

Copy

Hugh Everett, III
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Arlington, Virginia
May 31, 1957

Professor Philipp G. Frank
Department of Physics
Harvard University
Cambridge, Massachusetts

Dear Professor Frank:

As a result of membership in the "Library of Science" book club, I have received several of your works on the philosophy of science. I have found them extremely stimulating and valuable. I find that you have expressed a viewpoint which is very nearly identical with the one which I have developed independently in the last few years, concerning the nature of physical theory.

For this reason I am enclosing a copy of a paper I have recently written entitled, "On the Foundations of Quantum Mechanics," as well as an evaluation of it by Professor J. A. Wheeler of Princeton, both to be published in the July issue of Reviews of Modern Physics.

I think that you may be interested in it, as I am, as an example of a certain type of theory -- a completely abstract mathematical model which is ultimately put into correspondence with experience. It has the interesting feature, however, that this correspondence can be made only by invoking the theory itself to predict our experience -- the world picture presented by the basic mathematical theory being entirely alien to our usual conception of "reality." The treatment of observation itself in the theory is absolutely necessary. If one will only swallow the world picture implied by the theory, one has, I believe, the simplest, most complete framework for the interpretation of quantum mechanics available today.

I think that it will be quite interesting to see the various reasons for accepting or rejecting it that will be advanced by various physicists. Already the comments that have been received show an astonishing variety of viewpoints. Because of its particular nature this theory is especially suited to illustrate a number of points which can arise in any discussion of the nature of theories in general.

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Page 2

If you have any comments or criticisms on the theory proper, I would be grateful to receive them. If you have any interest in the matter with respect to the more general questions of the philosophic, psychological or sociological reasons which influence the attitudes toward physical theories, I will be happy to send you copies of the comments and criticisms that I receive.

Sincerely yours,

Hugh Everett, III

Note: Address after August 1:

607 Pelham Street
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