

THE INTERBEHAVIORIST

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QUOTATION

Behavior is serial, not mere succession. It can be resolved -- it must be -- into discrete acts, but no act can be understood apart from the series to which it belongs.

- John Dewey (1930, p. 412)

From Dewey, J. (1930). Conduct and experience. In C. Murchison (Ed.), Psychologies of 1930 (pp. 409-423). Worcester, MA: Clark University Press.

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of Interbehavioral Psychology

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The Interbehaviorist is a quarterly publication of news, information, discussion, journal and book notes, book reviews, comments, and brief articles pertaining to interbehavioral psychology -- a contextualistic, integrated-field approach to the natural science of behavior.

The newsletter publishes professional communications that fall between informal correspondence and colloquia, and formal archival publication. As such, the newsletter supplements contemporary journals dedicated to basic and applied research, to the history and philosophy of the behavioral sciences, and to professional issues in the field. The newsletter strongly encourages submission of notes about current professional activities of its subscribers, news and observations about interbehavioral psychology and related perspectives, comments on journal articles and books of interest, more extended book reviews, and brief articles. All submissions should be sent in triplicate to the editor and should conform to the style described in the Publication Manual of the American Psychological Association (3rd edition).

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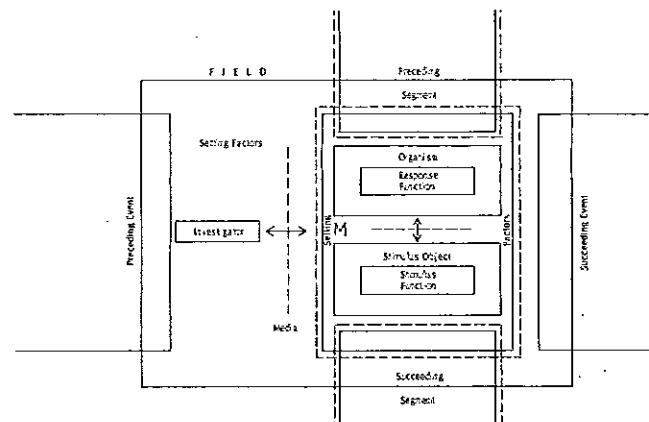
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THE AGORA

In the last two issues of the newsletter, we reprinted papers from a symposium conducted at last year's meeting of the Association for Behavior Analysis -- "An Introduction to Interbehavioral Psychology." A paper by Paul Mountjoy and discussant comments by Sid Bijou remain, and will be published in the next two issues. When the series is complete, the papers will be prepared as a monograph and made available for distribution.

The Observer

The American Psychological Association has struggled with several reorganization plans in recent years -- plans that would better balance the science and the practice of psychology. Last summer, the APA membership voted down the latest effort, and no reorganization plan seems likely to succeed in the near future. Before the vote, pro-science APA members had already organized themselves. Now, they have formally established an alternative: the American Psychological Society. Its purpose is:

To promote, protect, and advance the interests of scientifically-oriented psychology in research, application, and the improvement of human welfare.

The Society offers a science-of-psychology alternative to an increasingly guild-oriented APA. How APS will fare, we do not know, but the organization's past and current presidents -- Charles Keisler and Janet Spence -- and its current Advisory Board members are certainly eminent and credible. Among the latter are Albee, Atkinson, Bijou, Conger, Cronbach, Denmark, Glaser, Hilgard, Kagan, Lindzey, Loftus, McKeachie, Resnick, Rotter, Sarason, Scarr, Thompson, Tyler, Wright, and Zigler.

APS plans to publish a Science-type journal, beginning in 1990; has already sent out a call for posters for its first annual meeting, June 10-12, in Arlington, VA; and has begun publishing a newsletter, edited by Steven C. Hayes (University of Nevada-Reno). Although the newsletter's name did not originate in Reno, the force of coincidence seems too strong for us to overlook its title -- the Observer. Dare we say that selection by consequences works in mysterious ways?

