THE INTERBEHAVIORIST

A Quarterly Newsletter of Interbehavioral Psychology

ISSN 8755-612X

Published at the University of Kansas

Volume 14 1986 Number 4

TABLE OF CONTENTS

QUOTATION

The transactional procedures emphasize the entire organismic-environmental process in a field of activity. J. R. Kantor has long maintained a similar view; rather than the name "transaction," he uses "interbehavior." (The Logic of Modern Science, 1953, p. 262). [Quotation from Handy & Harwood (1973, p. 6), A Current Appraisal of the Behavioral Sciences.]

THE INTERBEHAVIORIST

A Quarterly Newsletter of
Interbehavioral Psychology

ISSN 8755-612X

Edward K. Morris, Editor
Department of Human Development
212B/2035B Haworth Hall
University of Kansas
Lawrence, Kansas 66045, U.S.A.
913-864-3684/4840

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).

Subscription Information

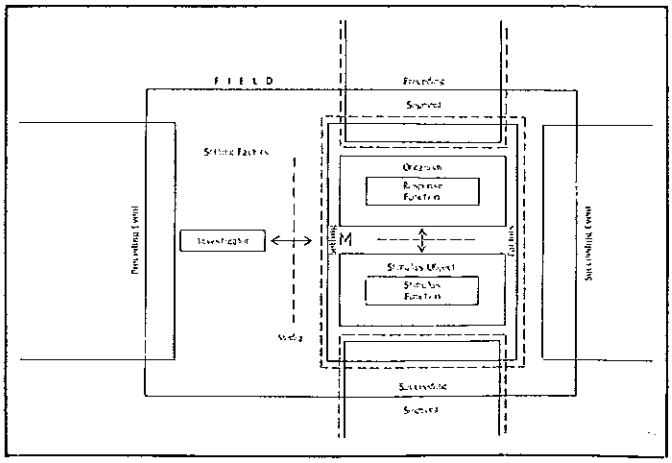
Student Subscriptions (US).....	$ 4.00
Regular Subscriptions (US).....	6.00
Foreign Subscriptions.....	8.00
Institutional Subscriptions.....	12.00
Back Volumes 1-14.....	6.00
Back Volume Complete Sets...	Please Write

NOTES FROM THE FIELD

Two books of interest to readers have been co-edited by LINDA J. PARROTT (Saint Mary's University). First, with Hayne W. Reese (first author), she has edited Behavior Science: Philosophical, Methodological, and Empirical Advances (Lawrence Erlbaum Associates, 1986). In this book we find a chapter by her on "The Role of Postulation in the Analysis of Inapparent Events," by DENNIS J. DELPRATO (Eastern Michigan University) on "Response Patterns," by EMILIO RIBES (National University of Mexico at Iztacala) on "Language as Behavior: Functional Mediation versus Morphological Description," and by Daniel J. Bernstein and JOSEPH V. BRADY (Johns Hopkins University) on "The Utility of Continuous Programmed Environments in the Experimental Analysis of Behavior."

Second, with Philip N. Chase (first author), she has edited Psychological Aspects of Language: The West Virginia Lectures (Charles C Thomas, 1986), which is dedicated in part to the memory of J. R. Kantor. Included in this book are chapters by her on "On the Differences between Verbal and Social Behavior," by EMILIO RIBES on "Is Operant Psychology Sufficient to Cope with Human Behavior?", and by PHILIP N. HINELINE (Temple University) on "Can Verbal Be Nonsocial? Can Nonsocial Be Verbal?"

Several subscribers to the newsletter also presented or were co-authors on papers presented at the annual (November) meeting of the Association for the Advancement of Behavior Therapy. These were LEONARD KRASNER, ED MORRIS, BOB WAHLER, and MARK WRUBLE.



THE AGORA

Once again, we are pleased to publish another guest-edited issue of the newsletter, this time by Linda J. Parrott (Saint Mary's University). Her contributions include the piece on "Interbehavioral Psychologists at ABA" in The Agora and the article, "Ethical Situations in Interbehavioral Perspective." In addition, her students have contributed an article on effective instruction in interbehavioral psychology.

For lack of space, we will not include a year-end report on the newsletter in this issue, but will do so in January. In the meantime, please note that subscription renewals are due. We would appreciate it if you would complete the enclosed notice and return it as soon as possible. Now, to this issue's material.

