

CHAPTER 30

Crisis Management in the Twenty-First Century: “Unthinkable” Events in “Inconceivable” Contexts

PATRICK LAGADEC

“Unbelievable,” “unthinkable,” “inconceivable”: the twenty-first century opens a new era in the field of risk and crisis management. Many of the major recent crises, including the unconventional 9/11 terrorist attacks; the swift worldwide contamination by the bovine spongiform encephalopathy (BSE, “mad cow disease”), SARS virus, or avian flu; continental blackouts occurring within a few seconds, continent-wide effects of a tsunami in unstable geopolitical zones; and Hurricane Katrina seem to differ fundamentally from the seminal cases that gave birth to disaster research in the 1950s and the 1960s (specific floods, hurricanes, earthquakes) and the crisis management studies in the 1980s (e.g., the Tylenol tampering). The trend seems to be accelerating, so that crises today are increasingly global, intertwined, and “non-textbook” events.

The contents of the established crisis tool kit, including risk analysis models, crisis management tools, textbook techniques, organizational checklists, and communication rules, all seem meritorious. This is rightly so, because the lessons of the past still have their place. Failure to take them into consideration can ensnare any attempt at crisis management into the increasing complexities of the emerging world crisis, with potentially disastrous results. However, rear view mirror management is no solution; the discipline must move forward. As observed by astute military strategists, the warning is clear. Do not prepare to fight the last war.

This chapter aims to clarify the issue, identify the traps, and outline some creative lines of response and initiative.

When the discipline of crisis management was developed some two decades ago, long after disasters had become widely studied, it was basically the art of dealing with a specific breakdown and/or severe potential turbulence in a complex system. The aim was to prevent unmanageable cascading and debilitating effects. However, one condition was taken as a given: the triggering event was generally identifiable, and occurring in relatively stable and delineated contexts. However, although a great deal has been achieved by the work of many (Fink, 1986;

Heath, 1998; Irvine, 1987; Lagadec, 1993; Regester, 1989; Ten Berge, 1990) we must now go far beyond.

At the beginning of the twenty-first century, the global situation is infinitely more complex, blurred, and unstable (Lagadec & Guilhou, 2002). In every domain there seems to be a deep schism with the past types of crises, be it in the field of environment, global climate, public health, technological risks, social dynamics, international relations, or violence. The ingredients of these fractures include radical surprises, potential global domino effects, real time dynamics, and the destruction of ultimate references (e.g., destruction of the species barrier in the BSE crisis or the fact that individuals and communities choose death rather than life). What happened on 9/11 casts a very long and pervasive shadow, but it is far from being the only challenge. It is just the keystone of a global mutation in our emerging world, where crises must be anticipated, prepared for, prevented as far as possible and emergency situations tackled.

There is obviously a continuum from “old” to “new” type of crises and complex mix of various types of crises (see the chapter by Quarantelli, Lagadec, and Boin in this handbook). But it is crucial today to insist on the specifics of emerging challenges so as to be sure they are effectively acknowledged and tackled.

In brief, two dynamic elements have combined to create a new crisis universe. First, the agents are increasingly serious, with qualitative jumps in severity, speed, frequency, complexity, and so forth. Second, and much more importantly, specific events occur in extremely unstable, interlinked, and sensitive contexts. They can trigger fuzzy domino processes and dramatic vortex. The “butterfly effect” is no longer a merely theoretical discussion. These changes have required response to switch from single agent comprehension and management to holistic approaches and policies. The challenge is how to simultaneously maintain and develop our capacity to handle single agent disasters and to be able to face the unknowns of a complex world prone to wander on the brink of chaos (Cooper & Coxe, 2005).

Our responsibility accordingly is to rethink our tools, organizations, mindset, culture, and training processes. The stakes are incredibly high. The difficulties are more severe than ever. And the crucial point is not so much to focus on what could be worse, but rather to recognize our reluctance to accept what still remains alien to our culture. On this point, Quarantelli (1998) rightly stressed the importance of a new paradigm for disaster research, far beyond mere reformist adjustments. The same qualitative jump is required from managers, experts, political leaders, and journalists. These issues cannot be simply stimulating theoretical challenges.

Because of the sensitivity and profound fears triggered by the issue, any attempt at risk management must satisfy two fundamental requirements.

First, there is a need for honest and focused open-mindedness. General Foch saw into the heart of the problem saying “gunfire kills, outdated ideas also.” Being a war behind is a natural trap, as it is always very comfortable to base any policy on past experience. People tend to base their approach to risk on the deeply believed, much repeated and safe affirmation that there is “nothing new under the sun” (Ecclesiasticus, 1:8-10). The problem with this mindset is that it excludes open questioning and can lead straight into bitter disasters, such as in 1914, when we marched into the industrial era with the agrarian mindset of the previous age (Lagadec, 2000). The type of strategic errors made at that time are too easily repeated, as illustrated by the maxim that in 1914 we were caught totally unprepared, but that in 1940, we were fully prepared, however, for the World War I.

Second, there is a need for courage. Officials or academics regularly and strenuously underline that the mere mention of anything that could represent a new challenge is a reprehensible and pathological manifestation of pessimism. However, optimism cannot be founded on blindness, evasion, and defection. Optimism demands open and questioning minds, personal involvement, and a determined spirit of initiative. For instance, when was the last time

you participated in an unconventional rehearsal exercise in your organization (beyond a fire drill)? If you are among the very few who did, what role did you play? What have you learned? If you have never participated in such exercises, why not? I have repeatedly asked mayors, CEOs, cabinet ministers, and their inner circles these same questions. The answer is regularly: “No time,” “Not at this level!” “Never, except if you give me the script of the good answers in advance.” Now, everyone, and especially at the highest levels, must accept the challenge.

The aim of this chapter is to consider crisis management in this new global context. Three areas are discussed.

First, the new frontiers of our shared safety and the challenges we must now address, that is, the field of emerging crises, go far beyond usual typologies.

