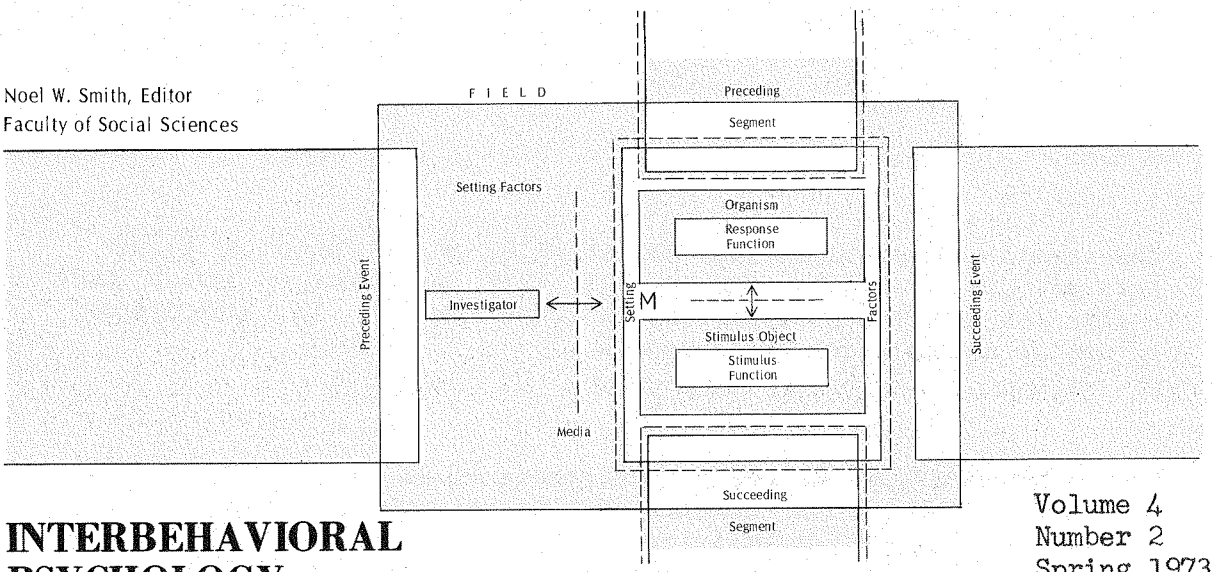
Noel W. Smith, Editor
Faculty of Social Sciences




Volume 4
Number 2
Spring 1973

# INTERBEHAVIORAL PSYCHOLOGY NEWSLETTER

State University College of Arts and Science, Plattsburgh, New York

The fact that part of the interactional event takes place in the physiology of the reacting agent does not place the total event there any more than the tides, which are part of the gravitational interaction between the earth and the moon, place the total event of gravity upon the earth. A person's feelings are not located within him, but in his relationship with the stimulating agent. Love is a relationship, hate is a relationship, and so is every other feeling. A stimulating agent and a situation, as well as a reacting agent, are involved in every one.

--Harry Mahan: A PRIMER OF INTERACTIONAL PSYCHOLOGY

## THE AGORA

As reported in the Fall 1972 Newsletter the Cheiron Society for the History of the Behavioral and Social Sciences will meet in Plattsburg June 7-9. Of special importance to interbehaviorists is a symposium on "Contextual Interactionists" that will consist of Rollo Handy on John Dewey and Arthur Bentley, Paul Fuller on J. R. Kantor and B. F. Skinner, David Miller on George Herbert Mead, and Clarence Shute on Aristotle. We can now add that the discussant will be Parker Lichtenstein. There are hopeful plans of publishing the symposium. In addition, Dr. Kantor will be present to give an invited address entitled "Segregation in Science: An Historico-Cultural Analysis." He will be introduced by Henry Pronko. The program also includes, of course, papers covering a great variety of other topics. It promises to be quite an interesting program. Those who are not on the Cheiron mailing list, but are interested in attending, should contact the editor for a program and lodging information.

