Risks and Crises in Terra Incognita

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Fire kills, so do outdated ideas
Foch
Our current system for homeland security
does not provide the necessary framework
to manage the challenges posed by 21st century catastrophic threats.
The White House
The Federal Response to Hurricane Katrina – Lessons Learned, 2006

Break with the Past

The last few decades have witnessed an extraordinary development in the sciences and techniques of risk control and crisis management. However, there is a gnawing doubt: what if our points of reference, our capabilities, are no longer good enough? Case in point:

• The storms that raged through France in 1999 destroyed more forests than all of the storms of the last two centuries combined. *Discontinuity*

• "This is not a kind of war we know! We are not ready for this!" This was the anguished cry of a North American Aerospace Defense Command (NORAD) officer on 9/11. *Break from the past*

• The diagnosis of Admiral Thad Allen, 10 days after the shock of hurricane Katrina: "It was not a hurricane, but nobody understood that. It was a weapon of mass destruction without criminal dimension." *Dislocation*

• The dismayed reaction of Senator Majority Leader Harry Reid, who declared on September 18, 2009 in the midst of the economic debacle: "No one knows what to do. We are in a new territory here. This is a new game.

You can ask Bernanke, you can ask Paulson, they don't know what to do."
Stupefaction

Today, on all fronts and almost on a daily basis, "black swans" are increasingly accepted as the norm, forcing us to adopt a disturbing perspective and to search for a new alliance with risk. "Accidental" phenomena are becoming more and more serious; the intrinsic quality of the dynamics in question is increasingly eluding our paradigms, our crisis management rationale, and governance. We must equip ourselves with the means—intellectual and strategic—to manage risk and crises in a world increasingly affected by changes in our points of reference. Because, as Sun Tsu said: "One who is not aware of the risks that he will encounter, will be defeated at each battle."

Risks and Crises: Return to the "Primitive State"

It has become commonplace—even automatic in a number of social environments—to claim that *there is nothing new* as far as vulnerabilities and crises are concerned. And to argue after every Katrina, BP, or Pakistan that "it was an exception." Without waiting any longer, we must start accepting the new realities we are faced with, even if it means changing outdated paradigms. It is necessary to stop clinging on to old models under the pretence of "optimism"; real optimism consists of asking ourselves whether we have the capacity to deal with the challenges of our time. This starts by having a clear understanding of the nature of the situation.

New Frontiers

Henceforth, risks and crises will have generic dimensions that disrupt the arena of operations.

A different scale: As a rule, accidental phenomena are considered to be of

very little importance when compared to the size and robustness of the systems involved. Katrina devastated an area as big as Great Britain; we can count millions or even dozens of millions of victims. We are now in the era of mega-crises.

Globalization: Up until now, we have been viewing things in "local" terms. We have to understand that phenomena are now quickly becoming globalized. The concept of the sacrosanct "independence" of risks, on the basis of which our main tools are devised, will become a miraculous exception.

Networks: Our activities are all dependent on the overlapping functioning of vast vital networks. A major break from the past will henceforth have systemic effects.

Speed: In a matter of a few hours, severe acute respiratory syndrome (SARS) passed from Hong Kong to Tokyo; in a matter of minutes, or even seconds, a power failure or Internet crash can plunge an entire continent into darkness.

Ignorance: Uncertainty, a previously stimulating travel companion, now appears in a much more extreme form. The problem is no longer about knowing what is still somewhat unknown, but about being able to discern what, to our knowledge, is still relevant.

Hyper-complexity: We have been trained to compartmentalize different fields, to provide optimal solutions for each duly isolated, problematic part. Our crisis plans, in particular, are often only capable of dealing with well-categorized situations. But now, we are grappling with situations like Katrina, where the dynamics are so entangled that they are impossible to separate.

Information deluge: The information tsunami, coming from the multitude

of channels, takes us light years away from the sacrosanct interviews of TV news reports from 20 years ago.

