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QUOTATION

Nature and nurture are...not
alternative sources of form and causal
power. Rather, nature is the product
of the process of the developmental
interactions we call nurture.

Susan Oyama (1989, p. 5)

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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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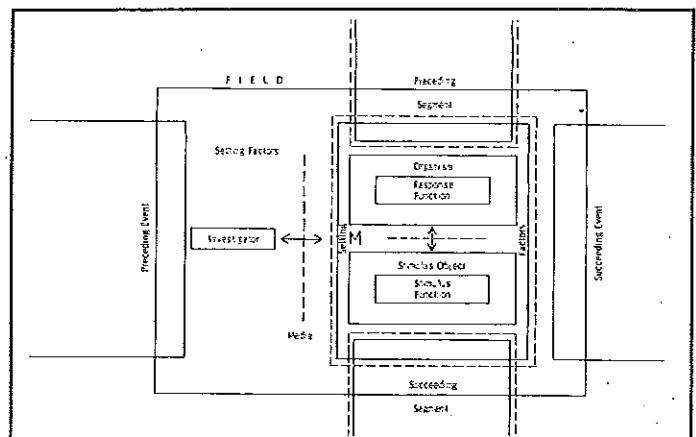
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THE AGORA

The Association for Behavior Analysis

The May ABA meeting once again provided fertile soil for interbehavioral psychology. The two planned symposia -- "An Introduction to Interbehavioral Psychology" (Cone, Delprato, Mountjoy, and Ray) and "Basic Behavioral and Linguistic Processes: Multiple Response Methodologies" (Ghezzi, Iversen, Pennypacker, and Wruble) -- were well-prepared and well-received.

The meeting of the Interbehaviorists in ABA Special Interest Group (SIG) drew more than a dozen ABA members, some for the first time. Linda J. Hayes (University of Nevada-Reno), the SIG chair, was unable to attend, but did send minutes and an agenda. Her comments on the special issue of Behavior Analysis, the APA Division 25 newsletter, whose contents were listed in the last issue of this newsletter, bear repeating.

As announced at the SIG meeting at ABA 1988, a special issue of Behavior Analysis, APA Division 25's journal, commemorating the 100th anniversary of Kantor's birth was published in December of 1988.

The idea for a special issue of Behavior Analysis arose as it appeared that a book planned for this purpose, to be edited by Emilio Ribes and Linda Hayes, would not be finished before the end of 1988. (These authors are still planning to produce a book of Kantor's work, and have a commitment from Trillas for publication in Spanish. An English version may be available through a desk-top publishing outfit. More news on this later.) The authors originally contacted for the edited volume were asked if they would agree to have short versions of their chapters appear in the special issue, given the time constraints. Most agreed, although as it turned out not all could be accommodated due to space limitations. Skinner was one of those who did not agree. In fact, he was outraged at the idea of a special issue of Behavior Analysis in celebration of Kantor's work, and made this known to me, as editor, and to several present and past members of the Division 25 Executive Committee, among others. The special issue was produced as planned nonetheless.

I think Skinner's (1988) "Cuckoos" piece in the ABA Newsletter may have been prompted by these events, at least in part. As Chair of the Interbehaviorists in ABA Special Interest Group, I felt some obligation to respond, but in fact did not do so. I don't think Skinner's feelings about interbehaviorists in ABA are shared by the ABA membership. I think we should just carry on as always -- respectfully educating the masses!

Enough said. The main SIG business focused on planning next year's ABA symposia, two of which were tentatively proposed -- an "introductory" one on Kantor's analysis of complex behavior (e.g., feelings, emotion, cognition, and language) and one on the implications of a systems or ecological (i.e., interbehavioral) perspective for problems in clinical psychology. If readers have suggestions about topics or presenters, please write the editor, who will pass them on.

Notes from the Field

Sidney W. Bijou has published an update on the behavior analysis of child development in a chapter entitled "Behavior Analysis" in R. Vasta (Ed.). (1989). Annals of Child Development: Six Theories of Child Development (Vol. 6, pp. 61-83). Greenwich, CT: JAI Press. Bijou, with T. R. Kratochwill also published a chapter on the impact of behaviorism on educational psychology for J. A. Glover and R. R. Ronning's (Eds.). (1987). Historical foundations of educational psychology (pp. 131-157). New York: Plenum.

