ECOLOGICAL PERSPECTIVES IN BEHAVIOR ANALYSIS

edited by
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Preface

Some time ago, we were involved in several discussions with Don Baer and Jackie Holman about the merits of Ed Willems' arguments for an expanded environmental awareness in the application of behavior change strategies. Jackie was finishing her review and critique of Willems' arguments (see Chapter 4), and we were conducting some ecologically relevant research related to teaching language to young children. We would have continued our nondirected, but interesting, discussion with few consequences, if Don Baer had not suggested that the arguments were timely ones that might be of interest to others in the field of psychology. Instead, following Don's suggestion, we planned a conference that would be a forum for the discussion of these issues.

The participants were invited, the conference convened, the papers read, and, to our delight, everyone participating was very excited about this new exploration of the intersection of behavioral and ecological concerns. Frankly, we were surprised. Even the most interesting research and theory often is lost in oral presentations at a conference. It is certainly an unusual circumstance when every participant actually is interested in the arguments of the other participants. The conference was a first, purposeful meeting of ecologists and behavior analysts, and the occasion represented the recognition of a common critical term: environment. Both groups had previously spoken out for the importance of environments in relation to human behavior, but they had focused on their own diverse concerns. In this meeting, the focus was on defining commonalities and shared interests as a means of developing an ecological perspective in behavior analysis.

The marriage metaphor cited in several of the chapters seems to be an appropriate description of the sudden coming together of ecologists and behavior analysts. The "marriage" may have been one of necessity, rather than the culmination of a long, romantic courtship. Behavior analysts admittedly were having difficulties with the environmental aspects of behavior change procedures, and were becoming increasingly aware of the need to consider both the target subject and the setting when formulating interventions. A behavioral ecology was imminent with, or without, a formal union.

The conference was a shotgun wedding, of sorts, but as Don Baer pointed out, even shotgun weddings can be fun. Willems' previous invitation to behavior analysts to embrace some ecological methods and concerns was accepted, at least tentatively, and the wedding was on. The behavior analysts set forth to specify a marriage contract that would be congruent with their therapeutic objectives and empirical methods. The ecologists, while willing to contribute to the behavioral technology, right-

fully demanded recognition for their contribution as describers of natural ecologies and behavior. There were numerous problems of role definition, determining responsibilities for both partners, and selecting a new name (ecobehavioral) to represent the interests of both parties. And of course, there were objections to such a hasty union (see the concluding Overview for David Krantz's final comments).

In spite of it all, the wedding came off, culminating in a free exchange of ideas and the discovery that ecologists and behavior analysts have much more in common than was apparent at the start. The in-laws seemed to enjoy each other, and both sides indicated that they were pleased at the prospects for the new union.

Most weddings are fun, but relatively few marriages are as enjoyable. It remains to be seen how the ecobehavioral union will fare. There are numerous issues yet to be resolved. Many of those issues will become apparent only as the two factions interact across time and through applications of the new perspective. Todd Risley's observation, that behavior analysts will adopt an ecological perspective as quickly as the research opportunities arise, is likely to be a realistic one. If so, tests of the ecobehavioral union will be frequent, varied, and validated through empirical observation. It may be some years before the success of the marriage can be assessed accurately.

Regardless of the eventual outcome, the conference and this volume represented for us a rare opportunity to participate in the development of an intellectually exciting and potentially useful aspect of behavioral psychology. The graciousness and thoroughness of the contributors made convening the conference and assembling this book most reinforcing tasks.

A final note: Although the considerable influence of Ed Willems' initial charge to behavior analysts will be apparent throughout this volume, we wish to recognize it here as well. Behavior analysts might very well have recognized and dealt with ecological concerns as they arose; however, Willems provided an important prompt toward a new direction in behavioral research. Not only is Ed Willems a good ecological psychologist, he's a fine behavior shaper as well. He prompted us to deal with ecological problems, and by his continued interest and support, he thoroughly reinforces approximations to the target behavior. His prompts and reinforcement were critical to the current exchange of ideas between ecologists and behavior analysts.

Acknowledgments

For her invaluable help in preparing the manuscript, in all its many phases, the editors wish to thank Patsy Horner. For their input and advice throughout the course of this project, particularly in its early stages, special thanks go to Dr. Donald M. Baer and Dr. Joseph E. Spradlin. Finally, we wish to thank Dr. Richard L. Schiefelbusch, Director of the Bureau of Child Research at the University of Kansas, for arranging financial support for the Kansas Conference on Ecological Perspectives in Behavior Analysis, held in October 1976, and for his knowledgeable advice at all stages of this project.

This book is for Ruth, J. V., and Loretta, who provided the appropriate ecologies during our earliest years.

Contents

PART I

INTRODUCTION

1

The Developing Ecobehavioral Psychology

Ann Rogers-Warren and Steven F. Warren

For many years ecologists and behavior analysts have peacefully coexisted, each group paying little, if any, attention to the work of the other. In 1974, the silence was broken by Edwin Willems. In his paper "Behavioral technology and behavioral ecology," published in the *Journal of Applied Behavior Analysis* and reprinted in this volume (Chapter 2), Willems brought behavior analysts to task for not monitoring and attending to possible unintended effects of behavioral interventions. Willems argued from an ecological viewpoint that behavior does not exist in vacuuo, but is part of a delicate system. When a single behavior is changed, there are likely to be other concomitant changes. He charged that behavior analysts have a responsibility to monitor these "side effects" when conducting behavioral interventions because these effects may cause greater harm than the difficulty that the intervention was designed to alleviate. In essence, Willems demanded that behavior analysts extend their focus beyond the single target behavior and its contingencies to the broader ecosystem in which the behavior occurred, and he suggested that failure to do this would indicate irresponsibility on the part of the intervener.