Study Guide for The Scientific Evolution

Paul T. Mountjoy has kindly offered to make copies of his "Study Aids and Objectives to Accompany The Scientific Evolution of Psychology, Volumes I & II by J. R. Kantor" (with Paul H. Selden) available to readers of the newsletter. If interested, please write Paul at the Department of Psychology, Western Michigan University, Kalamazoo, MI 49008.

Interbehavioral Psychologists at ABA

A number of interbehavioral psychologists met at the May meeting of the Association for Behavior Analysis (ABA) to discuss their current and future activities. Several interbehaviorally-oriented addresses had been presented, as well as a workshop by Roger Ray on systems analysis and interbehavioral methodology, which was well received. A previously planned working session on methodological issues had not been arranged in time for the meeting, but interest in such a session was still strong. Anyone wishing to organize a working session for future ABA conventions is encouraged to contact Linda Parrott, Department of Psychology, Saint Mary's University, Halifax, Nova Scotia, Canada B3H 3C3.

A report on The Interbehaviorist, submitted by Ed Morris (University of Kansas), indicated that the newsletter was in good shape for the coming year. Dennis Delprato and Linda Parrott served as guest editors for the spring and fall issues of the newsletter, respectively. Robert Epstein, on behalf of the Cambridge Center for Behavioral Studies, reiterated his interest in publishing the newsletter should the group be interested.

Among the other issues discussed were outlets for interbehavioral publications, opportunities for graduate study in interbehavioral psychology, and a meeting of interbehavioral psychologists. With regard to outlets, Roger Ray reported some difficulty finding a publisher for his volume on interbehavioral logic and research methodology. He offered to make the manuscript available to readers for teaching and other purposes. Those interested are encouraged to contact him at the Department of Psychology, Rollins College, Winter Park, FL 32789. Several members of the group indicated concern that opportunities for graduate study in interbehavioral psychology were not readily available. The Behavioral Services Program at Eastern Michigan University and the Department of Human Development at the University of Kansas were mentioned as possibilities. The group decided that further discussion of this issue, including having group members on thesis and dissertation committees as outside readers, should be planned for the next meeting of the ABA Special Interest Group. Finally, Linda Parrott reported that funds for small conferences might be available from the Social Sciences and Humanities Research Council of Canada, and that she would be looking into the possibility of meeting in Halifax in the coming year. There was considerable interest in such a proposal.

New Subscribers

We appreciate all efforts made to promote the newsletter, especially in university, college, and institutional libraries. Linda Parrott, in particular, is to be commended for her recruitment at Saint Mary's University. Her recent recruitees are Jennifer Beckwith, Patricia Brown, David L. Caslah, Penny Hope, David Kerr, Patricia Kirkpatrick, Greg MacIntosh, Matthew A. Mason, Mary McCarthy, Gloria J. McClure, Cynthia L. Power, Sandra Rupno, Karen Slaunwhite, Michele Spencer, Sandra Sweet, Sandra Toohey, Gail Ward, and Pamela Yates. One other new subscriber is Elias Robles (Tucson, AZ).

Toward More Effective Instruction in Interbehavioral Psychology

Simon M. H. Starbuck, Kerry J. Carruthers, Matthew Mason,

Malcolm D. Fitzgerald, and Scott Thompson

Saint Mary's University

The complexities of Kantor's field theory often make it difficult to teach to new students. To help with this dilemma, we describe some of the frequently encountered problems that students may face. In addition, we provide some methods and analogies we have found helpful in facilitating our understanding of the material, especially where the use of ideas with which students are already familiar assists in making difficult concepts more readily understood.

An initial problem concerns the relations among the various components of Kantor's field theory. Students sometimes do not understand how setting factors, interbehavioral history, and stimulus and response functions interact continuously and concurrently, as opposed to operating sequentially and independently of each other. Here, we have found it helpful to conceptualize the interacting field by analogy to relationships among the planets in the solar system. A change in the mass or orbit of any one planet results in changes in all other aspects of the system. That no planet operates independently of the others is an already well understood idea.

Given our culture's approach to causal language and thought, introducing students to a theory lacking a traditional concept of causality can be confusing. People are accustomed to dealing with the events of their everyday life in cause-and-effect terms. For instance, in striking a match and holding it to a flammable substance, we generally say that the match caused any resulting explosion. This example, however, can also illustrate that the explosion would not have occurred had any one of the participating elements been absent (e.g., without air as the medium of contact). The use of similar examples for illustrating that no one variable may be isolated as causally responsible for other events in the field may be helpful to students.

