

the term “crackpot” to such ideas after they are found to be mistaken, and he also supports Morris’s application of “crackpot” to Velikovsky. Gardner feels that there is a vast difference between the methods of Deryagin and Velikovsky. It is likely that everyone would put some scientific theories into each of these categories: well supported, disproved, unproved but promising, unproved and very unlikely. Drawing boundaries can divide theories in this manner; deciding how to draw such boundaries divides the scientific community.

Robert L. Raymond
University of St. Thomas
St. Paul, MN 55105-1096

References

- Franks, F. (1981). *Polywater*. Cambridge, MA: MIT Press.
Morris, R. (1983). *Dismantling the universe*. New York: Simon and Schuster.

Paranormal Experience and Survival of Death (Suny Series in Western Esoteric Traditions) by Carl B. Becker. Albany, NY: State University of New York Press, 1993. x + 257 pp. \$23.95. ISBN 0-791-414-760.

If, like the present reviewer, you have attained your 80th year, you may be forgiven for wanting to know whether you have at most a few more years of existence on this planet or whether you can look forward to an indefinite future life in some other guise in some other realm. Carl Becker does not purport to know the answer and does not seek to proselytize for any particular faith or creed, but he clearly, and rightly in my view, considers that we have been too hasty in letting ourselves be beguiled by the prevailing scientific materialism into abandoning this ancient and widespread belief.

His first three chapters are devoted respectively to the idea of reincarnation, to hauntings and apparitions, and to near-death experiences. He then turns to general objections to evidence for the paranormal, be they rational or irrational objections. It is followed by a chapter on the conservatism and resistance to change in the sciences. This brings him to chapter six, the final chapter, in which he asks, “What Will the Next World be Like?”

To anyone who still has an open mind on this issue, this book can be strongly recommended. The author does not try to browbeat the reader into accepting any particular position, but reading his book enables us to understand more clearly what is at issue and what we may reasonably believe. The text is fully annotated, and the bibliography runs to some 30 pages.

Like any reviewer, I was agog to spot mistakes, but I could spot only two. Michael Polanyi was never a psychiatrist. He was a research physical chemist who, in later years, made a name for himself as a philosopher of science. Richet’s first name was Charles, not Claude. I was surprised that there was no reference to Susan Blackmore’s *Beyond the Body* (Heinemann, 1982). She

was, after all, something of a pioneer in stimulating interest in out-of-body experiences even if she eventually threw in her lot with the skeptics. But these are all minor points. The book will, I am confident, become essential reading for all who are involved in the survival issue.

John Beloff

6 Blackett Place, Edinburgh EH9 1RL, Scotland UK

Scientific Development and Misconceptions through the Ages, A Reference Guide by Robert E. Krebs. Westport, CT: Greenwood Press, 1999. vii + 286 pp. \$49.95 (paperback). ISBN 0-313-30226-X.

The announced aim of this book is to present a short history of science and a review of misconceptions through the ages as they have arisen in all the fields of science. Because the author is a retired administrator at a health sciences center, it is not surprising that biological and applied areas receive special emphasis. The author insists that deliberate falsifications are beyond the scope of the study, which attempts to be comprehensive in other respects. Classification plays a major part in the author's attempt to distinguish between the sciences and other fields of belief. Most mathematicians will be surprised to find their discipline classified as an applied science. Students of theology will find its inclusion in the class of superstitions, a less than promising starting point for a comprehensive study of intellectual endeavors. Krebs tries to give due credit to philosophy by calling it a "borderline science." Philosophers will be able to forgive administrative misconceptions, which may be fruitful as topics for discussion in the classroom. Problems of classification appear once more when astrology is treated in the same chapter as cosmology.

There is a large amount of instructive material in sections on medicine and health, theoretical biology, chemistry and physics, and conservation. The identification of historical disputes and outcomes is in many cases helpful at a certain level of instruction. In my opinion, some of the strongest lines of discussion in this book concern the identification of motivations for less than critical beliefs and belief systems. The errors upon which the author concentrates are of various kinds, ranging from technical mistakes in calculation to flaws in broad conceptual systems. A stronger account of misconceptions through the ages might devote more analytic attention to different levels of concept identification and use in the scientific endeavor.

Robert F. Creegan
Professor Emeritus, Philosophy
The University at Albany, SUNY