

Book Review

The Undiscovered Mind : How the Brain Defies Explanation

John Horgan

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John Horgan, the former senior writer at the *Scientific American* and the author of *The End of Science* (1977) [also reviewed in Ind. Sc. Cr. April 1999] has now published an interesting and informative book on the subject of the human mind. The author provides a critical review of the various scientific attempts undertaken to explain the human mind. He covers the fields of psychology and psychiatry, neuroscience, behavioural genetics, evolutionary psychology, artificial intelligence, leading up to the still unsolved problem of human consciousness. The titles of the eight chapters indicate the scope of the book :

- Neuroscience's Explanatory Gap
- Why Freud isn't Dead
- Psychotherapy
- Prozac and other Placebos
- Gene-Whiz Science
- Darwin to the Rescue
- Artificial Common Sense
- The Consciousness Conundrum

Horgan starts off with a warning against expecting too much from the current mind-science. He writes : *I fear that neuroscience, psychology, psychiatry, and other fields addressing the mind might be bumping up against fundamental limits of science.* He then goes on developing a selection of interesting topics citing comments by well known scientists whom he interviewed. The treatment of a very large number of topics in a popular style within the compass of a short book means that the discussion cannot be exhaustive or definitive. Still from reading this book I learned a lot and was able to refresh things I vaguely remembered.

John Horgan recounts his meetings with a host of famous and also not-so-famous scholars dealing with mind-science. His witty remarks and unassuming style make the book enjoyable. A balanced attitude always pointing out both the pros and cons of an argument, appealed to me as also the vast amount of authentic information supplied in simple language, together with 40 pages of notes and a selected bibliography.

For instance, we notice that there are both supporters and opponents of Freud and psychoanalysis. There is no conclusive evidence that psychoanalysis is superior to faith healing as a mode of therapy (p. 74). There seems to be a trend that psychoanalysis is declining as a result of managed care and the surging popularity of drugs such as Prozac (p. 74). On the other hand, the placebo effect may account for much, if not all, of the beneficial effects of psychopharmacology (p. 125).

The relative importance of nature versus nature is an old question. How much do we inherit through our genes and how much depends on the environment? Is intelligence inherited? Is alcoholism an inherited disorder? What exactly are Darwinian Social Science or Neo-Darwinism? What do Behavioural Geneticists say and where do Sociobiology and Evolutionary Psychology stand today? How far should we emphasise the principles of Natural Selection and Survival of the Fittest? Horgan addresses these and other questions in a level headed, factual way which I liked (Ch. 6). Similarly, in the chapter on Artificial Intelligence, we read : *Just because a computer can play chess, doesn't mean it can think The Brain is more than hardware. It's all the software and everything else* (p. 207-8).

The chapter on consciousness is largely based on a conference Horgan attended in April 1994,

entitled *Towards a Scientific Basis of Consciousness*. The conference was held at the University of Arizona in Tucson and was attended by many well known figures : Karl Pribram, Benjamin Libet, Steen Rasnysen, Christof Koch, Francis Crick, Walter Freeman, Owen Flanagan, Roger Penrose, David Chalmers, Brian Josephson *et al*, whose views are quoted by Horgan. Many of the arguments of the learned men were carefully presented, but were somewhat off the mark, Horgan writes. On the general subject of consciousness, Horgan quotes more sympathetically the views of Daniel Dennett, Noam Chomsky, Marvin Minsky, Howard Gardner, Steven Pinker — all celebrities in their fields. John Horgan calls his own position on consciousness and free will, mysterianism, which he says is becoming the mainstream position. [Noam Chomsky : Consciousness is only one of many mysterious properties of nature; Steven Pinker : Consciousness, free will, the self and other riddles posed by the mind are probably unsolvable (pp. 249-50).

In summary, if you are fascinated by the human mystery, how the mind works, what is consciousness, how best to treat mental illness and how to replicate mind's properties in machines (computers), this will be a good book to start with. You will learn without toil about the modern trends in the science of mind. Even if you are familiar with some aspects of it, you may be interested to read what other experts, quoted by the author, have to say on the many open questions in the field.

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