

## Book Review

*Nuclear Energy and the Public* by Joop van der Pligt. Oxford: Blackwell, 1993. 210 pages. \$95 hb.

Nuclear power, being the contentious issue that it is, has spawned a large number of studies probing what the public thinks about the technology. This book gives an overview of research related to public opinion about nuclear power.

Van der Pligt politely but firmly rejects studies which seek to show that nonexperts have misunderstood the hazards of nuclear electricity. He notes that the hypothesis that people have an irrational fear of nuclear power explains very little of the variance in people's support for, or opposition to, it. The book focuses on research that assumes people use rational processes in assessing nuclear risks and benefits. This is a good start.

The book systematically reviews psychological research on a range of topics related to the public's understanding of and evaluation of nuclear power. It looks at the big topic of risk assessment and how people perceive risks. Van der Pligt notes that experts tend to assess risks according to annual fatalities whereas lay assessments of risks are more shaped by factors such as whether the risk is voluntary or involuntary. Admirably, he makes no assumption that expert assessments are superior.

Van der Pligt presents basic ideas about how people form their attitudes, the persistence of those attitudes, and how general attitudes relate to opinions about nuclear power. He also examines in considerable detail, people's attitudes towards nuclear power plants and nuclear waste facilities.

One of the standard findings is that people are more opposed to a power station or waste dump in their own neighbourhood than somewhere else: the NIMBY ('Not In My Back Yard') syndrome. Nothing surprising here. Van der Pligt includes a chapter on stress. A nuclear accident can cause stress, as can uncertainty about whether a nuclear facility will be introduced near to one's home. The author covers everything from the definition of stress to the effects of stressors.

The best examples of stress-causing accidents are Three Mile Island and Chernobyl. There have been many studies of the psychological and other impacts of these accidents. One of the main findings is hardly surprising: support for nuclear power declined after they occurred.

Van der Pligt also deals with the problem of communicating information about risks, especially in disaster situations. There are some useful lessons from Three Mile Island and Chernobyl, such as the importance of having a communications network adequate to the task.

Finally, van der Pligt deals with methods for making decisions about complex issues such as nuclear power, such as development of scenarios, risk assessment, cost-benefit analysis and multi-attribute utility theory.

Overall, the book is informative and balanced in the material it covers. This is an important achievement. The book provides a useful introduction to theories and research findings on public understanding of nuclear power, and an entry into the large literature in the field.

Furthermore, it is sensitive to the pitfalls of opinion research. It consistently points out that value judgments are involved in assessments by experts as well as by members of the public. On the other hand, the prose is not very stimulating to read. Although there are plenty of examples, the dry presentation makes the book more appropriate as a reference than as a recommended reading.

There is one central omission which warrants comment. Most of the studies of public opinion seem to assume that 'the public' is a collection of people whose opinions are directly influenced - in various ways, to be sure - by a range of factors. These factors can be internal, such as value judgments concerning benefits versus costs, or external, such as news reports about accidents.

What is left out of this picture is the nuclear debate itself. Proponents of nuclear power have promoted it for decades and, in the face of opposition, have engaged in publicity campaigns. Opponents have organised public meetings, petition drives, rallies and occupations. In this struggle for support, the opponents have, at the very least, been successful in making nuclear power a subject for widespread concern, even if not every nuclear project has been stopped. One consequence of the nuclear debate is that nuclear power has become a salient public issue. Consequently nuclear accidents are news. Without the anti-nuclear movement, it is quite possible that Three Mile Island and even Chernobyl would have passed without much notice.

Furthermore, the raising of certain issues by the anti-nuclear movement, such as the possible impacts of nuclear wastes on future generations, could well have influenced some people's priorities for evaluating technologies and risks. People's values are partly a consequence of debate as well as a reason for taking particular stances within the debate.

Almost all of the studies about public opinion leave out a detailed analysis of the effect of the pro- and anti-nuclear movements and the nuclear debate in both mobilizing opinion and sensitizing people to nuclear issues. Van der Pligt is no different from others in this regard.

*Reviewed by Brian Martin*

