

## BOOK REVIEWS

## Confronting the unanswerable

Marie Jahoda

WHEN two nimble minds combine in the effort to produce a book designed, according to the preface, "to provoke, disturb and befuddle its readers" the chances of succeeding in this not obviously laudable enterprise must be high. Had Hofstadter and Dennett added to their aims amuse, disappoint and frustrate they would have encompassed the whole universe of possible readers' reactions to this particular book and their success, measured by their own standards, would have been total.

The themes addressed in the book concern eternal questions that have preoccupied great and not so great minds since the dawn of history: the nature of self, of consciousness, of reality, the body-mind problem, free will, the relation of mechanism to meaning. Every conceivable approach to these issues has in the past been adopted with conviction by some; none has withstood critical examination by others. All of them, however, whether based on religion, philosophy or science fulfil a major function: they enable their adherents to engage in a bootstrap operation, pulling themselves out of the inevitable ignorance about the ultimate why and wherefore. Once this operation is performed they can proceed to tackle answerable questions or develop consistent world views.

The debate about fundamental assumptions has in recent years gained new impetus through the development of computers and of artificial intelligence (AI); both play a dominant part in the book under review. The issues raised are, however, also tackled by other means without recourse to modern technology or to the spreading enthusiasm for AI. This variety of approaches is the result of the peculiar conception of this book. Hofstadter and Dennett have here reprinted pieces by 20 different authors, each of whom is known as a science fiction writer or a philosopher or a scientist or a literary figure. If one did not know their names it would be hard to classify them, for many write with remarkable ease in several of these idioms. Every contribution is followed by some reflections on it by one or both of the "composers" of this volume. These original contributions form less than a quarter of the text.

Many, though not all of the reprinted pieces are amusing and relevant to the major issues. My favourite science fiction writer, philosopher and scientist, Stanislaw Lem, is represented by several pieces, outstanding among them *Non Serviam*, where his man-made creatures agonize about

*The Mind's I: Fantasies and Reflections on Self and Soul*. Composed and arranged by Douglas R. Hofstadter and Daniel C. Dennett. Pp.450. UK ISBN 0-7108-0352-4; US ISBN 0-465-04624-X. (Harvester/Basic Books: 1981.) £9.95, \$16.95.

their origin and the qualities of their creator; agonize because the very essence of their being precludes the possibility of discovering answers.

The philosopher Dennett in his excursion into science fiction raises the fantasy of a disembodied brain kept functioning while connected to an empty cranium by radio links, thus directing a human body hundreds of miles away. In his reflections on his own story Dennett rightly says that the story "not only isn't true . . . but couldn't be true" (p.230) and is truly "outrageous" (p.231). On p.5, however, he commits himself differently by insisting that everything that is imaginable is hence possible in principle; befuddling with a vengeance and disturbing in raising the possibility of brain transplants.

Richard Dawkins in an excerpt from *The Selfish Gene* is at his well-known reductionist best, but he admits that the evolution of subjective consciousness is "the most profound mystery facing modern biology" (p.141). Thomas Nagel's question, "What is it like to be a Bat?", prompts an interesting discussion of the gap between subjective experience and objective fact and the not-unexpected answer that it is hard to know.

In his reflection on this contribution Hofstadter, who has so brilliantly demonstrated his ability to discuss profound problems playfully and with wit in his *Prelude . . . Ant Fugue* (reprinted in this volume), here lets himself down by raising some 50 rather silly questions, of which "What is it like to be Chopin's brother [he had none]?" is a typical example. Nagel's question posed the problem; 50 variations do not make it clearer. To be sure, he follows this with other reflections, some of them interesting, but less coherent than Nagel's argument.

Computer simulation and AI appear in many original and reprinted contributions; they are confronted head-on in John Searle's "Minds, Brains and Programs" and in the following reflections. This sharp and prolonged controversy forms the frustrating highlight of the book. Searle distinguishes the cautious claim of AI — that it is a powerful tool for the study of the mind — from the strong claim that computers given the right programs can be

literally said to *understand* . . . the programs are not mere tools . . . to test psychological explanations; rather . . . themselves the explanations [p.353].

This claim provokes him to a sustained counter-argument, the gist of which is to insist on the difference between simulation and identity, based on the impossibility of separating mind from brain. Intentionality is a biological phenomenon . . . No one would suppose that we could produce milk and sugar by running a computer simulation of the formal sequences in lactation and photosynthesis, but where the mind is concerned many people are willing to believe in such a miracle . . . [p.372].

In their reflections on Searle, Hofstadter and Dennett say unequivocally "our position is quite opposed to Searle's" (p.373) but they do not proceed to face the issues straight on. By implication rather than direct statement they seem to support the strong claims of AI, though they admit that present technology has not yet established the identity of programmed intelligence and human intelligence. "Minds . . . may come to exist in programmed machines. . ." (p.382).

We shall all have to wait and see. Anybody who wishes to confront the unanswerable will enjoy this book; those who struggle with answerable questions will brush it aside.

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## Gentle violence

William H. Press

*Violent Phenomena in the Universe*. By Jayant V. Narlikar. Pp.218. ISBN 0-19-219160-8. (Oxford University Press: 1982.) £9.95, \$19.95.

THE title of this book makes it seem like some tawdry imitation of Nigel Calder's *Violent Universe*. Perhaps some editor with an eye on sales can be blamed for such a blatancy, which does disservice to an excellent and uncompromising book on modern astrophysical theory and discovery. Not just inapt, the title seems quaintly *passé*: "violence" as a cosmic metaphor seems to have faded with the early 1970s. And who now remembers the "majestic" universe, before it became violent?