

## ***ABA Represented at APS Summit***

The American Psychological Society held the third annual psychology summit meeting in Houston, Texas, January 25-27, 1991. Nearly 100 representatives of 65 psychology organizations and agencies met to review the "Human Capital Initiative" (psychology's National Research Agenda). Representing ABA at the summit were Philip N. Hineline, President, and M. Jackson Marr, Experimental Representative.

The summit represented psychology's first major collaborative effort to become a major force in setting priorities for funding of federal research. Each psychological society was asked to help shape research priorities and initiatives by contributing to a document called the Human Capital Initiative (HCI).

The HCI document is organized around problems and issues facing contemporary American society. The HCI document addresses six broad problem areas in today's society: schooling and literacy, mental and physical health, aging, the changing nature of work, violence, and the use and abuse of drugs and alcohol. Woven through these issues are four broad research themes: brain, mind and behavior; human development and families; education, training, and performance, and human relations and social organizations. Eventually, psychologists and their societies will press Congress and government agencies to implement the national psychology research agenda.

A second, supporting document is to be prepared over the coming months, identifying specific types of research initiatives that should be given high priority. Celia Wolk Gershenson has agreed to coordinate ABA's proposal for this second phase. More information on this issue and ABA's contribution to the final product will be presented in future newsletter issues.

### ***In This Issue . . .***

Message from the President	2
Convention Highlights & Information	3, 4, 6, 12, 17, 21, 23, 26
Notes from the Editor	4
News from ABA Affiliated Chapters	4
Notes from a Radical Behaviorist	5
Sustaining and Supporting Members—1991	6
Historical Antecedents of Behavior Analysis	7
Contacts for Information Sharing	13
Moving?	13
Advertisements	14, 18, 20, 22, 24, 25, 26
New Developments in Behavior Analysis	15
Student Committee Update	19
Call for Submissions—Directory of Graduate Training in Behavior Analysis	19
Special Interest Group Profile	21
Support Student Presenters	21
Publication Information	27

## MESSAGE FROM THE PRESIDENT

### PHILIP N. HINELINE

This final column of my year in office concerns strategies for enhancing the acceptance of behavioral principles as applied in the world at large — addressing the manner in which behavioral techniques are introduced, as well as characteristics of the techniques themselves that affect their acceptability. It often has been assumed that if we devise effective techniques and document their effectiveness with unambiguous data, those techniques will readily be adopted. We have ample evidence that this is not necessarily the case. In terms of an old adage, we have built mousetraps and demonstrated them to be better than the conventional ones, but the world has not beaten a path to our door. Clearly, we have to learn more about how to effectively characterize and introduce our techniques. In addition, perhaps we have not discerned some important characteristics that make a mousetrap better — characteristics that might be judged as “aesthetic,” or that concern ease of adoption. I propose that our very own principles can identify key aspects of these problems, and that our very own concepts and techniques can be brought to bear in solving them.

I. Skinner suggested long ago, and recent research supports the notion, that rule-governed behavior is relatively insensitive to its direct consequences — as when we follow instructions that involve our risking danger, foregoing immediate pleasures, or enduring discomfort. In most cases, the specified effectiveness of an applied behavioral technique can be considered as identifying its direct consequences. In contrast, choices of which techniques to use — as in which educational model to adopt, which therapeutic approach to try, or which course of study to undertake — occur mainly through verbal activity, which includes rule-governed behavior and its characteristics. Thus, the choice of approach to a problem that needs solving is likely to occur within a primarily interpretive, verbal context. At that critical juncture, the pragmatic effectiveness of a proposed solution may be secondary to interpretive considerations that define the nature of the problem, thus biasing the discussions of proposed solutions.

When addressing such problems of interpretive bias, behavior analysts have tended to identify “mentalism” as the key feature of interpretations that are inimical to a behavioral approach. However, to frame the issue as our rejection of mentalism is to engage the argument on someone else’s ground, for “mentalism” is not a concept of behavior theory. Furthermore, the interpretive features we call mentalistic may not be the crucial ones. As I sketched in a recent JEAB review, the key dimension of interpretive conflict may arise in the occasioning of interpretive directionality. That is: In learning to explain one’s own actions and those of others, each member of the culture learns to speak in terms of agent-action or noun-verb, which have implicit causal directionality. Sometimes the directionality is “environment

produces behavior” (with organism as context); at other times the directionality is “organism produces behavior” (with environment as context). We all have both directional repertoires, but each type of repertoire is differentially reinforced in particular types of situations. For example, one directionality is conventional in accounting for one’s own actions, while the other is conventional in accounting for an observed action of someone else. The convention of directionality also differs depending upon whether or not everyone acts similarly within the type of situation that is being interpreted. By this account, the directionalities of behavior-analytic interpretation are culturally conventional within the context of temporally extended observations (such as experiments using within-subject designs), but culturally deviant within most non-experimental contexts where the interpretations are offered — including the situations in which potential approaches to applied problems are being discussed.

I may be mistaken about the specifics of this; perhaps the resistance to behavioral interpretations and techniques arises from our forbidding technical terms, from misunderstood language of control, or from our eschewal of mentalistic phrasing, as others have suggested. However, I am sure that the appropriate way to find out is to do experiments — experiments on peoples’ reactions to different features of interpretive language, and experiments on the relationships between reactions to interpretive prose and the adoption of techniques related to that prose. Other research could address the term, “behavioral,” as participating in equivalence classes. Within the vernacular culture, that label seems functionally joined with a variety of terms that have little to do with our approach, sometimes resulting in unfortunate stereotypes. At the same time, there recently has been increasing public recognition that major contemporary social problems (e.g., health-care costs, the AIDs epidemic, drug abuse, unemployment) consist of people’s behavior, usually without a corresponding recognition of what might constitute a behavioral approach to their solution. Is anyone studying how to efficiently abolish or modify equivalence classes, as well as how to establish them? Such experiments can be both practically and conceptually important for our field.

II. Regarding acceptability of the behavioral techniques themselves: I said earlier that the effectiveness of an applied behavioral technique can be considered as identifying its direct consequences. Our evaluations of that effectiveness, and thus of those consequences, usually are defined in terms of how they impinge upon the behavior targeted by the application. However, there also are direct consequences to the person who implements a technique, and these are not necessarily ones that will tend to support its use. For example, proposed behavioral techniques often entail extra costs in effort, or in time constraints of gathering and plotting data, that are not incurred by

(continues)

other approaches. To be sure, the effectiveness of our applied work often depends upon the gathering of adequate data; however, "adequacy" for routine application may not be the same as for experimental evaluation. We must take care to discriminate between characteristics of a procedure that are essential to its development and evaluation, and those that are essential to its effectiveness in subsequent routine implementation.

Furthermore, we should be attending to aesthetic features of our applications — features that make them more user-friendly, and more attractive to the incidental observer as well as to the user. In the early years of automobiles, or of computers, these inventions were judged almost entirely upon their effectiveness and not upon their appearance. Once they were developed to the point of routine reliability and effectiveness, however, appearance became important, even to the point of superseding the functional properties (sleek but relatively unreliable cars have sold well). In domains of education, therapy, business management, and the like, the criteria of "appearance" may come into play much earlier. Can we identify, in principle, characteristics that make a behavioral intervention both more attractive as well as more effective?

One basis for defining such principles could be those of functional vs. dysfunctional variability. By way of analogy: if a wooden fence were built with precisely fitted cabinetry joints, it would self-destruct with only a few years' exposure to the weather. In contrast, a loosely built split-rail fence will stand for a century or more. Precision and variability can be appropriately combined within a single object — as in an old-fashioned sewing machine where the parts that control needle and bobbin are finely machined and balanced, while the supporting hardware and cabinet are relatively unconstrained. In the behavioral domain, all-encompassing

precision that is appropriate to a drill-team is mostly inappropriate to a classroom; yet within a classroom, artful precision can be crucial at certain moments. How should a teacher react when a shy or usually unruly student first asks an almost-good question and amending the question might punish the student's weak but appropriate repertoire? Then relatedly, given the staff demands that often are required to achieve behavioral precision, inappropriate precision can be costly as well as dysfunctional. Fire fighters must cope with highly variable and fast-changing circumstances, while certain cooperative sequences must be executed with fluid precision. Can we achieve a principled, generally applicable approach to this balance between crucial precision and functional variability? Another likely basis for aesthetic judgement concerns the manner and degree to which behavior is efficiently brought into contact with "natural consequences" — the consequences that will maintain it outside the instructional, prosthetic, or therapeutic setting. Yet another may concern the relating of specific local contingencies to the broader context of an application: Is the "problem behavior" functional in some important way? Must the behavioral program be at odds with the front office?

Finally, and perhaps controversially, it should be noted that not every intervention that can be understood in terms of our scientific principles is one that should be implemented. We can easily agree in general, that behavioral techniques should contribute to betterment of the human condition, viewed as part of the the planet's bio-ecological condition. Can we devise behaviorally-based principles that would aid the relevant judgements in specific cases? I recognize that some of our applied workers have struggled with these issues for years; recognizing them as priority issues, and publicizing them as part of our struggle, may in itself contribute to greater acceptance of our contributions. ▼

ABA '91

2:00pm-3:50pm

Saturday, May 25

Grand Ballroom

## PRESIDENT'S INVITED SYMPOSIUM

CONVERGENCES WITH BEHAVIOR ANALYSIS:  
VIEWS FROM OTHER DISCIPLINES IN THE 1990'S

Chair: Philip N. Himeline (Temple University-Philadelphia, PA)  
Discussant: Paul Chance (Laurel, DE)

Recommendations from the Rhetoric of Inquiry  
Jeanine Czubaroff (Ursinus College-Collegeville, PA)

Recommendations from the Field of Linguistics  
Julie Tetel Andresen (Duke University-Durham, NC)

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## NOTES FROM THE EDITOR

At this point, the pieces should be in place for ABA's first ever venture to Atlanta. This will be the farthest south of any of the 17 ABA Conventions and the farthest east except for Philadelphia (ABA '88). Whoa! Time for a geographical reality check. Looking at a globe, one can see that both Columbus, Ohio (ABA '85) and Dearborn, Michigan (ABA '79 & '80) appear east of Atlanta longitudinally. A flattened projection map will sometimes fool our eyes and provide us with misinformation.

