

Book Review

David Michaels. **Doubt is their Product: How Industry's Assault on Science Threatens your Health.** Oxford, USA: Oxford University Press, 2008. \$27.95, hardback. ISBN13: 9780195300673

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“Doubt is our product since it is the best means of competing with the ‘body of fact’ that exists in the mind of the general public. It is also the means of establishing a controversy”. Thus spoke the tobacco industry executive in 1969. Five years after the US Surgeon General’s report on smoking had concluded that cigarettes cause lung cancer.

That candid but then confidential strategic response of the tobacco industry to the hazards of their product provides David Michaels, former Assistant Secretary for Environment, Safety, and Health in the US Department of Energy, with the title of his book. Selecting from those hazardous issues that he has played a part in helping to control, Michaels unveils the now well-worn response of many industries to the early evidence about hazards of their products: manufacture scientific doubt and ride out the ensuing controversy for as long as possible. After all, as he points out, it is more convenient for industry to debate the science than the harm prevention policies that could flow from it.

Ironically, our expanding scientific knowledge is providing greater opportunities for both genuine and “manufactured” doubt. As our awareness of complexity and multi-causality in biological and ecological systems increases, further research can raise new questions and answer old ones. But honest pursuit of truth by industry is not what Michaels describes; one-sided product defence is their objective. This involves designing and financing studies and research groups that support the safety of their product and discrediting those studies and scientists who question that view.

PR firms and company lawyers, not scientists, shape such strategies. A key aim is to generate media headlines such as those promised by PR firm, Hill and Knowlton, to its tobacco clients in 1968: “Controversy! Contradictions! Other Factors! Unknowns!”.

Similar tactics have been used more recently by those who do not want to take action on greenhouse gases, including the more fossilised of the fossil fuel companies and their government supporters. Michaels quotes Kevin Trenborth, head of climate analysis at the US National Centre for Atmospheric Research, responding to climate science budget cuts in 2005: “It’s almost as if some people don’t want to know how the climate is changing. Maybe they prefer uncertainty, so that they can avoid taking action”.

Political strategist Frank Luntz outlined precisely this strategy in 2003 when advising his clients about “Winning the Global Warming Debate”. He urged them to “make the lack of scientific certainty a primary issue in the debate...there is still a window of opportunity to challenge the science”. Fortunately, the UN Intergovernmental Panel on Climate Change greatly narrowed that opportunity in its fourth quinquennial report (2007), hopefully paving the way for post-Kyoto global agreements at Copenhagen in 2009.

Michaels chronicles deceit, denials, and manufactured doubt that helped ensure that harm was much more damaging, and more often uncompensated, than if public health interests had been given greater weight in the scientific, legal and political judgements on the evidence. He describes, *inter alia*, tobacco, climate change, lead in petrol, beryllium, benzene, chromium, passive smoking, and radiation from the manufacture and use of nuclear weapons.

Michaels focus is on the United States. He reviews critically the controversial 1993 Daubert decision of the US Supreme Court, which has tried to turn judges, perhaps unqualified, into gatekeepers on the admissibility in trials of scientific evidence, often depriving victims of supportive expert testimony.

On a more positive note, Michaels describes the US government’s radiation compensation scheme for workers and citizens injured by being part of, or in the way of, nuclear weapons production and testing. Legislation gives the benefit of scientific doubt to the people with cancer, rather than to the radiation. This approach had been pioneered by the UK unions and management of British Nuclear Fuels at Sellafield in the early 1980s. They agreed that probabilities

of radiation induced cancer between 20% and 50% were sufficient to award full compensation. The Courts would have required a greater than 50% to pay compensation.

Positive corporate behaviour, as at Sellafield, seems to be the exception rather than the rule, despite the tradition of some companies, such as Wedgewood in the 19th century UK on leaded pottery, or the US Climate Action partnership, which includes BP and Alcoa. The partnership lobbied for regulations that protect more responsible firms from “dirty” competition.

Michaels concludes with a dozen recommendations for giving the benefit of ever present scientific doubt to public health including:

- better disclosure of special interests in the funding and publication of science;
- pre-market testing of chemicals, similar to Europe’s REACH legislation;
- better quality and independent health data re-analysis; and
- Congressional protection for industry whistleblowers and publicly funded scientists who sound the alarm on emerging risks.

Much of the evidence used by Michaels comes from the tobacco archives and other company documents that have been wrestled into the public domain through legal discovery in compensation cases, despite the court sanctioned secrecy imposed by many settlements, which Michaels also proposes to constrain.

The tort system of the US is often criticised, but it remains a source of evidence not so readily available in Europe, where internal corporate documents are more successfully hidden from the real history of public health, that Michaels, for the US at least, has done much to reveal.