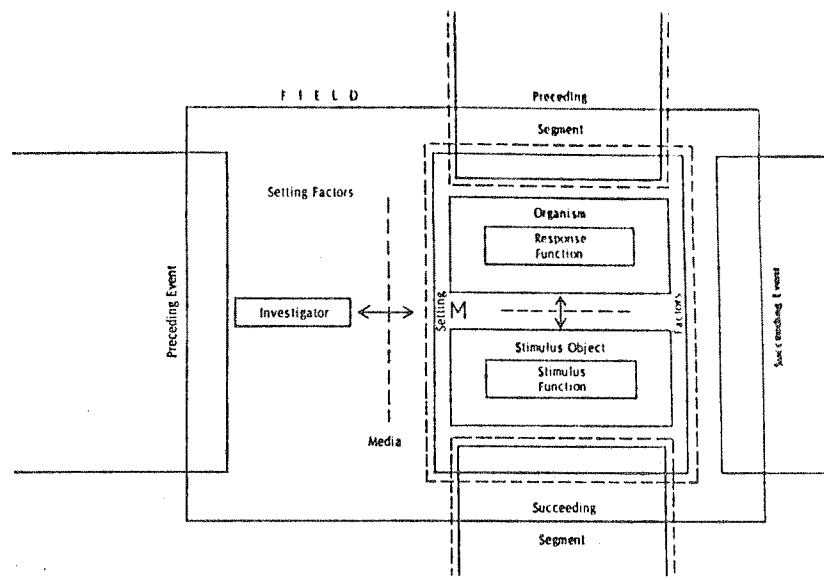


THE INTERBEHAVIORAL PSYCHOLOGIST



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But a different approach can be taken to the measurement of behavior than is customary today. That is to stop thinking of the behavior stream as made up of "responses which are disjunctive time-point events involving specified manipulanda, and to conceive it rather with reference to spatial coordinates. A "response" is, after all a movement in space of part or all of an organism. While it has customarily been recorded as a discrete event-thing, it may perhaps be better described positionally by continuous field-functions...Spatial-anatomical ideas had been involved in discussions of response "topography" (depressing the lever with a forepaw was said to be one topography, while biting it was another), but it also remained largely pictorial. The elaboration of a true spatial or field measure has yet to be successfully accomplished.

W.N.Schoenfeld, 1972. Problems of modern behavior theory. Conditional Reflex, Vol. 7, p.4

THE INTERBEHAVIORIST

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The Agora

Another example of the frustrating lack of awareness of Kantor's contributions to psychology is a statement by J. Michael in "Flight from behavior analysis" (*The Behavior Analyst*, 1980, 3, 1-22). Michael asserts that no text on the history of psychology adequately approaches the topic from a behavioral perspective. Surely those who have discovered Kantor's *The Scientific Evolution of Psychology*, Volumes 1 and 2 (Principia Press, 1963; 1969) know otherwise. More than just a daring and scholarly history of psychology, Kantor's text is also a working example of his naturalistic approach to understanding events (in this case, the development of psychology); as well as a defense of interbehaviorism on the grounds that it represents a natural and inevitable return to the Greek naturalism that characterized the very beginnings of Western psychology.

* * *

In recent books, two leaders of mainstream reductionistic, atomistic psychology testify to their "conversions" to ideas that are at the core of interbehaviorism. Seymour Sarason's *Psychology Misdirected* (McGraw-Hill, 1981) concludes that psychology's disappointing record in regard to productively influencing the events it seeks to understand is due to its failure to appreciate that the psychologist-observer is a part and product of those events--a notion not unfamiliar to Kantorians (e.g., see the paper in this issue). William Uttal's *A Taxonomy of Visual Processes* (Erlbaum, 1981) represents an even more startling reversal of form on the part of the author. Uttal, for over a decade an eloquent and productive apologist for physiological reductionism, suggests now that such an approach to understanding the visual system may have its shortcomings. As Charles Rice summarizes in his review of Uttal's book (*Psychological Record*, 1982, 32, 300):

The book is...about the philosophical metamorphosis of the author from confirmed physiological reductionist to physiological agnostic. It is about epistomo-

logy and it suggests a view of psychology not likely to be popular in the contemporary mainstream of scientific psychology. Uttal reaches his position by inductive reasoning after exhaustive study of vast archives of visual science. The book therefore is not a sterile compendium of labels and classification but a narrative combat between the author and problems raised by contemporary science's tendencies to look toward molecular and atomic organization for explanations.

