

## **Sharing the Future: Risk Communication in Practice**

*Edited by Janet Gough*

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One of the winners of the Swedish Banks' 2002 economics prize in honour of Alfred Nobel was Daniel Kahneman, who has written extensively on the perception and understanding of risk. The view that has arisen from the work of Kahneman and others is that risk is not so much about probabilities as a visceral fear of the worst case. In Kahneman's words: "We say that people have overweighted the low probability. But the prospect of the worst case has so much emotional *oomph* behind it".

The book "Risk Communication in Practice" edited by Janet Gough contributes to the debate on the understanding of risk by collecting a set of papers presented at two Centre for Advanced Engineering (CAE) conferences in Christchurch in 2000 and 2002. From the title of the collection, my first impression was that this book was to be a "how-to-educate-the-misinformed-public" treatise. Indeed it is not an uncommon view expressed by some scientific colleagues that the probability of being killed crossing the road is so much higher than that of being harmed by a proposed technology (here insert genetically modified food, nuclear power plants, etc.), that we need only inform the public about the "true" probabilities to enable them to see things from a rational perspective. Happily this collection of papers does not adopt this stance, but endeavours to illuminate why some parts of the community perceive risk in a different way from technical experts, and to use this understanding to communicate risk issues and incorporate community concerns into decision making.

The book is divided into two sections. In section 1 the authors discuss risk communication principles and theory. Many of the papers in this section deal with process. The opening chapter by Dr Caron Chess sets the tone by describing management structures within an organization that help promote effective risk communication to external stakeholders. The remaining chapters provide desiderata for risk communicators that are neatly summarized in the final paper, "The Ethics of Risk Communication" by Janet Cronin. I confess to being bored by process, but some parts of Section 1 contain interesting material. In particular I recommend the discussion of the work of Professor Peter Sandman by John Lumsden (who on one occasion misnames him Paul Sandman). Sandman has attempted to identify why educating the public about risk often fails in practice, and draws the important distinction between hazard and outrage, the latter of which arises from such factors as catastrophic consequences, and imposed rather than voluntary risks. (The distinction between imposed risk and voluntary risk is also explored in Bernd Rohrman's survey on risk perception in Chapter 3.) My only quibble is that Lumsden's paper has no bibliography to enable the reader to further explore (<http://www.psandman.com/> is easily found with Google).

Section 2 deals with risk communication in practice and brings together a number of case studies from Australia and New Zealand. I found this to be the more interesting section. Here, amongst other papers, there is an accounts of risk communication

practices at ERMA, a paper by Peter O'Hara's on the application for the introduction (and subsequent illegal release) of the rabbit calicivirus disease to New Zealand in 1997, and an account by Gordon Hosking of the communication of the risks of Operation Evergreen, which carried out aerial spraying in areas of east Auckland in 1996 and 1997 to eradicate white spotted tussock moth. These make interesting reading as they deal with cases with which most New Zealanders are familiar. As a case study, O'Hara's rather pessimistic paper clearly illuminates what can go wrong in a public debate over a complex scientific issue. On the other hand, Hosking's paper is positive about the success of Operation Evergreen as a risk communication exercise – I look forward to an update of this paper that discusses the handling of the more recent public response to aerial spraying for painted apple moth in west Auckland.

So, how will this book help in the ongoing debate between scientists and the wider community about the risks of science and its application? In his preface, David Elms provides one insight: a skilled risk communicator must use the theories of risk psychology and risk perception “as part of a strategy for communication (of) risk” A cynical interpretation is that this theory should be used to guide the selling of risky science and technology to the wider community, but it is clear from the book's contents that the sentence should be read more broadly. As the title of “Sharing the Future” indicates, arguments about the risks of the application of a scientific discovery are not solely a technical debate to be won by the use of a better communication strategy, but some form of negotiated settlement arising from open discussion. So, one would hope that this book and the wider body of work which it draws upon is read by a wide audience, so that all protagonists in the debate over new applications of science can recognize and understand the apparent gulf between the scientific assessment of risk and that of the public.