The inconceivable: The radical departure from our systems of representation is illustrated by several significant examples: the attack on U.S. economic and military centers with American cutters and airplanes taking off from American soil; the anthrax attacks, made possible in large by the technology used for postal sorting; the first great pandemic of the 21st century, with a hardly virulent form of influenza, whose first victim was the credibility of global and national authorities, etc. For systems that refuse any real paradigm shift (the inconceivable is inconceivable only for systems that refuse questioning outside conventional parameters), this dimension of the "unthinkable" is the most decisive factor for failure.

A Context Structurally Conducive to Crises

The most decisive factor is not, however, in the "event," but rather in the global foundations and contexts. Our systems—no matter the field—are now subject to the dynamics of "liquefaction," likely to wash away our best defenses. How does one "negotiate" with someone who is courting death? What happens to our theories about the rational decision maker when the anchors have shifted? What happens to our intervention rationale when only the mafias and terrorist groups demonstrate a strategic and tactical agility in chaotic situations? How does one deal with a heat wave or an epidemic when the response lies in social solidarity, which suddenly appears to have been sapped? There are numerous questions that cannot be answered by our nominal approaches to risk and crises, which are based on the concept of "all other things being equal," the "normality" of good taste, and the suitable rationality necessary to establish models of excellence.

New Criteria for Understanding and Managing Crises

The big question, which applies to all countries, was raised by the U.S. House of Representatives in its report on Hurricane Katrina: “Why do we continually seem one disaster behind?” It is not a question of “planning,” “coordination” or even “communication”—even though a minimum degree of progress must always be made. Vital failures—failure of imagination, failure of initiative, failure of leadership—have much deeper causes. Our concepts of risk and crises have to be restructured; our rationale for governance and management reinvented; and as always with true failures, the plan of action entirely reconsidered.

A Cultural and Psychological Rupture

We universally remain under the protective banner of the naturalists of the 18th century. As Georges-Louis Leclerc, Comte de Buffon said in 1749, “Causes which result in effects which are rare, violent and sudden must not affect us, they are not part of the ordinary process of Nature. Our causes and reasons are the effects that occur each day, movements that follow one another, effects that are continually renewed and endlessly repeated.”

Uriel Rosenthal, a pioneer in the study of crises in Europe, hit the point home: “Scientists feel uncomfortable with phenomena that seem beyond the scope of the neatly crafted theories which have been developed on the basis of normal circumstances and events. Crises seem to be in total opposition to the very foundations of modern social science.” Thomas Schelling put it brilliantly when he commented on Pearl Harbor: “There is a tendency in our planning to confuse the unfamiliar with the improbable. The contingency we have not considered seriously looks strange; what looks strange is thought improbable; what is improbable need not be considered seriously.” And Alvin Weinberg coined the phrase: “Science deals with regularities in our experience; art deals with singularities.”

These are not just purely theoretical positions. The basis of first principle, excluding the singular, the discontinuous, implies that we first seek to protect ourselves—and therein lies the primary source of hurdles that we encounter. Edgar Morin identified them well in his thoughts on complexity: "Classical science has rejected the accident, the event, the hazard, the individual. Any attempt to reintegrate them would appear to be antiscientific within the framework of the earlier paradigm. But nothing is more difficult than to modify the angular concept, the massive and elementary idea which supports any intellectual edifice. As is obvious the whole structure of the system of thought is being shattered, transformed, and thus an enormous superstructure of ideas is crumbling. And this is what we have to be prepared for."

One must certainly not think that these positions are secondary. They are the reason behind recurring avoidances, the refusal to question, and obstacles in monitoring as well as formulating responses. The first action thus involves opening up and legitimizing the anticipation of what is out of the ordinary.

Crisis Management Reinvented

We have an impressive corpus in the field of risk and crisis management. These best practices remain useful, at least in relatively conventional situations. For chaotic circumstances, which are more and more the norm, the problem is no longer about using the best techniques previously used for known problems. Rather, it's about inventing new kinds of capabilities.

