THE INTERBEHAVIORIST

A Quarterly Newsletter of Interbehavioral Psychology

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QUOTATION

It is a well-founded historical generalization that the last thing to be discovered by any science is what the science is really about.

- A. N. Whitehead

THE INTERBEHAVIORIST

A Quarterly Newsletter of
Interbehavioral Psychology

ISSN 8755-612X

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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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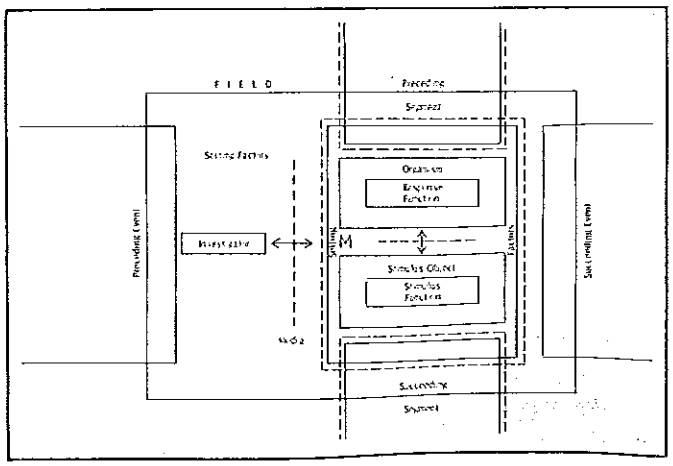
NOTES FROM THE FIELD

Recent issues of The Psychological Record have seen the publication of several articles and book reviews by the newsletter's subscribers. IVER H. IVERSEN (Whitman College) published "Response Interactions in Multiple Schedules: The Influence of Response Displacement" (1985, 35, 401-410) and "Restricted Access to Collateral Behavior Affects Operant Behavior on Variable-Interval Schedules" (1985, 35, 411-424). JAY MOORE (University of Wisconsin-Milwaukee) published "On the Consequences of Conditioning" (1986, 36, 39-61). PARKER E. LICHTENSTEIN (Newark, Ohio), NOEL W. SMITH (SUNY-Plattsburg), and N. H. PRONKO (Wichita State University) wrote separate book reviews and notes in these volumes. ROBERT D. ZETTLE (Wichita State University) was co-author on a paper entitled "The Effect of Feedback and Self-Reinforcement Instructions on Studying Performance" (1986, 36, 27-37).

ZETTLE, in addition, was co-author on a paper published in the Journal of Applied Behavior Analysis (JABA) (1985, 18, 201-214), entitled "Self-Reinforcement Effects: An Artifact of Social Standard Setting?" MARTIN T. IVANCIC (John F. Kennedy Institute) was also a co-author of another paper published in JABA -- "Assessment of Stimulus Preference and Reinforcer Value with Profoundly Retarded Individuals."

GERALD E. ZURIFF (Wheaton College) published a book review of Stich's From Folk Psychology to Cognitive Science in the Journal of the Experimental Analysis of Behavior (1985, 44, 391-396).



THE AGORA

A generous contribution to the Kantor Memorial Fund from a donor who would prefer to remain anonymous has allowed us to expand the page length of this issue of the newsletter, which includes many fine comments, reviews, and articles from our subscribers.

In The Agora, we present information on the availability and cost of Professor Kantor's books from Principia Press; updates on new subscribers and the Kantor Memorial Fund; and the names of all newsletter subscribers and the titles of their papers as listed in the 1986 convention program for the May meeting of the Association for Behavior Analysis. For further information on thew latter, write Shery Chamberlain, ABA, Department of Psychology, Western Michigan University, Kalamazoo, MI 49008.

As for the other main sections of the newsletter, we include further invited commentary from Dennis J. Delprato, book and journal notes, a book review by Sandy Hobbs, a commentary on setting events by James Fox, and an article on the teaching of interbehavioral psychology by William M. Gardner.