Many students initially appear to pursue psychology for its practical implications, hence the seeming lack of utility in interbehavioral psychology may deter students from adopting Kantor's position as a viable alternative to the conventional approaches. To overcome this, educators should illustrate how interbehavioral psychology can contribute to the technology of behavioral change. For example, in determining what variables should be manipulated in order to bring about interbehavioral change, instructors can stress the relevance of all stimuli present in the setting -- relevant to a greater or lesser extent depending upon the specific change desired. Attempts should also be made to trace the client's history in relation to these stimuli. Practical examples will help allay fears that interbehavioral psychology is removed from practical considerations, and will illustrate that it has implications in all areas of traditional psychology.

Confusion sometimes arises when one encounters a position that denies the conventional concepts of mind and soul -- that is, a position that denies the mind as causally responsible for behavior. The best way we have found for realizing the unserviceability of such constructs is to trace out their cultural evolution. Through this exercise, students can be educated in the evolution of psychology as a scientific discipline via its denial of the intangible as its subject matter.

A related difficulty pertains to Kantor's approach to complex and subtle behaviors such as thinking, dreaming, and imagining. These interactions are difficult to understand because the original stimuli are not physically present -- rather, we must deal with substitute stimulation. That is, interbehavior is understood as occurring with respect to absent stimuli on the basis of current substitute stimuli. Although Kantor's analysis appears workable, no "interbehaviorally" derived experimental evidence supports it. Given Kantor's position that everything within psychology should be analyzed in a naturalistic and systematic manner, students coming into psychology with a

traditional background will require substantial empirical evidence from an explicit interbehavioral orientation before being willing to adopt this nontraditional position on complex behavior.

Another difficult point of understanding is that the entire environment is said to change as a function of each interaction. Students run into difficulty here when trying to imagine how inanimate objects are different after an interaction than before. In presenting this view, educators might stress that an organism's psychological interaction is not with stimulus objects, but with stimulus functions. For example, if a flower is put into a wine bottle, the physical characteristics of the bottle do not change, yet the person's actions with respect to it will be altered. The bottle is now said to have a different stimulus function.

A person's history of past interactions has traditionally been thought of as causally responsible for current behavior. In contrast, Kantor analyzes interactional history in terms of an organism's current interactions. One way we have found to facilitate our understanding of history in this sense is in terms of stimulus functions. The current stimulus function of an object is the representation of all past interactions with respect to that and other stimulus objects. An analogy to evolution may be useful here. At any point in the evolution of a particular species, the organism's current structure can be characterized as an adaptation of previous variations. The species' history of adaptive interactions is represented in the current gene pool. "Historical" research in psychology should focus on making precise and detailed analyses of experimentally controlled stimulus relations such that one may trace the evolution of these relations to the current interbehavior of the organism.

Kantor is sometimes accused of failing to consider adequately the other sciences and their relationship to psychology. This is clearly a misconception, perhaps one that arises from Kantor's approach to the still current reductionism within psychology. The solution to this problem is for educators to stress that interbehavioral psychology actually does deal directly with the other sciences (e.g., neurology, chemistry, and biology). With respect to physiological psychology, for instance, most current conceptualizations of the brain are not acceptable from an interbehavioral perspective because they focus on it as a single entity that is causally responsible for behavior, rather than considering it to be one of the multitude of conditions that participate in the continuously evolving relationships between an organism and its environment. Interbehavioral psychologists are clearly interested in knowing the details of brain functioning, for this would add to the account of the participating factors in any interaction. In any event, the strength of interbehavioral psychology is that it does consider the other sciences clearly and explicitly.

Of great importance to understanding many of these issues is the general dearth of empirical work produced from an interbehavioral perspective. This lack of research leads people to question the adequacy of the formulation. Educators need to enlighten students about work being done by interbehaviorists, as well as to discuss material published in journals (e.g., Journal of the Experimental Analysis of Behavior) from an interbehavioral perspective. Such discussion would demonstrate the superiority of Kantor's views for various forms of psychological research.

Finally, Kantor's writing style also complicates matters. His writings are a difficult form of primary source material and may deter people from appreciating his work and adopting his views. One means of solving this problem is to encourage students and other professionals to publish interbehavioral material in The Interbehaviorist and other appropriate outlets. Such material would provide a readily available, more understandable approach to Kantor's work and, at the same time, allow readers to establish new lines of communication with others who have similar interests.

