

CHURCHMAN AND VALENSTEIN: A CRITICAL REVIEW

David Rosenboom

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A joint review of two books:

Churchman, C.W.: "The Design of Inquiring Systems: Basic Concepts of Systems and Organization", Basic Books, New York, 1972.

Valenstein, E.S.: "Brain Control", John Wiley & Sons, New York, 1973.

The Review

"The Design of Inquiring Systems: Basic Concepts of Systems and Organization" by C. West Churchman is an excellent and revealing analysis of a few of the more influential mainstreams of European philosophy in relation to their impact on systems of research and viewpoints of design methodology. Though I would not consider it a comprehensive worldview of design thinking, because the author does not succeed in removing his own personal biases, neither would I consider this a detriment or a serious detractor from the effluence of considerable insight it does succeed in providing.

The book details the ideas of design strategy in sociopolitical and religio-scientific contexts, as they have come down to us through the philosophical ruminations of the likes of Leibnitz, Lock, Kant, and Hegel. In summary, one might point to these as responses to still more basic and contrasting images of causality from three Greek thinkers, the Democritean-mechanistic, the Aristotelian-teleological, and the Carneadean-probabilistic.

Each inquiring system seems to be an elaboration of the endlessly complex and pointedly effective tools of some of the world's greatest skeptics. The stylistic variations of skepticism are infinite and nefarious, but they lead, inevitably, to a need to invent a guarantor, a conception of construct, which can guarantee the absolute of physical sense data and validate whatever antecedent causes of these sense data one's model of the universe would promote. Thus, we not only fall prey to the illusion that all the computer's inputs come from man, we even go so far as to believe the computer understands this itself.

Each style of inquiry also involves establishing some sort of observer of some sort of energy system. The common attributes of the various descriptions of this energy system might be stated as the following. Each energy system embodies 1) a potential for movement, 2) a potential for density or clustering, and 3) a potential for attraction and

repulsion. In one form we observe its effects in electricity and we make technological art by creating bounded spaces and channels in order to watch it dance, (resonate), in certain ways. The physical body also creates resonant bounded spaces and channels for the action of this energy flow. These may be free or disturbed and this energy may dissipate at any time. To observe and establish an illusion of control we use languages. These facilitate such processes as storage, retrieval, constructing combinations of elements, transformation, the breaking up of clusters, etc. The language/observer system will have some form of feedback with which it will establish a metric to measure how clear or unclear or how simple or complex something is. The “**executive**” of the language must then determine the functions of its created parts, determine which part should be used in given circumstances, judge the performance adequacy of a given part, decide on modifications in its program, and examine well formed formulas to determine if they are tautologies, self-contradictory, or candidates for storage in a file consistent with the developing model of the universe and our conception of history.

No description of “history” can be complete because we have lost its essence. By definition, we do not have the events of history to examine. Their essence, which exists only during their moments of creation, is gone. We only have our images of the events, which are not the events themselves. Therefore, an attempt to find the perfect inquiring system with which to describe history is futile. If Churchman has any personal message to communicate in this book, it would certainly include the thought that one can and should invent the system, which best expresses his own style of inquiry.

We see in this volume a scholarly analysis and revealing catalog of the various points of view of the activity of verification. This always leads to consideration of a guarantor, as it does many times in this volume, and this may be resultant simply from our unwillingness to accept responsibility for having invented reality.

An excellent example of the consequences of the irresponsibility of retreat into pure objectivism to the absolute exclusion of the potential of self-validating knowledge can be seen in the detailed documentation of the premises, history, and results of approaches to external control of the human mind, in the insalubriously invoked name of healing, all contained in the exciting volume, “Brain Control, A Critical Examination of Brain Stimulation and Psychosurgery” by Elliot S. Valenstein. The author unfolds some of the most sensible analyses and reports I have read in recent time on the vast range of experiments in psychosurgery and electrical and chemical stimulation of the human brain. Dr. Valenstein details the arbitrary invention of causal constructs that has accompanied much of the research in this field without denying any of the observations. He has done a brilliant job of separating observation from model building, and model building from the social justification or contravention of a given methodology.

The book is divided into two parts. Part I offers a thorough account of the history of man’s attempts to control his own brain through externally applied forces. He examines the social and scientific bases of the various attempts and reveals a fundamental “myth of control” inherent in most of these approaches. Part II reports on the clinical and social applications of these techniques. It is wonderfully revealing the way the author analyzes

the methods of evaluation applied to behaviors purported to take place as a result of psychosurgery, especially. One can not help but become more informed on the natural processes of the brain, the techniques of brain researchers, and the motivations behind their research by studying this book.

I highly recommend this volume, both as one of the more definitive in the area of brain simulation and psychosurgery and as an example of an informed analysis of the processes of interaction of social and scientific motivations and their effect on the evolution of ideas.