The Principia Press

As promised in the last issue of the newsletter, we provide below a list of Professor Kantor's books (and their prices) that are available from Principia Press. Please check your bookshelves, and those of your institutional library and bookstore, for possible omissions. The books are available directly from Principia Press, 5743 Kimbark Avenue, Chicago, IL 60637. Handling charges are $.75 per title; prepaid orders post free.

Principles of Psychology (2 volumes)
$20.00
Psychology and Logic (2 volumes)
$25.00
Interbehavioral Psychology
$15.00
The Logic of Modern Science
$15.00
An Objective Psychology of Grammar
$13.00
The Scientific Evolution of Psychology
(2 volumes) $40.00
The Science of Psychology: An Interbehavioral Survey $20.00
Psychological Linguistics
$15.00
Interbehavioral Philosophy
$27.50
Cultural Psychology
$16.50
Tragedy and the Event Continuum
$15.00
Selected Writings, 1929-1983
$20.00
Psychological Comments and Queries
$20.00

New Subscribers

We appreciate any efforts that can be made to promote the newsletter, especially in university, college, and institutional libraries. Subscription information is provided inside the front cover.

The new subscribers since the last issue are listed below.

Brad A. Alford (Martin, TN)
David Cornwell (Jordanhill College, UK)
Aubrey C. Daniels (Tucker, GA)
Philip N. Hineline (Temple University)
John R. Kunkle (Univ. Western Ontario)
Paul Logeman (Los Angeles)
Ely Rayek (Mexico)
Ellen P. Reese (Mount Holyoke College)

The Kantor Memorial Fund

We want to thank those who have contributed to the Kantor Memorial Fund for the newsletter. This fund serves for our long-term financial stability and for special publication and promotional events. Past giving to the fund has come from (and in some cases continues to come from) Richard Amado, Don Bloomquist, William Gardner, Dennis Delprato, Helene Kantor, Louise Kent-Udolf, Harry Mahan, Henry Pronko, and Doug Ruben.

Association for Behavior Analysis

The annual meeting of the Association for Behavior Analysis will be held in Milwaukee on May 22-25. A number of our subscribers will be presenting papers or will be otherwise involved in the program. For those so interested, we list on the next page the papers to be presented by our subscribers, with the subscribers' names presented in alphabetical order in first subscriber-author and capitalized. Co-authored papers are not repeated.

Kenzie, L. Preston, George E. Bigelow, & WARREN K. BICKEL: "Opioid Discrimination in Dependent and Nondependent Human Volunteers."
Maxine L. Stitzer & WARREN K. BICKEL: "Dosage Contingencies in Methadone Maintenance Patients: Effects on Illicit Drug Use."
SIDNEY W. BIJOU: "Skinner's Verbal Behavior and Kantor's Psychological Linguistics: Some Comparisons."
COMMUNIDAD LOS HORCONES: "Los Horcones: Twelve Years of Applied Behavior Analysis to Cultural Design."
SIGRID GLENN: "Levels of Analysis and Levels of Selection."
SIGRID GLENN: "Establishing an Independent Behavior Analysis Curriculum: A Case Study."
SIGRID GLENN: "Women in Academia."
RICIO HERNANDEZ-POZO: "Second Order Discrimination in Humans."
RICIO HERNANDEZ-POZO: "Comparative Study of Conditional Discrimination: An Experimental Analysis Approach."
Barbara A. Wanchisen, Thomas A. Tatham, & PHILIP N. HINELINE: "Choice Patterns on Fixed vs. Progressive Ratios with Shaped Guessing."
LISA M. JOHNSON, SUSAN M. SCHNEIDER, EDWARD K. MORRIS, Dale Walker, & LYNDA K. POWELL: "An Historical Comparison of Women's Participation in APA and Behavioral Journals."
PAUL T. MOUNTJOY & JAY D. HANSOR: "Nicotine Addiction: Historical and Behavioral Approaches."
Kimberly C. Kirby, Kathleen M. McCandless, Dale Walker, & LYNDA K. POWELL: "Women's Participation at the 1985 Convention of the Association for Behavior Analysis."
EDWARD K. MORRIS & STEVEN E. LARSEN: "All Causes Have Contexts: A Historical Note on Contextual Conditions in the Experimental Analysis of Behavior."
James T. Todd, LYNDA K. POWELL & EDWARD K. MORRIS: "Individual Performance of Rats under a Group Contingency."
JAY MOORE: "Some Comments on the Temporal Law of Effect."
JAY MOORE: "Private Events, Theoretical Terms, and Material Causes."
LINDA J. PARROTT: "On the Nature and Operation of Setting Factors."
ROGER D. RAY: "Is There Life Beyond the Three-Term Contingency? Contrasting Interbehavioral Systems Analysis with TEAB and Behavioral Artificial Intelligence."
ELLEN P. REESE: "Reducing Physiological Correlates of Anxiety in Conjunction with Errors."
EMILIO RIBES: "Behavior Analysis at the National University of Mexico."
SUSAN M. SCHNEIDER & EDWARD K. MORRIS: "O Behaviorism, Wherefore Art Thou 'Radical?': History of a Term."
JOSEPH R. SCOTTI, Roxanne Hojnacki, John McKissick, Ian M. Evans, & Ronald T. Murphy: "Brief Response Interruption: A Further Analysis."
RALPH SPIGA, Joseph D. Allen, & Amos Zeichner: "Correlations between Schedule-Induced Physiological Responses and Schedule-Induced Molar Behavior."
EDELGARD WULFERT, Richard L. Shull, & Steven C. Hayes: "Personality Inventory as a Predictor of Operant Behavior on a Multiple Schedule of Reinforcement."
GERALD E. ZURIFF: "Understanding Behaviorism Through Its Epistemology."