Such testimonies to the value of wholism and non-reductionism, coming as they do from those who have had apparent previous success with more dominant assumptions, are especially encouraging signs that psychology may yet come of age, as Kantor has anticipated.

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* * *

The following paper, written by the author when she was an undergraduate student, reminds us that Kantor's interbehaviorism is as much a statement about the scientific enterprise as it is a statement about the events that are its subject matter. The paper also isolates the class of human activity which, perhaps, has been most victimized by psychologists' continuing investment in mentalism and reductionism.

* * *

Toward an Interbehavioral Science of "Memory"

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Science consists of the past and current interbehaviors of persons with things and events whose traits (structures, relations, actions) they are interested in knowing and controlling, plus the products of such activities (investigations) in the form of descriptions, theories, and laws (Kantor, 1933).

Science is an anthropocentric activity. It involves the seeking of information by humans about the relationships between humans and their surroundings. The subject matter of science consists of the actions, relations, and structures with which humans come in contact. The discovery of how these relations, structures, and actions can be predicted is the goal of scientific investigation, and the final statements are the description, theory, and law.

The unique aspect of Kantor's description of science is that it views science itself as an interbehavioral phenomenon. It stresses that the actions, relations, and structures studied by the scientist affect and are affected by the behavior of the scientist, even as the scientist attempts to understand them. Kantor's interbehavioral perspective on science also helps us to see that the descriptions, theories, and laws that are the products of scientific endeavor are not immune to the presuppositions which are part of the field surrounding scientific interbehaviors. According to Kantor, psychologists have been guilty in their search for scientific understanding of inappropriately imitating outdated paradigms, thereby coloring the products of their investigations. The sort of science they have mimicked has been referred to as "Newtonian" (Kvale, 1976). This approach essentially isolates components of events independent of surrounding factors. Preferable to Kantor is the interrelational approach exemplified by relativity theory in physics, where an interaction is relative to its frame.

Kantor also believes that psychologists have allowed unwarranted spiritistic assumptions to infiltrate their science. Remembering is one class of interbehavioral phenomena that has especially suffered from having been cast into a mentalistic light over the more than hundred years of its scientific investigation. It has been treated as though it were one of a number of "functions of the mind" (e.g., Mandler and Mandler, 1964). It has also been viewed atomistically and mechanistically. Alternatively, remembering can be investigated

from an interrelational perspective. In an interbehavioral context remembering is a set of relations to be investigated, rather than a mentalistic construct. The investigation of remembering behavior shows that it can be viewed as a set of interactions between an individual and the environment of the individual. The common feature of all remembering activities is that they involve environmental stimuli no longer present. This can be illustrated by looking at the diverse behaviors called "remembering" in relation to a single stimulus, an equation. There is remembering the equation, memorizing the equation, "thinking" you know the equation, incorrectly remembering the equation, and recalling that you "used to know" the equation.

Remembering interbehavior also involves the interaction of persons with current things and events. William James (1890) describes how recalling an explorer's text in a terrible depression caused him to regard it as a terrible tale of privation; recalling the text in a good mood caused him to interpret the text as a tale of the indomitable spirit of humankind. Here we have the present affecting recollection of the past. Thus, complete descriptions of remembering interbehaviors should include the circumstances of the original contact (learning), the intervening events, and the circumstances surrounding the remembering event itself. Remembering interbehaviors also must be understood in terms of relations between events. The most famous of these relations are those described by "contiguity" and "consequence".

In order to generate laws there first must be observation of those regularities of behavior to be generalized. This means that the first step in investigation is description: the theory, which is in essence extrapolated from the data, comes later. This is the inductive method by which science first begins to understand any phenomenon, but psychologists of "memory" have gotten the order of events reversed. The study of memory has been founded on mentalistic presuppositions, rather than observation and subsequent extrapolation. However, it could be grounded in the interbehavior of persons with things, past and present. There is presently a concentration on the elaboration of models (e.g., Miller, 1956; Smith, 1966; Norman, 1969) rather than on the description of the relations, structures, and actions which constitute remembering. Taking seriously the interbehavioral approach would result in a systematic and scientific study of an important class of human behaviors.

REFERENCES

- James, W. The principles of psychology, Volumes 1 and 2. New York: Henry Holt, 1890.
- Kantor, J.R. A survey of the science of psychology. Bloomington, Indiana: Principia Press, 1933.

