

BOOK REVIEWS

The Conscious Mind: In Search of a Fundamental Theory, by David J. Chalmers. Oxford University Press 1996. 414 pp. \$29.95.

Consciousness, as a philosophical issue, has been attracting increasing attention in recent years. There is now a *Journal of Consciousness Studies*, to which the author of this book contributed a keynote article, and a recent conference at the University of Arizona, Tucson, attracted entries from some 640 philosophers including David Chalmers. His book is essential reading for anyone interested in what philosophers are now saying on the issue of consciousness.

In his Introduction, the author confesses that "temperamentally, I am strongly inclined towards materialist reductive explanation and have no strong spiritual or religious inclination." This avowal sets the tone of the book which seems to assume that his critics are likely to be more materialistic than he is. Nevertheless, consciousness, whatever we may make of it, is a fact of life that cannot be ignored just because there is no ready materialistic explanation. On the contrary, "we are," the author points out, "surer of the existence of conscious experience than we are of anything else in the world." At the same time, from an evolutionary standpoint, there is no obvious reason why we should be conscious. We could just as well have evolved as intelligent automata or "zombies," to use the current philosophical jargon.

The author does not attempt to define "consciousness," but points out that a given object is conscious if there is "something that it is like to be that object" (to use Thomas Nagel's telling phrase). We do not normally ascribe consciousness to a computer, however impressive its cognitive capacities, simply because we do not believe that there is anything that it is like to be that computer. To maltreat a computer may indeed be an act of vandalism but hardly an act of cruelty! On the other hand, we are prepared to accord some degree of consciousness to organisms quite low on the evolutionary scale. However, in his penultimate chapter, on "Strong Artificial Intelligence," Chalmers concedes that we cannot rule out *apriori* the possibility of a computer or robot acquiring consciousness. Indeed, he offers an ingenious thought experiment in which the neurons of a live human being are replaced, one by one, by silicon chips that perform exactly the same functions as neurons. At what point, he asks, rhetorically, would the person in question be no longer a conscious being?

Eventually, the author comes to the conclusion that consciousness is a function of a cognitive system which exhibits the appropriate kind of "awareness" or "the availability of global control." Unlike consciousness, which is unique, awareness can be defined in purely behavioral terms. Given, therefore, the

appropriate material substrate, we may assume that consciousness will supervene.

A final chapter discusses the role of consciousness in quantum theory. According to the prevailing interpretation of quantum theory, matter persists in an indeterminate state up to the point at which it is observed. This implies that consciousness does make a difference to the world that we know directly and must, therefore, be more than just an epiphenomenon of brain processes. However, little attempt is made to integrate these considerations with the interpretation of consciousness as set out in the previous chapters.

Such, then, is the tenor of this thought-provoking book but no such bald outline can do justice to its closely reasoned argumentation or to the author's conscientious rebuttals of alternative positions. However, given such thoroughness, it is all the more to be regretted that Chalmers sees no need to look beyond scientific orthodoxy. Parapsychology and the paranormal do not so much as figure in the index. Yet, had he deigned to take such evidence into account, he would have been hard put to treat the physical universe as a causally closed system. Since there is, by definition, no physical explanation for ESP or PK, the author would have been forced either to justify rejecting the evidence for such phenomena or to accept a type of mental causation that defies a physicalist analysis. In that case, he would have had to reconsider the "naturalistic dualism" which he here advocates in favor of an "interactionist dualism" which he here curtly dismisses. (p.163)

John Beloff
6 Blackett Place
Edinburgh EH9 1RL, Scotland UK

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The readers of this Journal may be familiar with Chalmers' work from his December 1995 *Scientific American* piece entitled "The Puzzle of Consciousness." In that piece, and in this book, he offers an arresting thesis.

After all, it is no small thing to say that contemporary science, in spite of its self-congratulatory confidence is completely in the dark in understanding the nature of consciousness and its role in nature. Hence this exciting and well-written book is controversial in that it is a most serious challenge to the long-standing materialist orthodoxy in the philosophy of mind. Indeed, prominent philosophers have made the claim that it is the most serious challenge to date and may well change the focus and direction of future discussion on the basic question about human nature. Words such as "brilliant," "honest," "formidable," "instructive," "stimulating" and "stunning" often appear in the reviews. Even among those philosophers who are true believers in the current materialist orthodoxy to the effect that consciousness must be construed as a physical