In addition to Roger Ray's invited presentation listed above, he will also be conducting a workshop that will count for continuing education credit. The workshop is entitled "Naturalistic Interbehavioral Systems: Their Structural, Functional, and Operational Analysis." This will be held on Friday afternoon, May 23, from 12:00-3:50.

Those subscribers who are otherwise participating in the program as chairpersons, discussants, meeting coordinators and the like are Richard S. Amado, William Bryson-Brockman, Stephen T. Higgins, Peter A. Holmes, Iver Iversen, W. Joseph Wyatt, and Robert D. Zettle.

In addition to these individual papers and other forms of participation, the ABA Special Interest Group for Interbehavioral Psychology will hold their meeting on Saturday afternoon, May 24, from 5:00-5:50. All readers and subscribers invited to attend.

The quotation on the front cover of this issue is from Whitehead, A. N. (1911). An Introduction to Mathematics. New York: Holt. It was found in Observer (1976). Comments and Queries: The Science of Psychology in 1976: What Progress? The Psychological Record, 26, 289-296.

BOOK AND JOURNAL NOTES

Brozek, J., & Pongratz, L. J. (Eds). (1980). Historiography of modern psychology: Aims, resources, and approaches. Toronto: C. J. Hogrefe.

The first paragraph of Brozek and Pongratz's forward describes this interesting book quite well:

> This is not an account of psychology's development -- a history of psychology in the traditional sense. Rather it deals with the aims, resources, and approaches of historical research. As such, the book constitutes the first attempt, in book form, to deal with selected aspects and issues of the history of psychology as a specialty within psychology. The central question is the "how" (methods), not the "what" (content) of historiography. (p. ix)

The book's four main sections are: (1) a rationale for the history of psychology and the prerequisites for its critical historiography (Wertheimer, Pongratz, Woodward), (2) a historiography of psychology around the world (e.g., Brozek, Pongratz, and Ardila), (3) archival resources (see especially L. T. Benjamin on the Archives of the History of American Psychology), and (4) examples of five approaches to historiography -- biographical (Sokol), descriptive/analytic (Pongratz), quantitative (Brozek), social (Thomas), and socio-psychological (Watson).

