused the worldwide collapse of major civilisations across the world. His thesis, after considering several alternative explanations, was that a massive explosion in the Indonesian archipelago brought severe climate change, followed by food shortages that caused virulent plague to spread in North African and Mediterranean countries and led ravaging hordes from the North and East of Asia to extend their boundaries into the Balkans and Europe in a fight for political and religious survival. It is tempting to speculate on the possible recurrence of such an event, or of the effect of the earth's trajectory coinciding with that of an asteroid, but the task must be put aside for now – but like the possible ramification of nuclear disasters, or of the widespread depletion of natural resources, they cannot be ignored forever.

Table 2: A matrix of disasters

	NATURAL	INDUSTRIAL/ TECHNOLOGICAL	HUMAN
EARTH	Avalanches Earthquakes Erosions Eruptions Meteorite crash Mudflows Toxic mineral deposits	Dam failures Ecological neglect Landslides Outerspace debris fallout Radioactive substances Toxic waste disposal	Ecological Irresponsibility Road and train Accidents
AIR	Blizzards Cyclones Dust storms Hurricanes Meteorite and planetary shifts Thermal shifts Tornadoes	Acid rain Chemical pollution Explosions over and underground Radioactive cload and soot Urban smog	Aircraft accidents Hijackings Spacecraft accidents
FIRE	Lightning damage Spontaneous combustion	Boiling liquid/ expanding vapour accidents Electrical fires Hazardous chemicals	Fire-setting
LIQUID	Droughts Floods Storms Tsunamis	Effluent contamination Oil spills Waste disposal	Maritime accidents River tragedies
BIOLOGICAL ELEMENTS	Endemic disease Epidemics Famine Overpopulation Plague Pestilence	Design flaws Equipment problems Illicit manufacture and use of explosives and poisons Plant accidents	Complex terrorism Corporate malfeasance Criminal extortion by virus and poisons Guerilla warfare Hostage-taking Sports crowd-violence Warfare

Table 3: Classification of victims/casualties

1. Those adversely affected at the centre of the disaster
2. Their families and close friends
3. The emergency workers and those whose jobs oblige them to become directly involved in the rescue and recovery operations
4. The grieving community that identifies with those that are suffering
5. The psychologically troubled whose reactions are exacerbated, and the troublesome that will be inclined to exploit the situation and use it to their own advantage
6. The miscellany of other people that are adversely affected.

Victims/casualties and their psychological needs

Turning from the classification of catastrophe to a corresponding classification of victims/casualties, the word 'victim' appeared first in print in the Rhemish translation of the Bible in 1592, and it came into general currency in the 17th century to describe living creatures that were sacrificed to the deities (*OED*, 1989, vol.19, p.607). After that it was generalised to describe 'any person put to death, subjected to torture or suffering, or property loss, through cruel or oppressive treatment or a destructive agency'.

However, classification of victims began to serve a purpose other than the religious in the Napoleonic wars when front-line medical staff introduced a triage system for sorting casualties into groups of those that could recover unaided, needed help to recover, or were beyond recovery. More recently medical and social scientists have classified them by the magnitude of the external social chaos caused by disasters, the disruptive effects, and the extent of adversity experienced (Barton, 1969), by the particular methods they used for coping with such circumstances (Milne, 1979: Collins, Baum, Singer, 1983), by the extent of the personal injuries they sustained, their sickness, bereavements, and property loss (Beinin, 1985, p.10), and by their physical and emotional vulnerability (Kilijan, & Drabek, 1979: Bromet, Parkinson, Dunn, & Gondek, 1980: Lystad, 1985). Most recently the IFRC&RCS defined victims more simply as people whose basic needs for survival had to be satisfied (*DHA News*, 1994, pp. 60–61). Some individuals and some communities might also be suffering a sequence of different types of disaster with which they are still trying to cope.