If you are interested in further information about APS, please contact: The American Psychological Society, Box 1553, Norman, OK 73070

AABT Special Interest Group

A special interest group (SIG) on Theoretical and Philosophical Issues has been formed within the Association for the Advancement of Behavior Therapy. Dennis J. Delprato is a founding member of the SIG's advisory board. Among the comments solicited from the AABT membership regarding the SIG was a notable one from Fred Kanfer (1987):

Among major current problems and issues, I see the following...the conceptual base for a general-systems approach, without idealistic biases, and revitalization and application of J. R. Kantor's views. (p. 3)

The Fall issue of the SIG's newsletter, The Issues, reprinted the table of contents of, and commented positively about, Ruben and Delprato's New Ideas in Therapy. Readers interested in the SIG should contact Irwin S. Rosenfarb, Department of Psychology, Auburn University, Auburn, AL 36849-3501.

Reference

Kanfer, F. H. (1987). Comments. The Issues, 1, 3.

Notes from the Field

A special issue of the Journal of Experimental Child Psychology has been published (Vol. 46, No. 3) to commemorate the 25th anniversary of the journal's founding by Sidney W. Bijou.

Quotations

The quotation on the cover of the last issue was from: Verplanck, W. S. (1983). Preface. In N. W. Smith, P. T. Mountjoy, & D. H. Ruben (Eds.), Reassessment in psychology: The interbehavioral alternative (pp. xi-xxv). Washington, DC: University Press of America (p. xxv). The quotation for this issue was drawn from N. H. Pronko's (1988) From AI to Zeitgeist, which is reviewed in this issue.

BOOK AND JOURNAL NOTES

Beach, F. A. (1985). Conceptual issues in behavioral endocrinology. In R. Gandelman (Ed.). Autobiographies in experimental psychology (pp. 5-17). Hillsdale, NJ: Erlbaum.

In a recent autobiographical essay, the noted behavioral endocrinologist, Frank Beach, discussed the importance of viewing behavior as a transactional process. He stated:

When we observe behavior as it occurs under natural circumstances we do not observe reactions of individuals to various stimuli. Instead we observe interactions between the organism and various features of its environment. (p. 10)

Behavior includes both actions of the organism on the environment and actions of the environment on the organism. The O (\leftrightarrow) E model represents an interactional or transactional definition of behavior. It can also be classified as an ecological definition.

Such definitions are not new to psychology. In fact they have been proposed as alternatives to the S \rightarrow R model. John Dewey emphatically denied that behavior can be dichotomized into stimuli and responses (Dewey, 1896). Kurt Lewin's influential theories of personality and social behavior were based on the concept that individuals react to a surrounding field in which potential sources of stimulation have different valences determined by internal characteristics of the individual (Lewin, 1935). J. R. Kantor's physiological psychology dealt with interbehavior of organisms and stimulus objects in a specific field (Kantor, 1947). B. F. Skinner originally defined behavior as "that part of the functioning of an organism which is engaged in acting upon or having commerce with the outside world" (Skinner, 1938). (p. 11).

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Dewey, J. (1896). The reflex arc concept in psychology. Psychological Review, 3, 357-370.

Kantor, J. R. (1947). Problems of physiological psychology. Chicago, IL: Principia Press.

Lewin, K. (1935). A dynamic theory of personality. New York: Harpers.

Skinner, B. F. (1938). The behavior of organisms: An experimental analysis. New York: Appleton-Century.

(James T. Todd, University of Kansas)

Behavior Analysis, 1988, 23(3).

(Newsletter for APA Division 25 for the Experimental Analysis of Behavior)

The most recent issue of the APA Division 25 newsletter -- Behavior Analysis (Linda J. Hayes, editor) -- was largely given over to a section honoring the centennial of J. R. Kantor's birth. Linda introduced the section with "The Psychology of J. R. Kantor," in which she commented astutely and informatively on Kantor as a "consulting psychologist" for psychology. The section was concluded with a letter-to-the-editor from Edward K. Morris -- "Twice a Heretic?" -- that criticized the ongoing schism between interbehavioral psychology and radical behaviorism. The major substantive contributions to the special issue were contained in four articles, whose abstracts are reproduced below.

Emilio Ribes (National University of Mexico-Iztacala). "Kantor's Contribution to Psychology, or What Is Behavior?"

Based on the conception of science as a socio-linguistic process of knowing, an analysis is carried out about how modern behavioristic psychology, as formulated in terms of conditioning theory, derives from belief systems rooted in dualism and mechanistic thinking. Kantor's most important contribution to the development of a science of behavior is his alternative formulation of psychology and his explanation for behavior.

Josep Roca (Universitat de Barcelona), "On the Organism and the Environment."