Might Atlanta's registration crack Philadelphia's record of 1429 people? From what I hear, west coast ABA members are anticipating that the 1992 ABA Convention in San Francisco will be the biggest ever.

This 14th Volume, 2nd edition of the *Newsletter* was scheduled to reach your hands about the middle of June, 1990. If you get it sooner, thank the heroic weekend efforts of Shery Chamberlain, ABA Business and Convention Manager. If you should get this before the Convention, mention it to Shery at the Convention. If you've never met Shery, ask a staff member at the Registration area to point her out to you. Ask them to point out Sharon Myers, too, the ABA Membership Services Manager. These folks are vital to the organization, and deserve recognition, as do that myriad of volunteers.

Steve Graf  
Editor, ABA Newsletter

### ABA '91

#### OPENING ADDRESS

Friday, May 24 1:30-2:15PM Grand Ballroom

#### EXPRESSIONS OF APPRECIATION

Fred S. Keller  
Chapel Hill, NC

Chair: Ellen P. Reese, Mount Holyoke College

### News from ABA Affiliated Chapters

#### BABAT~Berkshire Association for Behavior Analysis and Therapy

The Berkshire Association's 12th Annual Conference will occur in Amherst, Massachusetts at The University of Massachusetts Campus Center, on Friday and Saturday, October 11 and 12, 1991. For more information contact, Michael Apolito, PhD, Program Chair, Berkshire Conference, South Shore Mental Health Center, 345 Court St, Plymouth, MA 023601 (telephone: 508-747-1168).▼

#### NWABA~Northwestern Association for Behavior Analysis

In 1988, several behavior analysts in Victoria, BC, Canada, decided to explore interest in a regional affiliate of ABA, and a small meeting was held in the summer of 1988 in Victoria. Its success led to more widely publicized meetings in Seattle in the falls of 1989 and 1990. At the 1990 meeting, bylaws were formally adopted and the Northwestern Association for Behavior Analysis became a formal entity.

NWABA plans to meet annually on a weekend in early October with an agenda that includes papers, posters, discussions, and invited addresses. Interests of participants have been broadranging, including clinical issues, teaching strategies, developmental disabilities, basic and applied research, and social psychology. The 1991 meeting will be held in Victoria, BC. The principal areas served by NWABA include Washington, Oregon, Idaho, Montana, and British Columbia, although any interested persons are welcome. Our tentative plan is to meet in Seattle (the location members have found most central) every other year and to meet in other cities on alternate years.

We encourage all interested persons to become members. Members receive announcements of meetings and are eligible to vote for NWABA officers who are nominated at the annual meeting. At this stage we have no annual dues. Expenses are paid from registration fees from the annual meetings. To receive a membership form, write David R. Schmitt, Department of Sociology DK-40, University of Washington, Seattle, WA 98195.▼

#### MNABA~Minnesota Association for Behavior Analysis

The Minnesota Association for Behavior Analysis has grown beyond the borders of Minnesota and now includes members from the neighboring states of North Dakota, Iowa, and Wisconsin. As a result, MNABA is considering a name change to better reflect its regional character. Members are considering both Midwest ABA (MABA) and Upper Midwest ABA (UMABA) as a new name for the organization.

MNABA is an active chapter with two conferences held annually, usually an April conference in Mankato and a November conference in Minneapolis. Michael Fatis is the conference program "committee" and he puts together two excellent conferences each year with speakers from within MNABA and with nationally recognized keynote speakers. The Executive Committee, elected each November, currently consists of President, Ray Miltenberger, Past President, Rich Hirschenberger, President-Elect, Don Ferguson, Treasurer, Sheri DeLaHunt, Secretary, Marcia Tippersy, secretary, and At-Large Representatives, Michael Fatis and Jim Mead.

For more information, contact Vanessa Ferguson, MNABA Executive Secretary, Department of Psychology, Box 35, Mankato State University, Mankato, MN 56001.▼

## GAPS AND CONFUSIONS

Richard W. Malott  
Western Michigan University

Maria and I set out to do a quick and dirty revision of *Elementary Principles of Behavior*. We have recently changed that title to *Four Years Before the Keyboard*—slow but still dirty. In the infinite cycle of writing, student-testing, and revising, we've often found and tried to correct what we consider gaps and confusions in behavior analysis. The confusions reliably occur at the undergraduate and graduate level and perhaps even at the professional level, though you may conclude that they occur only at the authorial level. As we near the stage where the revision cycle shrinks from infinite to finite and the dawn's early light begins to brighten at the end of the tunnel, I'd like to share some of these gaps and confusions:

**1. Confusion:** *How do you extinguish escape behavior?* Remove the aversive condition? For example, disconnect the shock generator from the grids in the Skinner box?

No. The shock is the motivating condition. Removing it would be like satiating the rat in a reinforcement procedure. You leave the shock on but disconnect the bar. Gruesome, yes, but eventually the rat will stop pressing.

**2. Gap:** *What do you call it when you stop the punishment contingency?* Extinction?

No. Extinction results in a decreased state of behavior. But when you disconnect the shock generator from the grids after a punishment procedure, the rate of lever pressing increases. So we call it *recovery*.

**3. Gap:** *Must response differentiation always involve differential reinforcement by the presentation of reinforcers?* Yes, that's all I've ever read about.

No. You could differentially reinforce the right force of the lever press by turning off the shock only when the rat pressed the lever with the right force—an escape contingency.

You could also differentially punish the wrong force by turning on the shock every time the rat pressed the lever with the wrong force—a *punishment contingency*. Of course, with all punishment contingencies, you'd need a concurrent reinforcement contingency (e.g., contingent food pellets) to maintain the lever press.

**4. Gap:** *Do you always need a second person to shift the criterion, when shaping new behavior?* Yes.

No. Fortunately, you often don't need outside help, when learning new skills (e.g., walking, bike riding, and playing the piano). The physical environment automatically provides a natural gradient of increased or more immediate reinforcers, as the behavior successively approximates the terminal behavior. In the case of skills like piano playing, successive approximations to the sound of the song automatically do the shaping. We call this *self-shaping*.

**5. Gap:** *What do you call the stimulus in the presence of which a response will be punished?*  $S^D$ ?

Not unless you redefine it. We think *warning stimulus* has an intuitive appeal, although it has a tradition of use in avoidance procedures, where it functions as an occasion for negative reinforcement. And we use *all-clear stimulus* for the punishment analogue to  $S^A$ .

**6. Confusion:** *What's an example of an  $S^D$  for an escape contingency?* Turning the light on before the shock?

No. Turn the shock on, and the lever press has no effect. Then you turn the light on, and the lever press turns the shock off. The  $S^D$  is the stimulus in the presence of which the escape response is effective.

**7. Confusion, gap, or neither:** *What do you call the stimulus that precedes the aversive stimulus in an avoidance contingency?* Warning stimulus?

Even if we hadn't moved that terminology over to the punishment area, we wouldn't like it here. This traditional use of *warning stimulus* suggests that the rat presses the lever in the presence of a preceding light, because the press has previously prevented the shock. That suggestion biases against a two-factor interpretation that the lever press is reinforced by escape from the light that has become a learned aversive stimulus. So we prefer a more neutral term for the light; how about *preliminary stimulus*?

**8. Confusion:** *What's an example of an  $S^D$  for an avoidance contingency?* The light that precedes the shock—your *preliminary stimulus*?

No. Like the shock in the escape contingency, the light in the avoidance contingency is the motivating condition. Try this: Turn the preliminary stimulus (the light) on, and the lever press has no effect. Then you turn a clicker on, and the lever press turns the light off. The  $S^D$  is the stimulus in the presence of which the response that escapes the aversive light (or avoids the shock) is effective.

**9. Confusion:** Now let me ask a question: *Why do most of your examples involve rats in a Skinner box?*

Such examples are cleaner, quicker, and simpler for a professional audience. Usually we concentrate on applying these analyses to human behavior and then tidy them up with Skinner-box examples at the end.

**10. Confusion:** *What do you call a person who asks questions like all these?* An inquirer?

No, a *pedant*. Abe Lincoln got his exercise splitting rails. I prefer to get mine splitting hairs. For example, I'm still trying to figure out exactly how many behavior analysts can dance on the head of a pin (important in planning social functions for ABA). ▼

## 1991 SUSTAINING & SUPPORTING MEMBERS

Through their contributions, Sustaining and Supporting members help support the involvement of undergraduate and graduate students in behavior analysis by contributing funds above the usual dues amount. The following members provided this support during the 1991 membership year.

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# ABA '91 Atlanta

## May 24-27

## Preconvention Institutes

## May 23-24

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# HISTORICAL ANTECEDENTS OF BEHAVIOR ANALYSIS<sup>1</sup>

Jack Michael  
Western Michigan University

## Purpose and Limitations

Students of behavior analysis who know nothing of the history of the field will be less than optimally effective in acquiring new knowledge. They will also be unaware of relations among various parts of their professional and scientific repertoires. In short, it is important to know where we came from. Many readers will have had a course on the history of psychology, but such courses usually have a much broader purpose than the present document, which is to provide an easily learned introduction to the history of behavior analysis. However, several limitations of my approach to this topic should be mentioned at the outset.