We hope this article will encourage the submission of further material on how to promote and improve the understanding of interbehavioral psychology; we would also welcome comments directly. Our mailing address is Psychology Department, Behaviour Analysis Lab, Saint Mary's University, Halifax, Nova Scotia, Canada, B3H 3C3.

Ethical Situations in Interbehavioral Perspective

Linda J. Parrott

Saint Mary's University

The first step in the investigation of any subject matter consists of its isolation and identification -- a step always taken from within the confines of a particular scientific enterprise. In other words, as psychologists, we must attempt to isolate those aspects of ethical situations that are distinctly psychological in nature, and subsequently identify their unique character as psychological events.

In psychological perspective, an ethical situation may be viewed as a specific behavioral event and, in an interbehavioral perspective, all behavioral events are conceptualized as fields of interacting factors. Such fields are constituted of a biological organism in contact with a physical object (thing, event, or other organism) through some enabling medium, set in a complex of other factors. The participating organism is conceptualized as a source of response functions which have developed over the course of its historical contacts with a particular stimulus object or similar objects. Likewise, the participating object is conceptualized as a source of stimulus functions having their origins in previous contacts of that object with a particular organism. The coordination of a given response function with a given stimulus function, occurring in a complex setting at a given moment in time, is regarded as a unitary psychological event -- or interbehavior.

All psychological events are conceptualized this way by interbehavioral theorists. It is a general formulation, however, and specific types of psychological events vary in detail. In the case of ethical situations, a number of distinguishing features may be identified that warrant specialized treatment. Among them are an element of choice and a standard or criterion of conduct against which given actions may be evaluated. The element of choice, which is a prominent and significant feature of ethical behavior situations, is not unique to such situations. It is a feature shared by behavior events of a superordinate class that Kantor (1926, pp. 312-337) calls voluntary conduct. Likewise, not all behavior situations involving standards of conduct are properly regarded as instances of ethical behavior. Hence, before examining ethical behavior per se, it will be helpful to examine the larger classes of conduct into which ethical behaviors fall.

Voluntary Behavior

Voluntary behavior is characterized by the presence of a preferential response or choice. This preference may be described in one of two ways: The situation may be one in which one or another of two or more responses may be performed with respect to the same stimulus object; or it may be one in which the functions of two or more stimulus objects are possible for actualization at a given time. The division of voluntary behavior into these two general classes -- response choice and stimulus preference -- does not imply two different kinds of action. All such behavior constitutes choice responding, since we cannot consider the object to be the preferred element until it becomes coordinated with a choice response (Kantor, 1926, pp. 312-313). Still, the distinction is warranted by the clarity it affords in differentiating among varieties of voluntary behavior. Voluntary behavior of an ethical variety, for example, may be more readily understood if we emphasize the reactional as opposed to the stimulational side of the situation. Given this very general characterization of voluntary behavior, we may now attempt to analyze it in more detail. Specifically, we must attempt to identify the factors participating in occurrences of this sort, as well as the nature of their participation.

Under ordinary circumstances, our reactions to things and events in our environs depend merely upon the qualities and relations of those things and events to us, in concert with our histories of contact with them. In voluntary behavior segments, however, our reactions are conditioned by an additional factor, namely, the anticipated consequences of alternative courses of action. Before dealing with what it means to interact

with the possible consequences of actions, we may examine the course of a voluntary behavior segment up to the point at which interactions with consequences take place. To do so will require some further detail as to the reactional phase of interbehavior.

Reactional phase of interbehavior. The reactional phase of interbehavior is made up of a series of component actions or reaction systems. These components represent logically derived elements of a single psychological action of an organism with respect to a stimulating object. They constitute specific phases of a reactional pattern, abstracted out of that pattern. Among them are actions of the muscular, neural, glandular, and skeletal systems. Any given psychological act may be conceptualized as a series of reaction systems culminating in some final reaction or adjustment with respect to stimulation. The final reaction completes the reactional side of interbehavior, and psychological acts are named in accordance with the nature of this reaction. In a voluntary behavior segment, several reaction systems make up the response pattern and the final reaction in that series consists of responding in one way as opposed to another, or responding with respect to one stimulus as opposed to another. What remains to be analyzed, then, are the preceding reaction systems and their operation with respect to this final preferential or choice reaction.