Second, the mental blocks and resistances are so dominant in the field that would certainly lead us from one fiasco to another if not recognized as such. These explain why they are so naturally predictable. If this in-depth examination is systematically avoided, there is no real possibility to find any promising outcomes.

Third, positive and creative dynamics must be generated if the challenges of our time are to be met. To a certain extent, this is our historic responsibility.

There is no doubt that these issues are inherently difficult and that our knowledge is still fragile, which inevitably limits suggestions and discussions. However, there is sufficient information to justify and give priority to urgent in-depth analysis of the situation and more importantly, to try and push this examination way beyond the normal boundaries. Proof comes too late, as illustrated by the story of “Minerva’s owl” which begins its flight only in the gathering dusk. Of course patience and wisdom are essential to avoid illusion and traps. However, the urgency of these stakes is a total priority. Asking forever for more data, models, statistics, proofs, definitions, and taxonomies must not be an excuse for inaction. We have sufficient signals to measure both this urgency and the crucial need for bold analysis, beyond conventional frameworks (Boin & Lagadec, 2000; Dror, Lagadec, Porfiriev, & Quarantelli, 2001; Quarantelli, 1996d). As the hero of Camus’ novel *La Peste* (1947) says to the official who wants to know if it “really” is the plague before he takes action: “This is not a question of vocabulary, it is a question of time.”

Quite evidently, the terms inconceivable and unthinkable in this context mean inconceivable and unthinkable only for those who refuse or are unable to take a fresh approach to the emerging issues, and consequently fail to rise to the challenge. As Hegel once said, if reality is inconceivable, then we must invent inconceivable paradigms. Using airplanes to attack the World Trade Center was not inconceivable or unthinkable for everyone, including some atypical officials.

My own position is that unconventional questioning must neither result only from circumstance, nor be left as the preserve of terrorists. If we do not change our approach, repeated failure and fiasco are inevitable. More constructively, the severe turbulence in our complex and unstable world must be turned around and used as opportunities for the basis of a new policy. We must have a positive approach, based on honest and focused open mindedness, creativity, and determination. There is no time to waste.

PARADIGM SHIFT

New Frontiers: Risks, Vulnerabilities, and Emerging Crises

What happened on 9/11 was a watershed in the experience of and approach to risks. The underlying paradigm has shifted from local to global. This shift is clearly illustrated by actions in

the United States on Homeland Security, in particular in the many discussions concerning protection of critical infrastructures. This debate emerged as early as 1997–98 with the establishment by President Clinton of the President’s Commission on Critical Infrastructure Protection (1998), which pushed forward some new key words: “proliferation,” “integration,” “connection,” “interdependence,” “interlinkage,” “combination,” “constellation of threats,” “need for partnerships,” and clarified the challenge: “unprecedented” national vulnerabilities.

The 9/11 Commission Report underlined the gap between the threats on one side and the mindsets and available competences on the other. The key failures were identified to be in “imagination” and in “policy” (National Commission, 2004, p. 339). When the vision is a war behind, when technical tools replace policy, you are bound to be trapped.

However, terrorism is not the only issue that requires global safety security policy and “outside the box” crisis management. What happened on 9/11 is certainly the most spectacular, but certainly not the only incident, which has projected the world into a new and profoundly unstable orbit as far as crises are concerned. Other terrorist attacks perpetrated worldwide show that terrorism will be with us for a long time. Consider the SARS episode in 2003, which occurred as a result of the powerful interaction between an unknown virus and jet powered travel (Lagadec & Rosenthal, 2003); the power failure that affected the northeast area of the United States and Canada on August 14, 2003; the blackout that plunged Italy into darkness a few weeks later on 28 September 28, 2003; the 15,000 fatal victims of the heat-wave episode in France during August 4–14, 2003; and, as recently revealed, 20,000 heat victims in Italy during the same period; the tragedy of the large scale AZF fertilizer plant explosion in Toulouse, France on September 21, 2001; the large-scale computer meltdown such as the one which occurred at Heathrow airport on June 4, 2004; the BSE (“mad cow disease”) crisis (Phillips, Bridgeman, & Ferguson-Smith, 2001) which stopped the illusion of a protective barrier between species; and most recently, on December 26, 2004 the tsunami tidal wave in Asia.

It is not any specific uncertainty or singular event, but the general trend, which seems to have propelled mankind into a disconcerting universe, that has disrupted the global conditions of risk assessment and crisis management. Even with no actual event, the mere plausibility of largely open scenarios has transformed the conditions of risk governance in our times.

GENERIC CHALLENGES

Following a major event, the usual line of action is to list the various risks and to clarify practical responses for each category. However, the new complexities are such that a different and more strategic approach is needed. The generic problems linked to the new unstable state of the world and the new risk frontiers must be elicited. Fundamentally, these in-depth challenges outclass our paradigms, organizations, and tools. The following eight “fault lines” can be considered.

Discontinuity

Our intellectual baggage has been designed for a stable and linear world with only limited and marginal uncertainty, where events and the contexts in which they occur can be clearly compartmentalized. But this is not the world most of today’s crises emerge in. Threats and challenges now occur in a context of instability and poorly defined frontiers. In these situations, averages and statistical regularities and historical trends provide neither an adequate, nor even

relevant basis to tackle the problem. Technically, we are equipped to treat massive phenomena involving swarms of points, which can be modeled and plotted. However, in modern crises the situation may hang on one single outlier point, which becomes the swing point. Our intellectual tradition is ill suited to deal with sudden mutations and nonlinear qualitative jumps. We have trained ourselves to ignore differences that are manifestly outside the analysis of variance.

Now we must confront phenomena outside accepted scales. The problems and difficulties have shifted from the edges, where they could be conveniently forgotten, to the core. For example, insurance mechanisms for covering damage used to work quite adequately. Today, the types of threats that loom mean that the entire paradigm base of insurance policy must be reviewed. What happened on 9/11 resulted in 34 billion dollars of insured damages, the most costly event ever in the history of insurance. Reinsurers paid about two thirds of that amount. Then most of them, if not stopping, drastically limited their coverage of this risk. That directly affected the insurance industry in most Organization for Economic Co-Operation and Development (OECD) countries, calling for new programs to be established (Kunreuther & Heal, 2003; Kunreuther & Michel-Kerjan, 2004). We used to work in stable, known contexts with a few difficulties and irregularities at the margins. But now the inconceivable has entered the field of our daily range of certainties; the improbable wild outliers have moved from the periphery (where they could be conveniently forgotten) to center stage.

