Book Reviews

Mission Improbable: Using Fantasy Documents to Tame Disaster, Lee Clarke, University of Chicago, Chicago (1999), 217 pp.

The final sentence of this book could well serve as its first sentence: 'Society would be safer, smarter, and fairer if our organizations and their masters could admit their limitations, declaring frankly that they can not control the uncontrollable' (p. 171). In support of this assertion, Lee Clarke describes organizations that face catastrophic potentials, should things go wrong, yet claim that they have these uncontrollable potentials under control. The documents that contain these 'fantasies' consist of contingency plans to handle things like large oil spills, evacuation in the event of a nuclear power plant meltdown, and survival in the event of nuclear war. These three scenarios are at the heart of Clarke's analysis. In each case, the plans are shown to be 'fantasy documents' rendered acceptable by rhetoric that features 'affinities' between things the organization can control and things it can't. Thus, uncontrollable large oil spills on the open seas are asserted to be like controllable small spills on enclosed rivers. Similarly, evacuation during a nuclear power plant meltdown is said to resemble a crowded commute into New York City, just as civil defense for nuclear attack is said to be similar to taking defensive measures in the face of a natural disaster such as a hurricane or flood. From what little evidence that does exist relevant to these three events, it is safe to say that these 'similes of normalization' are seriously misleading. They are prime exhibits of what Landau and Chisholm (1995) have called 'the arrogance of optimism'. But the documents in which these similes are embedded are not simple, deliberate, flagrant lies. Clarke argues that, instead, these documents represent exercises in organizational self-deception fostered by a combination of aversion to uncertainty, managerial imperatives to be in control, the inevitable secrets that accompany distributed information, conflict resolution with powerful stakeholders, and cognition shaped by locations in a social structure. While Clarke is concerned primarily with situations of high uncertainty (decision maker is unable to assign probabilities to the consequences that will follow from decision alternatives), the analysis remains plausible for situations with lower degrees of uncertainty.

Clarke's basic argument is that organizations facing high uncertainty in their environments and technology have neither the technical capability nor the history to predict outcomes and insure safety. Lacking this kind of operational control, these organizations resort instead to symbolic control. Symbolic control occurs when organizations construct persuasive 'apparent affinities' between uncontrollable phenomena and phenomena they do understand, thereby transforming uncertainty into risk. Since a catastrophic possibility is equated with something much less catastrophic and much better understood, operational planning can proceed. Acceptance of these affinities fends off doubts about expertise, fends off regulators and protestors, and gains a measure of legitimacy for the endangering organization. But the price is high. Further inquiry and learning cease. Complacency increases. Skeptics become labeled extremists. Risk and vulnerability creep upward. And caution diminishes.

Straightforward as all of this may sound, it is surprisingly evocative. For example, consider Clarke's facility in showing a darker side to metaphors and generalizations. As scientists, we venerate images and descriptions that include and cover seemingly diverse particulars. As citizens we may find those same organization-spanning images now used to feign degrees of understanding and control that are unwarranted. That might be cause for suspicion and cynicism, except that the use of affinities is a form of normalization we all practice in one form or another. The larger problem buried in all of this is that affinities shut down inquiry. That's surprising in itself, considering that we normally treat affinities produced by metaphor as openings for enriched understanding.

Clarke's argument helps us think better about the phenomena of incomprehension and incomprehensibility that Perrow (1984) first fingered in *Normal Accidents*. In Perrow's work, incomprehensible technologies often were treated as puzzles that served as stopping points. With the benefit of Clarke's eyes, we now see that people don't just stop when they run into incomprehensible, unknowable scenarios. Instead, they search for the most plausible parallel that they can control. And then they expend rhetorical effort to convince other people, including themselves, that the existence of this controllable affinity means all is well. This correspondence has even more of a firewall built around it when it is attributed to experts, people who on closer inspection often turn out to be mere specialists.