For my part at the time of the Mt.Erebus plane crash in Antarctica I developed a framework simply because I wanted to bring together the many professional reports of different kinds of people that were involved in different types of disaster. With that consideration in mind, initially I prepared a six-fold classification of disaster casualties that seemed to be sufficiently comprehensive for the purpose (cf. Taylor, 1989, ch. 2, and Table 3 below). Also it raised questions about the different types of intervention and support that those in each category were likely to require (cf. Young, Ford, Ruze, Friedman, & Gusman, 1998: Raphael, 2000). Not that all people in any one of the categories necessarily call for the same kind of intervention, because their needs depend on their specific personal perceptions of the particular traumatic events they might encounter, and some might also find their suffering to have exacerbated dormant emotional problems that require attention. Nor that the categories are quite distinct, because some people such as emergency workers might have their own families also endangered, and also they might find themselves attending to casualties who are friends. But the categories seemed to provide a helpful starting point when considering the diversity of perceptions and psychological problems that the casualties might present (cf. Baum, Frederick, Frieze, Schneiderman, & Wortman, 1987).

With the given provisos, the primary victims are those who suffer directly from catastrophe. Many do not survive, but those who do and become casualties, might develop symptoms ranging from the mild to the severe that can be instant, delayed, transient, or chronic. They have to reassemble the shattered parts of their lives and satisfy their basic needs for shelter, food and drink, belonging and security, leaving aside those for self-esteem and self-actualization until the semblance of normality returns (cf. Maslow, 1954/1987). The secondary casualties are the family members and close friends of the primary victims who develop symptoms vicariously because of their emotional attachments to them. Depending on the intensity of those attachments they will need time, opportunity, and encouragement to grieve and express a mixture of feelings that include anger, distress, and despair at the tragic loss before they can pick up the threads of life again.

The tertiary casualties are the workers in all types of agency that succumb during the course of their post-impact assignments. If once they were described as the 'hidden victims' of disaster, they are now recognized more openly as being vulnerable to occupational fatigue and stress reactions. Fatigue arises from the impulse after a disaster not to impose a daily routine of a reasonable length that allows time between shifts for

Wrecked cars in the street after the Sari club bombing, Bali.

sufficient rest and recovery. Stress arises from the substantial imbalance between demands that are made and the ability of individuals to respond with the organisational support available.

To their own detriment, emergency workers sometimes identify too closely with the primary victims and lose their objectivity (Asken, 1993), and the risk is particularly acute if the work is gruesome and their own colleagues are among the victims – as is said to have happened at the World Trade Centre (McKinsey Report, 2002). At an opportune time when such feelings of grief have simmered, sensible employing organizations provide preventive training and subsequent psychological debriefing. Mental health professionals that either give psychological first-aid on the spot or take referrals of casualties later were wise to do the same, because their normal professional training does not prepare them for transient trauma recovery work.

Good preparation encourages emergency workers to develop appropriate emotional shields to use for the duration of their assignments, and the debriefing afterwards helps them to discard such necessary emotional defences and to regain their resilience for living – otherwise they would become case hardened and burnt-out. Although the proof of debriefing is still in doubt (cf. Gist & Woodall, 1998 *versus* Everly & Mitchell, 2000), at the very least it should remind emergency workers of the need for them to monitor their emotional reactions.

The quaternary group of casualties might be symptom-free, but it consists of the well-intentioned but emotionally liable people in the community at large who identify with the initial victims and come to act inappropriately themselves. It includes those who display what has been called the 'cornucopia syndrome' from opening their cupboards and their hearts without foresight to impose burdens of perishable food, inappropriate clothing, and offers of hospitality on unwilling recipients. It includes those that converge on disaster sites like the estimated 10–15 000 volunteers that turned up daily at the World Trade Center to help in the recovery of victims, most of whom complicated the operation (Rick Shivar, External Affairs Directorate, US Federal Emergency Management Agency, live video-conference 14 March 2002). This same fourth group includes those who in 1981 hammered on the door of a mortuary in Rome, demanding to see the corpse of a seven-year old boy that had died tragically after slipping down a pothole (*Paese Sera*, July 18, 1981). Thanks to the power of non-stop overnight television coverage of the scene, they identified closely with the family as the emergency services made despairing attempts to recover the boy alive. But the media that created them and sustained their level of excitation, stopped short of reversing their emotional enrolment, and as a result it left them to make intrusive claims at the mortuary on the basis of their newly acquired quasi-family status.

With the invasive power of television in particular, some of this fourth group might even experience post disaster stress by proxy from witnessing the graphic and persistent portrayal of tragedy, although not necessarily to the point of satisfying the criteria for post-traumatic stress disorder (PTSD). On this matter recently I felt obliged to question a television presenter about the wisdom of the non-stop exposure that her channel was giving to the September 11 tragedy. She considered it important for the news media to make an indelible

impression on the minds of its viewers, and had given no thought to the negative effects of witnessing the constant repetition of the plane striking the second tower and of people plunging to their deaths to avoid being burned alive – it left some viewers in such a state they were in no position to begin to think rationally of the causes and the consequences of terrorism.

