Overflow and Containment in the Aftermath of Disaster

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In reflecting on Hurricane Katrina, so soon after it struck the Gulf Coast, I want to consider what one might expect from the public inquiries and official investigations of the disaster. Prediction, whether of meteorological or social phenomena, is a risky business, but by now the field of science and technology studies (STS) has produced a substantial literature on the investigations and official inquiries that follow in the wake of notable disasters, accidents, technological failures, and other breakdowns of sociotechnical order. This literature is diffuse and the interests and theoretical perspectives of various authors differ, but the relevant work includes studies of knowledge-making in the aftermath of such failures as the Windscale nuclear accident, the Bhopal disaster, the Challenger explosion, the bovine spongiform encephalitis (BSE) episode, and the debacle of the Florida vote in the 2000 US Presidential election.[1] To summarize (very briefly and admittedly inadequately) some major themes of this rich literature, I will list seven points. In the final section, I relate them to the Katrina case, and advance several tentative predictions.

1. *There are no natural disasters, only sociotechnical ones, in advanced technological societies, such as the USA.* Disasters are typically perceived as abnormal, deviant events, but in many ways they are 'normal' occurrences that stem from the particular vulnerabilities that social institutions and actions build into the heterogeneous networks of technological systems and infrastructures (Perrow, 1984; Jasanoff, 1994). Thus, even disasters widely classified as 'natural' will inevitably implicate human artifacts, organizations, and choices. Moreover, the sociotechnical networks intended to monitor, manipulate, and manage risk have reached a level of density where today any disaster – whether attributed to the agency of natural or unnatural forces – will fall under the jurisdiction of some set of technical experts and organizations (e.g., Beck, 1992). All major disasters therefore demand a social accounting.

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2. *The vision of orderly, manageable sociotechnical systems is critical to political legitimacy in the contemporary world.* The organizations that operate complex technologies tend to present them publicly as orderly, rule-governed systems that achieve acceptable levels of safety by virtue of the rationality of their design. Legitimacy depends in no small part on the maintenance of a cosmology in which people can expect the institutions that operate and govern technological systems, especially the state, to predict, prevent, or at least partially mitigate any number of hazards (Wynne, 1982). The political stakes in accounting for disasters are therefore extremely high.
3. *Disasters and accidents create profoundly disturbing collective experiences that challenge the managerial vision of orderly systems.* Disasters evoke horror not only because they make chaos and suffering visible but also because they reveal shocking disorder in sociotechnical systems. Tangled communications, failures to act on available knowledge, and socially structured ignorance make the crisp linearity of the organizational chart seem like a naive fantasy.[2] The messy, 'unruly' character of technology is dramatically displayed, revealing ad hoc judgments, informal practices, and other deviations from the formal procedures that supposedly guide action (Wynne, 1988). Similarly, disasters often suggest that social order in general depends on more fragile machinery, such as the fallible systems that distribute electrical or police power, than many might like to believe.[3] Amid such dramatic displays of vulnerability, people find it easy to imagine disorder of an even greater magnitude, with problems overflowing their boundaries and spreading into new domains.
4. *Officials and citizens alike typically perceive reestablishing order to be a central priority, but accomplishing this depends not merely on containing the disaster on the ground (regaining control, rescuing people, rebuilding systems), but also on containing it discursively.* Public authorities must address the meaning of a disaster as well as the materiality of it. Reclaiming a sense of normalcy may depend on placing the episode securely within a narrative frame that restores confidence in the capacity of social institutions, especially the state, to protect the citizenry. Moreover, when state institutions fail to reassure, people may experience profound anxiety, leading them to experience a sense of 'civic dislocation' as they look to other institutions as sources of reassurance (Jasanoff, 1997).
5. *Public inquiries often play an important role in efforts to contain disasters within a reassuring storyline, although their capacity to reassure is potentially problematic.* Disasters typically precipitate a public process of inquiry and investigation aimed at assessing cause and blame, defining specific entities (for example, artifacts, individuals, organizations) as deviant, identifying preventive strategies, punishing wrongdoers, and aiding or compensating victims. The process of public investigation typically begins with media coverage when disaster first strikes. Later, much of the action usually moves to official inquiries or public commissions set up by the state. Public inquiries serve as a device for managing the disorder and discord that disasters produce, and at an abstract level the inquiry process follows

a general structure of 'social drama' described in the processual anthropology of Victor Turner (1974). In Turner's scheme, a social drama begins with a normative 'breach' that produces a 'schism' in the community and proceeds through a period of 'crisis', a phase of 'redress', and finally to 'reintegration' if the redress is successful, or to continued schism if it is not (Turner, 1974; Wynne, 1982; Hilgartner, 2000).

Public inquiries thus offer a ritualized process for collectively 'moving on', but they do not have a guaranteed capacity to reassure. On the one hand, public inquiries have the potential to contain disasters within durable narrative frames, recreating the collective experience of a manageable world by fixing cause, focusing blame, meting out justice, taking strong action. On the other hand, the process of investigation has the potential to produce cascades of revelations that display additional layers of messiness, thus undermining further the managerial imaginary and leading the sense of breakdown to overflow its extant boundaries. These contradictory potentials generate a dynamic tension between overflow and containment that in principle can produce varying mixtures of reassurance and anxiety.