In the first place, the information below is only relevant to the very specific task of providing some historical perspective on the *unique* aspects of the area called *behavior analysis*. The professional repertoires of current behavior analysts have been also influenced by more general historical antecedents, such as those of experimental psychology, of American psychology, and of psychology in general. In this respect they are not different from other experimental psychologists, American psychologists, or psychologists in general, and appropriate antecedents must include many factors other than the ones shown in the present chart. (Many behavior analysts have backgrounds in fields other than psychology, in which case other antecedents are relevant.)

A second limitation is the obvious one, that any version of history as abbreviated as this is bound to be grossly oversimplified. It can be argued, however, that an oversimplified version, so long as it is not clearly misleading, is much better than no historical knowledge at all, which seems to be the most common alternative.

Finally, it is quite clear that others who have thought much about the history of our field might very well organize the historical information differently, placing greater emphasis on some contributions than I have, and deemphasizing some that have seemed to me to be especially important. I like to think, however, that there would be little serious disagreement among us, and that the present document will be useful even though most users will have to make some modifications.

## An Unusual History

As behavior analysts our historical antecedents are somewhat unusual in that contributions to the science of behavior occurring prior to 1938, the date of publication of B. F. Skinner's *The Behavior of Organisms*, have affected us mainly through their influence on Skinner. (See chart on following page.) A reasonable representation has a number of historical factors relevant to Skinner's intellectual

repertoire (sort of like the top half of an hour glass), and then Skinner's contributions playing the major role in the subsequent development of experimental and applied behavior analysis (like the bottom half of the hour glass). Of course many scholars and scientists in addition to those considered below played important roles in the distribution, interpretation and refinement of Skinner's contributions, and also by making original, that is, nonSkinnerian contributions to the field of behavior analysis. The field is not solely B.F. Skinner, but his intellectual repertoire played a very important role in subsequent developments. An abbreviated version of the history of behavior analysis can be portrayed as an effort to understand the origins of Skinner's behavior with respect to the science of behavior, and then to trace the effect of his achievements, in combination with other factors, on the development of the field.

Because of its considerable influence on the development of behavior analysis, *Principles of Psychology*, the introductory text by Keller and Schoenfeld (as well as other aspects of the program at Columbia College), should be shown as another major focal point. Its antecedents would include the methods and results of Skinner's 1938 *Behavior of Organisms*, but also other behavioral aspects of experimental psychology; and it would be shown as influencing many of the subsequent contributions and events. Antecedents, other than Skinner's *Behavior of Organisms*, and the consequents of this remarkable book are not indicated on the chart, but only because the diagram is already too complex to be easily remembered.

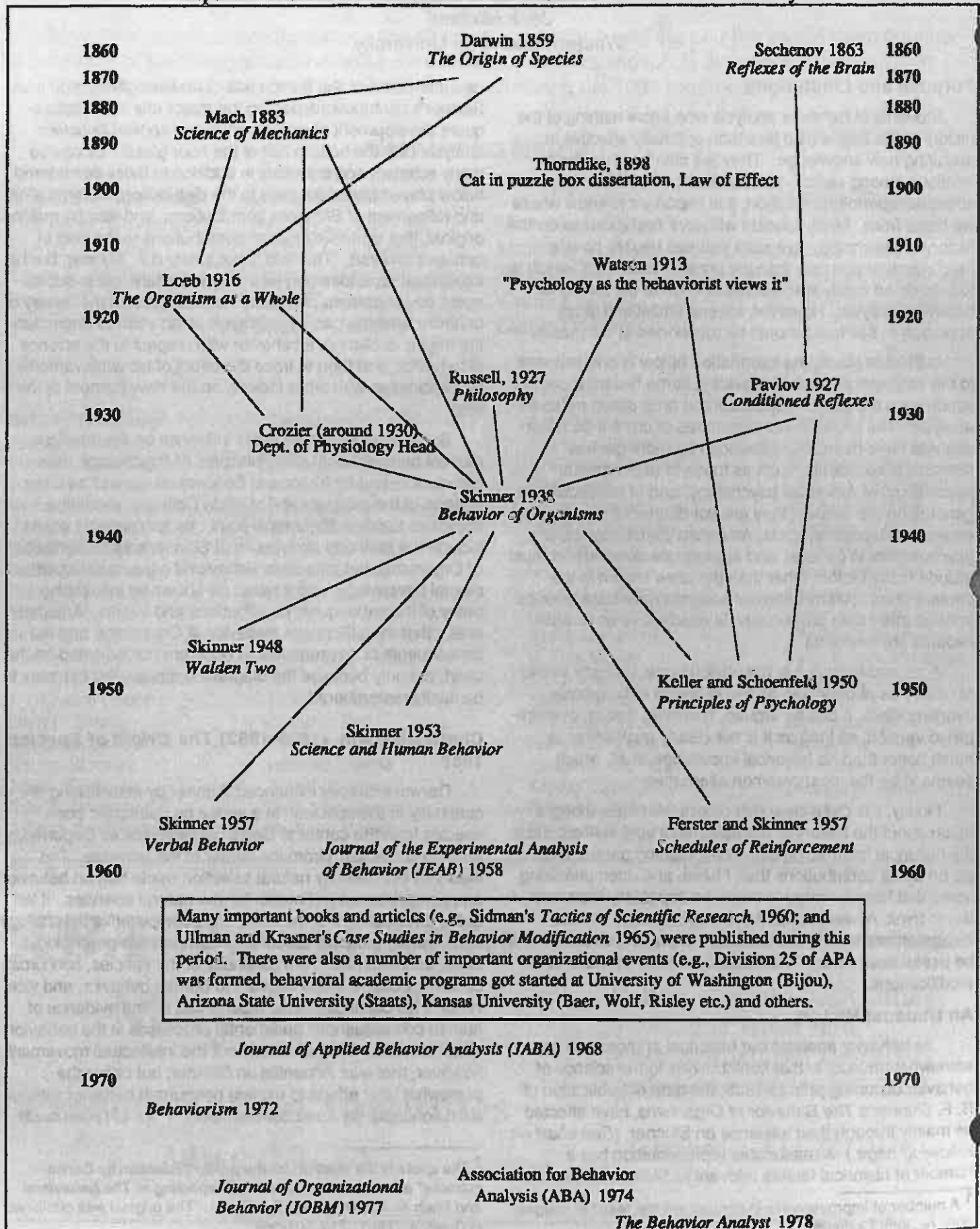
**Charles Darwin (1809-1882) *The Origin of Species*, 1859**

Darwin indirectly influenced Skinner by establishing the continuity of the species. In a sense he dethroned our species from the center of God's creation, just as Copernicus dethroned the earth from the center of the universe. The theory of evolution by natural selection made human behavior an appropriate subject matter for the natural sciences. It led to the development of the field called *comparative psychology* and inspired the early students of comparative psychology, Loeb, Jennings, etc. With continuity of the species, nonhuman behavior became more relevant to human behavior, and vice versa. This continuity led to much effort to find evidence of human consciousness and mental processes in the behavior of nonhumans. This effort was not the intellectual movement, however, that was influential on Skinner, but rather the somewhat later efforts to explain nonhuman behavior without such concepts (by Loeb, for example). (continues)

<sup>2</sup> The quote is the abstract for the article "Selection by Consequences" as written to accompany a reprinting in *The Behavioral and Brain Sciences*, (1984) 7, 477-481. The original was published in *Science*, (1981) 213, 501-504

<sup>1</sup> A number of improvements in content are the result of suggestions by John Connors.

## Important Historical Antecedents to the Current Field of Behavior Analysis





Darwin's concept of natural selection had a more direct influence on Skinner's more recent work, as can be seen from the following quotation<sup>2</sup>:

Human behavior is the joint product of (i) contingencies of survival responsible for natural selection, and (ii) contingencies of reinforcement responsible for the repertoires of individuals, including (iii) the special contingencies maintained by an evolved social environment. Selection by consequences is a causal mode found only in living things, or in machines made by living things. It was first recognized in natural selection: Reproduction, a first consequence, led to the evolution of cells, organs, and organisms reproducing themselves under increasingly diverse conditions. The behavior functioned well, however, only under conditions similar to those under which it was selected.

Reproduction under a wider range of consequences became possible with the evolution of processes through which organisms acquired behavior appropriate to novel environments. One of these, operant conditioning, is the second kind of selection by consequences: New responses could be strengthened by events which followed them. When the selecting consequences are the same, operant conditioning and natural selection work together redundantly. But because a species which quickly acquires behavior appropriate to an environment has less need for an innate repertoire, operant conditioning could replace as well as supplement the natural selection off behavior.

Social behavior is within easy range of natural selection, because other members are one of the most stable features of the environment of a species. The human species presumably became more social when its vocal musculature came under operant control. Verbal behavior greatly increased the importance of a third kind of selection by consequences, the evolution of social environments or cultures. The effect on the group, and not the reinforcing consequences for individual members, is responsible for the evolution of culture.

Selection has here become the basis for a comprehensive integration of the biological, behavioral, and social sciences.

**Ivan M. Sechenov (1829-1905) *Reflexes of the Brain*, 1863**

At a time when physiologists were generally quite dualistic, especially with respect to human thought and consciousness—believing these to be mental rather than physical events—Sechenov proposed that all aspects of consciousness, states of mind, etc. in humans as well as nonhumans were reflexes. This was a carefully worked out attempt to explain complex behavior by deriving it from an

analysis of simple reflexes and their combinations. No mental processes were made use of. This completely behavioral approach—though having to rely heavily on inference in some of the essential steps of the argument—influenced many Russian physiologists, and especially Pavlov (discussed below).