Brozek and Pongratz's major point is "Nemo psychologus nisi historicus," which translates as "Nobody can effectively pursue psychology without familiarity with history." (Edward K. Morris, University of Kansas)

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Newbury, E. (1953). Philosophic assumptions in operational psychology. The Journal of Psychology, 35, 371-378.

Newbury cites Professor Kantor's work frequently in this interesting little paper. The opening paragraph of the article reads as follows:

> Despite considerable pretensions among operationists in psychology of avoiding philosophic complications, their disagreements with introspectionists and among themselves, sometimes in open metaphysical terms, suggest the importance of investigating the significance of some of their explicit or implicit epistemological and ontological assumptions.

The rest of the paper we leave to your reading, if you are so inclined. (Susan M. Schneider, University of Kansas)

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Zuriff, G. E. (1985). Behaviorism: A Conceptual Reconstruction. New York: Columbia University Press.

Although we briefly reviewed Zuriff's comments on interbehavioral psychology in a previous issue (1985, No. 2), we recently found an interesting paragraph on another matter in the book that bears repeating.

> It is not clear what role is played in the determination of a scientist's behavior by a priori prescriptions as to how science "ought" to proceed. Often these philosophical pronouncements follow the success of a theory. Philosophers formulate a post hoc formal reconstruction of what is often a successful case of informal theorizing. The formal reconstruction is then raised as the model to be followed by future theory. However, by the time the nature of this reconstruction is somewhat clarified by debate within the philosophical community, scientists are working on the next theory, which may not fit the former model. Philosophy of science is in a continuous attempt to catch up to science, and is in this sense an epiphenomenon of science, affected by science but having little impact in return. (p. 94)

(Edward K. Morris, Univerity of Kansas)

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We strongly encourage readers to submit brief book and journal notes.

INVITED EDITOR'S COMMENTARY CONTINUED:

Where To From Here? Naturalistic Behavioral Medicine

Dennis J. Delprato

Eastern Michigan University

Our dualistic tradition has placed psychology at an opposite pole from biology and the health sciences. Recent developments, however, are breaking down the dichotomy. Psychosomatic medicine, one of the first bridges between the two, recognized the connection between events referred to as "mental" and those referred to as "physical," but collapsed because of inept postulates that fostered obscure, impractical, and ineffective procedures. A new specialty, behavioral medicine, has evolved to fill this gap. Although behavioral medicine is largely a technological affair, its evolution is part of the movement towards integrated-field thinking a la Kantor. Delprato and McGlynn (1986) provide a more detailed analysis of this and identify tentative postulates for behavioral medicine (see table below). Because psychosomatic medicine continues to pose a threat to behavioral medicine, which is not surprising given its foundation in cultural tradition, I have also taken each behavioral medicine postulate and shown its predecessor in psychosomatic medicine. This juxtaposition nicely represents both the "From here" and "Where to" aspects of the present theme.

Reference

Delprato, D. J., & McGlynn, F. D. (1986). Innovations in behavioral medicine. In M. Hersen, R. M. Eisler, & P. M. Miller (Eds.), Progress in behavior modification (vol. 20, pp. 67-122). New York: Academic Press.

Psychosomatic Medicine	Behavioral Medicine
Two Factor Postulate	**Field Postulate**
The events of psychosomatic medicine are comprised of psychological (mental) and bodily processes.	The events of behavioral medicine are comprised of multifactor fields.
Reductionistic Postulate	**Holistic Postulate**
The ultimate cause of organismic activity is found in biological structures and proceses.	The entire organism, not only specific components, participates in its performances.
Ahistorical Postulate	**Evolutional Postulate**
Although organisms undergo development, developmental interactions leave a residue that when analyzed, provides the answers to contemporary actions.	Behavioral medicine works with multifactor fields that have evolved and are evolving.
Hierarchy of Disciplines Postulate	**Interdisciplinary Postulate**
Although psychosomatic medicine brings together scientists and practitioners from various disciplines, physiology and orthodox medicine are basic.	The practice of behavioral medicine demands interdisciplinary cooperation; no discipline is more basic than any other.