Ignorance

The accepted practice in any difficult situation is first to consult expert opinion, then to make an informed decision, and then “communicate.” Now, the expert finds himself sidetracked in the validation of these models. Whether the crisis is mad cow disease, SARS or the material resistance of the Twin Towers, in each case expert opinion has been at a loss to provide answers within the tiny decision time scale available. The traditional position of the expert, as one who delivers reference knowledge, has been usurped. The first message experts transmit to the relevant authorities must, from now on, underline the limits of current knowledge. Similarly, while policymakers become encircled in their desire to provide assurance, barriers disintegrate almost visibly around them. This is especially the case in food safety, or any issue in health risk. Experimental science cannot affirm something that does not exist. The same deliberately constructed indeterminism is also naturally evident in terrorism.

Massive Domino Effects, High-Speed Contagion, Erratic Effects

Over time, we have mastered the art of dealing with cleanly defined accidents and emergencies. Our societies are not armed to cope with ultrarapid, geographically dispersed contagion on a massive scale. It is quite probable that the source of any threat can now be geographically very far removed from the point of impact, and the effects of propagation can be startling. This was the case with SARS, where the unknown virus spread at literally jet speed from Hong Kong to Toronto via the transport communication hubs of the planet, from hospital to hospital; for example, when the specialized staff worked in several hospitals, all the key lines of defense are rapidly taken out. This was also the case for anthrax. The problem was not four specific contaminated letters, but contagion in the sorting systems. Here the network actually becomes part of the strategy of the attack. Indeed, the attacks were not physically oriented against the

networks but these people use the diffusion capacity of our own networks and turn it against us. The network becomes the weapon (Michel-Kerjan, 2003).

Submerged Information and the Larsen Media Effect

Information sources are now almost infinite. Information concerning the phenomenon is distributed worldwide, and the complexity of the organizations seems to shatter the echo into penetrating fragments. News travels almost instantaneously around the global media networks and most particularly when the information is very uncertain and unsettling. Emotion has become a central factor of any reality, because emotion is the essential nerve of the media. The Larsen effect, the electroacoustic phenomenon of feedback between microphone and amplifier resulting in maximum sound output, quickly overwhelms any attempt at reasoned information. Excellent classic media communication is possible, but how can any decision maker cope when the whole context of an event is overwhelming? Structurally speaking, the media networks still seek and recycle any event that best suits their working tools and so favor camera-ready disasters. These are simple stories, binary formulae that combine maximum emotion with overt simplification, particularly when the complexity of the situation threatens the entire data treatment system.

The Citizen on the Front Line

The 9/11 Commission specifically highlighted the fact that the traditional model of “State intervenes, citizen receives aid” has attained its limit. Empowerment has become a vital necessity. In this vein, inquiries conducted after the severe 1998 ice storms in Quebec led to the conclusion that each citizen should ensure him- or herself a certain subsistence autonomy. Three days autonomy for each citizen and family at all periods of the year, particularly in terms of energy needs. This decision was taken in order to allow the authorities to deal with vital networks without having to concentrate on all fronts and from every angle of the shattered fragments of this particular problem.

The Global Dynamics of the Destruction of Known Phenomena, Loss of Orientation, Loss of References Points

Each of the identified phenomena intermeshes as it occurs. The result is that the solid base of our knowledge, our hold on the natural world is at best subject to uncertainty, at worst positively wrong or even destroyed. For example, there was the loss of the certainty that the species barrier was the ultimate protective wall between man and diseases rampant in other species. Similarly, there was the loss of the very characteristics defining temperate climate. Another example would be that of an aggressor attacking in the certain knowledge that he will lose his own life, a strategy that totally destroys the foundations of the techniques of negotiation, namely that you can negotiate only with someone who values his or her own life. Considering a death sentence for a kamikaze is clearly nonsense. The context is now entirely new, all previous approaches, commentary, and postures have been

turned upside down. The principle of the new unconventional events is that they all seem to apply the principle of Sun Tzu, where the best warfare strategy is to attack the enemy's plans.

Governance, Not Communication

These episodes are essentially crises as defined by the ancient Greeks, namely, they are fundamental moments of truth. The hardest thing to grasp is their meaning. Business-as-usual management is no longer adequate. The problem must be seen and tackled from a multiplicity of fresh angles, new choices identified, and the logic of the actors involved redrawn. None of this falls under what was traditionally accepted to be management technique and expertise. This highlights the extent to which "good crisis management techniques," the tried and tested "recipes for crisis communication," are severely limited.

From Rationality to Wager?

Perhaps the most destabilizing factor lies in how emerging crises confront us with situations which at the beginning of which nobody can know for sure whether ultimately they will be classed as minor, critical, extremely severe or a non-event. AIDS was no great concern in the early days of the pandemic, and yet it has become a historic threat of monumental proportions limiting the social and economic development of countries or even continent (e.g., Africa). Conversely, when BSE emerged, some specialists predicted a global disaster. In reality, the mortality from the disease can be counted in hundreds in the United Kingdom and single figures in France, and not in the millions of deaths some predicted. Again, with the SARS pandemic in 2003, the threat was worse than the reality. At the time, no one could assess the gravity of the problem. For example, the Director of the U.S. Centers for Disease Control and Prevention, the world-leading center of expertise in the field, stated to the media that the death toll could rise to 16 million if it developed into a pandemic. Overestimation was certainly not the problem for the 2003 European heat wave. The initial alert estimated 50 deaths; the final count was nearly 15,000 in France. In the case of terrorism, the issue achieves a state of paroxysm as to what can or cannot be excluded. Responses run into problems of either under-provision of measures of protection or, on the contrary, massive over-provision. Or again there is the real risk of not even being able to define what is over-reaction or under-reaction, until it is too late. The swing point can occur at any moment, anywhere, from any event or news of an event whether founded or not.