Personal involvement: In a crisis, that which is indispensable surges through in all its brutality. The essential part will depend on real convictions, shared visions, and instilled confidence. This was the message given by former New York City mayor Rudolph Giuliani, who was in charge at the time of 9/11. In his book *Leadership*, he says: "Have beliefs and

communicate them. See things for yourself. Set an example … Prepare relentlessly. Under promise and over deliver…" The role of the leader will basically consist of charting unknown paths, of consolidating cohesiveness and confidence, and working on inventing possible shared futures. This implies that decision makers are prepared to confront a blank page, along with others, rather than just authoritatively applying previously validated protocols.

A different culture of signals: from a weak signal to an absurd signal. We were trained to monitor "weak signals." Now we must give priority to signals that cannot be noticed within the usual framework. It is not enough to magnify them in order to perceive and understand them. We need to openly question dormant variables, improbable combinations and contaminations, statistically insignificant events, and the convergence of intuitions. This means having additional sensibilities, new tolerance of ambiguities, different perceptions, and other tools.

The Quick Thinking Force approach: All big systems must set up this type of support group in order to encourage readings, options, and initiatives. Henceforth, when dealing with a crisis, the most complex task will be to determine: 1) what it's about, 2) pitfalls to avoid, 3) the cards of the people involved, 4) initiatives that favor positive dynamics. A group of people from mixed horizons, familiar with questioning and thinking outside the box, must be available to provide assistance in managing the systems.

Another position with respect to expertise: The priority will be questioning the limits of expertise: "Who can tell me what, within what time frame and with what degree of reliability?" Questions for qualifying expertise and the relevance of evaluations become important if we do not want to find ourselves trapped in false assumptions, outdated decision-making software, power plays within the world of experts, and the sacrosanct numerical

precision that is so comforting and yet so deceptive (we saw it in full play during the H1N1 epidemic).

Organization: Leaders must be able to immediately grasp the complexity of situations and try to enforce a "meta-leadership," whereby they strive to constantly build bridges, set common goals, and instill shared confidence—while everything appears to be a race to construct Towers of Babel. And they must do everything possible to avoid being trapped by rules whose only strength lies in conformity to "normal" practices.

The collective fabric: When faced with a crisis, we tend to think of social dynamics in terms of "panic" when in fact, the most important thing to do is the opposite: generate collective confidence and creativity. This implies the redistribution of information, leverage, and means, devoid of any imperfect authoritarianism. When there is pressure to deal with a situation in a centralized manner, we must on the contrary, think in terms of "proximity," which is totally contradictory to our natural inclinations. Here the rationale of empowerment is a crucial aspect, a concept that is often foreign to the world of crisis "management."

Communication: The days of speaking and "providing all the answers" are more or less over. What is required now involves thinking within the framework defined above: a redistribution of data, questions, perspectives, and proposals that will help systems to confront the vital challenges in a more creative manner on the whole. This implies, of course, that we no longer resort to the archaic concealment of information, which however appears to be the tendency, despite protests and requests for transparency. The words of Abraham Lincoln are crucial reference points, especially in the most difficult situations: "Those in authority must retain the public's trust. The way to do that it is to distort nothing, to put the best face on nothing, to try to manipulate no one. A leader must make whatever horror exists

concrete. Only then will people be able to break it apart."

Reconstruction: Until now, it was the ultimate phase that involved operators, insurance companies, and social services. Henceforth, the magnitude of the task and the impact will make the speed of recovery a decisive factor with respect to getting out of the crisis. This implies that the "reconstruction" element is incorporated well in advance in system design. And even in cases where a crisis has been anticipated in an exemplary manner, the issue will not be about a "return to the earlier state" but about a discussion and choice of options for the desired future.