The initial reply from the behavior analysts (Baer, 1974; reprinted in this volume, Chapter 3) was polite, succinct, and behavioral: if such side effects do occur, what can we do about them? Baer stated that it was necessary to know how often such effects occurred, how serious they were, and how they might be remediated before behaviorists could follow Willems' suggestions.

The new exchange between ecologists and behavior analysts did not end with Baer's remarks. Perhaps because of Willems' and Baer's articulate

statements of their positions, or perhaps because Willems' comments were particularly timely and behavior analysis was rapidly coming in contact with some of the side effects and ecological considerations he had pointed out, the initial exchange has opened new channels of communication between the two groups. Integration of behavioral and ecological issues seems to be a topic whose time has come.

In October 1976, a small group of behavior analysts and ecological psychologists gathered to discuss the evolving ecological perspective in behavior analysis. This volume contains the papers presented at that conference with formal replies and comments directed toward those papers. The ecological perspective discussed at the conference and in this volume is one strongly influenced by behavioral methods and interests. It is ecological in many senses, but it is a focused form of ecology with strong ties to behavioral intervention tactics and purposes.

Ecology is a term shared by psychologists, sociologists, and educators (cf. Auerswald, 1969; Barker, 1963; Michaels, 1974; Wahler, 1972), yet there is little agreement concerning its precise definition. The meaning of ecology is still evolving, and the reported state of its evolution varies with the reporter's purpose and perspective. At least two "ecologies" are discussed in this volume. One use of the term refers to the system of intrapersonal behavior. (See the chapters in this volume by Willems, Baer, Holman, Wahler, and Warren.) The subject is viewed as demonstrating a complex of interrelated behaviors, and changes in one behavior may result in changes in other behaviors. The behavior change might be either positive or negative. For example, if a child is punished for noncompliance, other behaviors, such as physical aggression and verbal abuse, might increase. A positive behavior correlation might indicate that positive verbal and nonverbal interactions increase when sharing is reinforced in a preschool child. A second ecological perspective focuses on the subject within the physical and contingency milieu. Here it is argued that the arrangement of the setting influences the subject's behavior. The second definition is more closely aligned with the environmental ecologists' viewpoint (see Barker, 1963); however, it is definitively behavioral in its perspective. That is, although the environment is viewed as influential, it is considered a potential intervention base (see the chapters by Rogers-Warren and Risley). Environmental rearrangement is suggested to support behavior change by working in conjunction with contingency-based interventions. Using ecological information as a basis for an intervention strategy has not been traditional among ecologists, whose work has been primarily descriptive.

While these two views of ecology are somewhat divergent in definition, they share a common base: both are person-centered analyses of

behavior. Thus, the term ecobehavioral has been used to distinguish current ecological issues from those that speak to broader non-person-centered concerns. For example, the work done by Barker, Wright, and their colleagues (cf. Barker, 1963; Gump, 1969; Wright, 1969), is setting-centered. The behavior of persons in the setting is of interest only as it reflects the effects of the setting dimensions. It is implicitly assumed that all persons in the setting will behave in much the same way as a result of the setting variables. Descriptions of the setting are not oriented toward any sort of therapeutic goal—the role of the ecologist is that of describer.

Ecobehavioral analysis may share the methods of ecology, but it does not share its goals. Whether viewing the intrapersonal ecosystem or the broader setting system, the analyst looks toward better, more thorough means of changing behaviors of particular persons. This is an important and difficult distinction: important because it typifies the direction of this new ecological perspective; difficult because the difference in ends (one descriptive, one change-oriented) makes the translation from ecological to behavioral methods tedious. Persons with such nearly opposing goals make uncomfortable, although enlightening, bedfellows.

The current volume does not resolve the differences between behavior analysts and ecologists, nor was it intended to. The papers presented here do not even display the full range of possible ecological perspectives. Rather, some of the currently prominent issues in ecological application in behavior change have been presented. Several papers are extensions of arguments made previously, although all of the papers (with exception of the 1974 articles by Willems and Baer) were developed for this volume.

The book contains four major sections and a concluding comment (Overview). Part I is an introduction to the issues discussed in the remainder of the book. The 1974 paper by Willems and Baer's rejoinder are reprinted here to provide the reader with additional perspective on the issues discussed in the subsequent chapters.

Part II extends the discussion of unplanned effects from the comments made in the 1974 papers. Willems offers further suggestions for integrating ecological concerns and methods into behavior analysis. He outlines four specific changes in method that will ideally provide insight into the complexity of human behavior systems. His emphasis is, as it was in 1974, on detecting the possibility of unplanned effects before they occur, and he repeatedly asks the question, "Where are the scientists ahead-of-time?" Holman approaches the issue of ecological perspectives from another viewpoint. She finds the ecological challenge to behavior modification a disturbing one, and decides it cannot be lightly discarded. Nevertheless, while retaining considerable sympathy for the viewpoint