And yet — even when faced with this dazzling exemplar of constructivist interpretation, a niggling doubt remains in my mind. Richards claims (p. 174) that "the idea of neutral appraisal is a myth. Judgements about experimental findings are inextricably, *necessarily,* bound up with . . . professional and wider social values." Inextricably and necessarily? What about the criticisms which Pauling and Cameron made of the second Mayo Clinic trial, as lucidly set out on pages 145-7? Richards is fully convincing as to why Pauling and Cameron would have put the questions and executed the trial differently. Carrying different conceptual baggage, they would have paid more attention to the vitamin C intake of the control group and they would not have discontinued medication immediately tumour progression became apparent. But Richards gives me no reason to suspect that, in trials done along those lines, the conclusions would be in any important way bound up with the wider social values of the investigators.

Richards' study is deep and rich, full of details about the negotiations that went on behind the scenes. She ends her book by inviting readers to carry out their own analyses of further results that appear. Unfortunately, the invitation is hollow. We the readers do not have access to the backstage activity, the letters from and between the participants, the negotiations with publishers and learned bodies, and so on. We should be all the more grateful for the rare privilege of this one short backstage tour under such expert guidance.

Fred Jevons
Murdoch University

Artificial Intelligence at MIT: Expanding Frontiers *edited by Patrick Henry Wilson with Sarah Alexandra Shellard*
(The MIT Press, Cambridge, Massachusetts, 1990), two volumes, pp. 656 + 634, $70.00, ISBN 0-262-23150-6 and 0-262-23151-4.

This book is a high quality collection of recent reprinted papers by staff and students of the MIT Artificial Intelligence Laboratory. Volume One includes papers such as Abstraction in Numerical Methods, Repairing Learned Knowledge using Experience and Guarded Horn Clause Languages: Are they Deductive and Logical? Volume Two is devoted to the control of mechanical robots, and the design of computer systems which recognise images.

All very good stuff, no doubt, but I suspect that there are very few people, even within the originating laboratory, who could understand every chapter. To overcome this problem each chapter is prefaced by a half page non-technical summary of what the author(s) are doing.

But having read the book, three important questions spring to mind. What exactly is Artificial Intelligence? Who is the book aimed at? And what implications does this have for the future?

The Series Forword defines Artificial Intelligence as "the study of intelligence using the ideas and methods of computation", adding "Unfortunately a definition of intelligence seems impossible at the moment". Despite this uncertainty, the editors arrogantly assume that intelligence must be computational in nature, and that subjects such as psychology and philosophy

can be ignored because they do not point to well-defined computational models of intelligence. A study of the extensive bibliographies suggests that virtually all the authors share this insular view. In fact a better working definition, which fits in well with the ideas of Harry Redner in his book *The Ends of Science* (reviewed in Prometheus, 7, 1, June 1989), is that artificial intelligence includes any activities which attract funds to the leading departments of Artificial Intelligence.

The official answer to my second question, is that AI is so fragmented that the book will provide an overview of the subject. However, it is hard to see who the intended readers are, unless one considers it to be a high class portfolio of departmental research aimed at governmental and industrial sponsors and alumini.

Finally, what of the future? Clearly the book shows the corporatist, collectivist model of big science, discussed by John Houghton in his review of Paul Feyerabend's *Against Method (Prometheus,* 8, 1, June 1990). But is it going in the right direction? Intelligent computers are likely to dominate society in future years, and how this happens will be significantly determined by the big research laboratories, such as MIT. But this research, as judged by these volumes, almost entirely ignores the human element. Computer systems designed around academic research with such an apparent disregard for the values of the man in the street may be ruthlessly efficient — but I doubt that the resulting society will be a pleasant one to live in.

C. Reynolds
CODIL Language Systems Ltd.

Health Scare: The Misuse of Science in Public Health Policy *by J.R. Johnstone and C. Ulyatt*
(Critical Issues Series No. 14, Australian Institute for Public Policy, Perth, WA, 1991), pp. viii + 99, $11.00, ISBN 0-949186-43-0.

Publication No. 14 of the Australian Institute for Public Policy's Critical Issues series is a collaborative effort by Drs. Johnstone and Ulyatt. Johnstone, with research interests in neurophysiology and public health, is the author of the three chapters entitled Health Scare: The Misuse of Science in Public Health Policy. Ulyatt, whose background is politics and philosophy, penned the closing essay Making the Nanny State Honest.

Ch. 1 of *Health Scare* evaluates published reports into the link between passive smoking and cancer of the lung. According to Johnstone, the information base is characterised by "sloppy" (p. 8) data gathering, selective presentation of findings "with unwelcome results left unpresented" (p. 13) and questionable conclusions (Can it really be the case, as one study found, that the non-smoking wives of heavy smokers were more likely to get lung cancer than wives who smoked? (p. 10)).

Ch. 2 is an aside in which are described several instances where public health authorities have withheld from dissemination of data that does not fit with their preconceived ideas, or have failed to ensure that their public pronouncements coincide with their cited sources.