

## PRESENT TRENDS AND DIRECTIONS FOR THE FUTURE

A quarter of a century has passed since the first issue of the *Journal of the Experimental Analysis of Behavior* was published. In those twenty-five years the experimental analysis of behavior has grown, expanded into new areas, and generally prospered. At the same time, interest in the field of its origins, the psychology of learning, has declined (e.g., Rescorla, 1984) and Skinner (1981), while praising the development of behavior analysis, has lamented the failure of the "happy few" behavior analysts to attract more widespread support for the discipline from the larger community of psychologists. Critics of behavior analysis have declared paradigm shifts, unilaterally rung its death knell, and eulogized its passing (e.g., Schwartz & Lacey, 1982; Segal & Lachman, 1972). Within the discipline, controversy surrounds not only numerous research questions but also more general issues and basic assumptions (e.g., Baer, 1981; Branch, 1977; Herrnstein, 1977a, 1977b; Malone, 1982; Michael, 1980; Shimp, 1976; Skinner, 1977; Wasserman, 1981, 1982). More optimistically viewed, the behavior-analytic enterprise is still a patchwork of strengths, successes, and much that remains to be explored and experimentally investigated. There are many indications of scientific vitality; the controversies within the experimental analysis of behavior and between behavioral and other world views reflect continued interest in the problems we raise.

In the course of such complex development, it is fitting to pause occasionally to reflect on what has been achieved and where that can lead. This

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The editors thank West Virginia University for providing the financial support for the conference described herein and the following individuals for their support of this project: Charlie Catania; Vic Laties; Jack Marr, who first suggested publishing the conference papers as a special issue of *JEAB*; Kathleen McCluskey; Tony Nevin; Julie Vargas; and the graduate students of the Behavior Analysis program at West Virginia University, who provided the person-power and enthusiasm needed to bring about the conference. Special thanks are due Phil Himeline for his interest in the special issue and for his patience as the future became the present, and Kay Dinsmoor for her expert help with the manuscripts.

special issue is intended to provide such a point of reflection; the future of the science of behavior is important not only for its own sake, but for the sake of its implications for social survival. The idea of inviting a number of active researchers to consider future directions for the experimental analysis of behavior originated largely with Don Hake, who shared in organizing an initial symposium on this topic at the 1982 annual convention of the Association for Behavior Analysis. After his untimely death, the present writers continued the project and organized a conference held at West Virginia University in 1983 in honor of Don Hake. One result is this issue, which includes articles from many of the participants in the West Virginia conference. Other articles, from authors not present at the conference, further broadened the range of topics considered. We believe the panorama of ideas in this issue would have pleased Professor Hake.

In editing this issue we attempted to ensure that the papers addressed broad areas and issues in behavior analysis, discussed future directions for an area in the context of existing indications and evidence, and conformed to the general standards of acceptability that apply to any article submitted to the journal. Beyond this, we sought to avoid interference with the authors' judgments as to what directions might be best for the future. In a few cases this involved breaking our red pencils before they altered the main theme of a manuscript. We do not agree with the directions advocated by some of the authors. In particular, in our view Shimp and Williams advocate developments that, if pervasive, would entail a loss of identity for behavior analysis through a merging with older and more conventional views in psychology. However, we see such disagreement as a healthy sign for the future of behavior analysis. The experimental analysis of behavior was founded in a radical departure from established practices and its future vigor depends on exploring variations and deviations from its own established topics and methods.

Neils Bohr, perhaps anticipating a Woody Allen quip, noted that "predictions are very difficult, especially about the future." Such predictions are, indeed, likely to prove inaccurate or

mistaken. Moreover, discussing the future may well conjure up notions of crystal balls and starships. The authors of this issue were neither asked to guess the future nor, fortunately, did they attempt to do so. Their comments on the future may be regarded as one of two kinds: linear and nonlinear. In linear statements about the future, present activities and phenomena are assimilated and projected forward in time. For example, the wings of Leonardo da Vinci's flying machines flapped up and down (Hart, 1925) and Asimov's (1950) robots could not violate current ethical standards. Many of the articles in this issue contain such linear predictions of the future. Others, less bound by the present, examine nonlinear projections by, for example, integrating areas of knowledge other than behavior analysis with topics of interest to behavior analysts. Nonlinear statements usually seem more speculative, but this may be more a function of the observer's vantage than the nature of the statements.

It also is useful to distinguish a behavioral interpretation of the future and future directions for behavior analysis and interpretation. Skinner's popular book, *Walden Two* (1948), portrayed a future based on principles derived from an experimental analysis of behavior. More somber discussions of the future, and the role of behavior analysis in that future, have appeared recently in this journal (Mook, 1983; Nevin, 1982). Skinner (1973) analyzed the contingencies that lead to taking the future into account, and the consequences of not doing so. He suggested the necessity of "design[ing] a world in which our susceptibilities to [immediate] reinforcement will be less troublesome and in which we shall be more likely to behave in ways which promise a future" (p. 32).

The few discussions of future directions for behavior analysis have been quite general. Many have pointed to difficulties that, left to themselves, will worsen and have negative effects on the future of the discipline. For example, Skinner (1959) analyzed "the flight from the laboratory" and identified four diversions from an experimental analysis of behavior that bode problems for the future; Branch and Malagodi (1980) warned of the consequences of the drift of behavior analysts from their metatheoretical roots; and Ferster (1978) detected a trend away from an experimental analysis of behavior. His question, "[Is] the play of the experiment in what one says or is it in what [was] done?" (p. 348) merits regular reassessment

as the future becomes the present of behavior analysis. The contributors to this issue also have provided indications of general directions rather than details of research programs. It is as if they have said: "Here are some ideas for future investigation, derived from our views of the present state of behavior analysis. If you, the reader, find any of them significant, we hope you will develop them further and will find ways of experimentally investigating them." Unlike previous behavior-analytic discussions of future directions, however, each author has developed these ideas in the context of specific research within the experimental analysis of behavior.

In a recent address before the Association for Behavior Analysis, Skinner (1984) proposed several changes in the research methods and techniques of the experimental analysis of behavior. The papers in this issue expand Skinner's theme and, in so doing, point to an intellectually and scientifically challenging future. Some of the papers (e.g., Michael, Neuringer, Schmitt) deal with a kind of research that is by no means new in behavior analysis but which appears to be gaining particular impetus at present—namely, the experimental analysis of human behavior. Although behavior analysis is not predicated upon particulars of individual species, there is distinct advantage in studying those phenomena that are especially, if not exclusively, human—in particular, verbal behavior. Other articles (e.g., Neuringer, Nevin, Pear & Eldridge) consider methodological issues and recommend methods that may further enhance the future range and intricacy of the experimental analysis of behavior. Further developments of well established, fundamental areas of research also are considered (e.g., Himeline, Nevin, Pear & Eldridge, Zeiler). Some articles (e.g., those by Harzem, Marr, Neuringer) propose entry of behavior analysis into areas that have not typically been included (and in the past with good reason) in this discipline. Finally, conceptual and theoretical issues and their significance for the future are discussed (e.g., Hursh, Marr, Shimp, Zeiler). No article is confined to any one of these considerations; the authors approach their subject matter in various and often unique ways.

Though fraught with potential difficulties, considering future directions can place the present in new perspectives, suggest specific and potentially significant directions for research, and provide a basis for broadening the impact of

the experimental analysis of behavior. We hope that this issue will help to realize some of these possibilities.

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