

Lessons learned? Disasters, rapid change and globalization

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Abstract

Comparing the two tsunamis of Lisbon in 1775 and of Asia in 2004, the article analyses the different paradigmatic interpretations of “Western” religious and secular causality. Based on the rational concept of risk making and risk taking, the need to accept failures and their consequences is discussed, as well as the responsibility to develop human strategies for disaster prevention and to foster living conditions which may avoid large-scale suffering.

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No one ever steps into the same river twice. Charles Darwin took up this observation by Heraclites on the constancy of change, saying that in the whole of history, nothing is more certain than change. That “change” has occupied people’s thoughts so intensely from ancient times until today is due to the human longing for stability.¹ Change is seen as a threat – at least when it seems likely to alter the circumstances to which people have become comfortably accustomed, and to do so faster than they are able to readjust. Viewed thus, “change” can be defined in terms of speed, or more precisely, relative speed. If this is the benchmark, everything that seems to move “too quickly” would be perceived as a threat, whereas everything that moves at a slower, achievable or even surpassable speed gives no cause for anxiety. This applies right down to the individual level, such as

conveyor-belt work, and is just as true of complex, systematic contexts such as globalization.

Rapid and radical change

The concept becomes even more interesting if applied to occurrences that are popularly referred to as “disasters”. Fully in keeping with the concept of relative speed, Lars Clausen² has defined such occurrences as “extremely rapid” coupled with “extremely radical change”, which in everyday terms would be described as “sudden” and “terrible” in the sense of “something” happening far too quickly and with such overwhelming force that people feel utterly helpless.

This was precisely the reaction to the tsunami on 26 December 2004 that is believed to have taken the lives of more than 200,000 people along the coasts of the states bordering the Indian Ocean. For those caught unawares and without warning, the tidal wave did indeed come too quickly and radically, but its suddenly so all-powerful character was itself the outcome of a sequence of different speeds which could have been used to advantage. The seismic waves generated by an earthquake travel much faster than a tsunami it creates, with the result that, depending on the distance, there were differences in arrival times varying from minutes to hours. So whereas the Andaman Islands had only two to five minutes between the earthquake and the tsunami, along the coasts of India and Sri Lanka the time lag would have meant an early warning period of as many as six hours in which evacuation and protection could have been organized – provided that notice had been taken of the quake and its potential danger recognized.

From the subsequent plans to set up an early warning system in the Indian Ocean it might be presumed that at the time it was not technologically possible to track the tsunami and that its danger could therefore not be appreciated. This, of course, is not true. The seismological station in Honolulu recorded the earthquake on 26 December 2004 and issued an appropriate warning. The station is part of a global terrestrial and satellite-based seismic monitoring system that has long been in existence and is used to measure all earth tremors – for military purposes, too. The warning from Honolulu did reach the countries later affected, but was not forwarded to the local administrative levels, or only to an insufficient extent. No news at all got through to the local residents or tourists.

1 John Dewey, *The Quest for Certainty: A Study on the Relation of Knowledge and Action*, Minton, Balch & Co., New York, 1929. See also Karl Otto Hondrich, *Begrenzte Unbestimmtheit als soziales Organisationsprinzip*, Neue Hefte für Philosophie 24/25, Vandenhoeck & Ruprecht, Göttingen, 1985, pp. 59–78.

2 Lars Clausen, “Reale Gefahren und katastrophensoziologische Theorie”, in Lars Clausen, Elke M. Geenen and Elisio Macamo (eds.), *Entsetzliche soziale Prozesse. Theorie und Empirie der Katastrophen*, LIT Verlag, Münster, 2003, pp. 51–76.

Human and higher powers

Was this due to thoughtlessness, lack of experience or carelessness, or was it negligence, indifference or even sloth? Why did people fail to take the warning seriously, and why was it not passed on to regional and district governments, local mayors and the police? And why did the hotels in tourist resorts that were known to be earthquake-prone refuse (as they still do) to give their guests relevant real-time information, in line with the highly successful practice of similar hotel chains in other parts of the world?³ But most of all, why have these issues – rather than completely different, predominantly emotive and ideologically polarizing topics – not been the subject of public debate? Instead, not only in Germany but throughout the world people spoke of “fate”, asked about God and ultimately included the tsunami, as a punishment meted out by Allah or more recently as a “biblical flood”, in a chain of cause and effect that had once before been the central feature of an earthquake – the Lisbon earthquake.

The famous earthquake that began off the Portuguese coast on 1 November 1775 and generated a tsunami devastated the capital city and vast areas of the country. Above all, however, they also shook the Western world’s philosophy of life to its very foundations.⁴ Essentially, the ideological earthquake revolved around the issue of whether the tectonic quake had been a demonstration of God’s will and power or was a natural force which mankind had thoughtlessly disregarded. To the dismay of the clergy and the nobility, it was the latter view that was adopted by the king’s prime minister, the Marquis de Pombal. He considered the damage to be the result of defective construction and town planning, inadequate organization, administrative sluggishness and especially incorrect use of wealth, which had intensified the destitution caused by the disaster.