6. *The inquiry process typically features a contest to control how causal and moral responsibility for the disaster is framed.* Public inquiries aim to establish what caused disaster, who is to blame, and what should be done about it. But responsibility can be allocated and distributed in many ways among the nodes of a sociotechnical network. Following an accident, investigations may transform the heterogeneous links that hold together a technological system into 'traps hooking people and things together in a network of cause and blame and guilt' (Gieryn & Figert, 1990: 87). However, actors often strenuously resist being implicated, seeking to deflect attention to other network components. As competing factions seek to fix responsibility on different entities, opposing parties work to emplot the history of the disaster in incompatible ways, presenting varied casts of characters (for example, heroes, victims, villains) and offering a variety of strategies for redress.[4]
7. *The most important moves in aftermath struggles are those that influence the kinds of questions the inquiry process considers and the evidence available to it.* Among the most important moves are those that contain the inquiry itself, blocking or channeling investigation, or that open the floodgates to new lines of questioning. As they struggle to control how the disaster will be framed, actors deploy a wide range of discursive, legal, and information control techniques aimed at shaping the scope of the inquiry and the evidentiary record it relies on. Efforts to shape the documentary record of a disaster and the response to it often begin long before the official inquiries do. Indeed, because actors can anticipate lines of inquiry that investigators might pursue in the future, they frequently create documents (such as the ubiquitous 'cover-your-ass memo' or even the false chronologies of the Iran-Contra affair) specifically designed to influence future efforts to discover what really happened. Such strategically informed moves quite literally constitute the documentary record, which consequently cannot itself be understood as independent of the struggles to interpret it (Lynch & Bogen, 1996).

Katrina and its Future

In its immediate aftermath, the Katrina case conformed to many elements of this general description of knowledge-making in the aftermath of disasters. The destruction was instantly perceived as having organizational and technological causes as well as natural ones, and efforts to assign and evade responsibility began at once. Managerial visions of adequate flood control infrastructure, effective evacuation planning, and reliable police power were swept away by waves of evidence of breakdowns. Political damage was also immediate (Mukerji, 2007). The failure of the federal government to respond effectively outraged many Americans, and President George W. Bush's slow reaction and initial public statements seemed to display a shocking aloofness or an incapacity to grasp the scope of what was happening. State and local governments also proved incapable of providing protection. News coverage and media investigations implicated a growing number of individuals, organizations, artifacts, and decisions. The plight of victims, who were disproportionately African American, cast a spotlight on inequality in American society, bringing often neglected issues of race and class to center stage and focusing rare attention on the politics of infrastructural investment (Star, 2005). Officials struggled to deflect blame or to assign it to agencies beyond their control. Before long, multiple official inquiries were initiated, for example, by the Congress, the Army Corps of Engineers, the National Research Council, and other agencies. Prominent in these inquiries were struggles over claims of executive confidentiality, conflicts over the scope of investigations, and other procedural moves.

At present, the public inquiry process remains fully in play. However, it is already possible to offer a few modest predictions about how this process will turn out. First, given the scale of the disaster and the many actors involved, we can expect a prolonged period of inquiry, featuring a series of investigations and counter-investigations that allocate responsibility differently. Moreover, redressive measures – which will be costly, controversial, messy, and often deemed inadequate – are likely to continue producing second-order overflows, as failures to find clean solutions to the daunting tasks of aiding victims and rebuilding infrastructures generate additional media coverage, litigation, and investigations. The wave of scrutiny and blame that Katrina unleashed will prove impossible to contain quickly or neatly.

Even so, it already seems safe to predict that Katrina will not inspire a durable increase in attention to the politics of infrastructure or other structural inequalities in American society. Instead, as this wave of attention to these issues sloshes through the arenas of public discourse, it is likely to grow increasingly diffuse. Its residue will largely be absorbed into the institutionalized modes of action that have long contained concerns about poverty and inequality in the USA. The cascades of overflows in the aftermath of Katrina will disperse responsibility over many actors. But although some officials will pay a political price, ultimately, the disaster will be discursively contained within conventional narratives about 'bad management' and 'government inefficiency'.

Notes

1. See Wynne (1982) on Windscale; Jasanoff (1988, 1994) and Fortun (2000) on Bhopal; Gieryn & Figert (1990) and Vaughan (1996) on the Challenger; Jasanoff (1997) on BSE; Miller (2004), Lynch et al. (2005), and the special section in the June 2001 issue of this journal on the 2000 election. Studies of breakdowns of social technologies, such as science advisory systems (Hilgartner, 2000), can also be understood in this light. Such work on risk as Beck (1988), Perrow (1984), and Douglas & Wildavsky (1982) are also centrally relevant, as are studies of public inquiries, such as Lynch & Bogen's (1996) analysis of the Iran-Contra hearings.
2. See Jasanoff (1988) on politics of ignorance at Bhopal.
3. Miller (2004); Sims (2007); see also Shrum's (2007) comments on crime, rumor, and media coverage.
4. On the fixation of cause, see Gieryn & Figert (1990); see also Gusfield (1981) and Hilgartner (1992).

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