

# Risques collectifs et situations de crise

Apports de la recherche  
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SOUS LA DIRECTION DE  
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## Chapitre XIX

### Do We Still Ask the Right Questions?

#### Comments on Societal Dynamics, Fallibility and Disasters

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A systematic, sociological disaster research emerged during World War II and derived from earlier singular case studies. In retrospect, many other contributions may be interpreted as "disaster studies" (i.e. historical or historiographic presentations) which certainly is correct in terms of empirical usability but just as incorrect in terms of Philosophy of Science: what is sociological in sociological disaster research? Asking this way does not intend to lapse back to the constituting problems of sociology as science but to the core of disciplinarity: what is it what Sociology contributes and makes it worth for society and for other sciences, namely interdisciplinary research?

In fact, sociological disaster research started in reverse order - as a need, not as an offer. All the sciences, predominantly natural and engineering sciences, which worked together under the threats of war lacked the knowledge of human sciences. Due to its significance and consequences the "Manhattan Project" outshined all others. However, the US Strategic Bombing Surveys represented both the lack of human sciences, their capability to contribute to vital societal problems and the interdisciplinary program to fit into. The military expected the breakdown of Germany and Japan when being massively attacked and bombed and wondered that it did not happen. Sociology and Psychology applied their knowledge and methods and defeated the whole Strategic concept of Douhet and Harris (as well as its German, Japanese and American imitators): massive threats, particularly to the survival of society in its whole, will not destabilize but stabilize social cohesion and staying power - if the internal value structure remains unquestioned.

After World War II also the sciences had to recivilize. In the United States of America the transition into a "civil" disaster sociology succeeded unproblematical. The merits in the field of civil defense and the practical challenges of periodically recurring natural hazards gave an easy and well

respected Start. In Germany **recivilization** was tantamount with De-Nazification. Civil Defense ("Luftschutz") was forbidden by Allied Directive N°24 (Jan. 12, 1946) and it took almost ten years to reestablish comparable institutions and organizations **along** with the **policy** of rearmement and reintegration of West-Germany into the West. **Particularly** the remilitarization of both German states was **fiercely** contested. Officially no sociologist of that time period would have worked for "the establishment", the least for the military or civil defense agencies. This "Not Again - Not With Me"-Attitude characterized both the Post-War- and the Cold-War-Era and explains why German sociology drifted into isolation (except during the reformist policy era shortly after the Students' Movement, **when** policymaking, budgeting and programming - in France, **planification** - were highly fashionable) and therefore was simply not available to be utilized or applied.

The second reason why a systematic disaster research developed extremely hesitant during the early 70s may be found in the prevailing opinion that there is no need for it. The underlying argument was territorial, in the wider sense naturalistic: Germany, as north-western Europe in general, does not belong to the disaster-stricken regions of the world; nature was seen as "moderate" and "dominated". The most serious "natural" disaster in Germany after World War II was the storm tide in 1962 at Hamburg with more than 300 casualties. Most other "classical" natural disasters were hardly worth mentioning compared with the extent of disasters in Asia, Africa or the Americas. The so called "man-made"-disasters which happened after World War II up to the early 70s were neither worth mentioning. They were relatively rare and minor in its consequences and they were "classical" as well - in the sense of the classical, Newtonian mechanics. They characterized the typical mishaps of the 18th and 19th Century: vessel explosions, material exhaustion, shipwreckages and pit accidents. In the beginning of the Mechanical Age and the industrialization of Europe the spread of these accidents induced material testing, supervisory boards, regulation and licencing, norms and Standards. In the end, the failures of the 19th Century resulted in the organizational structures and the behavioral pattern of our safety culture of today - in disaster relief and protection, in fire-fighting and -prevention, in state regulations and enforcement, in job safety, health insurance and, most important, education, not only as primary literacy but as some sort of "mechanical literacy". In its broadest sense this safety culture became the societal solution for the problems the process of industrialization has brought to the fore. Thus, the term "safety culture" is misleading. In the end it is the state and its constitutional order itself. The French economist M. Albert (1992) compared the "Anglo-American model of free market economy" with the European variant of the "Rhein-Model" - as he defined the French-German amalgam of a Welfare State. Albert

considered the "Rhein-Model" to be highly functional in generating acceptance and loyalty as well as identification and commitment. When we ask why a society is functioning then this type of "value structure" is key. It is the willingness, the capability and the skill to avoid, to offset, to compensate and to correct mistakes and irregularities. Hardly any social System could function without this pre-contractual loyalty to the terms of the social contract itself.