Among publications by other newsletter readers are Roger D. Ray and Dennis J. Delprato's (1989) "Behavioral systems analysis: Methodological strategies and tactics" in Behavioral Science, 34, 81-127; William M. Gardner's (1987) Language: The Most Human Act; Edward K. Morris's review of Costall and Still's Cognitive Psychology in Question in The Behavior Analyst (1989, 12, 59-67; and Robert G. Wahler and Jean E. Dumas's "Attentional Problems in Dysfunctional Mother-Child Interactions: An Interbehavioral Model" in the Psychological Bulletin, 1989, 105, 116-130.

COMMENTS

What Can You Believe from Print?

Arthur Kahn

Annapolis, MD

The following comments are based on a footnote by Hilgard (1987, p. 821), reprinted in The Interbehaviorist, 1988, 16(4), 33. It reads as follows:

Although Skinner was the chairman of the Department of Psychology at Indiana University (1945-1948), including the year in which he gave his Harvard lectures on verbal behavior, and Kantor was active on the faculty, their mutual interests in varieties of behaviorism and in psycholinguistics apparently did not lead to common understandings about language. Skinner (1957) found no occasion to cite Kantor's book of 1936, and when Kantor wrote again on psycholinguistics (Kantor, 1977) he found no occasion to mention Skinner's of 1957, although he did mention Chomsky.

The purpose of this commentary is to clarify the relationship between Kantor and Skinner and to point out Kantor's criticisms of mind-body dualism. To begin with, because Kantor mentions Chomsky, but not Skinner, Hilgard's footnote might be interpreted to mean that Kantor was sympathetic to Chomsky. Nothing could be further from the fact. Let me quote from Kantor's Psychological Linguistics:

A brief description of what has been called transformational grammar illustrates the heavy emphasis that is placed upon a "mind." Upon this intellectual sand they erect the following set of autistic propositions.

(1) The "soul" or "mind" is fitted with innate powers or competencies which determine, guide, and govern linguistic performances. It is owing to this innate and intuitive principle that children at an early age know and achieve grammatically correct sentence structures.

(2) The mind is furnished with a primary generative level of deep structures which generate the surface structures of language presumed to

involve semantic elements or rules such as subject-predicate, verb-object, as well as modifier-noun combinations. Surface structure consists of the actual sentences with their phonological components as ordered by the rules of deep structure.

(3) Since language is generated by a "mind" the development of speech by children is simply a matter of maturation. Here is a glaring misinterpretation of maturation based upon a false analogy. It is a false assumption that the development of speech is like the maturation of physiological acts upon the development of cellular structures.

(4) Language development consists of the ability to create sentences out of words by means of imitation and analogy.

How can Chomsky believe these fairy tales? No doubt by the self-assumed authority to make the study of language contribute to the understanding of human nature. (p. 266)

If justification is required for the treatment of such an involved and theologically tinged form of language theory, it is to be looked for in the social background of linguistics. Transformational linguistics has temporarily transformed general linguistics and the library-sized literature that it has provoked has marked a regression in an important field of study and so must be taken into account. (p. 267)

Hilgard's footnote notwithstanding, the relationship between Skinner and Kantor was closer than might be surmised. For example, prior to World War II, Kantor asked John B. Carroll, a Ph.D. from Minnesota, to join the Indiana faculty. He was asked, in part, because he was interested in language and was conversant with Skinner's ideas through Minnesota. Carroll had lost interest in language, however, and had taken up factor analysis

(Carroll, personal communication; I am indebted to Dr. James Capshew of the University of Maryland for assistance in locating Dr. Carroll).

Hilgard apparently considered Kantor's concerns as solely psycholinguistic, for he ignored Kantor's writings on the mind-body problem. Even though Hilgard discusses this problem, he does not see it as the pervasive problem Kantor did.

For instance, although Hilgard discusses James J. Gibson's contribution to psychology, he misses Gibson's rejection of dualism. As pointed out by Reed (1988), Gibson was anti-dualistic. Following Holt, Gibson believed that no mind existed as separate from the physical world. Gibson had sent Hilgard a manuscript copy of his book Perception of the Visual World at Hilgard's request while Hilgard was writing a chapter on the role of learning in perception. According to Hilgard, he in turn sent Gibson a copy of the chapter. Gibson wrote back: "I appreciate your kind words about my book, but I am disappointed that you were not instructed by it." As Reed points out:

Once a dualism was erected, it seemed impossible to eliminate it. Without an elimination of dualism of mind-body that has been ingrained into the knowledge base of the non-psychologists, the ability to look at psychological research objectively by non-psychologists is suspect.