Tactical Postulate	Tactical Postulate
Clinical procedures are modifications of psychological (mental) and bodily factors.	Clinical procedures are modifications of field factors.
Goal Postulate	**Goal Postulate**
The goals of psychosomatic medicine are alterations of individuals, including their emotions, perceptions, cognitions, and even their behavior.	The goals of behavioral medicine are alterations in developmental trajectories.

BOOK REVIEW

Paradigms, Thought, and Language by I. Markova

Sandy Hobbs

Paisley College of Technology, Scotland

This book has received a highly critical review in Contemporary Psychology (Flanagan, 1984). Although many of the criticisms made there against it are justified, it would be be a pity if such a prominent and unfavorable review were to keep readers away from a work that holds some interest from the point of view of interbehavioral psychology.

Markova is quite explicit in her intention to argue for the superiority of what she sees as a Hegelian approach to psychology. The language used by psychologists who see themselves in a Hegelian tradition clearly sets them apart from interbehavioral psychologists. At least one of them -- Riegel (1978) -- has praised Kantor, however. This suggests that a dialogue between dialectical and interbehavioral psychologists might prove fruitful, but, as far as this reviewer is aware, no such dialogue has taken place. Markova's book may provide some clues to what common ground exists, if any.

Paradigms, Thought, and Language contains two main parts, the first being devoted to what Markova calls the "Cartesian" framework and the second to the Hegelian alternative. This division arises from two linked claims the author appears to make. One is that a "Cartesian" view has tended to dominate modern psychology. The other is that this domination is regrettable, since a superior "Hegelian" framework is available. To frame the argument in terms of historical traditions must surely imply that authors identified as belonging to a given tradition have come under certain common influences and that they thereby have more in common with each other than they have with adherents to other traditions. In the case of the "Cartesian" tradition, Markova recognizes she has a problem, in that psychologists to whom she gives this label include people who are often seen as belonging to two rival traditions -- rationalism and empiricism. Her contention, however, is that the differences between rationalism and empiricism are less important than "their underlying similarities and convergences" (p. 7, emphasis in the original). A point of view that treats Skinner and Chomsky, for example, as falling into the same tradition could produce stimulating reading. Unfortunately, Markova makes no sustained attempt to demonstrate the cogency of her "Cartesian" tradition by systematic historical analysis. Instead, she picks particular writers for attack on no obvious principle of selection. The fact that some of her attacks are cogent and illuminating is a small compensation for the lack of overall coherence.

Surpisingly, the treatment of Hegelian psychology is marred by a similar weakness. Apart from an outline of Hegel's own philosophy of mind, we are provided with only fragmentary accounts of research that in some way or another meets with Markova's approval. She fails to make clear in what respects the research she praises either gained from, or would have been improved by, an explicitly Hegelian conceptual framework. This section is too ahistorical. For example, Markova deals in favorable terms with the Soviet psychologist, Leontyev, but fails to discuss the issues raised by the fact that it is as a Marxist rather than as a Hegelian that he writes. Of course, Marxism can be seen historically as a derivative of Hegelian philosophy, but it is surely as unhelpful to discuss a Marxist writer simply as part of an undifferentiated "Hegelian" tradition as it is to group empiricist and rationalist writers together as undifferentiated "Cartesians."

The interbehavioral reader may get most out of this book by abandoning at the outset any hope of finding sustained plausible arguments in defense of the author's main explicit themes. If treated as a loosely linked set of studies of particular writers on cognitive and linguistic psychology, the book may be responded to more positively. It may be fruitful to consider Markova's criticisms and praise in terms of the extent to which they are and are not compatible with interbehavioral perspectives. For example, there are interesting comparisons to be made between Blewitt's (1983) comments on the shifting views of the cognitive psychologist Neisser and criticisms of Neisser by Markova. Markova quotes Neisser approvingly for saying "perceiving is a kind of doing" (p. 72), but regrets that he has failed to completely abandon the "one-way flow" model of perception in favor of a truly "two-way flow" model in which both the perceiver and the world are transformed.