Far below this argument another aspect should be taken into account. Those who attribute the rareness of disasters with the favouritism of nature completely neglect that even under perfect natural conditions nature's resources must be acquired. The "crown of natural evolution", the human being transforms nature into consumer goods and durables with the help of durables, commonly tools and machinery. Apart from the social set-up in which the transformation is organized, the transformation itself owes its internal dynamics and interact with its users. Since long, the engineering sciences spent much attention on an adequate design and development of the user-machine-interfaces. Charles Perrow particularly referred to the auto-dynamics and internal resonances of technical components. In both senses the economic recovery after World War II involved tremendous side-effects on safety. In contrast to Britain, for example, the greatest part of Germanys industrial plants and production processes restarted brand new and on the highest Standards. The rates of failures were correspondingly low. Now, more than fifty years later, large parts of the infrastructure (especially the railroad and the sewage System), buildings (bridges) and industrial plants are out-of-date and need replacement or modernization, which has meanwhile been done in Britain, whereas in Germany slowly but steadily the number of breakdowns, failures, accidents and particularly near-misses is increasing. The "transformation apparatus" transforms himself and changes the conditions for his users. The final consequences are to be seen in most states of the former Soviet Union. The decay of infrastructure, industry, business, transport and traffic have inexorably led to severe failures, calamities and widespread destruction of the environment, somewhere to ecocide.

All this has almost nothing to do with the types of disasters we know from the classical definitions, namely the "sudden onset" and "rapid outbreak" of an "event". The traditional, north-american disaster sociology has not paid much attention to the social fabric of societal functioning and the complexe interdependencies between differently integrated and proceeding "systems" (like "society", "industry" or "actors"). Instead, it still operates predominantly case- or event-oriented. Alike the task force teams of aid agencies the research teams throw themselves into scene. Again and again the studies report on earthquakes or other impacts which hit a

city or another social unit and cause destruction like bomb explosions. The war-generated model of a weapon impact is still vivid, in language and in theories (see Quarantelli, 1998).

The intellectual effects of conceptualizations which are centered around an impact and its sphere of activity remind of the “*deus ex machina*”-trick of the antique drama and the creation of *box-office-hits*: the greater the deeper moving. What we need instead is to take Emile Durkheim seriously. He demanded to explain the social with social facts, not with strikes out of the blue, or “*mother nature*” or other neo-animistic befuddling. Even the term “*disaster*” itself is misleading. We do live on a “*star*” but less than ever our “*fate*” is driven by “*evil*” (*des astro*) or “*lucky stars*”. The contrary becomes true: we get ready to become the fate of our planet. However, as long as we refuse to accept the consequences of our continuous transformation of our planet, the speech of “*striking disasters*” was and still sticks the ideology with which failures appear as inevitable, unavoidable, at most mitigatable outbreaks of natural or supranatural forces.

All this is not new but even though disastrous for disaster research. Our community took only little notice of the United Nations “*International Decade for Natural Disaster Reduction*” and its consequences for future politics. It took only little notice of the advances of other sciences, particularly in Systems analysis and modeling. The Climatic Change Debate has given evidence that large, complex Systems could only be fully understood when they can be functionally modeled and varied along controlled conditions (see Helm, Schellnhuber 1998). This meets the basic Standards of scientific work. Nobody would accept findings which could not be reproduced. Repeatability is some sort of a prove that the initial state and course were known and that causality was understood - which characterizes scientific experimentation in general.

That we do not know the initial state of our universe and our own planet is irrevocable but should lead to extreme circumspection, particularly when the course of our *vivi-experimentation* is permanently varied. From a conservative scientific standpoint it is more than daredevil to intervene massively into a System without knowing precisely how this System proceeds and regenerates. Although we permanently do and we do without the capability to reverse the effects we create. Perhaps the only real disaster consists of our *shortcoming* foresight: will our successful experiments continue to be successful after they left the laboratories and conquer the world as commodities and durables or will they become the sweep that challenges the world and turns it into an experiment of second order?

In most cases we simply do not know because the human interventions are not systematically documented and analyzed. We do not know the sum total of effects of the automobile, of artificial elements and substances, of the production and use of chemicals. Nevertheless, the human metabolism

with nature has turned for long from homeopathical insignificance toward measurable transformations. Since long, scientists and respectable institutions (like UN, UNEP, WHO etc.) demand another relation with nature and other modes of metabolism. Key words in this context are "sustainable development" (see Harborth 1991) and "global eco-development" (see Hauff 1987). But how shall we know the long-term effects of interventions which may be well-meaning today but counter-effective tomorrow? It may sound ironic, but what we need most is a second planet with which we can experiment like the early scientists did in their laboratories. We need one, better more parallel virtual planets: one for analysis and documentation, one for Simulation, one for comparative studies. We need a global intervention assessment alike the Technology Assessment of the late 70s. And we need something else: the perception of "disaster" as falsification in the sense of Popper (see Dombrowsky, 1998). Disasters are "real-falsifications" of human practice and thus the empirical indicator for loss of control and a lack of knowledge and capability to do things right.

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