The concepts of organism and environment are reviewed. It is argued that when mind is interpreted as action or as a kind of behavior continuous

with other natural behaviors, the use of these concepts implies a dependence on the criterion of extension and not on the criterion of movement. The interbehavioral approach of J. R. Kantor with respect to this issue, and the Aristotelian concepts of "material", formal", and "final" causes are used to provide a more dynamic, but not mechanical, definition of psychological events.

Robert W. Lundin (The University of the South), "An Interbehavioral Approach to the Psychology of Music."

The "musical mind," one of the earliest conceptions used to explain responses to music, has reappeared in the writings of cognitive psychologists. The present article describes an objective approach to the topic, based on interbehavioral principles.

Charles A. Lyon and Phyllis N. Williamson (Las Vegas Medical Center), "Contributions of Kantor's 'Psychological Linguistics' to Understanding Psychotic Speech."

The linguistic field concept of J. R. Kantor is applied to the study of psychotic speech. Various measures of psychotic speech, including reference topic, are shown to vary as a function of listener context. It is argued that descriptive analyses of naturally occurring speech are a useful starting place for the development of a functional analysis of psychotic speech.

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Ceci, S. J. (1986). Reviews of Brainerd, C. J., & Pressley, M. (Eds.). (1985). Progress in cognitive development research. New York: Springer-Verlag. (xvi-324 pp., \$39.00) and Pressley, M., & Brainerd, C. J. (Eds.). (1985). Progress in cognitive development research. New York: Springer-Verlag. (xiv-250 pp., \$33.00). Science, 231, 1452.

In reviewing these two texts, Ceci describes cognitive psychology's slow coming to grips with contextual perspectives in psychology. As a world view, contextualism is not enjoined, but the effects of context on cognitive activity are pointed out and a more naturalistic account is called for.

The evidence presented in several chapters suggests that memory processes cannot be adequately studied in the disembedded laboratory contexts that have characterized the majority of work on the subject. Contexts vary in the effectiveness with which they recruit mnemonic strategies, foster motivation, and shape one's perception of the particular memory task at hand. One of the many important messages of these volumes is that the exclusive reliance upon laboratory contexts is likely to result in misleading models of memory development.

(John M. Crossberg, San Diego State University)

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Costall, A., & Still, A. (Eds.). (1987). Cognitive psychology in question. New York: St. Martin's Press. (260 pp.)

Costall and Still have organized a fine, albeit eclectic, collection of essays that both criticize contemporary cognitive psychology and that offer alternatives thereto. The cognitive psychology in question is largely the representational and computational model of the mind, whose internal states mediate stimulus and response, and whose "design" cognitive psychologists seek to know.

In their introduction, Still and Costall point out that the chapters share three assumptions: anti-dualism (e.g., "intentionality" is not inferred, but is seen directly), mutualism (e.g., organism and environment cannot be understood apart from one another), and "the questioning of abstraction" (e.g., the abstract rules of cognitive conduct do not explain such conduct).

The criticisms of cognitive psychology fall under two headings: skills and action, and intentionality and classification. Under the first, the Dreyfus brothers argue that novices do not abstract rules out of their initial interactions with the environment, later internalizing them as they become experts, but just the opposite: Novices apply rules given them and, as they become expert, their actions are more and more controlled by particulars, not rules. Mixon points out that cognitive psychology

offers an impoverished account of social behavior: Abstract knowledge of the rules of social conduct does not mean we can behave in a socially appropriate manner, or will. Finally, Shotter speaks to the social ills that may beset the mechanizing of the workplace.

Under intentionality and classification, Palmer argues that the computational model of the mind does not solve "Hume's problem" of the infinite regress of homunculi. Although regress does not occur past the mechanical homunculi of the computer, mechanical homunculi have no "intentionality" and intentionality was Hume's problem in the first place -- the need for an intentional agent. Ghiselin argues that classifications are not absolute entities and that studying them in order to understand the behavior of classifying yields but circular explanations. A historical approach is urged for the latter, one that focuses not on formal similarities within classifications, but on how things are classified according to "what they do" and "where they come from."

The alternatives to cognitive psychology are J. J. Gibson's ecological psychology and a variety of approaches grouped together as the "radical tradition," stemming largely from James, Dewey, and Mead. The four chapters on Gibson are of variable quality and comprehensibility. The two by Reed were almost opaque, but he does make clear the mechanistic world view of cognitive psychology and Gibson's anti-dualism. Katz points out that Gibson is a "relativist," not a realist. And Noble argues for an ecological psychology that embraces both perception and language.