Keeping in mind that interbehavior is the coordination of a stimulus function, having its source in a stimulus object, with a response function having its source in a biological organism, it becomes obvious that the occurrence of interbehavior depends on an organism's perceptual contact with an object of some sort. That is, in order for an organism to interact with an object, it must see, hear, taste, touch, or smell it. No other kind of contact is possible. Further, in order for the organism to have perceptual contact with an object, the organism must be oriented with respect to that object. For example, one does not see a bird overhead if one is oriented toward the ground. Thus, it should be clear that orientational and perceptual reaction systems are initial components of all psychological acts, voluntary acts being no exception. Voluntary actions are considerably more complex, however, in that they also entail what Kantor (1924, pp. 388-393) calls meaning reaction systems.

Meaning reaction systems. A meaning reaction system, like all reaction systems, is a specific phase of a reaction pattern analyzed out of that pattern. In other words, it does not occur or operate alone, but rather in conjunction with other reactions making up a larger pattern. The role of the meaning reaction in that pattern is to condition or lead to an action that completes the pattern.

The nature of the meaning reaction system may be understood by contrasting it with a perceptual reaction system. A perceptual reaction system is a reaction with respect to the natural properties of a stimulus object as immediately confronted. It is an act of identification -- a reaction to what a thing is. In contrast, a meaning reaction system is not a reaction to what a thing is, but rather to its significance, to what it stands for, or to what its implications are on the basis of the person's previous reactions with respect to it. The essential function of the meaning reaction, in that it occurs with respect to circumstances and conditions not discoverable in the natural properties of the stimulus object, is to anticipate the character of the final reaction making up the psychological response. The term "meaning reaction system" was adopted to suggest this anticipatory function -- the reaction serves as a means to an end (Kantor, 1924, p. 390).

With regard to morphological characteristics, meaning reactions may take any form whatsoever. They may, for example, have a performative character. In these cases, meaning reactions function as prior movements which condition the subsequent operation of another reaction system. For example, the particular way in which one grasps a telephone receiver conditions and anticipates the next manipulatory reaction with respect to the receiver. Alternatively, meaning reaction systems may have an affective character such that the pleasantness or unpleasantness felt by an individual in contact with a stimulus object may facilitate or hinder the operation of some final reaction. The most prevalent of all meaning reactions, however, are those that are verbal in character. In these cases, it is what we say or think about an object

that conditions or anticipates our final reaction to it.

The significance of the concept of the meaning reaction system is to be found in its implication of the actor's interbehavioral history. A meaning reaction is, in a sense, the momentary manifestation of that history as it pertains to a given stimulus object, and it is one of the two means by which an organism's history may become a participating factor in the effective present according to interbehavioral theory. The other means by which this is accomplished fall under the heading of implicit action. I will return to the topic of implicit behavior, but first it will be helpful to review what we have said about voluntary actions up to this point.

A voluntary behavior segment is one in which the opportunity to respond in more than one way or to respond with respect to more than one stimulus is available, and a preferential response occurs. What I have been attempting to describe is the nature of preferential responding. To do so I have elaborated on the nature of responding from an interbehavioral perspective, introducing the concept of a reaction pattern made up of a series of component parts called reaction systems. I suggested that all such reaction patterns are initiated by orientational and perceptual reaction systems through which the stimulational functions of objects could become actualized in a given moment. A voluntary reaction pattern was distinguished by the presence of an additional reaction system, called a meaning reaction, the function of which is to bring the organism's history of contacts with that particular stimulus object to bear in the present situation and, in so doing, condition and anticipate the final reaction in the pattern.

Interbehavior is not simply a reactional pattern, though. It is the coordination of a reactional pattern with some form of stimulation. Hence, I have also touched on the stimulational circumstances attending voluntary conduct. In this regard, I suggested that under ordinary circumstances our reactions to things and events in our environs depend merely upon their qualities and relations with respect to us, in concert with our histories of contact with them. Voluntary behavior segments, however, were distinguished by the relevance of an additional element, namely, the anticipated consequences of alternative courses of action. The consequences of action, though, are not aspects of the current situation. They are future events. Our task now is to determine how an event which is not present in a given situation can participate in that situation. This brings us to the topic of implicit behavior.