***

The editor was invited to Lynchburg College where he presented an address on March 28 on "The Social and Psychological Development of Ancient Egypt with Some Preliminary Remarks on Primitive Beliefs." The attempt was to show the naturalism of belief systems as they existed in the ancient world before the supernaturalism of the Graeco-Roman period came on the scene. The presentation was illustrated with slides. His address at the University of North Carolina at Greensboro in February 1972 on "Interbehaviorism: Roots and Brances" will be published in the Spring issue of The Psychological Record. It offers a basic exposition of the interbehavioral system and relates some current developments that seem to be evolving a similar approach.

The second edition of SYSTEMS AND THEORIES OF PSYCHOLOGY by Melvin Marx and William Hillix, McGraw-Hill, 1973, continues to have a short section on interbehaviorism that is worth readnng. It concludes on an optimistic note for the approach.

***

Steven Brown & Richard Taylor, Department of Political Science at Kent State, will publish in June 1973 Social Science quarterly "Frames of Reference and the Observation of Behavior" that may be of interest to interbehaviorists. For example: "By taking the object, instrument, and observer in context, the interactions themselves can become objects of study within the total field and observer's extractions of different meanings become the most immediate events which present themselves for analysis and explanation." Questions will arise, however, where a partition between observer and observed is discussed. The interbehaviorist stresses interaction of observer and observed so that there is no partition, but rather continuity or interdependence.

***

A new work that commands our attention is by Theordore Sarbin and William Coe: HYPNOSIS: THE SOCIAL PSYCHOLOGY OF INFLUENCE COMMUNICATION, Holt, Rinehart, and Winston, 1972. Sarbin writes: "This book is in the tradition of contextualism and interbehaviorism. It challenges the utility of such concepts as specialstates of consciousness, mental states, and trance. The book is a culmination of almost 40 years of research and study by the senior author, an early proponent of J. R. Knator." We plan to have a review of the book in a later issue.

***

Dr. Kantor made colloquia appearances at Queens College on December 7 and at the University of Chicago on February 22. He indicated that a scientific psychology required a special type of logical or systematic foundation--one that would exclude postulates from traditional philosophy.

***

Robert Martin, whose lengthy paper we published in the last issue, will be completing his Ph.D. this summer at the University of Denver. He would appreciate any job leads.

***

The feature article in this issue is by Chris Fowler, a senior psychology major at Plattsburgh. In forthcoming articles Paul Mountjoy replies to Robert Martin's article and J. R. Kantor examines the famous statement by John Watson: "Give me a dozen healthy infants....."

# A Comparison of the Field-System Approaches of D. L. Clarke and J. R. Kantor

by
Christopher M. Fowler

D. L. Clarke, in Analytical Archeology (1968), has recently shown the value of utilizing general systems theory (Ashby, 1954; Wiener, 1948) as a tool for the analysis of interrelationships between culture and environment. Clarke outlines, explains, and interprets for the reader the properties of qualities of a system. It is these properties and his explanations and interpretations with which we shall concern ourselves.

Inasmuch as "interactions between living organisms and their environments are the subject matter of ecological studies (Vayda, 1968, p. xi)," it is clear, at least to those individuals intimately involved in ecological approaches (Barker, 1969; Sells, 1969) that the most valuable approach to the analysis of human behavior and the solution of human behavior problems must be an interactional one. Further, it is apparent that a fruitful framework to deal with interactions, especially those between an organism and its environment, should be interdisciplinary (Hall, 1966; Kantor, 1925; Sommer, 1969). To this end we shall develop a comparison of some of the larger components or important basic constructions between Kantor's interbehavioral psychology and Clarke's general system model for complex (as opposed to simple) systems.

For Clarke, a system is "any intercommunicating network of attributes or entities forming a complex whole (1968; p. 4)." That is, we have here a whole unit of two or more integrated and interacting components. Thus, Clarke's "system" is analogous to Kantor's behavior segment and/or interbehavioral setting. Where Clarke speaks of attributes or entities, Kantor uses stimulus objects and reacting organisms. Where Clarke talks about an intercommunicating network, Kantor states that "all the specific acts and motions operate mutually and in concert. The field is entirely symmetrical and reciprocal (1966, p. 383)." The nature of interactions for both positions is similar: movement is constant; change is continuous; interactions are on-going. While Clarke refers to a complex whole, Kantor refers to the behavior segment or unit psychological event.