“Those who do not remember history are condemned to repeat it”, George Santayana⁵ had warned, thus giving Heraclites the lie, because the events of 1 November 1775 and 26 December 2004 are so similar in terms of inertia, irresponsibility, negligence and incorrect use of wealth that it is as if we were after all stepping into the same river a second time. Have we learned so little in nearly 250 years, and don’t we learn anything from our mistakes?

People assume the opposite to be true. After more than 200 years of enlightenment and techno-scientific progress we indeed ought to know where natural disasters can occur and how to deal with them, how to plan towns, build, and protect ourselves. In actual fact, however, reality is lagging a very long way behind its potential. But why do we not apply our knowledge?

- 3 Thomas E Drabek, *Disaster Evacuation Behavior: Tourists and Other Transients*, University of Colorado, Boulder, Col., 1996.
- 4 P.-W. Gennrich, “Gott im Erdbeben: Naturkatastrophen und die Gottesfrage. Eine geistes- und theologischeschichtliche Studie”, in *Wissenschaft und Praxis in Kirche und Gesellschaft*, No. 65, 1976, pp. 343–60. T. D. Kendrick, *The Lisbon Earthquake*, Methuen, London, 1956.
- 5 Santayana, George, *The Life of Reason: Or, The Phases of Human Progress*, 5 vols., Velbrück Wissenschaft, 1905–6 (available gratis online from Project Gutenberg 1998).

The American sociologist Lowell J. Carr⁶ provided an answer as long ago as 1932, saying that if the dykes stand up to a storm tide we commend the skill of the engineers and builders, whereas if the dykes do not resist the forces of nature we do not hold the engineers and dyke-builders responsible or bemoan our general ignorance, but instead declare the occurrence a natural disaster that supposedly came upon us unexpectedly. Pombal had also reasoned in a similar manner. The cultural attitude was inappropriate to deal with the challenges of nature.

As soon as the interrelation of events is expressed like this, conclusions must be drawn. Conversely, if the superior force of nature is invoked there is nothing that anyone can do and therefore nothing that anyone needs to do. This avoids “change” – an avoidance in the sense not only of pleasant psychological relief but also of real inaction.

Absence of long-term, preventive protection

This inaction is reinforced by disaster relief that is literally conducive to the next disaster. Whereas the Marquis de Pombal drew the best possible conclusions from the earthquake, ranging from modern reconstruction to administrative and tax reforms, the need for adjustments of that kind after the 2004 tsunami was literally swept away by a second tidal wave: the German Red Cross alone received donations from private individuals amounting to €124.6 million, while around US\$4.7 billion was donated worldwide. A further US\$2 billion in government aid was approved, but that amount was not distributed. According to estimates, about US\$6 billion was distributed very unevenly and the assistance did not always reach those really in need. Above all, however, it very rarely led to the kind of change that would make the affected regions and their inhabitants less vulnerable in the future, but rather to a quite different, unintended type of change, which is very often the result of too many good intentions: the excessive volume of food and clothing donated wrecked local agricultural, market and production systems, while the accelerated building of new housing led to extreme shortages of materials, harmful deforestation, profiteering and, more recently, inappropriate construction methods. There was frequently no general construction master plan because competing organizations were keen to carry out prestige projects that could be presented as success stories back home. Under pressure to provide evidence of the effective impact of donations, the tens of thousands of projects were not networked and there was no co-ordination aimed at developing a long-term, preventive protection and sustainability strategy, as had been deemed necessary by the United Nations in the International Decade for Natural Disaster Reduction.

6 Lowell Juilliard Carr, “Disaster and the sequence-pattern concept of social change”, *American Journal of Sociology*, No. 38 (1932), pp. 207–18.

Self-fulfilling prophecy

In the twenty-first century we are thus faced with a set of contradictions. We have technical skills that allow us to observe and predict real development on earth with a relative degree of precision. Land use and vegetation, the development of settlements and mobility, energy consumption and emissions, rainfall and drinking water supplies, environmental pollution and deforestation – everything can be measured and observed by satellites and sensor systems and incorporated into decision-making processes. Multinational companies use these data for their long-term investments and the national commodities exchanges use them for forward transactions. Those organizations know about pending unrest or famines long before they actually occur. Little inclination is shown, however, to consider the ethical aspects of advance information of this kind and its inherent tendency to become “self-fulfilling prophecy”. There, too, it appears more attractive to talk about disastrous famines, even if the time lag between satellite data on drought, the increase in prices of patented hybrid seeds and a pending shortage could have been avoided before the famine – the “disaster” – set in.