To sum up, a disappointing work, but not one to be ignored.

[Published by John Wiley, Chichester, England, 1982]

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Blewitt, E. (1983). The computer analogy in psychology: Memory as interbehavior or information processing? In N. W. Smith, P. T. Mountjoy, & D. H. Ruben (Eds.), Reassessment in psychology: The interbehavioral alternative (pp. 381-407). Washington, DC: University Press of America.

Flanagan, O. J. (1984). Psychology, philosophy, and the division of intellectual labor [review of Paradigms, thought, and language]. Contemporary Psychology, 29, 232-233.

Riegel, K. F. (1978). Psychology mon amour: A countertext. Boston: Houghton Mifflin.

COMMENTS

On Setting Factors and Interbehavioral Research: A Reply to Pronko

James Fox

Peabody College of Vanderbilt University

Recently, Pronko (1985) has commented upon what he views as the expanded, though incorrect, usage of the term "setting factors" by certain interbehaviorists. Citing Kantor's (1958) and Kantor and Smith's (1975) definition of the term, Pronko emphasized the immediate nature of setting factors:

> In addition [to the interbehavioral history] there is the setting factor (st); it consists of the immediate circumstances influencing which particular sf-rf will occur. (Kantor, 1958, p. 14 as cited by Pronko, 1985)

This was contrasted with Bijou and

Baer's (1961) and Wahler and Fox's (1981) use of the term to include "stimulus-response interactions that influence subsequent stimulus-response interactions." In Pronko's view such a definition is in error since it departs from Kantor's definition of setting factors as overlapping with the occurrence of a particular organism-environment interaction of interest. Moreover, he argues that "the effects of one stimulus-response interaction on another are already covered by the principle, 'Present events are a function of antecedent events'" (Pronko, 1985).

Because of the conceptual and empirical importance of setting factors to an interbehavioral analysis, I would like to make several brief comments. First, it is quite true that in most of his writings Kantor employed a definition of setting factors which stressed the immediacy of such events. In his analysis of the experimental analysis of behavior, however, Kantor (1970) himself gave the following description of setting components:

> For psychological behavior in general there are obviously many other conditions localizable in and around the organism and its stimuli. For example, the hygiene of the organism, its habituation or past behavioral history, what behavioral circumstances it has recently or just previously passed through, the presence or absence of confining objects and numerous others. (Kantor, 1970, p. 107)

Indeed, in our similar critique of applied behavior analysis, Wahler and I used the above citation as justification for the inclusion of preceding stimulus-response interactions as setting factors (see Wahler & Fox, 1981, p. 330). Thus, our use of the term in this manner does not seem wholly divergent from Kantor's use.

Not only did there seem to be some precedent for treating prior stimulus-response interactions as setting factors, it also seemed a more precise way of describing those durational events which have often been used to exemplify setting factors (e.g., deprivation and satiation). That is, deprivation does not simply consist of restricting or eliminating a subject's access to certain stimuli, but of replacing one set of stimulus-response interactions with another set or sets of interactions between subject and environment. For example, sleep deprivation operations not only eliminate sleep but also bring about a series of interactions between sleep deprived people and their environments that are different from those that typically occur during sleep. Thus, deprivation (and satiation) would seem to be more accurately characterized as an ongoing series of interactions between an organism and its environment different from those that typically transpire in that situation. Different types of prior person-environment interaction may have quite different effects on people's ensuing interactions with their environment (Premack, 1971). To continue the previous example, tossing and turning in bed as opposed to getting up and reading a book may exert quite opposite effects on insomniacs' subsequent attempts to sleep when they return to bed.