System continuity, as Clarke sees it, is that "characteristic capacity for change or transformation which is most often demonstrated as a process of continuous change . . . (p. 45)." Analogously, Smith (1972) in reference to one of Kantor's basic postulates, speaks of a "universe of interactions." Change generally (yet not always) takes place in small, successive or incremental transformations. That is, what brings about change in a system (generally speaking) is the effect of an accumulation of small changes in many variables. For Kantor, change is a function of the dynamic interrelationships or interbehaviors of many organisms with events, objects, or other organisms, i.e., many variables. System continuity further implies continuous movement of a system along a trajectory or path (i.e., a series of successive changes in the value of the essential or critical variables of the system and, consequently, in the system itself) through time and space. Similarly, the nature of interbehavioral fields, of course, as well as behavior segments is "evolutional" (Kantor, 1966). The nature of change in a system, as

Clarke understands it, is determined by the initial state of the system (when components, e.g., organisms of the system begin intercommunicating interacting) equivalent to Kantor's preceding behavior segment; the terminal state of the system equivalent to the succeeding behavior segment (Kantor uses the behavior segment as "an abstraction designed to fixate a definite spatio-temporal event (1938);" (see Smith's motion-picture-frame analogy, 1972); field conditions (a term which Kantor also uses) or setting factors, and the trajectory of the system through time and space equivalent to the evolution of interbehavioral fields. Just as no two systems can ever be identical nor can one system ever again be like it was at some time in the past, Kantor tells us that ". . . behavior segments like all events are unique and unrepeatable (1938)."

Concerning the system's property of feedback (in complex systems, hardly a mechanistic quality) Clarke says "it is more frequently the case that the attribute or entity values are coupled or connected in such a manner that a change or transformation in either one may produce a corresponding transformation in the value of the other. In such a case a connecting line and arrow must be shown in both directions (p. 46)." This is analogous to the most fundamental behavioral unit of Kantor's system: the relationship of the stimulus and the response, that is, the S↔R relationship indicating, of course, that the stimulus and response are interdependent, mutual, and reciprocal factors (Smith, 1972). Both Clarke and Kantor are very aware of the need to represent complex multifactor interactions accurately and objectively.

Regulation and control is "another inherent capacity of certain kinds of complex system . . . to act 'as if' capable of self-control by self regulation (p. 53). That is, complex systems have the capacity to regulate disturbances or variables impinging upon the system. In a similar sense, ". . . the setting factors of interbehavioral fields operate to give pattern and distinction to the specific behavior segments in which they are components. They also serve to facilitate the occurrence of the particular response-stimulus coordinations or to inhibit their performance. . . the setting factors regulate the probability of the actual occurrence of a particular behavioral field (Kantor, 1966; p. 387)." Neither Kantor nor Clarke, however, is assuming an invariant, causative process here.

Next, Clarke speaks of limits, specifically, limits on component variability. That is, there are factors (internal and external) that limit the range of values that variables or components of a system can assume. This is not an unfamiliar notion to Kantor. We have already discussed the limiting or regulatory nature of setting factors (field conditions). Further, there are limits to the number of functions attributable to both stimulus objects and responses. That is, Kantor does not assume that either the stimulus or the response has an unlimited, or infinite number of functions. In fact, the number of functions a stimulus object or response can assume is a function of stimulus evolution and reactional biography respectively (Kantor, 1966). That is, the type and number of functions that stimulus objects and responses acquire depends on their respective on-going interactions. However, neither Clarke nor Kantor is imposing some form of preordained immutability on the events with which they are dealing.