Because 'controlling the uncontrollable' is a recurrent subtext — not to mention a better title

for the book — readers are forced to come to grips with the often mentioned but seldom discussed phenomenon of a can-do mindset in disaster planning and response. Here's the issue in a nutshell: 'Part of managerial competence is precisely to convince others that management is in control. The pressures of the position and of expectations from a rationalistic culture leave managers with little choice but to try to subjugate time, chance, and technical obstacles — the most difficult moments of uncertainty — to schemes of classification and command' (pp. 156–157). In everyday life, when people face high-probability high-consequence events, they try to lower the probability of occurrence, lower the aversiveness of the consequence, or run away from the problem. Not managers. They throw out the estimates. They boast that there is no such thing as an insurmountable challenge. One can dismiss these claims as macho bravado, except that these are also the imperatives of a profession. Control is central to the managerial job description. This means that momentary failures in control suggest the need to expend more effort and stronger rhetoric. Therein lies the nudge to self-deception or self-justification. Or, to bold efforts (Lanir, Fischoff and Johnson, 1988) that successfully shape and contain unfolding events. The issue becomes clearer. The leverage points, however, seem more elusive.

The introduction of 'fantasy' as a consideration into accident research may prove to be a productive complication. Fantasy is involved when people plan confidently despite having no history with the problem, little relevant experience, and no theory. 'Prediction is a form of forward counterfactual thinking, in which complications are assumed away so that the future can be known' (pp. 158–159). Fantasy is made possible by ambiguity. And what people impose on this ambiguity may be driven by their location in a social structure, as Clarke contends. But what people impose may also be driven by wishful thinking, individual dispositions, over-learned tendencies, or professional blind spots. While Clarke does a commendable job of referring to multiple levels of analysis, he understandably is preoccupied with organiz-ational determinants. The point is, at a time when social constructionists seem to be finding little common ground with realists in organizational studies, and when 'real' accidents seem to render the concept of social construction a fantasy document in its own right, Clarke has begun to differentiate the field of catastrophic potential into portions that are more and less influenced by social construction. '[R]isks are defined, effective risk managers are created, and risk acceptability is established. All of this is very much a social construction, and organizations are the main constructors' (p. 99). What Clarke is referring to here are apparent affinities and the use of similes. But these acts of constructing are organizationally situated (p. 148), which means mere naming is not the whole story. This all suggests that 'fantasy documents' may be a site where diverse theorists can mesh their differences and strengthen explanations.

Although it is implicit in what I've said, Clarke's work is a good pretext to improve scholarship about organizational failure and disaster. Although his concern is with fantasy planning, Clarke does discuss occasions where there was a successful evacuation response 'because' of a plan (World Trade Center, Miamisburg train wreck), as well as situations where there was a failure of response because of no plan (Texas City, Chernobyl), successful response without a plan (Three Mile Island, 1937 Ohio River Flood), and failure of response with a plan (Air Florida crash into Potomac during an ice storm). Although these various combinations are not discussed at length, they are a wonderful prod to induction for readers. A different kind of issue involves Clarke's use of the term 'uncertainty' to describe these problems. Daft and Lengel (1986) have argued that uncertainty involves problems of 'ignorance' where it is possible to ask clear questions and get clear answers. They contrast uncertainty with ambiguity where the problem is one of 'confusion' rather than ignorance. In cases of ambiguity, people are unsure what questions to ask, what would constitute an answer, and they need to negotiate some kind of consensual understanding of what they face and what they need to do. Ignorance can be remedied even if interaction is flawed. That is not the case with confusion. What is fascinating about Clarke's problems are that they appear to be hybrids of uncertainty-ignorance and ambiguity-confusion. People act as if there are clear questions and answers in a realm where there clearly are no such things. Or more accurately, as disaster planning unfolds, there is a constant shifting back and forth between ignorance and confusion which means people either choose appropriate resources and procedures (i.e. they use a data base to resolve ignorance) or an inappropriate ones (i.e. they use conversation to resolve ignorance when conversation is more appropriate to manage confusion).

After considering the many complexities of fantasy documents, Clarke concludes that the following candid preamble to a planning document would be a refreshing change: 'This is way beyond our competence. There is so much uncertainty about this issue — we can't predict people's behavior, we can't know if we'll be able to coordinate the organizational response, we don't really understand the

technology – that we think it best not to pretend we can do much about it. We can't control the uncontrollable' (p. 69).

We don't hear this very often. It's not even clear people know the limits of their knowledge or when they should talk like this. Clarke lays out the issue. He leaves its solution to us. What price candor?

References

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