The current debate over the immediacy of setting factors has stressed, incorrectly perhaps, a structural definition at the expense of a functional definition. Indeed, this has been the thrust of recent critiques of the concept by more traditional behavior analysts (Leigland, 1984; Michael, 1983). Morris (personal communication, October, 1985) has made a similar point, arguing that defining setting factors with regard to the time of their occurrence misses the spirit of Kantor's original definitions, that interbehavioral history gives the original functions to stimuli and responses and setting factors determine which of these various functions occurs at a given time. Such a functional definition suggests that potential setting factors may be identified for further analysis by first looking for variations in or exceptions to known stimulus-response (or response-stimulus) relationships. To complete this analysis, the contextual conditions would then be systematically varied as changes in the stimulus-response relationship are measured.

This brings me to the third point. In our discussion of setting factors, Wahler and I were attempting to provoke more explicit acknowledgment of the contributions of such factors by applied behavior analysts and, we hoped, to promote investigation of the influence of

contextual variables on the momentary exchanges between people and their environments. At the level of concrete, confrontable events, such research is seriously lacking. Interbehaviorists have written much but have yet to produce (or at least publicize) empirical demonstrations of sufficient quantity or quality to persuade others, especially our behavior analytic colleagues, of the utility of the interbehavioral model. The twin needs of interbehaviorists for definitional clarity and for research demonstrating the functional properties of setting factors have been further pressed upon us by recent criticisms of the setting factor concept by more traditional behavior analysts (Leigland, 1984; Michael, 1983). Certainly, precision in the definition of terms is an important part of any scientific effort. If such debate, however, delays or diverts our efforts from empirical analyses of contextual or historical events, then we do ourselves and scientific psychology a disservice.

Perhaps a functional definition of setting factors will provide a point of consensus for interbehaviorists. Perhaps, too, increasing the definitional clarity of this and other interbehavioral terms will address some of the concerns expressed by others (Leigland, 1984; Michael, 1983). Still, these and other criticisms cannot receive an adequate response in the absence of empirical research; theory must be derived from an analysis of events. To understand and account for the complexities of human behavior, research must include not only the operation of immediate contextual factors, but also the influence of previous interactions between the person and the environment. The specific function of particular events will be made clear through research, not simply through discourse. It is time, indeed past time, that we accelerate research on setting and historical factors.

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Michael, J. L. (1983). Distinguishing between discriminative and motivational functions of stimuli. Journal of the Experimental Analysis of Behavior, 37, 149-155.

Premack, D. (1971). Catching up with common sense or two sides of a generalization: Reinforcement and punishment. In R. Glaser (Ed.), The nature of reinforcement. New York: Academic Press.

Pronko, N. (1985). The matter of setting factors: As I see it. The Interbehaviorist, 13, 7.

Wahler, R. G., & Fox, J. J. (1981). Setting events in applied behavior analysis: Toward a conceptual and methodological expansion. Journal of Applied Behavior Analysis, 14, 327-338.

Preparation of this manuscript was supported by Grant #6-30426 from the National Institute of Child Health and Human Development. The author wishes to thank William Brown, William Bryson-Brockman, Mary McEvoy, and Sarah Savelle for their helpful comments on earlier drafts. Copies of this manuscript can be obtained from James Fox, Box 328, Peabody College, Vanderbilt University, Nashville, TN 37203.

ARTICLE

Advanced General Psychology:

A Course on Interbehavioral Principles

William M. Gardner

Jacksonville State University

The problems entailed in introducing interbehavioral principles into a traditional curriculum include restrictions imposed by course descriptions, the limited selection of interbehavioral texts, and colleagues who are uncomfortable with the interbehavioral perspective. These problems notwithstanding, I have discovered a course-text-method combination that has proven particularly successful.

Last spring, I made a radical, albeit informal, change in our psychology curriculum: I selected Kantor and Smith's (1975) The Science of Psychology as the "new" text for our course, Advanced General Psychology. Although Kantor and Smith's book requires college-level reading skills and flouts many widely held beliefs, both religious and philosophical, the text was well received. The success of the course has prompted me to record the specifics and to share them with the newsletter's readers.

Text Assignments

The chapters in The Science of Psychology were assigned in order. Each week, students were provided with a list of facts to learn and one of two potential essay topics. The fact lists and essay topics were taken more or less directly from the text. (Note: Students were assured that the text was the best available, and that Kantor was a name to be remembered.)