As for the radical tradition, Still offers an excellent chapter on Tolman's failure to hold the anti-dualist middle ground between mentalism and reflex mechanics. The reason: He adopted the S-R language game and the logical positivist view of science. Noel Smith offers Kantor's interbehavioral psychology as an alternative to cognitive psychology and mechanistic behaviorism. Markova makes the case for the superiority of Hegelian "becoming," over Platonic-Cartesian "being," as an approach to cognition. And finally, Bolton pleads the case for a more phenomenological psychology.

The importance of this book for modern interbehaviorists is summed up in E. B.

Holt's (1915) advice to the different groups of psychologists of his day who were seeking an alternative to cognitive psychology:

It should be obvious that a fundamental unity of purpose animates the investigators of these several groups, although they approach the question of cognition from different directions. Will it not be a source of strength for all if they can manage to keep a sympathetic eye on the methods and discoveries of one another? (p. 208)

References

Holt, E. B. (1915). The Freudian wish and its place in ethics. New York: Holt.

(Edward K. Morris, University of Kansas)

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Ninness, H. A. C., & Glenn, S. S. (1988). Applied behavior analysis and school psychology: A research guide to principles and procedures. New York: Greenwood.

As a work self-statedly addressed to teachers and other school personnel, this well-written book emphasizes practical advice, while at the same time living up to its subtitle. Although intended for readers of all theoretical persuasions, most of the research reviewed is taken from the Journal of Applied Behavior Analysis; moreover, the authors remark pointedly: "the material in this book...is not based on people's opinions, and the data may conflict with some of our own opinions" (p. xi). However, the subsequent theoretical discussions about cognitive and behavioral approaches that do arise are handled deftly and gently, all the while emphasizing the practical benefits of behaviorism.

The book begins with the practical problem of teacher "burnout," a topic that leads directly into presentation of the remedy: behavioral procedures. These are presented in brief in a chapter on basic principles, and then in more depth with respect to specific problem areas, such as hyperactivity, self-mangement, suicide, and aggression. Chapters on behavioral contracting, token economies, and other

procedures cover the remainder of the relevant literature.

Specific points are offered regarding the pros and cons of positive vs. aversive control, the necessity of maintaining contingencies for long periods of time in some cases to help ensure maintenance, the advantages of providing immediate consequences, and, of interest to some of this newsletter's readers, the importance of involving a student's family in solving selected problems.

To-the-point practical examples are given throughout; however, occasional small doses of basic research are also included. The book should prove useful to its intended audience, and to anyone interested in the topic.

(Susan M. Schneider, University of Kansas)

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Hershman, D. J., & Lieb, J. (1988). The key to genius: Manic-depression and the creative life. Buffalo, NY: Prometheus Books.

A long tradition has postulated a relationship between creative genius and mental pathology. Aristotle, for example, associated extraordinary achievement with melancholia, and Plato held similar notions. Hershman and Lieb (1988) point out that great talent alone cannot account for genius. There must also be a powerful motivational factor, which the authors identify as manic-depression.

One can agree with the authors to some degree. Certainly there have been geniuses who have been hypomanic at times and at other times depressed, but one might question the applicability of this explanation to most geniuses. The claim made by the authors is too strong. Extreme depression makes creative work all but impossible, and an acute manic attack is a condition far too disorganized for solid achievement. One cannot deny that a creative period can follow depression or that this phase may be characterized by intense effort carried out over days or even weeks with little or almost no sleep. In fact, it is the ability to work indefatigably at a single task which may be the most striking trait of the genius, a trait often described by the genius as an "inner demon." But, as the authors themselves point out, a creative idea and

the work to which it may lead can generate a euphoric mania. In other words, the mania of genius is not always indigenous, as required by a simplistic biological or genetic view of manic-depression, but clearly can be influenced by exogenous factors.

The authors appear to lean heavily toward a disease model of manic-depression that stresses the inheritance factor. At the same time, they occasionally recognize social, interpersonal and general environmental conditions influencing the life and work of the genius. What is lacking, however, is any hint of an interactional or field interpretation that could embrace all such factors in a unified conception.