Preparation: When training, federal officials "should not shy away from exercising worst-case scenarios that 'break' our homeland security system" (White House statement after Hurricane Katrina). Today however, we do just the opposite. The almost unique purpose, more often than not, of the exercises we practice is to verify the capacity of technical participants to use desired protocols in standard scenarios; and this is done with a touch of media communication, given its increasing importance. In addition to these elementary training practices for technical personnel, it is recommended to train leaders in strategic preparation, by throwing them into new situations, confronting them with blank pages to be filled with agents for whom they have no previous reference points. At the moment, this amounts to provocation and will be treated as such, the belief being that "We must not worry leaders." Thus it is not surprising that crisis management is often reduced to short "spasmodic" episodes, which do not even elicit the slightest critical feedback.

On the other hand, in some large international groups, the practice of preparing leaders and senior managers for the anticipation, prevention, and management of out of the ordinary situations is already well advanced. This requires above all the strongest will possible to place on the agenda these

new horizons of vulnerability and the need for immediate progress in related decisional skills. The demand can be expressed in one phrase: “Barriers in the mind, fiasco on the ground.” Although this practice is starting to spread in certain large companies, it is unfortunately still ignored by the quasi totality of governments.

Initial training and research: As Christian Fremont points out, “Crises that are beyond our comprehension do not come with any user guide. It is difficult and destabilizing, but we must not tell leaders, young or old, that they will be given ready-made recipes to react to any situation. That is not what they must learn. They must learn to live with the irrational, the uncertain, in a destabilizing and, in general, hostile.” For the time being, most “manuals” simply present the “keys to success” and “best practices.” As noted by Tod LaPorte, the problem is no longer about knowing the tools that help us to avoid surprises, but to train ourselves to be surprised. Currently, this type of positioning is difficult to integrate within our “curriculum of excellence.”

In reality, we find ourselves confronted with a situation similar to the case of public health in the United States at the turn of the 19th century, when we realized that we had to break with fundamental models in order to prepare future leaders for changing conditions.

It would be a historic blunder to prepare the new generation of leaders for the risks and crises of the last century. If, for convenience’s sake, we refuse to take a new approach to risk (it is always more comfortable teaching and researching what is known), we must remember Marc Bloch’s message during the financial debacle of June 1940, summarized as follows: “They could not imagine this war. They could not help but lose it.” Or even these cruel words attributed to Bismarck: “As long as the school of war is in Paris, Germany has nothing to fear.”

REFERENCES

ACADEMIC

Barry, John, M. (2004), The Great Influenza – The Epic Story of the Deadliest Plague in History, Penguin Books, New York.

Bernstein, Peter L. (1996), Against the Gods, The Remarkable Story of Risk, John Wiley & Sons, New York.

Kuhn, Tomas (1962), The Structure of Scientific Revolution, University of Chicago Press.

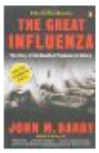
Lagadec, Erwan (2007): Unconventional Crises, Unconventional Responses Reforming Leadership in the Age of Catastrophic Crises and Hypercomplexity, Center for Transatlantic Relations, The Paul Nitze School of Advanced International Studies, The Johns Hopkins University, Washington DC.

Lagadec, Patrick (2010), "Leadership in Terra Incognita – Mapping the way for senior executives", Crisis Response Journal, Vol. 6, Issue 3.

Lagadec, Patrick (2006), "Crisis Management in the Twenty-First Century – "Unthinkable" Events in "Unthinkable" Contexts", in Havidan Rodriguez, Enrico L. Quarantelli, and Russel Dynes: *Handbook of Disaster Research*, Springer, (Chapter 30, pp. 489-507).

Rodriguez, Havidan, Enrico L. Quarantelli, and Russel Dynes, *Handbook of Disaster Research*, Springer, (Chapter 30, pp. 489-507).

BOOKS



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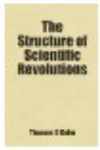

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