Finally, Clarke discusses adaptation and directive correlation. Adaptation occurs when a change in one system (any intercommunicating network of attributes or entities forming a complex whole) brings about a change in another system. Kantor would see this as the interaction of one behavior segment or interbehavioral field with others. However, in most situations only certain attributes in either system need change. Kantor notes the similarity of certain behavior segments and

interbehavioral fields with others, yet recognizes that the particular or relevant events occurring in either are not identical. Two behavior segments or interbehavioral fields may be similar, but the stimulus objects and response function to be investigated in them need not be the same. Clarke refers to such relevant or critical factors as "essential variables." Closely associated with the notion of adaptation is that of directive correlation.

"In every system changing or adapting with time there is a certain limited set of attributes or entities whose past and present variation is essentially relevant to some future condition of the system . . . (Clarke, p. 58)." This set of attributes or entities is said to be directly correlated with some future condition of the system. Moreover, "the range of permissable variation in the set of past and present states in order to attain a future condition may be taken as a measure of the degree of directive correlation (p. 58)." In other words, the future condition of a system depends on present and past conditions of the system as it moves through time and space. This is essentially what Kantor means when he says that "interbehavioral fields are evolutional (1966, p. 383)." That is, the behavior segment under analysis in the present is influenced by the preceding behavior segment with its interbehavioral history, and both the present and preceding behavior segments (with their interbehavioral histories) will influence the succeeding segment. It must be well understood, however, that neither Clarke nor Kantor is assuming simple causal relationships. Instead, they choose to speak of correlation because both are concerned not with some simple A causes B paradigm, but with the interrelationship of factors, the matrix of dynamic interrelationships, and the contributions of various factors as they provide varying amounts of influence (Smith, 1972).

Nearly half a century ago Kantor recognized the need for interdisciplinary approaches:

> "Of all the instances in the domain of science in which particular adjoining disciplines can (and should) come to the cooperative assistance of each other, no better can be cited than that which signalizes the relation between anthropology and psychology. For here we have two sciences converging in some of their studies upon different aspects of the same set of phenomena, namely, human behavior. The domain of cultural anthropology not only borders very closely upon, but actually overlaps human psychology. Assuredly, if any two borderline sciences can help each other we should find them doing so in the case mentioned (1925, p. 267)."

Concurrently, we submit that all sciences (especially those concerned with human social problems) should become aware of the need for interdisciplinary action and should focus their energies in that direction. It is hoped that the comparison presented here shows the manner in which a field-systems approach may be appropriate across disciplines as a means of obtaining a scientific analysis of the events. Such an approach seems to be the goal toward which all sciences are moving and may be appropriate for the analysis of all events.

References

Ashby, W. R. Introduction to cybernetics. London: Chapman and Hall, 1965.

Barker, R. G. Wanted: An eco-behavioral science. In E. P. Willems and H. L. Raush, (Eds.), Naturalistic Viewpoints in Psychological Research, New York: Holt, Rinehart and Winston, 1969, pp. 31-43.

Clarke, D. L. Analytical archeology. London: Methuen, 1968.

Hall, E. T. The hidden dimension. Englewood Cliffs, N. J.: Prentice-Hall, 1969.

Kantor, J. R. Anthropology, race, psychology and culture. American Anthropologist, 1925, 27, 267-283.

Kantor, J. R. The nature of psychology as a natural science. Acta Psychologia, 1938, 4, 1-61.

Kantor, J. R. Feelings and emotions as scientific events. Psychological Record, 1966, 16, 377-404.

Sells, S. B. Ecology and the science of psychology. In E. P. Willems and H. L. Raush, (Eds.), Naturalistic Viewpoints in Psychological Research, New York: Holt, Rinehart and Winston, 1969, pp. 15-30.

Smith, N. W. Interbehavioral psychology: roots and branches. Psychological Record, 1973 (in press).

Sommer, R. Personal space. Englewood Cliffs, N. J.: Prentice-Hall, 1969.

Vayda, A. P. (Ed.), Environment and cultural behavior. Garden City, N.Y.: Natural History Press, 1969.

Wiener, N. Cybernetics. Cambridge, Mass.: Technology Press, 1948.