Implicit Behavior

In contrast to a meaning reaction system, which is conceptualized as a phase of a larger reactional pattern, an implicit action is itself considered to be a complete form of action. That is to say, an implicit action is a type of interbehavior and not just an aspect of the reactional phase of interbehavior. Unlike meaning reactions, which are centered around immediately present objects, implicit interbehaviors are described by Kantor (1924, pp. 295-315) as actions occurring in the absence of the stimulus objects with which they were originally connected. Actions occurring with respect to absent stimulus objects do so by way of stimulation arising from other objects in the immediate situation. How the stimulational functions of one object become attached to another is explained by way of a history of contacts with objects in spatial or temporal proximity, whereby a given object becomes part of the setting in which actions with respect to a second object are taking place. Consequently, one object may give rise to actions originally occurring with respect to another object, and vice versa. This transfer of stimulus functions from one object to another is what Kantor (1924, pp. 295-315) refers to as the development of substitute stimulation, the result of which is to enable actions to occur in the absence of the stimuli with which they were originally coordinated. Implicit behavior is the name given to such interactions.

Returning now to the issue of voluntary behavior segments, the task is to explain how the consequences of alternative courses of action may participate in the occurrence of preferential responding, despite their absence from the immediate situation. The explanation is accomplished by assuming the occurrence of implicit behavior during the delay between meaning reaction systems and the final

choice behavior. As previously indicated, meaning reactions anticipate final reaction systems in that they constitute reactions to the significance of objects from the standpoint of one's previous contacts with them. Among such reactions are references to or reflections upon actions one has taken or might take with respect to the objects in question. Because actions taken with respect to objects or events tend to be followed closely in time by their consequences, reflecting upon alternative courses of action may give rise to actions normally occurring with respect to the consequences of those actions. That is, meaning reactions serve as substitute stimuli for evaluative and other sorts of actions with respect to the consequences of alternative courses of action. It is by way of such activity that the consequences of action may be said to participate in voluntary behavior segments, despite the fact that as events proper they are not among those making up such segments.

The role of setting conditions. Having implicated the role of consequences in voluntary behavior segments, we have completed our analysis of this type of interbehavior, but we have not as yet discussed the role of factors making up the setting in which interbehaviors always occur. We may begin to do so by describing the development of stimulus and response functions. The stimulus functions of an object, that is, the stimulational properties or actions of an object, originate in and evolve over the course of an organism's historical contacts with that object. Corresponding to the development of the stimulus functions of an object is the development of response functions of an organism with respect to the object in question. Each is thereby a source of numerous functions with respect to the other, the actual numbers of which vary in accordance with the frequency and circumstances of their previous contacts. In any instance of interbehavior, though, only one stimulus and one response function operate, necessitating an explanation for the selection of one over another at a particular moment in time. Kantor (1924, pp. 55-56) argues that it is the setting in which organism and object make contact that plays this role. That is, setting factors determine which particular functions of object and organism will become coordinated in an instance of interbehavior at a given moment.

To describe the role of setting factors as the determination of interbehaviors is not entirely satisfactory, however, because it implicates the standpoint of a particular observer, namely, one who has an interest in manipulating the occurrence of interbehavior. From an event standpoint, it is more precise to say that setting conditions are participating factors in behavior segments, of which interbehaviors are the focus of analysis. As such, the constitution and organization of setting factors are aspects of the event one is attempting to describe, not factors upon which other aspects of the same event may be said to depend. The factors making up a behavior segment are interdependent and a new set of factors is not a new set of determining conditions. It is a new event.

Ethical Conduct

We are ready now to consider the special case of ethical conduct. As argued previously, ethical conduct is a type of voluntary behavior. Specifically, it is a type of behavior segment in which the opportunity to respond in more than one way or to more than one stimulus object is available; that is, a choice occurs. And, as in all other types of voluntary conduct, the reaction pattern entails a meaning reaction system followed by a delay during which implicit interactions with the consequences of alternative courses of action take place. Ethical conduct, as a special case of voluntary conduct, is further distinguished by the nature of the meaning reaction systems and the auspices under which these reactions have become a part of the individual's reactional biography (Kantor, 1926, pp. 440-443).

Value functions. Recall that meaning reaction systems are not reactions to what a thing is, but to its significance, to what it stands for, or to what its implications are for a particular individual on the basis of that individual's previous contacts with it. In the case of ethical conduct, meaning reactions are evaluative (Kantor, 1983, pp. 91-96). That is, they are actions with respect to the value of some object, person, or event. This means, in essence, that the value of a stimulus object is one of its stimulational properties or functions (Kantor, 1981, p. 169).