A good example of this is offered in Capshew's (1986) "Engineering a Technology of Behavior: B. F. Skinner's Kamikaze Pigeons in World War II" (see Skinner, 1960). As described by Capshew, Skinner's contract was cancelled by the National Defense Resource Council (NDRC), even after "continued support," due to a perceived lack of interest by the armed forces and due to difficulties with the missile development team at MIT. The failure of the project was not due to technical reasons. In Capshew's words:

Rather it was due to fundamental differences in disciplinary outlook and style between the Skinner group and the NDRC engineers. Coming from laboratory psychology, Skinner was at a disadvantage in trying to enter territory that was considered part of electrical and mechanical engineering.

He lacked experience in dealing with extramural research agencies even in his own field of psychology. Furthermore, he failed to mobilize the support of influential psychologists involved in government scientific circles. Instead, Project Pigeon members felt their way, eventually learning to conceptualize their work in engineering terms, as we have seen in their use of the metaphor of the bird as a machine. But that occurred after NDRC officials had already begun to lose their initial enthusiasm for the idea. The contract administrators tried to be open minded about the project's unusual approach, but without a compelling rationale from its advocates they retreated behind traditional disciplinary boundaries. The official account of the project noted the prevailing mood: Investigators in the physical sciences are inclined to discount unduly the findings of their colleagues in the field of psychological behavior. Such an attitude is far from scientific... (p. 10)

In sum, Kantor's comments on Chomsky illustrate that what non-psychologists know about psychology has not improved since Skinner's experience during World War II. Hilgard's book demonstrates that, in the main, American psychology is still burdened by mind-body dualism in spite of the writings of Kantor and a few others.

References

- Capshew, J. H. (1986, October). Engineering a technology of behavior: B. F. Skinner's kamikaze pigeons in World War II. Paper presented at the meeting for the History of Technology, Pittsburgh, PA.
- Hilgard, E. R. (1987). Psychology in America: A historical survey. San Diego: Harcourt, Brace, Jovanovich.
- Kantor, J. R. (1977). Psychological linguistics. Chicago: Principia Press.
- Reed, E. S. (1988). James J. Gibson and the psychology of perception. New Haven: Yale University Press.
- Skinner, B. F. (1957). Verbal behavior. Englewood Cliffs, NJ: Prentice-Hall.
- Skinner, B. F. (1960). Pigeons in a pelican. American Psychologist, 15, 28-37.

Is Behavior Organism-Centered Reactions or Interactional Field Relationships?

Harry C. Mahan

Oceanside, CA

Almost since the beginning, interbehavioral psychology and behavior analysis have run parallel courses, more often in rivalry than in collaboration. The rivalry, though, is becoming counterproductive, for each has something to offer the other. Behavior analysis has a productive basic and applied research paradigm; interbehavioral psychology has a philosophical orientation to benefit both scientific and practical work.

Realizing that the science of behavior needs all the support possible, Linda J. Hayes, editor of Behavior Analysis, prepared a 1988 (Vol. 23, No. 3) issue of the newsletter in honor of the centennial of Kantor's birth. Among the contributions, Emilio Ribes's and Joseph Roca's are noteworthy for their concern with the fundamental Kantorian principle that context is essential to behavior. Ribes and Roca provide excellent philosophical background in their comparison of interbehavioral psychology with the tenets of behavior analysis. Both papers, it is hoped, will be read by psychologists of other persuasions.

Although space does not permit lengthy commentary, brief quotations from the two papers convey a sense of their common theme. The first is from Roca:

To understand behavior without locating it in the organism may be achieved by considering biological behavior to be the material basis for psychological behavior. The effect is to undermine the organism-environment duality, in that both kinds of behavior are essential features of being an organism-in-the-environment. From this perspective, the concepts of "stimulus" and "response" are meaningful only as functionally related segmentations of the environment and the organism for the purposes of specific analyses. (p. 102)

Ribes discussed the history of

mechanism as applied to behavior, following which he stated:

Psychological theory might deal more effectively with the role of history and context in psychological behavior were these mechanical restrictions eliminated. In doing so, it may be possible to propose sound interpretations of complex behaviors (i.e., thinking, communicating, remembering, etc.) as relations. Kantor's contributions in this regard may be considered philosophical in kind. (p. 95)

Ribes' concluding paragraph is important and succinct:

Changing the assumptions or belief systems upon which our science is built means changing the facts with which our science deals. Changing belief systems and conceptual models is not an easy task. The history of science is full of examples of resistance to new ideas. Although many contemporary behaviorists do not feel that Behaviorism and Psychology must be revisited for the purpose of evaluating the adequacy of our theoretical frameworks, others feel that the time has come for such an endeavor to be undertaken... Kantor's formulations may result in a substantial contribution to this enterprise if we have enough ingenuity to use them in ordinary research and theory construction. To do so, would recognize his most important contribution: telling us what psychological behavior is about! (p. 99)

To an octogenerian long since retired, who, as a young psychologist, enrolled as a graduate student at Indiana University in 1935 to find out from Kantor "what psychological behavior is about," such words are indeed gratifying.