Our rules of governance easily run aground in this new universe. The risk is avoidance strategies, waiting paralysis. There is also the danger of repeated U-turns in risk policy, which are rightly perceived as incomprehensible and which, in any case, are always a stroke behind. The ultimate trap is when fear becomes the driver of governance, which can lead to all manner of distasteful actions under the cover of "safety/security," and where any dissension becomes labeled as treason. In that vein, terrorism can extend the reach of its empire without any actual attack. It merely has to play on the capacity of the system to close in on itself. Sun Tzu is still right: "To subjugate the enemy's army without doing battle is the highest of excellence." Other risks also dramatically reinforce the feeling that society has lost some of its reference points. Thus the cycle of denial—dazed—manipulation is fed by fear.

To counter this lethal process we need both new systems of intelligence and of governance. These systems are still embryonic; they must be developed. The first step is trying to understand what could possibly block or slow the necessary reinvention of the machinery of action.

THE TRAP: FEAR AND PARALYSIS

Fierce Resistance

Our emergency culture is primarily equipped to grasp specific, limited problems, and solve them with specific responses. A crisis manager copes well as long as “a crisis” can be defined as a somewhat delicate situation requiring specifically adapted materials, plans, checklists, and organizational tools and rules. Here, the manager just has to request a list of the likely risks and crises. Using this information, he or she can delegate the task of preparing response plans and response data sheets and can recommend the implementation of practices to ensure that all the prepared responses and response equipment are in good working order. The crisis once neatly packaged, complete with set responses is domesticated, controlled, and can be “rubber-stamped” as acceptable.

It is far more difficult to try to bend the mindset of individuals and groups to work on the essentials of the crises. Any event outside normal experience presents extraordinary challenges, which by definition do not come with a prepared set of desirable responses. When it comes to preparing for unconventional events, most organizations still try to tackle the problem with some media training. However, it is very disturbing to observe that any attempt within any organization to go beyond this approach and to develop a crisis culture, whether conducted by external specialists or internal managers, systematically meets with ferocious resistance or determined inertia.

Experience repeatedly highlights the following observations with sickening regularity:

- When a “what if?” type question is asked on hypothetical issues of safety not normally examined, the reaction is always instantaneous, brutal, and final: “We are here to tackle problems, not to create new ones.” “Sorry, but I am pragmatic, we are solution people here, not theoreticians.”
- When the options are considered, the problems become evident. In suggesting that normal lines of defense could be bypassed, that “insurmountable” barriers might be crossed, the credibility of the initiator of the discussion is fundamentally at stake: “For goodness sake, we are optimists here!”
- Suggesting to someone lower down in the line management that a simulation could and should be organized is quickly rejected out of hand: “I am afraid that here we don’t play at involving top management, top management would never accept it here. In any case, we never check who is actually qualified to intervene among the top managers who are on duty.”
- Suggesting that during a simulation that, perhaps, it might be worth introducing an unconventional complication outside the usual rituals always leads to the horrified response: “Certainly not, it would destroy the exercise!”
- Suggesting to a major multinational group, that an in-depth study could be conducted on major vulnerabilities leads to instant refusal on the grounds that “No, all we need is a plan, and some media training for some of our directors.”

- Suggesting that a president or minister/secretary could be included in an exercise, to give a little of their time to the problem of unconventional crises usually elicits sighs and concern: “We do not bother that level with this type of issue; anyway they simply don’t have the time. Prepare a clear information sheet and they might just drop in.”
- Suggesting an unusual and major innovation after a difficult event, for example an experience exchange, an initiative to be conducted with others, elicits the response: “Listen, we managed to get out of this one, let’s not make things any more complicated.”
- Suggesting that certain partnerships could be considered is the crowning lesson on the fact that the economic context is ferociously competitive and that any information sharing could prejudice the share of markets, budgets, and territory. Interestingly, this attitude is very similar in both the public and private sectors. Everywhere competition for territory is bitter, fundamental, and identity defining.
- Suggesting to an excellent management team that it might be good to reflect on the new frontiers of risk that affect that company usually elicits the response: “Impossible, our teams are engaged in calculations, have models to follow which are in their normal line of work. They would not tolerate overt questioning of their systems.”
- Suggesting to multinational institutions that they could include issues of governance in highly unstable conditions on the agenda will likely lead to the response: “No, we are organizing a meeting with technical experts who will present specific scenarios. The rest is off the agenda.” “We cannot include or decide anything if it has not been requested by all of our members, which is not the case at the moment.”

There are an infinite number of specific examples. Over the last decades, as I have been working on this issue of unconventional fault lines, I have repeatedly faced such reactions. Others are reported to me on a monthly basis. Everyone would easily list reactions of this kind. Fortunately, there are remarkable exceptions, and these should inspire us. But, regrettably, even in the most advanced countries and corporations, they too often remain exceptions whereas they should develop into decisive programs.

The important trend is the homogeneity of the retreat: No questions, no anticipation beyond the bounds of known experience, no inclusion of the higher tiers of management, no simulations on events that might fall outside the normal rituals, no audacious partnerships. The field is wide open for crises.

It is crucial to measure the depth of this resistance. An example: In May 1989, speaking on the topic of “new risks” at a conference organized by a major international organization in Ottawa, the general who passed me the microphone had time to whisper under his breath: “Whatever you do, don’t scare them!” This was just a few months before the fall of the Berlin wall.

Another example: Eleven years later, in June 2001, at a Defense Zone meeting on the same subject at Marseilles in the south of France, a high-ranking defense official who had come down to the meeting from Paris interrupted me. He announced: “I cannot let this continue. In France things are under control. I am optimistic.” Strong words from the defense official. However, during the cocktail party afterwards the same official came to me and confided, “You were right, but I couldn’t let that be said to the heads of regions (Préfets).” This was just 2 months before 9/11, and 3 months before the explosion of the AZF chemical plant in France, one of the largest industrial catastrophes in Europe in the last 50 years.

