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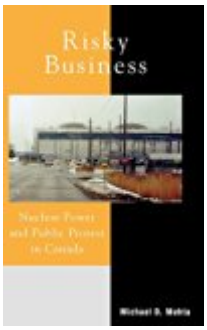
Michael D. Mehta. *Risky Business: Nuclear Power and Public Protest in Canada.* Lanham: Lexington Books, 2005. 128 pp. $65.00, cloth, ISBN 978-0-7391-0910-6.



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Risky Business applies a theory of public risk assessment through a case study of how Durham Nuclear Awareness (DNA) of Oshawa, Ontario, a small public interest group, mobilized opposition in an ultimately unsuccessful bid at preventing Canada's Atomic Energy Control Board (AECB) December 1994 re-licensing of the Pickering Nuclear Generating Station. Michael D. Mehta, a sociologist at the University of Saskatchewan, differentiates between two fundamentally different types of risk assessment: "a technically inclined, positivistic concept and a socially constructed, culturally embedded concept" (p. 1). AECB, and in fact, most nuclear scientists and engineers whether they work for industry, academia, or as regulators, adopt the first type of risk assessment. They believe that risk can be quantified and compared using objective criteria. DNA, and other anti-nuclear groups, adopt the second type of risk assessment. They believe that since risk is socially constructed, it is representative government that determines risk, and consequently the government needs to open up its decision-making process to greater degrees of public participation.

Mehta uses the first couple of chapters to conduct a literature review on risk assessment. He focuses on the economic aspects, social inequalities (including gender), and media bias in reporting on risk assessment. Chapter 3 explores the impact of anti-nuclear movements in France, Sweden, United States, Germany, and Canada. The remainder of the book is taken up with the case study. After providing a brief overview on the history and structure of the Canadian nuclear industry, AECB, DNA and other anti-nuclear groups, Mehta goes deeply into his descriptive narrative over the 1994 re-licensing battle.

Mehta is a post-modernist who is critical of objectivity and supports the idea that risk analysis is socially constructed. He argues that "debates about risk are not, in essence, scientific disputes. They are arenas of social conflict in which a poorly articulated debate about values and visions influences the distribution of economic and political power" (p. 10). In the case of nuclear power, Mehta dismisses the view from experts that the technology is too complicated for the public to understand. He favorably quotes Alaine Touraine's

belief that "technocracy is a form of power exercised in the interests of the political and economic apparatus of production and decision-making. These forces of control look on society as a totality of social means to be used in their quest for growth and reinforced power" (p. 11). Mehta concludes that "technological innovations do not necessarily have to lead to decision-making that is technocratic, elitist, and closed ... decisions on risky technologies can be seen as a two-way street where citizens are not expected to make choices based on technological criteria, but where regulators are expected to make socially 'correct' decisions" (p. 7).

This social conception of risk has many flaws. Scientific principles are not open to a democratic vote. Even if a majority votes against gravity that does not mean it does not exist. What and/or who defines a "socially correct" decision? Do the views of a small, but active, interest group outweigh the views of a much larger, but passive, society? What happens, as is often the case, when the public tends to have multiple, and contradictory, goals? They want abundant and inexpensive energy. However, they do not want the smog that comes with coal, the sour gas wells that come with natural gas, the pipelines and tankers that come with oil, monstrous turbines that come with wind, and the possibility of radiation leaks or a meltdown that come with nuclear. If they do realize that environmental costs come with the production of energy, it can only be acceptable so long as it is not in their backyard. In an interesting passage, Mehta asserts that the nuclear industry "must manage both the actual risks presented to society, as well as public perceptions of such risks" (pp. 43-44). That is a pretty hard standard to achieve. In this case, given the hostility of DNA, the only way that the nuclear industry could "manage" DNA's perception of risk is to completely eliminate nuclear power.

It is rare for a book on nuclear power to be a neutral analysis of the issues. The vast majority of books either advocate or oppose nuclear power. *Risky Business* is no different. Mehta is clearly on the side of DNA's David in its battle against AECB's Goliath. Mehta was a participant observer with DNA in this battle. This allowed him to observe DNA meetings in Durham Region and at hearings in Ottawa, conduct extensive interviews with DNA leaders David Martin and Irene Kock, and go through DNA's records. This enabled the author to "become more intimate with this group, and as a result more trusted with sensitive information" (p. 62). Mehta was a one-sided participant observer because he had little contact with officials from AECB. AECB refused to grant Mehta interviews or provide him with documents because they were convinced that he was not neutral. Still, Mehta maintained that his "obsession with objectivity in this case study demanded that I not influence directly the actions of DNA" (p. 83). In fact, as even Mehta admits, DNA "fully accepted me as a kindred spirit concerned with nuclear issues specifically, and environmental protection and justice generally" (p. 31). As such, Mehta cannot be seen as a neutral observer but as an advocate for DNA's position on nuclear power. Mehta accepted the fact, put forward as gospel by the anti-nuclear movement, that AECB is not a neutral and objective regulator, but is actually in the pocket of the nuclear industry.

In describing incidents at the Pickering reactor, Mehta frequently uses the phrases "serious accidents" and "significant events," but is not clear about what constitutes a serious accident. The International Atomic Energy Agency has developed a comprehensive International Nuclear Event Scale that differentiates between major accidents (7), serious accidents (6), accident with off-site risk (5), accident without significant off-site risk (4), serious incident (3), incident (2), anomaly (1), and deviation with no safety significance (0). [1] If Mehta, or for that matter DNA, had utilized this event scale it would have put the incidents

that occurred at the Pickering reactor into context.

For a scholarly monograph it was disappointing that there were no citations. For this, I cannot blame the author; due to the existence of direct quotes throughout the text and a list of references at the end of the book, it is obvious that at one time citations were in the manuscript. It must have been Lexington Books that, in the interests of saving space, had them removed. If Lexington wants to be considered a legitimate academic publisher, it needs to know that proper citations are a necessary part of a scholarly work.

Despite a publication date of 2005, ***Risky Business*** reads as if it was written (which it probably was) in the summer of 1997. In August 1997, Ontario Hydro placed seven out of nineteen of its nuclear reactors on "voluntary lay-up" due to a scathing internal report that criticized their performance and said that its safety standards were only "minimally acceptable." These seven reactors included all four units at Pickering A. This was a key event in the debate over nuclear power in Canada, and, in fact, furthered many of the arguments of Durham Nuclear Awareness, yet only the last paragraph of the book makes any reference to it. Although Mehta's purpose was a case study of the 1994 re-licensing of the Pickering Nuclear Generating Station, he did have seven years to write a post-script.

Ontario Hydro's decision also identifies an ironic punctuation on Mehta's study. DNA's accomplishment--the partial shut-down of nuclear reactors in Durham region--was achieved through a process of technical risk assessment by nuclear experts and not through a socially constructed assessment of risk. This suggests that anti-nuclear movements would be more credible and effective by focusing on empirical facts, and less on hypothetical exaggerations, anecdotal evidence, and multiple perceptions of reality.

Notes

[1]. International Atomic Energy Agency, "The International Nuclear Event Scale," ***Fact Sheet***, retrieved October 17, 2005 from www.iaea.org/Publications/Factsheets/English/ines-e.pdf.

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