JOURNAL AND BOOK NOTES

Oyama, S. (1989). Ontogeny and the central dogma: Do we need the concept of genetic programming in order to have an evolutionary perspective? In M. R. Gunnar & E. Thelen (Eds.), Systems and development: The Minnesota symposia on child psychology (Vol. 22, pp. 1-34). Hillsdale, NJ: Erlbaum.

Oyama's chapter leads off this collection of papers exploring several relationships between general system theory and developmental psychology. The collection also includes chapters by Fentress, Thelen, Belsky, and Patterson, and commentaries by Horowitz and Sameroff. Although each chapter is worthy of comment, this note focuses only on Oyama's contribution.

Oyama is critical of traditional assumptions and definitions that form the basis of much scientific practice (see also Oyama, 1982, 1985). In the present instance, she is foremost concerned with "the central dogma" that development is guided by a "one-way flow of information... from genes" to phenotype, and ultimately to some behaviors (p. 7).

Scientists often use the rhetoric of "interaction" between nature and nurture, but Oyama is again critical because this "interactionism" treats nature, as well as nurture, as independent, weighted causes. "Interaction," as such, is only minimally removed from "lineal-mechanism." Oyama also astutely points out that descriptions of development based on this interactional perspective are also preformationistic (i.e., self-actional) in that genes are usually given final power as the repository of control. After all, development is not a whilly-nilly affair; it must be controlled by something -- right? (see also Dewey & Bentley's, 1949, discussion of interaction).

In presenting an alternative to lineal-mechanical and preformationistic accounts of developmental phenomena, Oyama asks "What is inherited?" (p. 23). She answers that genes are inherited -- but so too are cultures. Inheritance goes beyond the biological boundaries of the organism; it includes whatever extraorganismic "developmental influences" make up the "developmental system." Eventual outcomes, whether biological phenotypes or

psychological behaviors, are the result of developmental processes. It is ironic that some developmental psychologists speak of the inheritance of behavior or of the genetic control of behavior, for in doing so they are thereby ignoring the actual processes of development. As Oyama notes in this regard, "the transmission metaphor denies development" (p. 24).

As for the constructs "nature" and "nurture," Oyama does not abandon them, but rather, offers new definitions: "Nature is the product of the process of the developmental interactions we call nurture" (p. 5). That is, nurture is a developmental process, which includes all components (biological and otherwise) of the developmental system. Nature is the outcome, at any point along the developmental stream, of nurture. Reasonably so, all is nature, or natural; science does not deal with the nonnatural.

Note should also be made of Oyama's treatment of evolution, for she argues that the relationship between it and development needs reworking. Although evolutionary phenomena are intimately related to developmental phenomena, traditional conceptualizations of their are inadequate, for they are not based on principles of contemporary "constructivist interactionism" -- Oyama's term for a field or system perspective.

Here, as elsewhere (e.g., Oyama, 1982, 1985), Oyama challenges some hoary concepts and provides important insights into how we might better deal with some problems at the very heart of biobehavioral phenomena. (Bryan D. Midgley, University of Kansas)

References

- Dewey, J., & Bentley, A. F. (1949). Knowing and the known. Boston: Beacon Press.
- Oyama, S. (1982). A reformulation of the idea of maturation. In P. P. G. Bateson & P. H. Klopfer (Eds.), Perspectives in ethology: Ontogeny (Vol. 5, pp. 101-131). New York: Plenum.
- Oyama, S. (1985). The ontogeny of information: Developmental systems and evolution. Cambridge: Cambridge University Press.

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SELECTED RECENT ARTICLES

- An Animal Analogue of Gambling.**
Stephen B. Kendall.
- An Ethoexperimental Approach to the Study of Fear.** Robert J. Blanchard and D. Carolina Blanchard.
- Effects of Shock Controllability on Alpha Male Aggression and Defense, Defeat of Intruders, and Defensive Burying.**
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