A Talk on the Quantum Psychology of Nots

by

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Review of "The Quantum Psychology of NOTS,"

February 1989 Invited Talk, ANPA West V, Stanford University

Eddie Oshins began his talk on the "Quantum Psychology of Nots" by describing how he was led to construct his quantum psychology model of experience. Emphasizing that quantum psychology (Q-Ψ) is not an application of quantum physics to psychology, Oshins believes that he has discovered quantum physics within psychology. Currently a visiting scholar in Stanford's department of physics [1], Oshins explained how he modified aspects from areas of artificial intelligence, known as fuzzy logic and laws of form, in order to resolve controversy in the psychological literature about schizophrenia as a logical phenomena. The conflict engaged by Oshins involves the intrapsychic school of von Domarus and Arieti, which viewed schizophrenia as a syllogistic deficit, e.g. "I am a virgin. The Virgin Mary was a virgin. Thus, I am the Virgin Mary."; and the communications school of Bateson and others who advanced a theory of metalogical disconfirmation, known as double binds.

By postulating operational principles of irreducible ambiguity and of metalogical complementarity, Oshins explained how he was able to reconcile these opposing approaches into a single coherent framework which accommodates both the subjective logic of intrapsychic "primary processes" and the paradoxical, metalogic of double binds.

In the early part of this century the mathematician John von Neumann created a "quantum logic" model in order to represent the logical structure of quantum physics. Von Neumann showed that the characteristics which distinguish the more general framework of quantum physics from that of classical physics involve weakening the distributive law of set theory and classical logic. This led to the creation of the mathematics of lattice theory by von Neumann and Garret Birkhoff and to their characterization of the experimental propositions of physics in terms of inner automorphisms (as symmetries) of the projective geometry of subspaces of an abstract Hilbert space. Oshins says that the equivocation process found in primary process syllogisms can also be viewed as violations of the distributive law, which he replaces by his principle of irreducible, operational ambiguity.

Geometric descriptions of three images of negation as they are used in quantum models were presented:

1. a notion of exclusion which involves the rejection of one system by another;
2. a notion of complementarity of contraries which involves competing, linearly dependent constructs within a system;
3. and a notion of opposition and contradiction which he described in terms of orthogonality. Pointing out that his own quantum psychology seems to have the same formal structure as quantum logic.

Oshins said that his proposal is that they may be different aspects of the same model. This has led him to suggest specific physical processes which could underlie certain psychological phenomena.

[1] Oshins used to be a visiting scholar with Stanford's department of psychology and with SLAC.

Oshins gave examples of three benefits of the quantum psychology approach:

1. As a critical theory, Q-Ψ offers a quantum parallel processing model that is distinguishable from classical parallel processing models such as McCulloch-Pitts type, classical neural nets, which are based on set theory; and from Stanford Professor Karl Pribram's hologram hypothesis, which is a classical wave model of classical waves. Quantum psychology provides explicit criteria for discriminating between these models;

2. As a formal theory, Q-Ψ's theorems allow for understanding the formal processes underlying the development of Piaget's stage of operational thought. As an example, Oshins used a theorem by G. Fáy to show how imposing a type of serialization upon the quantum lattice forces it to become classical; and

3. As an empirical model, Q-Ψ operationalizes notions from metapsychology into decideable experiments. As an example, Oshins used a theorem by David Finkelstein to describe a type of synchronization which is necessary to code negation in physical information and suggested that such experimental findings could lead to important understanding of the development of consciousness and of classical thought.