At this point, we may distinguish between two types of value function, only one of which is relevant to the issue of ethical situations. An irrelevant class of values is that which constitutes the natural properties of stimuli. Things or materials may be suitable or required for certain purposes and may be said to have value with respect to those purposes. For example, to pound a tent peg into the ground, a rock has the value of a hammer. Meaning functions in ethical situations are not coordinated with value functions having their sources in the natural properties of stimulus objects. Rather, they are coordinated with values that have been attributed to stimulus objects. That attribution, moreover, has occurred under group auspices, which is to say, the evaluative meaning reactions in ethical situations are shared among members of a particular collectivity of persons, and the value functions of stimuli in those situations are generalized across that collectivity. Let me explain.

Cultural behaviors. Kantor (1982, pp. 163-192) distinguishes among several large classes of interbehavior on the basis of the circumstances of their origin in the lives of individuals. Among them is a class called cultural interbehaviors, of which ethical behavior is a type. Cultural interbehaviors have their origins in a group as opposed to individual circumstances, such that the actions occurring to the objects in question are acquired by individuals as a result of their making contact with those objects in the presence of other individuals who are already acting in a specific way with respect to them. The stimulus objects involved in cultural interbehaviors thereby have common or generalized functions, and these functions are coordinated with common or shared reactions on the parts of more than one individual.

The generalized stimulus functions involved in cultural interbehaviors do not arise out of the natural properties of stimulus objects nor do they necessarily coincide with those natural properties. For example, a voodoo doll is an object that stimulates cultural reactions of fear or wariness on the part of a particular group of people. The object itself is not harmful in any way however, and fear therefore does not arise as a reaction to the natural properties of a voodoo doll. Rather, fear reactions arise because a functional property of "injuriousness" has been attributed to this object over the course of a particular group's cultural evolution.

It should be apparent from this discussion of cultural interbehavior that we are all members of multiple collectivities, and that most of our behavior, at least as adults, is cultural in character. We may include in this category all of our linguistic, legal, ethical, and religious behavior, most of our beliefs and aesthetic conduct, as well as our styles of dress, eating habits, and sexual practices, to name only a few. The significance of our membership in multiple collectivities for the analysis of ethical conduct is to be found in the opportunities it affords for responding in more than one way to a particular stimulus object. A given object is typically a source of multiple stimulus functions. Some of these functions arise out of the natural properties of the object in question and, as such, operate in accordance with the exigencies of the behavioral situation. Choice responding is not involved in situations of this sort, since whatever behavior occurs in these situations is the only behavior that could have occurred. Other functions are attributed to objects under the auspices of collective circumstances and, because one is a member of more than one collectivity, the potential exists for more than one function of an object to become actualized in an episode of interbehavior. Any given episode is characterized by the operation of only one such function, however, and the eventual actualization of that function, combined with its coordinated pattern of action, is what we are calling choice responding in the context of ethical situations.

For example, let us assume that one is a member of a political-intellectual collectivity in which warfare stimulates abhorrence. In other words, a value function of evil has been attributed to this event, and actions facilitating its occurrence are considered bad or wrong, while actions hindering its occurrence are considered good or right. These evaluations occur as meaning reaction systems -- as reactions to what a thing stands for or to what its implications are on the basis of an individual's previous contacts with it or with symbolic

representations of it. Were this political-intellectual collectivity the only one of which one was a member, choice responding would not be involved. One is always a member of more than one collectivity, however, and the institutional functions of a given object or event may differ across those collectivities. From the standpoint of one's membership in a national collectivity, for instance, one may also react to the protective or self-preservative value of war. As such, actions facilitative of warfare, normally described as patriotic, would be regarded as right or proper, while actions hindering its occurrence would be evaluated as wrong or improper. Circumstances such as these eventuate in choice responding, following upon implicit actions with respect to the two sets of consequences and a comparative judgment as to their relative significance or impact. Ethical situations become even more complicated when we consider the potential conflicts among the institutional functions of warfare arising under the auspices of religious, ethnic, and familial group circumstances.