**Ernst Mach (1836-1916) *The Science of Mechanics*, 1883**

Mach had a direct influence on Skinner's general approach to scientific methodology, epistemology, philosophy of science, etc. (Skinner read *The Science of Mechanics* as a graduate student at Harvard.) There was also a strong indirect influence in that Loeb and his student Crozier (discussed below) were influenced by Mach's orientation to science, methodology, epistemology, etc., and Skinner worked in Crozier's laboratory as a student at Harvard. Important features of Mach's approach that can be seen in much of Skinner's own orientation to science are as follows:

1. The nature and origin of science: "An outgrowth of the practical concerns of everyday life<sup>3</sup>"; "the evolution of animal behavior and the history of physics [and any science] are but two parts of a single historical line of epistemological development".
2. Biological economy in science: Science is just behavior, helping organisms to be more effective. To do so it must show "efficiency of investigation, immediacy of observation, economy of description and communication". . .
3. Cause as nothing more than a functional relation between independent and dependent variables—as opposed to the notion of a cause as pushing or pulling to produce its effects. Explanation as nothing more than a description of a functional relation.
4. Hypotheses and theories are unnecessary and often harmful.
5. The only effective epistemology must be empirical (and with Mach, this often meant behavioral, although behaviorism had not been identified as a general approach at the time Mach wrote *The Science of Mechanics*).

**Edward L. Thorndike (1874-1949) *Animal Intelligence*, 1898**

Loeb and others had argued that it was not necessary to infer consciousness and mental processes to explain some of the behavior of "lower" species (invertebrates such as insects, worms, snails). Their behavior could be understood as the result of some simple mechanistic principles—as in tropisms, for example. Thorndike's puzzle box experiments were meant to show that the problem-solving (continues)

<sup>3</sup> The quotes are taken from Smith, L. D. (1986) *Behaviorism and logical positivism*. Stanford, CA, Stanford University Press, pp. 264-275.

behavior of higher organisms (mammals such as cats), which might seem to require consciousness and reasoning processes, could be understood as the inevitable result of a simple principle like the law of effect. Skinner cites Thorndike in this respect, but most probably got his mechanistic orientation from Crozier, and from Loeb's work, rather than from Thorndike. It is quite clear that Thorndike's law of effect, even though it sounds very much like the principle of operant conditioning, did not give rise to an understanding of operant as opposed to respondent functional relations. Watson later made no use of Thorndike's law of effect in his behavioristic approach, but rather relied heavily on Pavlov's work. It is not clear how Skinner was influenced by Thorndike's work, thus no line was drawn from Thorndike to Skinner.

**Ivan P. Pavlov (1849-1936) *Conditioned Reflexes*, 1927**

Pavlov discovered most of the facts and principles that constitute our current understanding of respondent functional relations. This was the first really convincing experimental analysis of behavior. The unconditioned reflex could not function as the basis for more complex behavior because there would be no new functional relations, no learning. But the fact that new functional relations between stimuli and responses could be developed and eliminated in the laboratory constituted a major step toward a completely mechanistic behavioral account. Pavlov gave a series of public lectures from 1903 to 1928 which were published (in Russian and also translated into German) and these influenced a number of American psychologists, but it was the English translation of 1927 that Skinner read. Skinner stated that he was much influenced by the rigor of Pavlov's experimental control. He was also influenced in that he attempted to conceptualize the behavior of the whole organism (after Crozier and Loeb) in the same terms that Pavlov had developed for the conditioned reflex. The basic terms and concepts—conditioning, extinction, discrimination, generalization, unconditioned stimulus, conditioned stimulus, etc. were all simply adopted from Pavlov.

**John B. Watson (1878-1958) "Psychology as the behaviorist views It," 1913**

This paper was the most effective call for an outspokenly behavioral position. In this paper published in the American Psychological Association's journal *The Psychological Review*, Watson denied that consciousness and mental processes had any explanatory value for the behavior of nonhumans or humans. This paper started the movement that called itself *behaviorism*. Skinner made first contact with Watson's work when he read favorable comments about Watson's *Behaviorism* (a nontechnical book published in 1924 for popular consumption) in a book review by Bertrand Russell, and as a result read the Watson book and also Russell's *Philosophy*.

<sup>4</sup> Smith, L. D. (1984). *Behaviorism and logical positivism*. Stanford: Stanford University Press, p. 262.

**Bertrand Russell (1872-1970) *Philosophy*, 1927**

According to Smith, Russell's *Philosophy* was critical for Skinner's appreciation of a strong link between epistemology and behaviorism. The book was "... a lengthy, detailed, and direct application of Watsonian behaviorism to the traditional problems of epistemology. Russell argued that in most respects behaviorism provided an adequate and fruitful account of both ordinary and scientific knowledge."<sup>4</sup>

**Jacques Loeb (1859-1924) *The Organism as a Whole*, 1916**

Using invertebrates Loeb studied the behavior of the whole organism, what would today be called kineses and taxes, and attempted to explain such behavior in strictly mechanistic terms. He strongly opposed inferences of mental functions as explanatory concepts for such organisms. Loeb influenced Skinner indirectly because he was Crozier's teacher (see below) and directly in that Skinner read and was quite impressed by two of Loeb's books prior to entering graduate school. (Watson was influenced by Loeb's earlier writings and through personal contact as well since Watson took a course with Loeb at the University of Chicago.)

**W. J. Crozier, Head of the Department of General Physiology at Harvard University, 1925 to 1935**

Skinner worked in Crozier's laboratory when he entered graduate school at Harvard and was clearly more influenced by Crozier's general approach to science (a modification of Loeb's and Mach's) than by that of the psychologists at Harvard at that time. Crozier's unwillingness to infer mental or neural explanations, his interest in developing mathematical functional relations between environmental variables, and his interest in the behavior of the whole organism are very similar to important features of the descriptive behavioral approach developed and refined by Skinner. It was also in Crozier's Department of Physiology that Skinner made contact with the work of Magnus on postural and locomotor reflexes and the work of Sherrington on spinal reflexes, both of which topics were important to his early research.

**B. F. Skinner (1904-1990) *The Behavior of Organisms*, 1938**

This was an attempt to extend Pavlov's analysis of the reflex to the behavior of the whole organism. In this book Skinner laid out almost all of the basic concepts that are currently the substance of the area called behavior analysis: a sharp distinction between respondent and operant procedures and concepts, rate of response as the main operant dependent variable, the cumulative record as a way of studying rate of response, the methods and results of operant conditioning and operant extinction, unconditioned and conditioned reinforcers, the development of operant stimulus control (the discriminative stimulus and its clear difference from the conditioned elicitor of respondent

(continues)

functional relations), stimulus generalization, an analysis of intermittent reinforcement (schedules of reinforcement), and the role of motivative and emotional variables.

**B. F. Skinner (1904-1990) *Walden Two*, 1948**

This was a utopian novel in which behavioral principles from *The Behavior of Organisms* were used to design a culture. This effort to design a culture was considered by Skinner to be one of his most valuable contributions. It is also the contribution that attracted a great many people to behavior analysis who might not have come to this approach from a basic science interest.

**F. S. Keller and W. N. Schoenfeld, *Principles of Psychology*, 1950**

This introductory text, used at Columbia College for a number of years, was the first easily understood version of the methods, concepts, and principles that Skinner had presented in *The Behavior of Organisms*. In addition Keller and Schoenfeld integrated Skinner's approach with a number of important methods and results from experimental psychology in general. It influenced many more people—undergraduates in the Columbia program, graduate students who worked in the laboratory that went with the course, instructors and students at other universities who adopted the text for their own courses—than did *The Behavior of Organisms*. "K and S" clearly prepared the way for Skinner's own introductory text, *Science and Human Behavior*.

**B. F. Skinner (1904-1990) *Science and Human Behavior*, 1953**

This was a text written for one of Harvard's general studies courses in the natural sciences—no prerequisites, students not necessarily psych majors. *Science and Human Behavior* starts with basic concepts and principles as first presented in *The Behavior of Organisms*, then goes on to apply these principles to the behavior of the individual as a whole, the behavior of people in groups (social behavior), the behavioral functions of controlling agencies or institutions, and ends with the design of a culture. The book is full of very effective extrapolations to all kinds of human situations. It is a very persuasive presentation of the relevance of the behavioral approach to understanding and improving human behavior by altering the environment in which the behavior occurs. Like Keller and Schoenfeld, this book got many people started as dedicated behavior analysts. In addition to its very effective introduction to the science of behavior, the book contains many sophisticated analyses that are of interest to the more advanced behavioral scholar.

**B. F. Skinner (1904-1990) *Verbal Behavior*, 1957**

*Verbal Behavior* extends the basic operant and respondent concepts and principles to all aspects of human language. The emphasis is on the variables controlling the behavior of the individual speaker, rather than on the listener or the practices of the verbal community which are the topics of most interest to the traditional language scholar.

**Ferster and Skinner, *Schedules of Reinforcement*, 1957**

This book reports the results of a number of years of extensive study of the behavior of pigeons on various schedules of reinforcement. Most of the subsequent research in *JEAB* (see below) began with methods described in Ferster and Skinner.

***Journal of the Experimental Analysis of Behavior (JEAB)*, 1958**

Skinner, Keller and their students and associates were having trouble getting their operant research published in the APA journals that would have been appropriate—the *Journal of Experimental Psychology* and the *Journal of Comparative and Physiological Psychology*. This was because the research methodology differed considerably from that of mainstream research in learning and motivation. In particular it was usually based on data from only a small number of subjects (although there was usually a great deal of data from those few subjects), and the effects of the different values of the independent variable were typically assessed by visual comparison of cumulative records rather than with statistical significance tests. The operant research also seemed peculiar to other experimental psychologists in that it was descriptive rather than a test of a theory. Actually, quite a few operant papers were published in traditional journals, but in addition to the mild to moderate difficulty of getting papers accepted was the fact that they were scattered over several different journals, and constituted only a small portion of any one journal. As has happened in other areas, and for somewhat similar reasons, the operant researchers eventually decided to publish their own journal, where the methodological standards would be more appropriate (and even exclusive of much traditional group statistical research) and which would be full of papers of interest to those researchers. *JEAB* has continued to be the main outlet for basic research in experimental analysis, although such research is increasingly appearing in several other experimental journals as behavior analysis seems to be merging somewhat with other basic research areas such as ethology and brain physiology.