To any suggestion of work or new ideas on the subject, the most favorable response today is, “Let me think about the best way of selling the idea; otherwise we will immediately come up against a wall of resistance.” Surely, the time has come for ideas on the issue to be received more creatively.

The problem is not even of resistance to change. The blockage goes far deeper. The stakes are very high and it is these same stakes that we must try to understand.

TESTING THE RESISTANCE

On this issue, a number of fault lines converge. The situation is very worrying and calls for very strong corrective action.

Intellectual Handicap

Anything that is unusual, exceptional and nonlinear is instinctively rejected by our society. It is as if our approach has remained stationary since the natural philosophers of the seventeenth century. The ordinary processes are the only relevant issue (Buffon, 1749).

Rosenthal, one of the pioneers in crisis study, underlines that this tradition has remained central and currently blocks crisis management (Rosenthal, Charles, & 't Hart, 1989). Scientists feel very uncomfortable with anything outside "normal" circumstances and events, which indicates that crises, by definition, are not welcomed.

Perhaps Weinberg (1985) best expresses a division into two separate worlds: *Science*, which deals with regularities on one side, and *Art*, which deals with singularities on the other. It would seem that unconventional problems must remain orphaned. They repel scientists who like phenomena to be regular, reproducible, and measurable. However, leaving the governance of these problems to the artists, although creative, is certainly not going to be enough. Moreover, whoever takes an interest in these phenomena will have great trouble to be taken seriously.

Managerial Handicap

Stacey (1996), a professor of strategic management, has forcefully stated that a vast majority of textbooks on strategic management concentrate on surprise-free issues, when the real priority should be "instability," "irregularity," and "disorder." The fact is that today when flung into these situations, managers are highly likely to react clumsily or simply be confused. To make matters worse, any invitation to prepare for the abnormal is taken as unfounded, illegitimate, or even provocative.

Governance Handicap

Because crises and unconventional events are unplanned, the arguments opposing any real strategic preparation and any personal engagement by people in governance positions are recurrent. The positive results of personal engagement are very clearly illustrated in the way in which the then Mayor Rudolf Giuliani of New York City, totally involved himself in crisis exercises for the city, the last time being in July for an exercise simulating a chemical attack against the city.

Psychological Handicap

This is probably the most determining problem. A crisis event can effectively strip the manager of all his sense of direction, casting him adrift of all his structuring and supporting frameworks,

with the loss of everything justifying his social position (power, identity, responsibility, and respectability). Consequently, crisis situations confront the manager with the risk of facing total surprise. Clearly, this is profoundly destabilizing and destructuring for somebody unprepared. It cannot be sufficiently emphasized that a crisis is not a calculable event and no perfect model can be made to fit. Rather it places the manager in front of an incomprehensible precipice, and there are no quick fixes to fill this void.

At this point the analysis of the situation becomes almost psychoanalytical because of the powerful and often irrepressible emotions that surface among both individuals and official groups in critical situations (even a planned exercise regularly evokes the same type of destabilizations). When void and ignorance surface, defensive reactions quickly follow. I have observed with surprise many times the way in which people in charge suddenly physically disappear from the EOC (Emergency Operations Center) when a piece of information comes in that does not fit within their normal frameworks and mindsets. Fabre (2004), a psychoanalyst and specialist of Descartes, is right when commenting on Descartes' refusal to consider the existence of any vacuum (a famous controversy with Pascal) and insisting that he vitally feared considering any system with the slightest chink. We still suffer this very fear in the arena of crisis management: it is so frequent to see people in charge who are focused on their plans and scripts and who refuse open questions and any thinking outside the box. In the same vein, if we want to better understand the why behind modern crises and unstable contexts, a very useful analogy can be found in the early days of psychoanalysis. Freud (1977) warned his audience that their entire cultural background had necessarily made them opponents of the new continent to explore.

Although these references may seem out of context, they are essential. The crisis situation and the loss of references almost automatically make psychology the major issue, both at the group and individual levels. In practice, collective fear repeatedly exacerbates managerial, governance, and intellectual handicaps. Profound destabilization leads to denial, compulsive/extreme rationalization, or avoidance.

These handicaps would not be such a cause for concern if ignorance in the field was diminishing rather than growing and that our technologies and understanding were constantly pushing back the frontiers of uncertainty. However, as highlighted by Bernstein in his seminal book (1998), this is not the case. After a detailed historical study of uncertainty, Bernstein concludes with considerable insight that discontinuities and volatilities seem to be proliferating, not diminishing.

The Straightjacket of Daily Routine

The task of decision makers is exacerbated by the tyranny of daily routine, which complicates the fundamental difficulties described in the preceding text. The complexity is real time and it engenders saturation at all levels. All available time and energy is swallowed up in the tactical management of daily operations. This in itself is the leitmotiv of decision makers who see no time available for temporally projected reflections, open-minded questioning, initiatives, and cross fertilization of ideas.

The avalanche of contributing factors caused by current trends including the acceleration and march of globalization in the business world, the violence of the shocks which seem to call for ever more stringent and weighty administrative operations (whether for control, accompaniment, repair, etc.) and the focus of everyone on stable features among the universal changes constantly taking place, leaves very little room for maneuver. The immediate tactical obstacles can be overcome only if the "wiggle" factor is increased.

The meagerness of the room for maneuver has to be measured and understood before any real progress can be made. If not, failure is inevitable, accompanied by all of the regular ritual. This can be stated as follows: announcement of a new national priority every 2 days depending on the ups and downs of the news; communication instead of governance; compensation for the lack of personal involvement with poorly defined rules to be imposed on others; with the final conclusion every time that the ultimate learning lesson is that children need to be taught these things from primary school onwards.