Format of Lectures

Each chapter was reviewed in lecture. Diagrams placing the naturalistic view in the context of traditional psychology were presented. Examples from everyday life were then related to the interbehavioral principles under discussion. The phrase, "As you know from your personal experience..." was used frequently. Students were repeatedly told to trust their observations rather than what they have always been told.

Considerable class time was given to discussions arising from questions raised by the more outspoken students, one of whom became a decided asset by raising critical issues. The question that recurred most throughout the course can be paraphrased as: "Where are psychological events if they are not in the mind or brain?" Each time this question was raised, the questioner was treated as a professional who knew the facts, but suffered the burden of a confusing verbal tradition.

Evaluation

On test day, one of the previously assigned essay topics was randomly selected. Because all essay topics were known before test day, grading standards were set unusually high. The essays were assigned letter grades, without elaboration. Students were told, "If you disagree with my assessment of your paper (after discussing it with me), I will raise your grade." Only one student exercised this option, but her overall course grade was not thereby influenced.

In addition to essay tests, students were given a fact recall test each month. A cumulative list of approximately 75 facts was distributed each month. Students were required to memorize the facts and to put them on flashcards for timed testing. Some examples of these recall facts are:

1. Front: Interbehavioral history is...
   Back: ...the history of experience necessary for rf-sf development.
2. Front: No science can be established firmly until it rejects...
   Back: ...verbal traditions.
3. Front: Mentalistic psychology is based in the metaphysics of...
   Back: ...spiritualism and idealism.

Card decks of these items were shuffled before each fact recall test, and multiple tries were permitted. The students were required to say as many facts as possible in a timed one-minute period. A criterion

recall rate of 30 cards per minute was required for a grade of 100%. (Note: Students were not required to read the front of the cards aloud, only to say the answers aloud. In the future, I plan to have them read the front aloud before saying the answers, and to lower the criterion speed accordingly.) The monthly fact lists were cumulative, so each student had a deck of approximately 250 cards by the final timed test. The timed testing was quite similar to Lindsley's SAFMEDS technique (McGreevy, 1983); however, no charting or daily testing was required.

Course grades were computed by averaging essay grades equally with fact recall grades. The median grade on essays was a C; most students achieved the 100% criterion speed on the fact recall tests. Thus, the median course grade was a B.

Despite extensive memory work for speed testing and demanding essay standards, as well as a textbook low on nonsense and high on reading level, the students did not rebel. Indeed, the general reaction to the course was quite positive. But there were problems.

The Problems

The course demands were explicit and high. As might be expected, the course dropout percentage was high, about 15%. Anxiety levels on card/speed tests were also high, especially on the first test. Allowing practice trials helped to reduce this anxiety. Because there was potential for bias in the grading of essays, student numbers were used to identify essay test papers. Because tests were not dependent on lecture information, students with lower aspirations cut class frequently.

Conclusion

This was arguably the most enjoyable course I have ever taught. Although pleasure is not the primary objective of teaching, it can enhance the quality of lectures, as well as concern for the students. The testing system used seemed to eliminate one of the more distasteful aspects of teaching -- test postmortems. Most students seemed to accept the grade assigned on essays, and once most students received 100% on their first speed test, pleas for a lower criterion speed ceased.

Because the potential essay topics were known weeks in advance, all students had a chance to prepare scholarly essays, which served to establish the textbook as a useful and thereby friendly authority. The memory work for speed tests did produce grumbling, with frequent comments about "regurgitating" facts, but this changed to exuberance for the majority who achieved the 100% criterion. Most students saved their test cards after the course was over, and some began using similar cards and speed recall to study facts in other courses.

Each teacher has a unique style and each class has a unique "personality"; therefore, one could easily overgeneralize from one class to another. Nonetheless, we must share our experiences or otherwise learn everything by trial-and-error. Perhaps other interbehaviorists would share their methods used in teaching the interbehavioral perspective.

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