Kvale, S. The psychology of learning as ideology and technology. Behaviorism, 1976, 4(1), 97-116.

Mandler, J.M. and Mandler, G. Thinking: From association to Gestalt. New York, Wiley, 1964.

Norman, D.A. Memory and attention. New York: Wiley, 1969.

Miller, G.A. Human memory and the storage of information. IRE Trans. Inform. Theory IT2, 1956.

Smith, B. Memory. New York: Humanities Press, 1966.

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A SELECTED AND CLASSIFIED BIBLIOGRAPHY OF INTERBEHAVIORAL WORKS (continued from Volume 11, number 1)

9. SOCIAL PSYCHOLOGY

- 9.1 Herman, D. T. A study in the culturalization of response. Psychological Record, 1956, 6, 12-16.
- 9.2 Kantor, J. R. What are the data and problems of social psychology? Journal of Philosophy, 1923, 20, 449-457.
- 9.3 Kantor, J. R. An Outline of Social Psychology. Chicago: Follett, 1929.
- 9.4 Observer. What social, what psychology, in social psychology? Psychological Record, 1970, 20, 403-407.
- 9.5 Pronko, N. H. & Bowles, J. W. Chp. 6: Social behavior; Empirical foundations of psychology. London: Routledge & Kegan Paul, 1952.

10. LEARNING

- 10.1 Kantor, J. P. Chp. 26: Learning conduct: A technic of behavior acquisition; Principles of psychology, Vol. 2. New York: Knopf, 1924.
- 10.2 Pronko, N. H. & Bowles, J. W. Chp. 15: Learning; Empirical foundations of psychology. London: Routledge & Kegan Paul, 1952.
- 10.3 Observer. The era of learning and its aftermath in American psychology. Psychological Record, 1968, 18, 475-477.

11. IMPLICIT INTERACTIONS

- 11.1 Kantor, J. R. An objective interpretation of meanings. American Journal of Psychology, 1921, 32, 231-248.
- 11.2 Kantor, J. R. Chp. 10: Implicit action as responses to absent stimuli objects; Principles of psychology, Vol. 1, 1924. Chp. 17: Wishing, desiring, and kindred forms of responses; Chp. 18: Imagination reactions as creative conduct; Chp. 21: Thinking and problem solving; Chp. 22: Reasoning responses as inferential activities; Chp. 28: Behavior of the organism during sleep, hypnosis, and while dreaming; Principles of Psychology, Vol. 2. New York: Knopf, 1926.
- 11.3 Pronko, N. H. & Bowles, J. W. Chp. 11: Implicit or "thinking" behaviors; Empirical foundations of psychology. London: Routledge & Kegan Paul, 1952.

12. INTERBEHAVIOR AND HEREDITY

- 12.1 Bijou, S. W. Theory and research in mental (developmental) retardation. Psychological Record, 1963, 13, 95-110.
- 12.2 Bowles, J. W. & Pronko, N. H. A new scheme for the inheritance of intelligence. Psychological Record, 1960, 10, 55-57.

12.3 Delprato, D. J. Hereditary determinants of fears and phobias: A critical review. Behavior Therapy. In press.

12.4 Kantor, J. R. Intelligence and mental tests. Journal of Philosophy, 1920, 17, 260-268.

12.5 Mountjoy, P. T. Differential behavior in monozygotic twins. Psychological Record, 1957, 7, 65-69.

12.6 Observer. Innate intelligence: Another genetic avitar. Psychological Record, 1970, 20, 123-130.

12.7 Pronko, N. H. "Hereditry" and "environment" in biology and psychology. Psychological Record, 1957, 7, 45-54.

12.8 Smith, N. W. Twin studies and heredity. Human Development, 1976, 19, 65-68.

13. PERSONALITY

13.1 Kantor, J. R. Chp. 3: The psychological individual or personality; Principles of psychology, Vol. 1. New York: Knopf, 1924.

13.2 Mahan, H. C. Chp. 3: Personality; The interactional psychology of J. R. Kantor: An introduction. Marcos, Calif.: Project Socrates Press, 1968.