Clearly, given all the problems, there are no easy solutions. But the pressure of reality is upon us. The risk threshold is repeatedly exceeded and redefined and the handicaps afflicting our capacity for preparation, reaction, implication, and leadership have given rise to very disturbing responses. Three seemingly accelerating factors appear to govern destabilization:

1. The disarray of specialists and managers, confronted with the new interconnected complexity of vulnerability, in a context of exacerbated instability, about which our ignorance appears ever increasing and invasive.
2. The increasing mistrust of the people involved who have experienced the hollow traditional verbal assurances, on the lines of “everything is under control,” and observed the U-turn to the new theme “we have no control over events but we guarantee good, transparent communication.”
3. The threat of decoupling between decision makers and managers on one side and the wider public on the other. The danger is that, on a rapidly approaching horizon, radical shift occurs in reaction, from the consensual “Never again” to the “Let them all go to hell!” The dynamics of this shift can be characterized as going from explosion to implosion.

These difficulties are being studied and must be addressed.

THE CREATIVE DYNAMICS NEEDED

These issues cannot be solved by any quick and easy recommendations, which come with their own attached checklist. They are real challenges, with real twists and turns, each one characterized by a unique set of surprise, shock, unthinkable, but also positive opportunities.

There are two basic lines of approach and both must be engaged. The first is in-depth groundwork, to provide the basic information to address the new challenges, even if the boundaries are sometimes chaotic. The second is an effort toward adjustment/safeguarding to provide a better basis for dealing with immediate turbulence.

BUILDING FUNDAMENTAL STRENGTHS

We must try to generate a radical turnaround on a number of fronts. There has to be rupture but in a positive and creative sense. The following suggestions are not exhaustive.

A Radical Change in Intellectual Approach

The road map is nearly a clean white page and, as such, it invokes all the paralysis that goes with this information vacuum. The perspective of the issues must be literally up-ended. Issues

that had previously existed on the periphery have been brought center stage and must now be treated as core issues and not freak events. The “known world” no longer exists, the comfortable world where we conducted our activities and projects, with recognized measures of excellence with a few discrete little uncertainties at the edges.

In the past these marginal uncertainties were worthy of attention only if they fell into validated theories supported by robust statistical evidence, neatly cleaned free of untidy outliers. The new frontiers of knowledge and the focus of intense and urgent intellectual effort must now concentrate on events and data excluded until now: discontinuity, irreversibility, extremes, volatility, radical change, crystallization, and resonance. This work must be conducted both vertically in all disciplines and horizontally across all disciplines. These subjects must stop being taboo and the work undertaken must not be lip service paid to the wild peripheries, a small concession simply to maintain basic order. The challenge is there and ready to be taken up by the best brains and specialists. If this movement is not tackled with determination and conviction, the intellectual world will disengage. When turbulence and mind numbing events occur, challenging the reference points of our world and disturbing the tranquility of our accepted paradigms, arguments that anything “out of the box” is not science are not acceptable. We need new tools for the new challenges and the closer these tools can be brought to the people at the front line of the management procedure, the less they will refuse the obstacles which confront them.

Intense Involvement at Highest Levels

When confronted with such weighty matters that concern identity, survival, plans and visions for the future, nothing can be done without intense, personal, direct involvement by the key players in the organizations concerned. For example, during the “9/11” crisis, the actions of Mayor Giuliani went far beyond mere circumstantial “media communication” and were a determining factor in the management of the entire situation. But this was not done by “accident.” “Prepare relentlessly” had been a personal rule for the Mayor (Giuliani, 2002). Those who occupy the highest offices are expected to be on the front lines, where the stakes are high, mobilizing people capable of taking charge. Those involved must receive a powerful message, that nothing less is expected of them. To date, this type of direct and personal implication by leaders is very much the exception, in all countries.

There is a shrinking ability to think on our feet. Plunged into a world of violent turbulence, organizations must be led, mobilized, and empowered in new terms. The acquisition of a specific, rigid technical arsenal to respond to an unusual situation is no longer adequate. Advance planning and a high level of responsiveness to weak signals at the highest level are essential in order to anticipate sudden change, counter ethically unacceptable reactions, and build the necessary networks of actors. Because of the elements of surprise and complexity and the aberrant nature of the events, organizations must develop new ways of monitoring situations. Leaders must be able to rely on people accustomed to operating in a crisis, people capable of objective stepping back and assessment, whenever a sensitive situation arises. This skill is particularly necessary to counteract the dangerous “bunker mentality” trap where individuals seem unable to think. Perhaps the most seriously pathological reaction to the new forms of crisis is “in a crisis, you don’t have time to think,” and adopt the easiest approach to problems, usually purely technical, without examining the underlying positions.

Today, more than ever before, great crises will lead to great disaster unless sufficient thought and ability for strategic leadership are developed. The Spanish catastrophic management of the Prestige disaster and the fiasco of March 11, 2003 (the multi-attacks on Madrid trains, and the Aznar's government pointing at ETA) should serve as a final warning here, for many.

During a recent international simulation in Slovakia, we were able to see the degree to which the lack of strategic ability in these areas was determinant. The European political capability was exhausted in only 2 hours. In fact, the expression "Crises as Institution Killers" was coined to express what we observed then.

The Experience of Exchange Clubs

The critical barrier is the profound anxiety, which instantly emerges with any "out of the box" event, where there are no coded and validated responses. We must all, and this applies particularly to those exercising the highest levels of authority, engage the search for best approaches to these difficult territories. Although still at a very embryonic stage, "clubs" for the sharing and exchange of problems, questions and solutions have proved successful. This type of forum has been much appreciated by those who have taken the step to take part. Together, the participants address the destabilization factor of major surprise, of the unmanageable, the unthinkable, and subsequently prove far more able to cope with situations and actually exercise their responsibilities. These clubs cannot provide easy solutions, that is, no checklists, no standard practice, but they do enable participants to take a more objective approach, to understand that each event is unique and that as such management directions must be tailored to the actual challenge being faced. However, these clubs can continue to be effective only if they are provided with some guidelines and direction from time to time. Rigorous professionalism is needed; organizing a meeting is not enough on its own.