**1958-1968**

Many important books and articles were published during this period, and there were also a number of important organizational events: Holland and Skinner's *The Analysis of Behavior* (a programmed textbook), 1961; Sidman's *Tactics of Scientific Research*, 1960; Bijou and Baer's *Child Development I*, 1961; Division 25 of the American Psychological Association formed in 1964; Staats and Staats', *Complex Human Behavior*, 1964; Ullman and Krasner's (Eds.) *Case Studies in Behavior Modification*, 1965; Ulrich, Stachnik and Mabry's (Eds.), *Control of Human Behavior*, 1966; Honig's (Ed.) *Operant Behavior: Areas of Research and Application*, 1966. Several major university training centers got started during this period, at the University of Washington (Bijou); Arizona State (continues)



University (Staats, Goldiamond, Michael, and others); the University of Kansas (Baer, Wolf, and Risley); Western Michigan University (Ulrich, Kent, Malott, Whaley and others).

### ***Journal of Applied Behavior Analysis (JABA), 1968***

By the late sixties so many applied (as contrasted with basic) research papers were being submitted to *JEAB* that it became necessary to start a new journal devoted to applied behavioral analysis. *JABA* is mainly for the original publication of reports of experimental research involving applications of the experimental analysis of behavior to problems of social importance. Prior to *JABA*, research in what was then called *behavior modification* was essentially an application of the methods used in basic research (as reported in *JEAB*) to various practical problems involving the mentally ill, the mentally retarded, children, juvenile delinquents, etc. *JABA* editors and contributors have developed and refined methodological strategies more appropriate to research in applied settings. *JABA* articles have become model demonstrations of how to conduct and interpret applied behavioral research, and *JABA* has become one of the most prestigious and widely cited journals in any area of applied psychology.

### ***Behaviorism, 1972***

By this time many articles that were neither reports of basic nor applied research were being submitted to *JEAB*, *JABA*, and other journals, and especially philosophy journals. Willard F. Day started *Behaviorism* which had this general goal: "... to serve as a forum for the critical discussion of issues pertaining to the contemporary practice of behaviorism." The kinds of issues covered include conceptual issues related to the practice of behaviorism, methodological innovations, ethical issues, philosophical issues related to behaviorism, etc. Many of the articles have dealt with Skinner's analysis of language in *Verbal Behavior*.

### **Association for Behavior Analysis (ABA) formed in 1974**

Partly as a result of dissatisfaction with the programming of the annual convention of the Midwest Psychological Association (a regional organization of the APA), a group of behavioral psychologists from various universities in the midwest decided to start their own organization with the primary purpose of sponsoring an annual convention. It was at first called the Midwest Association for Behavior Analysis (MABA) but when it attracted behavioral psychologists from all over the country, and from other countries, the name was changed to the Association for Behavior Analysis. It is at present the main organization of professionals with a behavior analytic orientation. Division 25 of the APA is largely restricted to psychologists, and heavily represented by academicians, whereas ABA is composed of professionals (an M.A. or higher degree is generally required) in all aspects of the human services, business and industry, education, as well as colleges and universities.

### **1975 to the present (1990)**

Several new journals have begun publication: *Journal of Organizational Behavior Management* (started in 1977 by Behavior Systems, Inc., under editorship of Aubrey C. Daniels); *The Behavior Analyst* (started in 1978 by W. Scott Wood as a publication of ABA); *The Analysis of Verbal Behavior* (started in 1982 by Mark Sundberg as the newsletter of the Verbal Behavior Special Interest Group of ABA, and becoming the *The Analysis of Verbal Behavior* in 1985); and others. In addition hundreds of books devoted to behavior analysis have been published during this period. ABA now has a number of very active regional associations which have their own annual conventions. And there are a number of other developments, consisting of the spread of behavior analysis into new areas of application, cooperative relationships with other professional groups, and increasing availability of behavioral training programs. ▼



**ABA '91**

### **STANDING ON THE SHOULDERS OF A GIANT**

#### **The Future of Behavior Analysis... The Legacy of B.F. Skinner**

Chair: Donald M. Baer (University of Kansas)

Discussant: Jack Michael (Western Michigan University)

### **THE CONCEPTUAL ANALYSIS OF BEHAVIOR**

Vicki L. Lee (Monash University-Australia)

### **THE EXPERIMENTAL ANALYSIS OF BEHAVIOR**

Gina Green (E.K. Shriver Center-Waltham, MA)

### **APPLIED BEHAVIOR ANALYSIS**

Michael J. Dougher (University of New Mexico)

Scott R. McConnell (University of Minnesota)

Glen W. White (University of Kansas)

### **STUDENTS: THE NEXT GENERATION**

Susan Goeters (Western Michigan University)

**1:15-3:00PM**

**Monday, May 27**

**Grand Ballroom**

## Contacts for Information Sharing

The following people serve as contacts for information sharing in the topic areas listed. "**Special Interest Group**" denotes that the group has applied for and received ABA Special Interest Group status. Please write the contact person for your area(s) of interest.

**Autism Special Interest Group.** Michael Powers, 315 Williamsburg Dr, Silver Spring, MD 20901

**Behavior Analysis & Cultural Design.** Deborah Altus, University of Kansas, Human Development Department, Lawrence, KS 66045; Leslie Burkett, University of North Texas, Center for Behavioral Studies, PO Box 13438, Denton, TX 76203

**Behavior Analysis/Modification in the Regular Classroom.** Donald K. Pumroy, College of Education, University of Maryland, College Park, MD 20742

**Behavior Analysis of Human Development.** Gary Novak, California State University-Stanislaus, Psychology Department, Turlock, CA 95380

**Behavior Analysis in Correctional Settings Special Interest Group.** Sherman Yen, PO Box 133, Owings Mills, MD 21117

**Behavior Analysis in Education Special Interest Group.** Corinne Donley, 10 Blue Ridge Rd, Brick, NJ 08724; Vikki Howard, Gonzaga University, Special Education Department, E502 Boone, Spokane, WA 99258

**Behavioral Gerontology Special Interest Group.** Kathryn Burgio, University of Pittsburgh School of Medicine, 110 Lothrop Hall, Pittsburgh, PA 15213

**Behavioral Materials in Social Psychology.** Dan Bernstein, University of Nebraska, Psychology Department, 209 Burnett, Lincoln, NE 68588-0308; David Schmitt, University of Washington, Sociology Department, DK-40, Seattle, WA 98195

**Behavioral Medicine & Rehabilitation Special Interest Group.** Kathleen Madigan, Children's Workshop, 248 Nutmeg St, San Diego, CA 92103

**Behaviorists for Social Action Special Interest Group.** John Nevin, University of New Hampshire, Psychology Department, Durham, NH 03824

**Clinical Behavior Analysis Special Interest Group.** Michael Dougher, University of New Mexico, Psychology Department, Albuquerque, NM 87131

**Computer Users Special Interest Group.** Charles Olander, Jacksonville State University, Biology Department, Jacksonville, AL 36265

**Direct Instruction Special Interest Group.** Paul Weisberg, University of Alabama, Psychology Department, University, AL 35487

**Ethical & Legal Issues Special Interest Group.** Deborah Shanley, Medgar-Evers College, Education Division, 1150 Carroll St, Brooklyn, NY 11225

**Experimental Analysis of Human Behavior Special Interest Group.** Mark Galizio and Carol Pilgrim, University of North Carolina, Psychology Department, Wilmington, NC 28403-3297

**Experimental Analysis of Nonhuman Behavior Special Interest Group.** Lynn Bradshaw, 1211 Southern Ave, Kalamazoo, MI 49001

**Human Behavioral Ecology.** Bill Buskist, Auburn University, Psychology Department, Auburn, AL 36849

**Infant/Child Behavior/Development Special Interest Group.** Jacob Gewirtz, Florida International University, Psychology Department, University Park Campus, Miami, FL 33199

**Interbehaviorists in ABA Special Interest Group.** Linda Hayes, University of Nevada, Psychology Department, Reno, NV 89557-0062

**JABA Users Special Interest Group.** Jon Bailey, BMC, Inc, 1708 Kathryn Dr, Tallahassee, FL 32308

**OBM Network Special Interest Group.** Carl Johnson, Central Michigan University, Psychology Department, Mt Pleasant, MI 48859

**Precision Teaching.** Claudia McDade, Center for Individualized Instruction, Houston Cole Library, Jacksonville State University, Jacksonville, AL 36265

**Software for Educating the Developmentally Disabled.** David Coleman, The Devereux School, Fox Hollow Rd, Rhinebeck, NY 12572

**Standard Celeration Chart Data Sharing.** Steve Graf, Youngstown State University, Psychology Department, Youngstown, OH 44555

**Teaching Behavior Analysis.** Jon S. Bailey, Psychology Department, Florida State University, Tallahassee, FL 32306

**Verbal Behavior Special Interest Group.** Mark Sundberg, 1236 Stafford Ave, Concord, CA 94521



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## NEW Behavior Analysis for Lasting Change

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6. Behavioral Assessment: Implementing Observational Systems
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14. Analyzing Procedures: Withdrawal and Multiple Baseline Single Case Designs
15. Stimulus Control: How It Develops
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21. Communicative Behavior
22. Evaluating Behavioral Programs: Complex Designs and Assessing Significance of Change
23. Reducing Behavior: Making the Decision and Using Extinction
24. Reducing Behavior with Differential Reinforcement
25. Reducing Behavior with Response Cost and Stimulus Control Procedures

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## NEW DEVELOPMENTS IN BEHAVIOR ANALYSIS

At the suggestion of the ABA Newsletter readers, the "New Developments in Behavior Analysis" column was developed and is now a regular feature of the Newsletter. The categories for submission are:

✓ **Publications.** We are especially interested in getting information on new books in behavior analysis. If you have published a book recently or know about a book that would be useful to behavior analysts, please send a brief description of the book (include authors, title, publisher, ordering address and sale price) for this column. We are also interested in listing articles which you may have published in journals which are not likely to be regularly read by behavior analysts.