In short, the greater the number of functions attributed to a given object across the collectivities of which one is a member, the more likely it is for conflicts among those functions to arise, and the more complicated become the reaction patterns eventuating in ethical decisions. The current controversy surrounding the use of animals in scientific research is an excellent example of this point. An enormous number of stimulus functions have been attributed to animals under the auspices of different collective circumstances. Included among them are actions of husbandry, companionship, hunting, experimentation, and butchery -- all of which may comprise aspects of the repertoire of a single individual. Whether it is right or wrong, good or bad, or proper or improper to use animals for scientific research is evaluated on the basis of an elaborate system of reactions, having their origins in an individual's varied historical contacts with animals, followed by implicit interactions with the consequences of alternative courses of action, and a comparative judgment as to their relative significance or merit. As such, the ethical situation is exceedingly complex, and the eventual choice reaction may be considerably delayed. It may, for example, depend on a series of immediate problem-solving activities or on the acquisition of additional meaning reactions with respect to the stimuli involved. Moreover, it may be subject to change or modification in accordance with particular setting conditions, including the momentary motivations of the individual or the presence of other persons and their activities. We may summarize these features of ethical behavior situations by suggesting that the precurrent activities or deliberation phases of choice reactions have their sources in an individual's reactional biography, while the final performative phase is a product of that history in concert with more immediate contextual circumstances. What this means, in essence, is that one's decision concerning the appropriate action to take with respect to some stimulus may or may not be reflected in the action one actually takes.

Conclusion

In conclusion, from a psychological perspective, ethics must be addressed in terms of the factors participating in ethical behavior situations. These situations are characterized by the potential operation of conflicting stimulus functions, having their sources in a single stimulus object or event. The potential operation of more than one stimulus function in a given situation is a product of that stimulus having been endowed with different functions under the auspices of different collective circumstances in the experience of a particular individual. In ethical situations, the conflict among those functions is a conflict of value. That is, from the standpoint of one collectivity, the object has the potential to stimulate action evaluated as good or right or proper, while from the standpoint of another collectivity, the same action is regarded as bad or wrong or improper. The situation thereby involves a choice as to whether the individual should or should not perform that action.

Further, the choice is itself conceptualized as an instance of interbehavior, in which one of the value functions of a stimulus becomes actualized with respect to a particular pattern of action -- performing or not performing the

action in question. Two phases of reaction are abstracted out of that pattern -- a precurrent phase of deliberation and a final overt performance. The precurrent phase is conceptualized as involving an evaluative meaning reaction system, having its source in the individual's previous contacts with the stimulus object or event involved in the ethical behavior situation. By way of the meaning reaction system, the individual's history of contact with respect to that object is brought to bear in the moment. These reactions condition or anticipate the final choice reaction in the pattern, and as such provide substitute stimulation for implicit action with respect to the consequences of alternative courses of action. The final phase of the ethical reaction pattern, conceptualized as an overt preferential performance, follows upon these precurrent reactions and constitutes the actualization of one of the potential stimulus functions of the object involved.

Which specific function becomes actualized in a given ethical situation depends to some extent upon the precurrent actions; however, they are not regarded as having causal status with respect to the final choice reaction. On the contrary, the precurrent action is part of a larger reactional pattern of which the final reaction is also a part, both of them constituting abstractions from the larger unit. Moreover, because the unit of analysis from an interbehavioral perspective is always an interaction of responding and stimulating, the reaction is itself an abstraction. It is an aspect of an even larger event which includes as well the stimulational functions of an object. As such, neither the reacting organism nor the stimulating object may be regarded as playing a causal role in the events of ethical decision making. They are simply the focus of analysis in behavior situations of this type. In other words, they are the events of ethical decision making. To account for the occurrence of such events, we must look beyond them to the setting in which they are occurring. In that setting are momentary factors which combine with the interbehavioral history of a particular organism and object, such as to make a behavior segment what it is at a given moment. Properly speaking, then, causality in a behavioral situation is to be found in the organization or pattern of all of the events participating in that situation (Kantor, 1950, p. 156-157) -- and ethical behavior situations are no exception. In short, to make an ethical decision is to act in one way as opposed to another when more than one way may be assumed possible of occurrence, and to do so in a context of implicit action with the possible consequences of alternative courses of action.

References

Kantor, J. R. (1924). Principles of psychology (Vol. 1). Chicago: Principia Press.

Kantor, J. R. (1926). Principles of psychology (Vol. 2). Chicago: Principia Press.

Kantor, J. R. (1950). Psychology and logic (Vol. 2). Chicago: Principia Press.

Kantor, J. R. (1981). Interbehavioral philosophy. Chicago: Principia Press.

Kantor, J. R. (1982). Cultural psychology. Chicago: Principia Press.

Kantor, J. R. (1983). Tragedy and the event continuum. Chicago: Principia Press.

THE INTERBEHAVIORIST
Edward K. Morris, Editor
Department of Human Development
University of Kansas
Lawrence, KS 66045

Bryan D. Midgley
Department of Human Development
University of Kansas
Lawrence, KS 66045