Civil Society Back in the Loop

In the same spirit, we must get past the notion that, in delicate situations, everything is immediately put in the hands of some government agency, under a single command, using a sort of military reasoning that believes that civil society will only "panic and give way to looting." The example of the 1988 Quebec ice storms is quite instructive in this regard. The debriefing, largely open and extremely detailed, strongly emphasized the need to determine the response in close cooperation with citizen and nongovernmental organizations (NGOs). For example, it was said that for such complex network failures the citizen had to be prepared to go it alone, cope with the situation at his or her level, and wait as long as it took for service to be restored. The decision here is that the overriding priority was given to the structural restoration of the networks.

Any other strategy can only lead to overall impotence and horrendous mistrust. This is not a militant view advocating some dangerous oversimplification. The shocks that will accompany the new world of risk will require modes of functioning that can no longer rely on our vision of a state that provides solutions to passive groups of people within a "Command and Control" philosophy.

Here, we touch upon our most fundamental concepts of governance. At a large staff meeting of a large ministry in France, held a few years ago after several serious weather-related events, one of the national administrators argued for a new conception of the role of the state by citing: "To profess to solve all problems and to answer all questions would be impudent boasting, and would argue such extravagant self-conceit as at once to forfeit all confidence." The meeting made known how much it agreed with this statement. A high official expressed his indignation; to emphasize the extent to which, on the contrary, the state had all the resources needed to perform its noble tasks. This issue lies at the core of our discussions on risk: is this an opportunity to raise questions and to take responsibility? Or, on the contrary, a danger that requires reaffirmation of the principle that everything is under control, without, however, there being anything reassuring about it.

Here also there is a need to open, share, and invent. However, achieving this supposes that new approaches are available. For example, a few days before a public meeting on risk in Toulouse after the terrible explosion at the AZF factory, I drew to the organizers' attention the need to build in a new framework for sharing experiences and views. The reply was: "The speeches have been approved." The time has come to move on and to engage different practices. The real problem is that the paralyzing nature of these challenges "freezes" action.

In the same way, citizen involvement must be improved. For example, when emergency exercises are conducted, the heads and managers of institutions such as hospitals, schools, retirement homes, and so forth should be consulted in order to get a better idea in advance of their specific needs and constraints, and so target the testing of certain procedures. This would enable the old approach of "Do nothing until you receive orders" to be overturned in favor of "What would be the most useful for you and then we can test it together?" We can only reap the trust that is sown.

Training

The stakes are high. Until these areas have been explored and become part of the basic training in higher education programs, they are unlikely to find their way onto the agendas of our decision makers. The subjects will remain taboo if they do not become part of the identity, the reference training, and the league tables of excellence for new generations of managers/decision makers. Without this preparation from within, the fear associated with major risk will remain too uncontrollable to enable any creative synergy to be generated.

More positively, the big question is to define the necessary basic grounding, which our future managers, among others, need to be able to find the vision, balance, skills and ability to listen in a world constantly shaken by the shockwaves of permanent schisms. It is no longer sufficient to prepare them for a stable world where the rare and freak event requires "management." On the contrary, they must be trained to manage in a world where the dynamics and schisms engendered by crises are structural realities.

IMMEDIATE CREATIVE INITIATIVES

In addition to long-term action, we must adopt more immediate strategies such as rapid reflection forces. Major crisis events engender closure, seizure, the raising of barriers, and engagement in cul-de-sacs. In real terms, each nation with its own diversity of culture groups

must designate a range of people who can be mobilized to deal with all aspects of an emerging major crisis. The same should be developed in industry. The lack of such teams was particularly evident during the Toulouse-AZF crisis and again during the tsunami episode of 2004 and Hurricane Katrina in 2005. The task is to identify the people who are both competent and able to remain operational in the face of unconventional crises and to make them work together to develop flexible but efficient strategies for crisis management. These people do exist but they are often dispersed. They must be brought together in teams and trained in order to extend their experience, skills, and ability to ask questions, so that they may assist decision makers to cope with unconventional situations. In building these teams, we must be careful not to fall into the usual rut of assuming that the members should be drawn from the established elitists. To guarantee the essential open-mindedness, the teams must include a whole range of people including females, foreigners and younger persons that is not the case now. This approach is currently under discussion at the European level, in particular within the framework of the European Crisis Management Academy. The next step is to move from idea to action.

Minimum Preparation for Senior Management

From an institutional point of view, there are two current dominating topics in crisis management strategy. First, the preparations of crisis plans often are subcontracted. Second, “crisis communication” media training is too often seen as the priority. This rather rigid compartmentalization must be broken down. This type of “safe waters” response is no longer adequate and crisis management strategy must now make preparations to survive in the challenging “high seas” of risk today. Preparations for unconventional situations should be at the top of all senior management group agendas, from boards of directors to executive committees and ministerial cabinets, without arguing that they already do this on a daily basis!

Preparations and Active Partnerships

Emerging crises give rise to organizational problems, which have no identifiable frontiers. It is now urgent to engage those involved in their management, in joint preparations and training. That should help to encourage them to ask more as well as the right questions. For the last years, the notion of partnership has dominated meetings on the protection of critical infrastructures. “Partnership is a brilliant idea; the practice of partnership is another matter” (see Lagadec & Michel-Kerjan, forthcoming).

The time has come to move into the action phase. For example, this could involve studying scenarios such as the film “The Day Britain Stopped” (BBC, 2003). In this BBC film drama, Britain faces a national crisis in the country’s transport infrastructure that has been operating at virtually saturation point. A series of unfortunate events paralyzes all transport systems such as road, air, and rail, resulting in a snowballing chain of events. The interdependence of the decisions adopted by each of the key actors is ignored and the individually managed strategies all become un-operational. A case of so-called “interdependent security” has recently been introduced and formalized by leading scholars in the United States (Heal & Kunreuther, 2005). This program is only a drama and although it lacks rigor on some points (as often criticized in the UK) the real question ought to be why should the monopoly of creating such

scenarios be left to journalists? Why are the actual decision makers involved absent from the reflection and work to be accomplished?