✓ **Books/Materials Needed.** In many cases, members contact us to seek books for courses, training programs, etc. We suggest contacts, but do not maintain a database of this information. If you need a book or materials for such purposes, please send a brief description of the materials needed and a contact person and address so members can contact you directly.

✓ **Associations, Meetings, and Newsletters of Interest.** Information about groups and specialty newsletters.

**Newsletter Submission Deadlines:** March 2, June 15, September 2, December 2.

### Publications Publications Publications Publications Publications

#### BEHAVIORISM

**Blackman, D.E. & Lejeune, H. (Eds.) (1990). Behaviour Analysis in Theory and Practice: Contributions and Controversies.** This book addresses four themes of contemporary importance in the experimental and applied analysis of behavior: chronobiology (relationships between time and behavior), the emergence of rational thinking, language, and behavioral medicine. The current empirical and theoretical status of each theme is considered by a diverse group of distinguished research scientists who offer a distinctive European perspective. This cultural and theoretical diversity emerges from the fact that each chapter is derived from a paper originally presented at the 2nd European Meeting on the Experimental Analysis of Behavior. Available from Lawrence Erlbaum Associates, Inc., 365 Broadway, Hillsdale, NJ 07642 (217-356-8391). List Price: \$49.95.

#### CLASSROOM MANAGEMENT

**Kerr, M.M. & Nelson, C.M. (1989). Strategies for Managing Behavior Problems in the Classroom** (2nd ed.). This text addresses the design and implementation of interventions for the full range of behavior disorders exhibited by children and youth in school settings. Part 1 presents identification, assessment, data collection, and classroom management strategies. Part 2 provides in-depth descriptions of empirically validated strategies for intervening with six major categories of behavior disorders: disruptive behaviors, aggression, deficits in school survival skills, stereotypic behaviors, deficits in social skills, and psychiatric problems. Case study illustrations follow the presentation of school-wide, environmentally-mediated, teacher-mediated, peer-mediated, and self-mediated interventions.

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#### CLINICAL INTERVENTIONS

**Barlow, D.H. & Cerny, J.A. (1990). Psychological Treatment of Panic.** A complete step-by-step manual for the cognitive-behavioral treatment of panic, this book provides sufficient detail to enable clinicians familiar with this general approach to immediately begin using the techniques with their clients. Included is an illustrative in-depth case study. Available from Guilford Publications, Inc, Dept Z, 72 Spring St, New York, NY 10012. List Price: \$15.95; **Barlow, D.H. & Dinardo, P. Panic Disorder: Making the Diagnosis,** a companion audio program, \$12.95. Order paperback and cassette for only \$25.00.

#### INSTRUCTION & LEARNING THEORY

**Amsel, A. (1989). Behaviorism, Neobehaviorism, and Cognitivism in Learning Theory: Historical and Contemporary Perspectives.** Views on the current state of affairs in learning theory are expressed here by Amsel, a leading figure in the field for more than 40 years. His analysis of the origins of the modern cognitivist approach provides a valuable historical-theoretical perspective, and includes a critical examination of the major premises on which this approach is based. The work features an examination of the intellectual tensions that exist between recent versions of cognitive structuralism, as they (continues)

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pertain to humans and animals, and the various forms of behaviorism. Available from Lawrence Erlbaum Associates, Inc., 365 Broadway, Hillsdale, NJ 07642 (217-356-8391). List Price: \$19.95.

### NEUROPSYCHOLOGY

**Commons, M.L., Grossberg, S., & Staddon, J.E.R. (Eds.) (1991).** *Neural Network Models of Conditioning and Action*. The result of a conference held at Harvard University, this volume presents some of the interdisciplinary developments that are clarifying how animals and people learn to behave adaptively in a rapidly changing environment. The book focuses on how recognition, learning, reinforcement learning, and motor learning interact to generate adaptive goal-oriented behaviors able to satisfy internal needs—an area of inquiry as important for understanding brain function as it is for designing new types of autonomous robots. Available from Lawrence Erlbaum Associates, Inc, 365 Broadway, Hillsdale, NJ 07642 (217-356-8391). List Price: \$24.95 (paperback); \$49.95 (hardcover).

### PROGRESS IN BEHAVIOR MODIFICATION

**Hersen, M., Eisler, R.M., & Miller, P.M. (Eds.). (1991).** Vol. 27. With contributions by leading authorities in the field, Vol. 27 provides discussions on the use of computer technology for behavioral therapy, teaching self-instruction to mentally retarded individuals, preventing injuries in children, behavioral interventions with adolescents suffering from behavior disorders, and recent trends in the behavioral assessment and treatment of brain impairment. Available from Sage Publications, PO Box 5084, Newbury Park, CA 91359 (805-499-0721). List Price: \$45.00.

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### SEVERE BEHAVIOR PROBLEMS

**Durand, V.M.** *Severe Behavior Problems: A Functional Communication Training Approach*. This is the first full description of the procedures used in Functional Communication Training—a positive approach to reducing severe behavior problems. Functional communica-

tion training involves teaching students to communicate those basic wants and needs that they have previously obtained through their problem behavior. Communication skills are taught that replace challenging behavior. These procedures have been validated with children, adolescents, and adults who display behaviors as diverse as aggression, self-injurious behavior, and unusual speech. The book includes assessment and intervention steps that are illustrated with detailed case descriptions. A variety of assessment strategies are reviewed and described to assist in determining the appropriate interventions. The Motivation Assessment Scale—one device designed to assess the function of problem behavior—is included and described, along with guidelines for its administration and interpretation. Communication training is outlined in detail, and is illustrated using speech, sign language, and augmentative systems as examples. This intervention approach is unusual in the extent of the published data validating its use. Available from Guilford Press, 72 Spring St., New York, NY 10012. List Price: \$16.95 (paperback); \$40.00 (hardcover).

### SOCIAL WORK

**Research on Social Work Practice** is a new, quarterly journal devoted to the publication of empirical research concerning the methods and outcomes of social work practice. Social work practice is broadly interpreted to refer to the application of intentionally designed social work intervention programs to problems of societal and/or interpersonal importance, including behavior analysis or psychotherapy involving individuals; case management; practice involving couples, families, and small groups; community practice and development; and implementation and evaluation of social policies. The journal will serve as an outlet for the publication of original reports of evaluation studies on the outcomes of social work practice; reports on the development and validation of new methods of assessment for use in social work practice; and theoretical or conceptual papers that have direct relevance to social work practice. All empirical research articles must conform to accepted standards of conventional scientific inquiry. Articles employing either group or single-system research methodologies are equally welcome, as are manuscripts representing a variety of theoretical orientations or conceptual frameworks. To submit an article, contact Bruce A. Thyer, Editor, *Research on Social Work Practice*, School of Social Work, University of Georgia, Athens, GA 30602; (404)542-5440. Subscriptions are available from Sage Publications, Inc, 2455 Teller Road, Newbury Park, CA 91320. Price: \$35.00 Individual; \$75.00 Institutional.

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## Books/Materials Needed

### KANTOR BIOGRAPHY PROJECT

Drs. Donna M. Cone and Paul T. Mountjoy are undertaking a biography of Jacob Robert Kantor and request that anyone who has information relevant to this project contact:

Donna M. Cone, Department of Mental Health, Rehabilitation & Hospitals, 600 New London Ave., Cranston, RI 02920, Daytime phone (401) 464-2334, Evening phone (401) 821-8796.

Paul T. Mountjoy, Department of Psychology, Western Michigan University, Kalamazoo, MI 49008-5052, Daytime phone (616) 387-4498, Evening phone (616) 344-0814.

## Associations, Meetings, & Newsletters of Interest

**International Early Childhood Conference on Children with Special Needs.** This group is very influential in setting the agenda for state and national policy in the area of early childhood. Additionally, many teachers looking for effective strategies attend this meeting. There are some behavior analysts that always attend, and the current President-Elect, Susan Fowler (University of Illinois), is a behavior analyst. For information, contact the Council for Exceptional Children's Division for Early Childhood, 1920 Association Dr, Reston, VA 22091 (703-620-3660).

**Connections** is published quarterly by the National Center for Youth with Disabilities, a program of the Society for Adolescent Medicine and the Adolescent Health Program at the University of Minnesota. Publication of *Connections* is made possible through a grant from the Bureau of Maternal and Child Health, Department of Health and Human Services. The Center's mission is to improve the health and social functioning of youth with disabilities through providing technical assistance and consultation, disseminating information, and increasing coordination of services between the health care system and others. Center activities are directed at enabling youth to become full participants in their communities. Inquiries about *Connections*, or NCYD, may be directed to NCYD *Connections*, University of Minnesota, Box 721 UMHC, Harvard St. at East River Rd., Minneapolis, MN 55455. ▼

To submit items for the New Developments Column, send complete information about the publication, meeting, or materials request to

Bill Redmon, ABA

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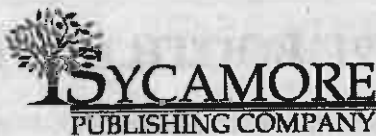
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O'Neill, R. E., Horner, R. H., Albin, R. W., Storey, K., & Sprague, J. R. (Eds.). (1990). *Functional Analysis of Problem Behavior: A Practical Assessment Guide* (83 pages).