The quinternary, or fifth group of disaster casualties, consists of the troubled and the troublesome with pathological proclivities that in times of phantasmagoria lose their self-control. The troubled indulge their fantasies by indulging in voyeuristic activities, collecting pictures of body parts, and even expressing necrophilic desires. Some also pretend to have been involved in any well-publicized disaster, either to play on the sympathy of donors or to seek notoriety. And it is a moot point whether this category might include the 'disaserotropic' who chase 'twisters', tsunamis, and volcanic activity to satisfy desires other than the scientific, or the surge of tourists with ghoulish tastes that visit the sites of devastation – such as those for whom the government of Honduras made provision after Hurricane 'Mitch' in 1998, or those for whom a Ukraine tourist agency is now promoting visits to the site of the leaking radioactive power station at Chernobyl.

The troublesome are those who in times of social chaos go on the rampage to loot, plunder, and riot, and their more sophisticated counterparts with greater impulse control perpetrate insurance fraud – although when the statistics are available, the actual number of crimes committed in New York after 11 September 2000 might possibly be lower than normal, because criminals were distracted by the enormity of the events, by the heightened police presence, and other extraneous factors. Yet sundry news media reports showed that a man applied for compensation claiming his wife was killed at the World Trade Centre, another posed as a firefighter to elicit donations for himself, thieves tried to stead gold from the vaults in the rubble, a photographer distributed a picture he claimed to be of the plane a few moments before the impact, and hoaxers caused bomb scares at many airports. Others played copycat roles elsewhere – for example there was said to be some 2,500 anthrax scares reported in Australia (McKinnon, 2002). At the higher end of the scale of criminality, one of the firms with offices in the World Trade Centre came under suspicion over US$105 million of investment funds that went missing soon after the catastrophe.

The final category, the sesternary, is for the miscellaneous group of casualties that has a diverse array of problems with which to cope. It includes those that but for chance would themselves have been primary victims and torment themselves constantly with questions as to why they should have been saved from such a fate. It includes those who in all innocence had persuaded their friends and acquaintances to go into a situation that subsequently became disastrous, as well as those who consider that in some way by their actions or inactions they had brought a given disaster about. It also includes researchers, who in their post-disaster work are sometimes unaware of the insidious effects of the strain and fatigue upon themselves, and had neither personal nor professional networks available to support them.

However any such schema needs to be used with care, because to be labelled a victim can induce feelings of hopelessness and create secondary problems that militate against recovery. Instead, and except for those that have either died from the calamity or have suffered irrevocably in some other significant way, the term casualty is preferred for those whose lives have been affected adversely by their exposure to catastrophe. It recognises casualties that have survived adversity, but implicitly encourages them to consider that perhaps they might even have been strengthened by the experience, and reminds them to make the best of their circumstances. It reflects the saying adapted from Nietzsche – that which does not kill me makes me strong – but retains the possibility that it might not! The axiom fosters hope for recovery, acknowledges the positive power of the *placebo effect* and the negative power of its counterpart the *nocebo effect*, encourages ultimate self-reliance, and is consistent with the thought that it is better to live in hope than to die in despair.

The orientation could induce health professionals not to pay undue attention to any in a string of symptoms that casualties might experience or signs they might display immediately after a traumatic event, but be supportive and allow casualties a few days grace in which to begin to use their inner strength and regain their composure before they intervene clinically. Initially any such symptoms can rightly be regarded as normal reactions to abnormal events – but they need to be monitored to make sure that they are transient. There is nothing more dangerous than people with diagnostic checklists who are anxious to 'pathologise and fix' anyone peremptorily at a first encounter. The time to consider pathological factors comes later should intrusive thoughts, avoidance behaviour, and a state of high arousal interfere to a serious degree with everyday living.

Summary
Complex terrorism and corporate malfeasance are included in a table for the classification of disasters to help policy analysts and emergency responders get the psychological detachment they need in coping with the consequences. Their inclusion might also help researchers to integrate reports of these pressing concerns with the reports of many other types of disaster, and suggest further avenues they might explore in the prevention and treatment of traumatic stress.

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