

Book Forum

Nancy C. Andreasen, M.D., Ph.D., Editor

MIND AND BRAIN

The Remembered Present: A Biological Theory of Consciousness, by Gerald M. Edelman. New York, Basic Books, 1990, 336 pp., \$32.95.

A curious phenomenon: just when psychiatry has beaten a wholesale retreat from overarching theory to a not always finely targeted empiricism, neuroscience has swung in the converse direction—to admit the paraphernalia of cognitive science and artificial intelligence and even consciousness, that elusive but incendiary taboo construct. Consciousness used to be systematically cold-shouldered, but even quite respectable investigators now dedicate their efforts to discovering where it lurks and how it works. No one has done this more strenuously or with more perseverance than the author of *The Remembered Present*.

A convenient windmill to tilt at always makes a good start. Long dominant, hierarchical theories of brain organization have taken a beating of late. Parallel processing and reciprocal circuitry are in. Edelman joins the growing group of theorists who have realized that problems of cognition are not solved but only kicked upstairs by shuttling information to higher and yet higher centers. Instead, the neural network must have a repertoire of states that correspond to the set of experiences. How is this correspondence accomplished?

Edelman takes advantage of the well-known property of cerebral organization by which cortico-cortical connections are reciprocal (not unidirectional, aft-to-fore, as previously supposed). His analysis relies on such "reentrant" circuitry, and he demonstrates some neat tricks that it can play. Such simulation is, of course, the cognitive science approach, and had the simulations been more numerous and more profound one would have taken the theory more seriously. Edelman, however, goes it alone, stomping imaginary opponents in cognitive science, artificial intelligence, and functionalism on his way, although they are the most likely source of help that his ideas so desperately need.

The Remembered Present is a dense, intense text and exhibits a voracious and eclectic intellect, but its speculations so greatly outstrip their data base that little may be lost if one defers reading it, pending the next, expanded edition, which presumably will incorporate enough compatible fact to sustain the reader's interest in the ideas.

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The Science of the Mind, 2nd ed. by Owen Flanagan. Cambridge, Mass., MIT Press, 1991, 424 pp., \$27.50; \$14.50 (paper).

It is not an uncommon assumption among psychiatrists and psychologists that they can do quite nicely without philosophy thank you very much. Yet the paradox is that it is impossible not to take a philosophical stance of some kind, and psychia-

trists and psychologists are effectively logical positivists or pragmatists and not very good ones at that.

Psychology and psychiatry are built on a complex network of usually unsuspected and unexamined metaphysical and epistemological assumptions. Different psychological schools start from different assumptions and, of course, reach different conclusions.

These schools then battle, sometimes for decades, as in the case of psychoanalysis and behaviorism, over their conclusions. Unless the combatants recognize and address their underlying assumptions, such battles are probably doomed to be fruitless, inconclusive, and unending. Add to this the fact that all too often proponents of one school have only a superficial knowledge and understanding of the proponents of the other schools and the prospects for the resolution of differences obviously become very bleak.

It would be extremely helpful to have a book that lays out the philosophical grounds and assumptions of different psychologies, and this is just what Owen Flanagan's book does. Flanagan carefully examines the claims of different schools of psychology and approaches to the mind, including those of Descartes, William James, Sigmund Freud, B.F. Skinner, Piaget, and Lawrence Kohlberg. He also examines cognitive psychology, artificial intelligence, sociobiology, and the nature of consciousness. He explores the underlying assumptions and logic as well as the validity and scope of each school's claims.

Flanagan has done his homework well. He has a deep knowledge of both psychology and philosophy, has carefully studied the different schools and their related research, acknowledges his own biases, and is scrupulously fair. I found only one very small dubious area, which involved a critique of Kohlberg's suggested seventh stage of moral development. Flanagan dismisses this as the product of "a weak mystical moment," but his dismissal appears to reflect a misunderstanding of mysticism, which, in addition to being the subject of much popular nonsense, has also been the focus of some of the world's greatest philosophers—Plato, Plotinus, Shankara, Chuang Tzu, and Ibn El-Arabi to name only as many as can be counted on one hand. This is a very minor fault in an otherwise excellent work. I know of no other that provides such careful and penetrating introductions to the philosophical assumptions and implications of major psychological theories.

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Body Images: Development, Deviance, and Change, edited by Thomas F. Cash and Thomas Pruzinsky. New York, Guilford Press, 1990, 361 pp., \$39.95.

This very interesting book covers an important area to which psychiatry has not given adequate attention. The editors, together with 15 other contributors, have undertaken the subject of the psychological and social aspects of body images. In doing this, they tell us that they will answer the following questions: What are the meaningful components of the construct of body image and how are they best measured? What are the physical, developmental, social, and cultural determi-