Tough, Targeted, and Bold Initiatives

With a battlefield so vast and complex, it is necessary to move forwards in carefully thought out, very specific, but bold stages. In implementing a very specifically defined plan to achieve progress, the lesson can be learned that action is not suicidal; on the contrary, it can be fertile. The field is so vast it is crucial to focus on specific highly targeted initiatives. Indeed, as already highlighted, the time constraints do not permit implementation of cumbersome plans.

For example, In February 2001, a major snowstorm on the Aix-Nice motorway in the south of France trapped 4000 people on the road for nearly 36 hours. Weather conditions were unprecedented. Three feet of snow fell in a few hours. Instead of claiming “force majeure” (“Act of God”), the Chairman of the road operator (Escota) called a public debriefing. Through the press, all interested parties were invited to share their experiences at a public meeting 3 months later. In addition, at this public meeting, the collective effort was supplemented by joint consideration of how each participant could contribute to the safety of such a large network in the future (e.g., if it were necessary to cut off traffic in Provence, then trucks would be held at the Spanish and Italian borders). The result was particularly interesting, providing a better understanding of the incident itself and the problems to be confronted, and planning for the future. Basically, the meeting provided an opportunity to become better aware of the networks at work, especially to create new networks among the various players such as the toll authority, government authorities, local officials, service stations, the weather service, truckers, and motorists.

As another example, after the anthrax attacks in 2001 in the United States, and thousands of false alarms in Europe, I suggested to postal operators that they should organize an international meeting for experience exchange and to define some strong operational initiatives for the future. The President of the French postal service, *La Poste*, immediately agreed to the idea. In 2002, key representatives of about 30 operators attended the meeting in Paris to share their experience, the lessons they had learned and to set up an inter-network alert and information system. One month later, this new capacity was implemented and was used to deal with a new alert, again originating from the American network. A number of key factors made this operation such a success, a willingness to listen, to consult, and to suggest innovative strategies (Lagadec & Michel-Kerjan, 2006, forthcoming).

How often is this type of information exchange engaged today after some major event? Many of the major actors in the Toulouse tragedy regret today the lack of this type of initiative following the AZF explosion. In the SARS episode, it would also have been important to organize a meeting between the public health actors, representatives of the affected cities and governments, and the transport sector in order to try and identify the big issues and centralize good ideas and strategies for progress.

However, experience exchange is not the only solution. Strong initiatives must be instigated on a number of other fronts: questions need to be asked, simulations created, training organized, international public debate engaged, and so forth. The time has come to be creative. We must be as innovative and proactive as the emerging crises are surprising and furtive. There must be one central belief, namely that it is only by taking the risk to try something new that creative opportunities are made. Only by taking risks do we stop being the prisoners of

risk. We must be prepared, so that risking some risks is less terrifying and paralyzing than the perspective of a guaranteed fiasco.

RESEARCH NEEDS AND PERSPECTIVES

At least three lines of investigation should be considered by scholars to help those in charge and the public to meet the unknown developing challenges, and to develop their own strategies:

What is new? In the academic world, at least up to now, the trend has been to treat anything “new” with extreme caution. It should be an acceptable and even a desirable objective, to concentrate on the emerging challenges, surprises, and complexities. Priority must be given to the mapping, clarification, and understanding of the real problems and illusions presented by these new challenges.

What are the difficulties? When organizations and people are suddenly confronted to outside the box issues, they tend to try to implement the three Ds: “deny, deflect, defend.” It is absolutely necessary to know more about the cultural and educational traps, the managerial blocks and the learning refusals which all combine to exacerbate situations and make them difficult to change.

What are the best initiatives and best cases? When the issue is so severe and so difficult to grasp, it is vital to search for any success, and study it. An official who launched some bold debriefing or simulation to train people to confront the “unthinkable”; any initiative in street empowerment taken by ordinary citizens; any new tools, new organizations or new paradigms that could help academics to get a hold on these events which, because they do not fit into normal statistics nor any common frameworks, take on the character of strange “unidentified flying objects.”

CONCLUSION

In the film *The Hunt for Red October*, there is a key moment in which the Commandant of the Soviet submarine announces to his officers that he has informed the Kremlin of his plan to defect, and take his ship to the West. His officers rebel violently against what seems to be a personal whim of their leader: “Suicidal,” they cry. The Commandant calmly replies: “But the problem is not the Russians! I know their tactics!” This scene summarizes the crucial challenge of any high-risk situation: traditional approaches are totally submerged by unexpected events, and so we can expect nothing from people in charge because we know that they have neither the culture nor the tools to rise to the occasion. It is a very different game for which most of them have not been trained.

To me, the major risk today may well be the litany that “everything is under control,” that “we mustn’t be pessimistic” and therefore there is no point “asking too many questions” while simultaneously insisting that citizens must abandon the notion of zero risk and lamenting society’s unhealthy preoccupation with legal action.

If we do not have the courage to take strong, determined, and open-minded initiatives, we run the risk of becoming increasingly bogged down in a bunker mentality. The risks will not wait for us to get ready and if we go from fiasco to fiasco, the will, energy, and confidence to tackle the issues will collapse, reinforcing the suspicions of the public, the fears of the authorities and feed into a morbid loop.

Failure is not an option. We must acquire the entire range of skills needed for the new challenges, intellectual, managerial, governance, psychological. Fear is the major assailant to be conquered at all costs, despite all temptations to the contrary and any collateral benefits which it may procure (Krenz, 2001). Quite on the contrary, we must visit the new frontiers with confidence, improve our intelligence about them, and acquire brand new skills and entire new strategy logic. Ultimately, it will be of our responsibility to take and share strong initiatives, with many, in order to remain actors of our particularly turbulent period of history.

AFTERWORD

This chapter was written before the Hurricane Katrina tragedy. It is clear that this event has yet again brutally clarified the need for a new vision and new paradigms. In the hurricane aftermath, in addition to the usual field studies, we must launch specific projects aiming to track and trace any emerging questions that would require new paradigms, new frameworks, and new research practices. As a final word, in reference to the title of this contribution, it was claimed yet again that the fatal combination of hurricane and levee failure was “unthinkable.” This was stated in reports prior to the event. The unthinkable is here to stay. We must address it.