The bulk of the book is devoted to an examination and analysis of the lives of Newton, Beethoven, Dickens, and Van Gogh. Although the authors describe pathological behaviors in all four men, they fail to provide convincing evidence of manic-depression, except perhaps in the case of Van Gogh, and even in his case a diagnosis of schizophrenia remains a possibility. What seems to be evident in all four cases is a tendency to find release and relief from pressing problems in creative work. This evidence might be read as supporting an anxiety-reduction interpretation of unusually intense productive effort.

Hershman and Lieb have attempted to reduce the complexities of genius to a single primary factor -- a key. That there is such a key and that this key is manic-depression is not only not proven, it is quite implausible. Nevertheless, this is an interesting book which uncovers much valuable information about the nature of genius and about the lives of four outstanding geniuses from the arts and literature.

(Parker E. Lichtenstein, Newark, OH)

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Popplestone, J. A., & McPherson, M. W. (1988). Dictionary of concepts in general psychology. New York: Greenwood Press. (380 pp. HB, \$65.00)

Although this book is a "dictionary" of concepts in general psychology, it does not define hundreds or thousands of terms. Rather, the book consists of 66 essays on the historical development and modern

usage of about 200 important concepts in psychology. These concepts are drawn from psychology as a whole, but are so well chosen that anyone reasonably well-read in psychology will recognize most or all of them. For example, the first ten essays cover in order: achievement, adjustment, aggression, anger, anxiety, attention, authoritarian personality, behaviorism, body image, and cognition.

Newsletter readers will be especially interested in the treatments of behaviorism, conditioning, drive, effect, habituation, heredity, instinct, introspection, learning theory, phenomenology, stimulus, and stimulus function. Given that such a broad range of topics is covered, the treatments of behavioral topics is surprisingly balanced, up-to-date, and well-informed.

Each entry is accompanied by a brief definition and definitions of related terms. For example, the entry for interbehavioral psychology is part of a main entry for stimulus function. Each historical/conceptual essay has its own complete, annotated reference section, which is followed by a section on "Sources of Additional Information," featuring annotated references to pertinent original and secondary sources not cited in the essay references. Readers of The Interbehaviorist will find in these references a surprising number of familiar names, including Bijou, Kantor, Mountjoy, Pronko, Ray, Smith, and Verplanck. Of course, the book includes separate name and subject indexes.

The Dictionary of Concepts in General Psychology would be most useful for a person needing a broad, but well-informed historical overview of important topics in general psychology. For example, it would be a valuable reference for a serious and conscientious student or instructor of general psychology courses who wants to go beyond the standardized and oversimplified accounts available in most introductory texts. It would also be valuable as a starting point for a more scholarly look at some important topics in psychology. The only major drawback of the book is its price: At \$65.00 in hardcover it will be too expensive for many bookshelves, and students would be best advised to go to the library or wait for a paperback edition.

(James T. Todd, University of Kansas)

Pronko, N. H. (1988) From AI to zeitgeist: A philosophical guide for the skeptical psychologist. New York: Greenwood Press.

Take a dash of Skinner's (1980) Notebooks, a pinch of Kantor's ("Observer's") (1984) Psychological Comments and Queries, stir in a lot of integrated-field thinking (e.g., Dewey, Bentley, Einstein, and Infeld), and you have something approximating N. H. Pronko's (1988) latest contribution, From AI to Zeitgeist.

Pronko offers a collection of essays (91 in all, in addition to a preface and an epilogue) that range from two lines ("Metaphysics") to ten pages ("Space-time in psychology") in length. So, if you have always wanted to know the answers to questions such as "Reality: What is it?" (pp. 166-167), "Is why a proper scientific question?" (pp. 229-230), or "Aristotle: Saint Thomas's philosopher or Mrs. Aristotle's husband?" (pp. 7-11), then you should consult this book.

Two additional features of From AI to Zeitgeist are the "for further reading" material at the end of each essay, and the general reference section at the end of the book. Here, Pronko pools together material, some of it recent, but much of it classic (see p. xvi), that attests to the existence of approaches, both in psychology and in other disciplines, akin to an integrated-field perspective. Also, in the course of reading Pronko's book, I often found myself usefully referring back to the reference section to locate a book or a journal article just cited.

In all, From AI to Zeitgeist brings together a great many topics of undoubted interest to readers of this newsletter. That it does so in small, easy to digest portions makes it all the more thought-provoking and enjoyable.

