


5-1-1979

[Book Review of] *The Self and Its Brain: An Argument for Interactionism*, by Carl R. Popper and John C. Eccles

Vernon Mark

Follow this and additional works at: <http://epublications.marquette.edu/lnq>

 Part of the [Ethics and Political Philosophy Commons](#), and the [Medicine and Health Sciences Commons](#)

Recommended Citation

Mark, Vernon (1979) "[Book Review of] *The Self and Its Brain: An Argument for Interactionism*, by Carl R. Popper and John C. Eccles," *The Linacre Quarterly*: Vol. 46: No. 2, Article 15.

Available at: <http://epublications.marquette.edu/lnq/vol46/iss2/15>

Book Reviews

The Self and Its Brain: An Argument for Interactionism

Carl R. Popper and John C. Eccles

Springer-Verlag, New York, 1977. xvi + 597 pp., \$17.90.

This volume, relying upon the arsenal of man's sophisticated intelligence and stored knowledge, attempts to resolve the age-old argument about dualism. Are the brain and the mind one entity? Or are there two elements: the materialistic electrochemical brain, and the mind — a form of energy or a philosophical entity which is yet to be defined? This argument is not new. Indeed, Aristotle, Descartes and Sir Charles Sherrington, as well as neurosurgeon Wilder Penfield, all opted for the dualistic theory that mind and brain are two separate entities.

This book asks another equally searching question: can one mix oil and water — the oil of philosophical theory with the water of experimentally based neurophysiology? Popper, the eminent philosopher, and Eccles, the Nobel laureate in neurophysiology, make a valid effort to succeed in this alchemy with an extensive dialogue that makes up the third part of this volume. But this discussion, in search of the ultimate truth, is simply frosting on the cake; the meat of the book is in the first two sections, one devoted to the philosophy of "the three worlds," and the other to a detailed description of what is known about the neurophysiology of the brain.

Popper is a critic of materialism and a defender of the existence of "downward causation." He apparently agrees with Sperry that any action of the mind upon the brain is merely an instance of downward causation. Popper's philosophy also makes a "derived" statement about natural selection. He suggests that this process was previously considered the result of a more or less violent struggle for life. However, with the emergence of "mind," as he views it in his world "Three," the process of natural selection is changed. Now, as he puts it: "We may let our theories fight it out — we may let our theories die in our stead." He has suggested that in bringing about the emergence of the mind, and his "world three," natural selection transcends itself in terms of its original violent character.

Eccles has written a more traditional exposition of the dualistic theory from a neurophysiological point of view. In addition, he has presented a detailed and quite accurate resume of neurophysiological information, especially as it regards cerebral physiology. He introduces the term "the self-conscious mind" as a force or property different from the brain, and he points out the shortcomings of our present neurophysiological knowledge about the ultimate process of consciousness.

Briefly, Eccles thinks that the self-conscious mind is an independent entity that is actively engaged in reading out from the multitude of active centers in the modules of the liaison areas of the dominant cerebral hemisphere. He further believes that this entity selects from these centers in accord with its attention and interest, and integrates its selection to give the unity of conscious experience from moment to moment. He proposes that the self-conscious mind exercises a superior interpretive and controlling role upon the neural events by virtue of a two way

interaction across the interface between Popper's world one and world two. He suggests that the unity of conscious experience comes not from an ultimate synthesis in the neuro-machinery, but in the integrating action of the self-conscious mind on what it reads out from the immense diversity of neural activities in the liaison brain.

Popper and Eccles have made a valid effort to marshal the arguments that substantiate their theories and direct science and civilization on a new pathway. But have they really succeeded? Or does the thorough mixing of oil and water still leave a murky solution, obscuring our view of the real truth that will ultimately provide a solution to the mystery of the mind? Popper, at least, comments upon views opposing his own, albeit in a highly critical fashion. Eccles ignores the evidence indicating the identity of mind and brain. Specifically, he does not mention the work of George Elliot Coghill or the Herrick brothers, nor does he review, in detail, the unifying theories of Magoun concerning states of consciousness and the brain stem is reticular formation. For all the evidence that Eccles has marshalled, he still has failed to separate clearly the "self-conscious mind" from the central nervous system. And as for the theory of dualism propounded in this book, I am afraid that the best I can give it, is a Scotch verdict — "unproved."

— Vernon Mark, M.D., F.A.C.S.
Director, Neurological Services
Boston City Hospital

Official Catholic Teachings: Love and Sexuality

Odile M. Liebard, Editor

McGrath Publishing, Wilmington, N.C., 1978. 496 pp., \$15.95.

This is an excellent collection of encyclical letters, papal addresses and pastoral letters regarding the Catholic Church's teachings on the sanctity of sex, marriage, procreation, family and human life, born and unborn. Of special interest and significance are the documents concerning the Church's courageous, firmly and uncompromisingly held, astutely argued and eloquently expressed conviction that human life, born and unborn, is a gift from God.

From a theological perspective, the National Conference of Catholic Bishops of America clearly is right to maintain, as it did on Nov. 15, 1968 that, "We are convinced that belief in God is intimately bound up with devotion to life. God is the ultimate source of life, His Son its Redeemer, so that denial of God undermines the sanctity of life itself." The Bishops' Statement is buttressed by a Declaration on Abortion issued by the Sacred Congregation for the Doctrine of the Faith on Nov. 18, 1974. The Declaration said: "Human life is constantly under God's protection; the blood of man cries out to Him (See *Gn.* 4, 10) and He will demand an accounting for it: 'For in the image of God has man been made' (*Gn.* 9, 5-6). 'You shall not kill' (*Ex.* 20, 13) is God's commandment."

The Sacred Congregation for the Doctrine of the Faith sees abortion for what it truly is: a terrible, horrifying act of injustice which degrades man. The Congre-