

## Ellery Queen, Where Are You?

Review of Arturo Rosenblueth, *Mind and Brain: A Philosophy of Science*. Cambridge, Mass.: MIT Press, 1970, \$5.95.

It is by now a well-established custom for senior scientists in physics and biology to cap their illustrious careers with publication of their matured thoughts on matters psychological and philosophical. And it is equally customary for psychologists and philosophers who know the technical score on such matters to maintain a charitable silence about these offerings.

Although the present work lies basically within this great tradition, it is not nearly so desperate as my snide preamble might suggest. Actually, it is a rather pleasant little book which neither inconveniences the reader with sweaty intellectual demands nor is yet so lacking in challenge that an evening spent in its company will be regretted. Unpretentiously written, it never strays far from its intended stomping ground of mind/body relations, with an outlook on the scope of human knowledge. This is by no means an unconscionable undertaking for a neurophysiologist who, like Rosenblueth, has a demonstrated capacity for significant contributions to the philosophy of science and who approaches his subject with a refreshing no-nonsense hygiene which nonetheless avoids that unpleasant after-taste of astringent dogmatism.

However, while the issues raised by Rosenblueth are consistently profound, he addresses them with such stark brevity that the grounds for his conclusions are scarcely discernible, much less convincing; nor does the modesty of his acquaintance with the technical literature on these matters help him to locate their essentials:

*Item.* Animal behaviors are postulated to be ‘conscious,’ i.e. to be “comprehensible . . . only if . . . accompanied and determined by [mental] experiences,” when “(a) they are not inborn or conditioned reflexes, and (b) they are adaptive and thus have a survival value [p. 26]. Rosenblueth examines no specific instance of such prestigious phenomena, however, nor does he give heed to behavior-theoretic models of complex behavior. Regardless of their limitations (which are indeed severe, though much less so than anti-behaviorists smugly like to pretend), S-R habit/incentive mechanisms, discriminated operants, and the like neither are reflex systems nor do the adaptive behaviors explainable by them require conscious concomitants to make them comprehensible. (Even Tolmanian expectancies lose their mentalistic flavor when hard-boiled à la MacCorquodale & Meehl.) Indeed, *any*

behavior-theoretic device which can be built into an inorganic system—namely, any which works by determinate or stochastically lawful principles—is exactly the sort of mechanistic explanation which has traditionally been felt to strip away all need for appeal to consciousness. To be sure, there are others, myself among them, who suspect that mentality follows function, i.e. that processes with the right sort of complexity are inherently conscious, regardless of the physical substratum which embodies them. Just what aspects of under-the-skin events may have this special character is still very much an unknown, however, and so simplistic a criterion as Rosenblueth’s largely begs the question.

*Item.* We are claimed to be “directly aware of only [our] own mental states and events [p. 65]” while “all we can know of the objects and events in the material universe is their structure [p. 55].” Since Rosenblueth takes this to be evident from the fact that sensory input is “phrased in a code which has nothing in common with the original objects or events except for a common structure,” he must be suspected of the classic phenomenalist confusion between a cognition’s content (meaning) and its object (referent), i.e. between the percept/memory/thought itself and the event of which this is a percept/memory/thought (see Rozeboom, 1972). What is objectionable here it not so much the author’s choosing to cultivate the rocky side of a much-trampled epistemic battleground as his doing so in all innocence of the case for realism. At the very least, Rosenblueth should have given thought to whether his theory of knowledge allows his own assertions about the material world to be knowable or even conceivable.

*Item.* On the basis of a single youthful paper by Feigl, Rosenblueth construes the ‘double language’ or ‘Identity’ theory of mind/body relations to propose that statements about mental and neurophysiological events are intertranslatable, and proceeds to reject this view on grounds that meaning equivalences between mentalistic and physiological assertions do not in fact exist. Rosenblueth is assuredly correct in the latter, but no Identity theorist would hold otherwise. In his later writings Feigl (e.g. 1958, pp. 389f., 445ff.) has made abundantly clear that only a synthetic (*contra* analytic) identity is envisioned. The heart of the Identity argument is that even though correlative mental and physiological concepts do not *mean* the same, they may well have the same *referent*.

Scholarship shortcomings could easily be forgiven were the author to give us a provocative, novel, or tightly reasoned account of his primary objective, the mind/brain linkage. And perhaps he does, since I must confess that his solution eludes me. Rosenblueth insists (a) that each specific mental event corresponds to a specific pattern of neuronal activity; (b) that these mental/ neuronal correlates, though but “different aspects of a single event,” are nonetheless dualistically distinct (farewell to any version of monism); and (c) that mental events neither intervene in the causal determination of physical events (bye-bye interactionism) nor

are themselves causally produced by the latter (bye-bye epiphenomenalism). So far, this sounds like a straightforward psychophysical parallelism, but hold on—we are also told that “the succession of mental events must depend on the succession of their neurophysiological correlates [p. 111].” A noncausal brain → mind dependency (hello neo-epiphenomenalism)? Similarly, while Rosenblueth denies that mental events are caused by their mental precursors (p. 114), he also argues that they are “*determined* by our previous experiences” (p. 113, italics added) and that complex animal behavior is “determined” by concomitant consciousness (p. 26). Unless Rosenblueth has envisioned a principle of necessitation which is neither logical nor causal—which would make an enormous contribution to philosophy of science could he but make the idea stick—there is an aroma of self-contradiction about all of this. Then too, he claims at one point (p. 114) that the event whose mental aspect we know directly acquires its neurophysiological aspect from the interpretation we place upon it, which puts the mental/physical distinction in our conception of such events rather than in the reality to which these concepts refer (hello again, Identity theory).

So what is Rosenblueth’s solution to the mind/brain puzzle? Like any good mystery writer he has given us a rich array of manifestly inconsistent clues. But unhappily, the final chapter in which the Great Detective explains all seems to have been lost in the bindery.

## References

- Feigl, H. (1958). The ‘mental’ and the ‘physical’. In H. Feigl, M. Scriven, & G. Maxwell (Eds.), *Minnesota studies in the philosophy of science, Vol. 2*. Minneapolis: University of Minnesota Press.
- Rozeboom, W. W. (1972). Problems in the psycho-philosophy of knowledge. In J. R. Royce & W. W. Rozeboom (Eds.), *The psychology of knowing*. New York: Gordon & Breach.