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- (Bryan D. Midgley, University of Kansas)

Weisberg, R. W. (1986). Creativity: Genius and other myths. New York: Freeman. (169 pp.)

Robert W. Weisberg's Creativity: Genius and Other Myths (1986) is a popular exposition of the view that "creative" behavior is explicable in terms of normal psychological processes. That is, "creativity" is not the product of genius, sudden insight, subconscious activity, or other hidden mental processes.

In contrast, creativity is defined as problem-solving that is both novel and useful for the individual. It is a product of experience, and its analysis can be achieved by appropriate research. Creative thought is, thus, normal thinking; no special or magical processes need be invoked to account for it. According to Weisberg: "Creative thinking becomes extraordinary because of what the thinker produces, not because of the way in which the thinker produces it" (p. 69).

In behavioral terms, what is special about people who appear to be unusually creative is an unusual interactional history. In fact, a large proportion of the book contains descriptions of unusual interactional histories of famous "creative" people, including artists such as Picasso and scientists such as Watson and Crick. When the behavioral antecedents of the great achievements of these people are described, surprisingly little is left to "insight."

This view, although not unique, is a refreshing contrast to many modern descriptions that ascribe creativity to "insight" or "aha!" experiences, but that leave the causes of insight and the "aha" as mysterious as creativity itself (cf. Papalia & Olds, 1988).

Despite these positive aspects of the book, readers will be disappointed that Weisberg uses but a few sentences from John B. Watson's Behaviorism (1930) to dismiss all behavioral perspectives on creativity. Weisberg states: "For the behaviorist, creativity need not be studied or explained because there is no creativity in the sense of some specific process involved in producing something new" (p. 3).

In Weisberg's account, behaviorists believe that random combinations of stimuli produce behavior, some of which is selected if it solves the problem at hand. But this closely parallels the way in

which natural selection is creative.

Without dwelling too much longer on what are minor points, Weisberg could have strengthened his own case by citing some of the many behavioral articles on creativity, insight, and problem solving, such as "Creating the Creative Artist" (Skinner, 1972), experiments from the Columban simulations of insight (cf. Epstein, Kirshnit, Lanza, & Rubin, 1984), and "An Operant Analysis of Problem Solving" (see Skinner, 1969; recently revised and reprinted with peer commentary in Catania & Harnad, 1988).

Because Creativity is brief, available in paperback, cites numerous recent studies on creative behavior, and presents a view that is congenial to an interbehavioral perspective, it could be used as a text in a graduate or undergraduate course on creativity (with appropriate additional readings). Moreover, although Weisberg's book is not a scholarly treatise, it is well documented and could serve as a starting point for those with a serious academic interest in creativity. In any case, the book should be of interest to anyone who wishes to replace mental and magical explanations of human behavior with a more naturalistic account.

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(James T. Todd, University of Kansas)

COMMENTS

A Reply to Hayes: Is the Interbehavioral Field a Non-Event?

Noel W. Smith

SUNY-Plattsburgh

Hayes' (1988) understanding of the nature of the interbehavioral field is quite different from mine on some important points. Hayes tells us we may not assume that the field corresponds to any events. This is precisely the opposite of what I always thought interbehaviorism was claiming. The field is, to be sure, a construct and therefore not an event, but it is a construct that, if it is worth anything, has a direct correspondence to actual events. Constructs, such as consciousness, essences, ontologies, brain powers, etc., having no concrete referents, are those with which interbehaviorists have no traffic. They are "products of linguistic actions," as Hayes (p. 25) says at another point. The field is not just a useful or analytic way of speaking, as Hayes avers, but is an attempt to refer directly to the events that the interbehaviorist observes happening.

The reference to observation is also important because it indicates that the field is not just a convenient fiction or one that is based on traditional doctrine, but consists of events that can be observed and verified, and is itself a product of observation. For example, we can observe that a book functions as a stimulus object for a given individual, who can also be observed, and that the book has a variety of stimulus functions for that individual, such as something to read or as something to toss into a fire. We may also be able to observe some of the interactional history that led to those stimulus functions. Similarly, we can observe the setting that influences the interaction in which the book has one or another function. It is observations such as these that lead to the field construct itself. That the words or the diagrams we use in referring to these events are not the events themselves, but only constructs, does not negate the direct reference to such events.