In the face of such man-made time lags and advance knowledge of them, can a worldwide organization such as the Red Cross remain an aid organization among competing aid organizations – or worse, a follow-up repair operation which leaves the preceding wrong conditions basically unchanged? The founding of the Red Cross gave rise to the opposite kind of obligation. Henry Dunant’s *A Memory of Solferino*⁷ led to the gradual development of national relief societies from which, in turn, a politically influential “structure” evolved that made the world a slightly better place. Political structures are now needed to provide solutions for our present-day “Solferinos”. But what would their corresponding “Geneva Conventions” and “Additional Protocols” look like?

Excessive burden for societies

In contrast to Dunant’s time, present-day industrial societies are internationally structured processing systems whose activities are conducted more and more by control and management services and hence by communication. Technically and organizationally, the processing takes place via interlinked systems in the form of intermodal operations and cascading flows of (control) data and metadata, while no distinction is made in the actual transformation process between raw materials and intermediate and finished products; instead, entire life cycles are optimized (life-cycle management) according to specific criteria. In the network of international interdependence, attempts by individual states to exert some control increasingly end up as mere symbolic gestures, while failures to exert control lead to damage increasingly beyond the influence of individual states. At the same time,

7 Henry Dunant, *A Memory of Solferino*, ICRC, Geneva, 1986 [*Un souvenir de Solferino*, 1862]. English version reprinted by courtesy of the American Red Cross.

what Herfried Münkler⁸ pointed out about wars can also be applied to disasters. The asymmetry between achievable insignificance and successive repercussions is growing steadily and renders modern societies extremely vulnerable: a great deal of damage can be done with little effort. Even if such damage is extremely rare, it can occur at any time. And because disaster prevention must be based on the damage (which is the guideline for contingency planning), societies are consequently compelled to sustain a proportional protection potential for the entire duration (of the probability). In the long run this will place an excessive burden even on prosperous societies as well. Thus economically affordable solutions arise more and more from avoiding damage instead of its mitigation.

The risk to metabolic systems will be even more problematic, that is interaction between humankind and nature (climate, water, food and energy supplies), disruptions of the interaction between human beings and animals (SARS, BSE), disruptions of the quality of interaction (poisoning, enrichment, stockpiling), and altogether may lead to epidemic or endemic consequences, problems of adjustment or new shortages.

Structures are also falling apart or being reconstituted worldwide to create new structures. The European Union is not alone in producing new political structures with a global impact (e.g. monetary systems); other parts of the world are also joining together at a fairly high (Mercosur, Asean) or lower level (the collapse of the Warsaw Pact). Overall this is leading to fundamentally different processes and process management, as well as to other forms of international politics. In some parts of the world, for instance, the fundamental structural principle of the state monopoly on the use of force is dissolving, thus allowing tribal structures to return or to evolve into authoritarian structures and types of force that were thought to be things of the past. Instead of finding new “solutions”, the ensuing political and economic asynchrony and asymmetry has tended to call in question the successful organizational structure known as “democracy” and has revived fundamentalist attitudes.

Absence of a master plan

In terms of global politics, “out-of-area” initiatives and “peacekeeping” and “peace-enforcing” missions point to the need for new types of solutions. These, however, will generally be fashioned by combining existing structures in an ad hoc manner, usually by arranging existing components in layers and not because a master plan has been thought up in advance. This has so far been true of global programmes of the United Nations and other multinational bodies, which, despite their holistic intentions, are dependent on the biased interests of their member states. Nonetheless, the World Bank regulates global interconnections more rigorously than do many individual states.

8 Herfried Münkler, *Der Wandel des Krieges: Von der Symmetrie zur Asymmetrie*, Velbrück Wissenschaft, Weilerswist, 2006.

Yet is a “master plan” a real possibility? In principle it is something that should be required of a “master” organization such as the International Red Cross and Red Crescent Movement (hereafter Red Cross). Amid the asynchronies and asymmetries described above, what is needed more than ever is a coherent structure that operates uniformly throughout the world and can achieve harmonization. The Red Cross has long been a structure which, unlike most other organizations, adapts to problems as they come – from local up to global, but is unfortunately not integrated correspondingly. International disaster relief is precisely what shows that the Red Cross and Red Crescent societies are not making the most of their structural potential but are functioning at less than capacity. The inherent contradiction is hence that the organization is potentially global, but in the course of globalization is in danger of being overtaken (or utilized at least) by other players (such as the United Nations, the European Commission’s Humanitarian Aid department (ECHO)), and thus falling behind in the level of functional integration of its national relief societies. It therefore must succeed in turning its members as radically and as rapidly as possible into world citizens concerned to provide their master plan for globally co-ordinated, concerted action in the transnational spirit of the organization’s founding father.