Repp, A. C., & Singh, N. N. (Eds.). (1990). *Perspectives on the Use of Nonaversive and Aversive Interventions for Persons with Developmental Disabilities* (533 pages).

Rusch, F. R. (Ed.). (1990). *Supported Employment: Models, Methods, and Issues* (450 pages).

Rusch, F. R., DeStefano, L., Chadsey-Rusch, J., Phelps, L. A., & Szymanski, E. (Eds.). (July, 1991). *Transition from School to Work for Youth and Adults with Disabilities* (approx. 475 pages).

## Order Form

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## STUDENT COMMITTEE UPDATE

Bryan D. Midgely  
University of Kansas

The Student Committee is working on a number of projects to take place during and in preparation for the 1991 ABA Convention in Atlanta, including a symposium, two breakfast bars, a student roommate service, a poster, and a business meeting. In addition, a 1991 supplement to the *Directory of Graduate Training in Behavior Analysis* is in progress.

The Student Committee is sponsoring a symposium entitled "The Teaching of History in Psychology: A Naturalistic Perspective on the Study of the Study of Behavior." Our presenters will be: Noel W. Smith (SUNY-Plattsburgh) on "The Distant Past and Its Relation to Current Psychology: A Tour of Psychophysical Dualism and Nondualism," William S. Verplanck (University of Tennessee) on why "The History of Psychology Should Not Be Boring: A Platyopic Alternative to Myopia," and Mark A. Swain, Dennis J. Delprato, and Peter A. Holmes (Eastern Michigan University) on "The History of Psychology From a Behavioral Standpoint." Our discussant will be Jack Michael (Western Michigan University).

Student breakfast bars are scheduled for two mornings of the Convention. Spectrum Center sponsors the Saturday morning and Aubrey Daniels and Associates sponsors the Sunday morning breakfast bar. Students are invited to the Crystal E-F for a continental breakfast and to chat with the sponsors (a student id. is required for admission). This marks the first appearance of this event at ABA.

Sherry (Sabulsky) Serdikoff, our past student representative, has put together a Convention Roommate Service (see details in Newsletter 14-1). The service is designed to bring together student Convention attendees who would like to share quarters and to cut down expenses. Be forewarned, however; this is not a match-maker service. That we still leave to the individual.

Additionally, the Student Committee is working on a 1991 supplement to the *Directory of Graduate Training in Behavior Analysis* (see announcement following this article).

As is traditionally done at the Convention, the Student Committee will display a poster during the ABA Expo and will hold a business meeting. Be sure to consult your Convention program for places and times. We hope to see you there. ▼

### RICHARD FOXX ELECTED PRESIDENT-ELECT OF APA DIVISION 33

Richard M. Foxx is President-Elect of Division 33 of the American Psychological Association (the Division on Mental Retardation and Developmental Disabilities). He will assume the Presidency from Travis Thompson at the American Psychological Association Annual Conference in San Francisco in August, 1991.

## Call for Submissions

### The Directory of Graduate Training in Behavior Analysis

The Student Committee is preparing a 1991 supplement to the *Directory of Graduate Training in Behavior Analysis*. The purpose of the Directory is to "bring together the various graduate training opportunities emphasizing a behavior analytic approach to a variety of professional endeavors" (from *Graduate Training in Behavior Analysis*, 1988-90 ed., p. iii). By now, programs and traineeships already listed in the Directory and/or its 1990 supplement will have received copies of their entries for the purpose of updating the information contained within. The purpose of this "Call" is to solicit information from relevant programs and traineeships not already included in the Directory. To have a program listed in the Directory, the following should be included:

1. Content area of program, address, telephone number, name of admissions coordinator.
2. Degrees offered and areas of emphasis.
3. Brief description of research facilities and practica.
4. Student information (number of students currently enrolled, cost of tuition and fees, percentage of students receiving support, minimum and average grade points and GRE scores, other admission criteria).
5. A list of predominantly behavioral courses.
6. Faculty information (number of faculty, their names, their degrees, their interest areas).

To have a traineeship listed in the Directory, in addition to relevant information from the above list, the sponsor's (or sponsors') name(s), degree(s), and interests should also be provided.

To have your graduate program or traineeship included in the 1991 supplement, please send the above information to: Bryan D. Midgely, HDPL, 4001 Dole Center, University of Kansas, Lawrence, KS 66045-2133. ▼

### ROBERT M. WAGEMAN, 1938-1990

Robert M. Wageman, Ph.D., Professor of Psychology, Ft. Lewis College, Durango, CO, died suddenly on September 30, 1990 at his home. Bob was serving a second term as Chairman of the Department of Psychology at the time. He had been at Ft. Lewis for 20 years. He attended Arizona State University and obtained a doctoral degree in 1969. He was a student of Jack Michael, Israel Goldiamond, Fred Keller and Lee Myerson. Bob was an innovative, dedicated teacher and incorporated radical behaviorism in all his courses. He established labs at Ft. Lewis and at the Universidad de Avila in Caracas, Venezuela. He influenced hundreds of students and colleagues over the years with his wit and scholarship. He is survived by his wife, Pam, and five children.

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## Special Interest Group Profile

### BEHAVIOR ANALYSIS IN EDUCATION

The Behavior Analysis in Education Special Interest Group (BAE-SIG) consists of educators and trainers working as teachers, administrators, special educators, students and others who are members of ABA. *The Behavioral Educator* is a publication of the BAE-SIG which serves to disseminate information that is not customarily published in journals of education.

*The Behavioral Educator* endeavors to print student papers which represent relationships between education and behavior analysis. Empirically-based articles are the main focus; but along with these, the publication also seeks papers that summarize programs in educational settings, textbooks, software reviews, and announcements or employment opportunities.

If you have students who have produced work which is well written and represents a contribution to the field, please encourage them to submit their manuscripts to *The Behavioral Educator*. For submittal forms or further information, contact Dr. Vikki Howard, Gonzaga University, E. 502 Boone Ave., Spokane, WA 98926, Work phone: (509) 328-4220 ext 3492, Fax number: (509) 484-6951. ▼

## ABA SOCIAL

(The Banquet Replacement)

Join us Sunday, 5:30pm-Midnight, in the Grand Ballroom for an evening of conversation, food, entertainment, and dancing!

### 5:30 pm Conversation

An opportunity for one-on-one discussions with Executive Council members, Student Representatives, and special invited guests!

### 6:30pm Awards and Recognition

Acknowledgement of the contributions made by ABA members to activities during the previous year.



### 7:00pm Dinner and Entertainment

A buffet dinner will be available for those who wish to remain for the entertainment provided by ABA members who share a "magic interest."

### 9:00pm Music and Dancing

Band and cash bar 'til midnight



ABA '91

Sunday, May 25

4:15pm-5:30pm

Grand Ballroom

## PRESIDENTIAL ADDRESS

### THE AIM AND PROGRESS OF BEHAVIOR ANALYSIS

EDWARD K. MORRIS

(University of Kansas)

Chaired by

Philip N. Hineline (Temple University)

## SUPPORT STUDENT PRESENTERS

At their Fall 1990 meeting, the ABA Executive Council reviewed a petition from several members requesting that convention registration be waived for student presenters. The Council determined that the current budget would not permit such a policy and voted to ask members to donate to a special fund for this purpose.

For the 1992 ABA Convention in San Francisco, students who are sole or senior authors of convention presentations may receive complimentary registration provided that sufficient funds are received.

Use the convention registration form to make your donation or send funds directly to "Student Presenter Fund," ABA, 258 Wood Hall, Western Michigan University, Kalamazoo, MI 49008-5052. For more information, call Bill Redmon at 616-387-4495. ▼

## SPECIAL SYMPOSIUM ON ACCREDITATION OF GRADUATE TRAINING PROGRAMS

Friday, 4:00-5:50pm, Henry Room

A special symposium will be held on ABA's plans for a formal system for accreditation of university graduate programs in behavior analysis. Participants will describe the elements of the proposed program and the needs for accreditation by ABA so that members can react to a formal proposal to be made at the Annual Business Meeting of the Membership the next day.

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## ABA '91

### PROGRAM EVENTS IN HONOR OF B.F. SKINNER

The following special events have been scheduled to honor B.F. Skinner.

*Expressions of Appreciation.* Fred S. Keller  
Friday, 1:30pm, Grand Ballroom

*B. F. Skinner and Charles Sanders Pierce: Intriguing Parallels in the Philosophy of "Mind."* Steven M Kemp  
Saturday, 12:30pm, Fulton

*B. F. Skinner's Contributions to Clinical Psychology.* Michael J. Dougher  
Saturday, 1:00pm, Cobb

*B.F. Skinner's Influence on Training and OBM.* Terry E. McSween, Susan M. Markle, Carl V. Binder, Donald A. Cook, Aubrey C. Daniels  
Sunday, 9am, Fayette

*B. F. Skinner's Influence on Pharmacology.* Kenneth Silverman, Joseph V. Brady, Peter B. Dews, Victor G. Laties  
Sunday, 9am, Walton

*B.F. Skinner: Past, Future, and Perfect.* Jay Moore, Daniel J. Bjork, John A. Nevin, A. Charles Catania  
Sunday 11am, Vienna

*Future Directions in Corrections Research.* Sherman Yen  
Sunday, 1pm, Strasbourg

