

REVIEWS OF MODERN PHYSICS

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Editorial Comment

The subject of the following paper lies in the border area between physics, semantics and other humanities. The Editor does not feel called upon to draw the border of physics firmly or restrictively, the more so as the subject seems to maintain a broad appeal after 45 years of quantum mechanics.

Several of our referees have worked long, thoroughly and repeatedly on this paper. Their points of view and recommendations have diverged widely. Publication of the reviews together with the paper would have given our readers an impression of the current spectrum of opinions on the subject.

A recurrent historical question underlies much of the paper and of the reviewer arguments. The early conceptual basis of quantum mechanics is often referred to as the "Copenhagen Interpretation." Just what did Bohr and the other originators of this interpretation actually mean to convey by their statements and writings? Well-known textbooks regard the Copenhagen Interpretation as referring implicitly to ensembles of physical systems; indeed they formulate "standard" quantum mechanics on this basis. Professor Ballentine regards the Copenhagen Interpretation as very restrictive and emphasizes the need for broadening it into a "Statistical Interpretation."

One of our referees regards the Author's point as moot and in need of no further emphasis. Another referee regards instead the assessment of the "validity" of various interpretations of quantum theory as a legitimate and difficult problem of physics; he feels, in fact, that the Author leaves the issue unresolved.

The Editor is experimenting with this note, trying to convey the flavor of controversy surrounding an unusual paper. He might take a different attitude on future occasions.