

Brief

Abstract: It is shown that a theory which regards the basic entity as the wave function itself, and in which at all times obeys a wave equation, (no quantum jumps) can be successfully interpreted to yield a theory in correspondence with experience. The problem of observation is treated entirely within the theory, by assigning state functions to observers, (which are regarded just like all other physical systems) and investigating the subjective appearance to these observers. The result is that the probabilistic aspects of the usual formulation are deduced within the present scheme as subjective appearances to observers. Thus all probabilistic and discontinuous phenomena (quantum jumps) exist only at a subjective level within a theory which is objectively continuous and causal.

Our idea: to have a model which gives an objective description of physical systems, independent of any acts of observation. Measuring apparatus + observers can then also be considered on equal footing with other physical systems, and processes of observation themselves can be treated in detail without extraneous considerations.

Thought
Servo+Memory
States of
Memory defined
with experience

Observers thus consider physical systems. By identification of certain states of the observer with subjective perceptions, one is able to deduce the appearances of the external world to the observer.

The theory forms a satisfactory, unified, logical framework in which it is possible

Because the theory ~~is a unified, logical, objective theory~~ gives us ^{an} objective theory
it ~~is~~ ^{gives us} constitutes a framework in which ^{a number of subjects,} such as
such as ^{phenomena} classical level, measuring process itself, questions of
observability & view, etc., can the interrelationships of several
observables, etc... can be investigated in detail in a logically
consistent manner. It supplies ^{new} a way of viewing processes
which clarifies many apparent paradoxes, such as
that of Einstein-Rosen-Podolski¹ — it supplies us with
^{indeed} an objective framework in which it is possible to understand
the consistency of the ordinary view.

See
Chap 18-