

Science for all

William H. Press

The Roving Mind.

By Isaac Asimov.

Prometheus: 1983. Pp.348. \$17.95.

DOGS, and related species, reject excess body heat by panting. Humans generally sweat. Isaac Asimov writes essays. This book is a collection of 62 such essays, whose range of subject matter (and also quality) can be accurately described as "diverse".

At his finest, Asimov is a very good popularizer of science. In an avuncular style that is uniquely his own, he asks questions that his lay reader would like to ask, and then he answers them in straight-forward (if blocky and perhaps overly idiosyncratic) prose. There are a number of superb popularizers at work: some are better writers than Asimov (Lewis Thomas or Stephen Jay Gould); some may be more charismatic (Carl Sagan); but Asimov was doing it first, prodigiously and indefatigably. We should not forget, in the current and perhaps faddish explosion of popular science, that there were lean decades during which even the best popularizers wrote "science fact" columns for science fiction magazines. Many who are scientific professionals were once

adolescent readers of those columns.

In this volume, Asimov's best include pieces detailing the present mysteries of solar astronomy, removing the mythology of cloning (backyard gardeners do it all the time), and pointing out deficiencies in the supposed chemistry expertise of Sherlock Holmes.

He puts forward occasional dandy (though debatable) ideas: telepathy must be impossible, he says, because it has such evident survival benefit that animals would long since have developed it; an all-knowing, computerized government will be less, not more, repressive, he says, since it will selectively repress only a few individuals, not everyone indiscriminately (I do not believe that); collectors of the future will pay high prices for today's expired credit cards; hotel rooms of the future will have, on the outside, featureless doors that respond to your thumbprint, but (he reassures us) on the inside will be the familiar door knob and chain or bolt. We can only marvel at his clarity of vision.

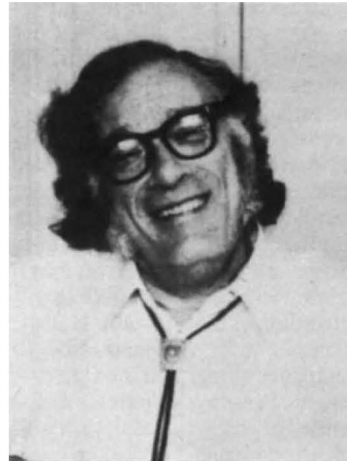
And the rest of the essays? A number might be called political, if that term can be used to include a kind of vague, pro-technical liberalism. Asimov exhorts us all

to "control population, conserve energy, increase the humanity, rationality, and wisdom of governments, work for a better ecological balance, and encourage the continued advance of science and technology, using its products more wisely than in the past". He is against creationism, pseudo-science, astrology, censorship, and the (US) "moral majority" movement. These are not entirely uncourageous stands to take in magazines like *Family Weekly* or *T.V. Guide*, where some of the essays

originally appeared. Technically sophisticated readers may, however, find the rhetoric predictable and even quaint, like some newsletter to an ageing group of party faithful who still get a little thrill at reading the same old arguments that they have believed in for so long.

If Asimov's arguments are still making converts to science and to rational thought, that is for the good. If they are not (and this is my own fear), then

we had better look seriously at why they are failing, at what can be done in popular defence of basic scientific research (as distinct from "high-tech" faddishness) and at who is to do it. □



Asimov — "doing it first . . .".

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Contributors: Aitken, Bevins, Bull, Clayton, Colclutt, Currant, Debenham, Embleton, Huxtable, Ivanovich, Jenkins, Molleson, Newcomer, Schwarcz, Stringer.

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Choice of computers

Donald MacKay

Are Computers Alive? Evolution and New Life Forms.

By Geoff Simons.

Harvester/Birkhäuser: 1983.

Pp.212. £9.95, \$18.95.

A PAPERBACK that caused some excitement in my schooldays was entitled *Meet Yourself as You Really Are*. Similar in plan to a "programmed learning" text, it took you through a labyrinth of questions about yourself, instructing you at each step to turn to a fresh page according to the answer you gave. In the end — hey presto! — it led you to a detailed description of your personality. Despite the sense of awe we felt at such a performance, it did not occur to many of us to think of the book as "alive". Why not? Judged by Mr Simons's logic, we might appear to have been unduly conservative.

Having myself spent a lifetime resisting philosophical arguments that undervalue the powers of computers, I find this book a disappointing mixture of sense and nonsense. Over large tracts of technical territory Simons leads us with a sure foot, a

racy tongue and a perceptive eye. He writes lucidly, and sketches an instructive picture that takes account of most current developments in computer science. Then, recurrently, as with Balaam of old, the prophetic mantle descends and he finds himself constrained to emit oracles of doom against the whole religious view of human nature and human destiny, with the settled conviction that any resistance to his ideas "... is largely a matter of human vanity. Status and self-image are at stake". The old canard is repeated that Copernicus, Darwin and Freud "effectively dethroned man from (respectively) the centre of the universe, a zoological pedestal, and conscious autonomy over all human motivation". "In a number of ways", he claims, "the emergence of computer life is rightly sensed as continuing this process of dethronement . . . It is likely that *there are other species to come on Earth, that their progenitors are already working amongst us, and that human beings may or may not find it possible to co-exist with the new life-forms that will appear*" (pp. 3-4, italics original).

No doubt some case can be made for redefining the concept of "life" to cover computers — yea doubtless even programmed-instruction books, which can be regarded as computers with do-it-