13.3 Observer. On retaining the person in personality. Psychological Record, 1974, 24, 569-572.

14. PSYCHOLOGY AS SCIENCE

14.1 Cone, D. M. Comment: Operationism vs. operational definition. Interbehavioral Quarterly, 1975, 6(3), 3-4.

14.2 Kantor, J. R. In defense of stimulus-response psychology. Psychological Review, 1933, 40, 324-336.

14.3 Kantor, J. R. Man and machine in science. Journal of Philosophy, 1935, 32, 673-684.

14.4 Kantor, J. R. Concerning physical analogies in psychology. American Journal of Psychology, 1936, 48, 153-164.

14.5 Kantor, J. R. The operational principle in the physical and psychological sciences. Psychological Record, 1938, 2, 1-32.

14.6 Kantor, J. R. Current trends in psychological theory. Psychologica Bulletin, 1941, 38, 29-65.

14.7 Kantor, J. R. Man and machine in science. Journal of Philosophy, 1935, 32, 673-684.

14.8 Kantor, J. R. System structure and scientific psychology. Psychological Record, 1973, 23, 451-458.

14.9 Kantor, J. R. Man and machines in psychology: Cybernetics and artificial intelligence. Psychological Record, 1978, 28, 575-583.

14.10 Kantor, J. R. Psychology: Science or nonscience? Psychological Record, 1979, 29, 155-163.

14.11 Lambley, P. Psychology and epistemology: Operationism revisited. Psychological Record, 1970, 20, 229-234.

14.12 Lundin, R. W. Aesthetic experience or response? A psychological viewpoint. Psychological Record, 1956, 6, 28-32.

14.13 Moore, J. On the principle of operationism in a science of psychology. Behaviorism, 1975, 3, 120-138.

14.14 Observer. Descriptive relevance of psychological language. Psychological Record, 1968, 18, 111-113.

14.15 Observer. Certitude and reality in psychology. Psychological Record, 1969, 19, 345-347.

14.16 Observer. Belief and faith in science. Psychological Record, 1970, 20, 545-552.

14.17 Observer. Toward an improved linguistic model for science. Psychological Record, 1971, 21, 429-434.

14.18 Observer. Concerning cognitive reversionism in psychology. Psychological Record, 1977, 2, 351-354.

14.19 Observer. Concerning laws in psychology and other sciences: Can there be laws in psychology. Psychological Record, 1977 3, 627-632.

14.20 Observer. The recycling of cognition in psychology. Psychologic Record, 1978, 28, 157-160.

14.21 Observer. Theological psychology vs. scientific psychology. Psychological Record, 1980, 30, 131-133.

14.22 Swartz. A note on the computing machine analogy in psychology. Psychological Record, 1958, 8, 53-56.

14.23 Wynne, L. Behavior analysis and behavior synthesis. Psychologic Record, 1971, 21, 171-179.

15. WHAT KIND OF RESEARCH?

15.1 Swartz, P. On the validity of the experimental approach to behavior. Psychological Record, 1957, 7, 119-122.

15.2 Swartz, P. Psychology and the historical sense. Psychological Record, 1958, 8, 17-20.

15.3 Swartz, P. The criteria of validity in observational analysis. Psychological Record, 1958, 8, 77-85.

15.4 Swartz, P. Literature as art and as knowledge. Psychological Record, 1959, 9, 7-10.

15.5 Verplanck, W. S. An "overstatement" on psychological research: What is a dissertation? Psychological Record, 1971, 21, 471-480.

6. MOTIVATION

16.1 Kantor, J.P. Toward a scientific analysis of motivation. Psychological Record, 1942, 5, 225-275.

16.2 Kinnie, J. F. The interbehavioral approach and motivation. The Interbehaviorist, 1978, 8(1), 6-10.

7. BEHAVIOR ANALYSIS

17.1 Fuller, P. R. Professors Kantor and Skinner--the "grand alliance" of the 40's. In N. W. Smith (Chm. & Orgz.), Contextual interactionists: A symposium. Psychological Record, 1973, 23, 281-334.

17.2 Kantor, J. R. An analysis of the experimental analysis of behavior (TEAB). Journal of the Experimental Analysis of Behavior, 1970, 13, 101-108.

17.3 Lichtenstein, P. E. Discussion: "Contextual interactionism." In N. W. Smith (Chm. & Orgz.), Contextual interactionists: A symposium. Psychological Record, 1973, 23, 281-334.

17.4 Morris, E. K. Some relationships between the psychologies of Kantor and Skinner. The Interbehaviorist, 1978, 8(4), 3-12.

17.5 Mountjoy (see 2.12).