At one point, Hayes declares, "no reference is made to factors not found

among the events themselves" (p. 25), but then she goes on to assert that this is contradictory to "the fact" that the field does not correspond to events and that "evolving functions" have "no parts" (emphasis hers). Where does Kantor, or any other interbehaviorist, make such a statement? Hayes has turned a fiction into a "fact." Apparently she considers psychological events to be disembodied. But events are what things do. Organisms, stimulus objects, and setting factors are concrete things in interaction. They are "things and events" as Kantor often called them. Perhaps eventing things would be a better description. Descriptions of non-linguistic sources of stimulation, as Hayes says, are what Kantor regards as necessary for scientific understanding. And, it is my understanding that these are events -- or "eventing things." And things that are eventing have parts.

Nothing I am familiar with in the multiplex field construct requires that all events participate equally, as Hayes insists. This is so because no observation compels such a requirement. In any given instance, a medium such as lighting or a setting factor such as the illness of the organism may be more salient than other factors, although the others still participate. Kuo (1967) refers to behavior gradients of the organism. Perhaps we should recognize field component gradients.

I am not at all sure that I can agree with Hayes that truth for Kantor is strictly pragmatic. Kantor was no Jamesian. I have heard Kantor say that we do not know what truth is. But Kantor's work points to the expectation that we can at least approximate truth, or continually advance toward it, by starting our investigations with events rather than with constructs and developing our constructs -- laws, theories, descriptions, and formulae -- out of those same events. A cardinal principle of interbehavioral psychology is that interpretations must be consistent with observations. (Witness Kantor's pseudonym of "Observer.") By maintaining that consistency, we can at least advance our knowledge, whatever the truth may be. Knowledge or understanding will be a way of construing those observations (theories, formulae, etc.) that improves

our orientation, a topic that Hayes handles commendably.

I also have a slightly different interpretation than Hayes of what Kantor means by causation, which leads to consequences that are different from those that she advances. Let us look at the way in which Kantor (1950) describes causation:

Causal factors consist of actions of things or persons, which, in combination with each other, constitute new fields as compared with other correlations. In other words, correlations are regarded as a special sort of factorial combination, a coming together of causal factors, which, when together, constitute a different system....Causal changes in any field constitute a rearrangement in the simultaneous coexistence of factors in a unique pattern. (p. 157)

It would appear from this that when a change occurs -- and changes are always occurring -- the change results in a different field complex. It is these changes that constitute causation. Thus, we bring about changes by introducing new causal factors, themselves changes. I do not see this as "ever-present, uncaused, unique events" (p. 27). The events are unique, to be sure, but not uncaused. They are new functional relationships.

In addition, rather than ruling out an applied science, as Hayes avers, this approach merely directs our attention to multiple factors. As McKearney (1977) argues, we should not be looking for the cause, but for multiple causation. And, as I have suggested as an example of application of interbehaviorism (Smith, 1984), this approach leads us to advocate a psychotherapy that treats not just the person, as is the case with almost all therapies from behavior modification to psychoanalysis, but the person together with the milieu in which that person functions. As another example, interbehaviorism leads us to seek reform of criminal behavior not in just trying to rehabilitate criminals, but in the rehabilitation of those individuals in conjunction with the environment of which they are a part. Sommer (1968) makes a similar point when he observes that we "must replace the notion of the causal

chain with the concept of ecosystem....One is not dealing with a child from a broken home, but with a child-from-a-broken-home-living-in-a-slum-attending-a-rundown-slum-school-staffed-by-frightened-teachers, and so forth" (p. 593).

In her summary, Hayes (p. 27) reiterates that the interbehavioral field, and more specifically causality, "is a way of speaking about events that suits a particular analytic purpose" (emphasis hers) and refers to it as "a synthetic philosophy." This is about 180 degrees from the way I have always understood the field and its derivation: It derives from observation and represents observation, and is a way of speaking about events only because it seems to be the best way of representing what is actually observed about them. If the interbehavioral field is synthetic, it is so not in the sense of something artificial, but in the sense of recognizing the multiplex factors that comprise an integral event. In collaborating with Kantor on the revision of the Survey (Kantor & Smith, 1975), and in sending him some pre-publication papers for discussion, I always thought that that was what we were talking about -- psychology not as a study of constructs but as a study of events occurring in an interbehavioral field.

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