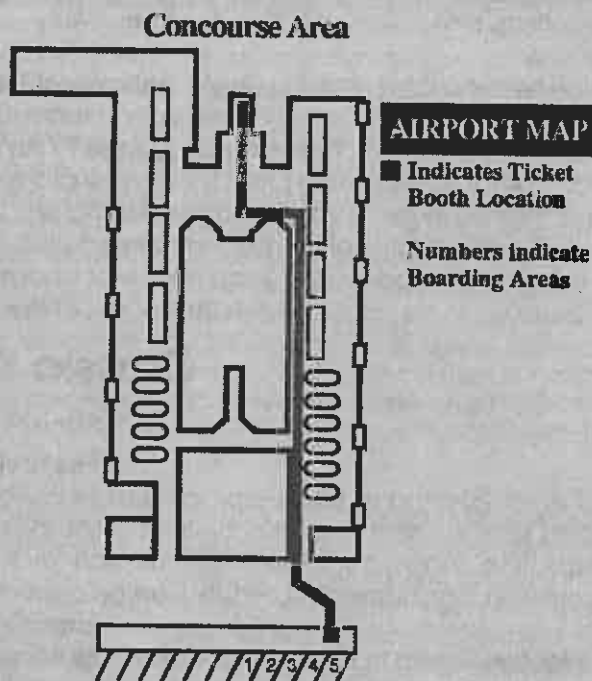
*Cross Purposes: A Perspective on the Conflict between Skinner and Kantor.* Linda J. Hayes  
Sunday, 1pm, Henry

*Skinner and Social Action.* Jerome D. Ullman, Richard F. Rakos, Richard Weissman, Deborah E. Altus, Comunidad Los Horcones  
Monday, 11am, Milan

*Standing on the Shoulders of a Giant—The Future of Behavior Analysis: The Legacy of B.F. Skinner.* Donald M. Baer, Jack Michael, Vicki L. Lee, Gina Green, Michael J. Dougher, Scott R. McConnell, Glen W. White, Susan Goeters  
Monday, 1:15pm, Grand Ballroom

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Ricky, 1987

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**BEHAVIORAL PSYCHOLOGIST:** Abilene State School, an ICF-MR accredited facility serving persons with mental retardation, has an opening for a behaviorally oriented psychologist. Must have a master's or doctorate in Psychology or Applied Behavior Analysis. A working knowledge of Applied Behavior Analysis principles and applied literature in developmental disabilities, and knowledge of the treatment of aggressive/self-injurious behavior is strongly preferred. Should be certified or eligible for certification by Texas State Board of Examiners of Psychologists. Duties include: development, implementation, and evaluation of behavioral programs, staff consultation, psychological evaluation, and inservice training. Outstanding benefit package which includes a Psychologist Career Ladder, excellent health insurance benefits, and \$965 paid Social Security. Salary \$2,108 to \$2,654 per month, based on experience and qualifications. Abilene is a city of approximately 111,000 people located 150 miles west of Dallas/Ft. Worth. Contact: Bobby

## POSITIONS AVAILABLE

Ricketts, Director of Psychology, Abilene State School, PO Box 451, Abilene, TX 79604. Phone: 915-692-4053.

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**DIRECTOR, DEPARTMENT OF PSYCHOLOGY AND CLINICAL SERVICES,** at West Florida Community Care Center, Milton, Florida. Requires Doctorate in Clinical or Counseling Psychology or closely related field and be licensed or licensable as a Psychologist in the State of Florida. Training/Education is preferable in Behavior Analysis. Experience with seriously mentally ill adults is required. Hospital-based experience highly preferred. Send cover letter and resume to Lakeview Center, Inc, 1221 W Lakeview Ave, Pensacola, FL 32501-1857. EOE/MF.

## POSITIONS AVAILABLE

**PSYCHOLOGIST;** 23-member behavioral psych. dept. at MR Institution. Raleigh-Durham-Chapel Hill Area. Thorough background in and commitment to behavior analysis required. License-eligible in NC. (1) (Search re-opened) Senior Psychologist I (PhD) \$30K-\$49K. (2) Staff Psychologist II (MA or PhD) \$26K-\$43K. Plus benefits. Send vita, 3 references, and transcripts to A. M. Myers, PhD, Murdoch Center, Butner, NC 27509.

**PSYCHOLOGIST, PH.D. OR PSY.D.** 2 positions. *Requirements:* training in animal or human operant, behavior modification, applied behavior analysis or behavioral clinical. *Duties:* Assist director in carrying out the Behavior Research Institute treatment program for 16 clients at residential school for students with severe (autistic-like) behavior disorders, and conducting research. Private program committed to Skinnerian orientation, implementing state-of-the-art behavior modification procedures. Prior experience not required. Ideal as first job, for experimentally-trained person wishing to work in a clinical setting or as sabbatical opportunity. Licensing supervision available for RI and MA. Salary \$30,000-\$65,000 depending on experience and qualifications. Excellent benefits. Call or send resume to Rosemary Silva, Behavior Research Institute, 240 Laban St, Providence, RI 02909 (401-944-1186).

**TENURE TRACK POSITION:** California State University, Los Angeles, is seeking a person with specialization in Applied Behavior Analysis and who is qualified to teach other courses in the Counselor Education Program. This position begins September, 1991 or when filled. A doctoral degree is required and special attention will be given to persons who are published, have an active research program, and have proven teaching skills. Rank, step and salary are dependent on experience and qualification. The Counselor Education Program prepares Behavior Analysts, School Counselors, School Psychologists, MFC Counselors, Rehabilitation Counselors, and College Counselors. Applicants should submit a letter of application, current resume, transcripts, at least three letters of recommendation, and a selection of publications to Dr. Ray Hillis, Associate Chair, Division of Administration and Counseling, School of Education, California State University, Los Angeles, 5151 State University Dr, Los Angeles, CA 90032. Closing date is March 1, 1991 or until position is filled. EOE/AAE

To place your advertisement in the  
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Shery Chamberlain at 616-387-4495

# CAREER OPPORTUNITIES IN APPLIED BEHAVIOR ANALYSIS

## Educational Settings and Program Consultation

**Spectrum Center** is an innovative human service agency in the San Francisco Bay Area committed to providing the highest quality of services in the least restrictive environments for individuals with handicapping conditions and/or behavior problems. Its program philosophy emphasizes non-aversive applied behavior analysis, data-guided decision making, and client advocacy. Its personnel philosophy reflects a commitment to high levels of staff reinforcement, excellent opportunities for professional development and advancement, competitive and creative compensation packages, and a behavioral organizational culture.

**Spectrum Center** currently operates a public school consultation and training project, a demonstration project with regular education "at-risk" students, and education integration pilot program, three special education schools, a behavioral family counseling center, and several research projects. It also operates a corporate university (Spectrum University) which provides opportunities for staff to obtain additional training and professional development.

As a result of ongoing growing and development, **Spectrum Center** continues to offer job openings during the the upcoming year (from paraprofessional to professional, Masters and Ph.D. level). These positions range from clinical to organization management. All positions are full time and include full health, dental, and workers compensation insurance, and generous leave benefits. Applicants should have strong backgrounds and interest in applied behavior analysis in human service settings.

### Specific positions open at this time include:

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*Clinical Psychologist*

(positions in both the integration pilot program and schools)

*School Administrator*

For further information, contact

**Randy Keyworth at Spectrum Center**

1916 A. Martin Luther King Jr. Way, Berkeley, California 94704

## PUBLICATIONS

**PERSPECTIVES ON DISABILITIES - TEXT AND READINGS** - Mark Nagler, Ph.D., Editor. Comprehensive, Relevant, Timely - Indispensable for therapists, gerontologists, spec. ed. teachers, & rehabilitationists who work with disabled; and for the disabled and their caregivers. Reviewed in major professional journals. ORDER FROM: **HEALTH MARKETS RESEARCH**, 851 Moana Court, Palo Alto, CA 94306; (415)948-1960; FAX (415)948-7827. List Prices: Paperback \$60; cloth \$75. SPECIAL 10% DISCOUNT TO ABA MEMBERS - paperback \$54; cloth \$76.50 + 10% shipping, CA residents add 7% tax. FREE SHIPPING ON PRE-PAID ORDERS.

**THE JOURNAL OF SOCIAL BEHAVIOR AND PERSONALITY** is calling for papers for a special issue titled "Handbook of Post Disaster Interventions." The issue will address formats for effective treatment of post traumatic stress, organizing mental health services, and psychological reactions to disasters. Publication date is late 1991. Send inquiries to Dr. Rick Allen, Section Editor, Director, Counseling & Psychological Services, University of California, Santa Cruz, CA 95064 (408-459-2895).

## ABA '91

### ANNUAL BUSINESS MEETING of the ABA MEMBERSHIP

**Saturday, May 25, 4:30pm, Cherokee**

Philip N. Hine, President (1990-91)

Edward K. Morris, President (1991-92)

William K. Redmon, Secretary-Treasurer

### AGENDA

- I. Minutes of the 1989 Meeting
- II. Election Results
- III. Financial Report
- V. Board Reports
- IV. Site Selection Report
- VI. Items from the Floor



## ASSOCIATION FOR BEHAVIOR ANALYSIS

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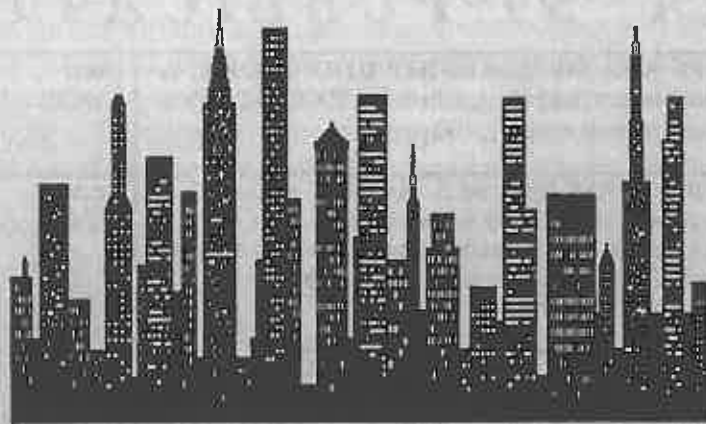
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