In Memoriam

Sidney W. Bijou, 1908–2009

Michael Dougher, Editor

As many readers of this journal already know, Sidney W. Bijou, a pioneer in child development and behavior analysis, died on June 11, 2009, at the age of 100. Bijou's obituary appeared in the *New York Times* on July 21, 2009, and another, written by Ed Morris for the *American Psychologist*, is currently in press. In honor of his enormous contributions to behavior analysis, we reprint here a short personal statement that is excerpted from the 1978 book, *Behavior Modification: Behavioral Approaches to Human Problems*, by William H. Redd, Albert L. Porterfield, and Barbara L. Andersen. In addition to serving as an authoritative and foundational account of the behavior modification and therapy movement, this book includes a series of short personal statements from several leading behavioral theorists of the day, including Bijou, Skinner, and Keller. What is clearly revealed in Bijou's statement is his great intellectual excitement in discovering that reinforcement contingencies could be used to shape new operant behavior in children and the extraordinary conceptual and technological possibilities that discovery suggested. Also clearly revealed are his deep humanitarianism, his concern about the potential misuse of behavioral science and technology, and his absolute conviction that they must always be used ethically and only to enhance and improve the quality of individuals' lives.

In securing permission to reprint Bijou's personal statement, I corresponded with the book's senior author, William Redd. In that correspondence, Redd noted how fascinating it is to see how radical Bijou's approach to child

psychology and education was when he introduced it more than 50 years ago. He also noted more generally how the questions posed to the early behavioral pioneers in the late 1970s are still relevant today. Redd's original introduction to the personal statements section of the book is also reprinted here.

Redd's Introduction

As we researched and thought about the history of behavior modification, we became curious about how the early pioneers came to make such a radical departure from prevailing psychological thought. We also wondered how it felt to be in the midst of such controversy. To explore these issues, we asked some of these researchers to share their experiences. We are indeed honored by their enthusiastic responses.

SIDNEY W. BIJOU

In the summer of 1955 I was exploring some simple schedules of reinforcement in normal preschool children, using a variety of contingently delivered trinkets and bits of candies and cookies. The research was being conducted in a newly designed and equipped trailer laboratory at the University of Washington. In the far wall of the laboratory room as one entered was a large one-way glass, and beneath it a lever for responding (actually an O'Cedar mop handle). Above the lever was a recessed light bulb and below the lever was a small opening for delivering "goodies." Also in the room were a juvenile chair, placed in front of the lever; a free play toy on a table to one side; and a young woman sitting behind a

partition near the wall opposite the apparatus wall. (She had no role in the studies. Her only function was to make the child feel that he or she was not alone in the room.)

A child's responses on the lever were carried to a circuit which was programmed so that each reinforced response was accompanied by a light flash and a short buzz from the dispenser motor, indicating that a goodie was being delivered. The experimenter operated behind the wall with the one-way glass and apparatus. The trailer was parked alongside a private day care center which provided—with parental consent—the children for the study.

One day I invited Bill Verplanck, a visiting professor in the Department of Psychology at the University of Washington, to join me in observing the performances of the children. He was impressed with what he saw: children responding in a fairly orderly fashion to fixed and variable ratio and interval schedules of reinforcement. I say fairly orderly because now and again there were short breaks in responding that were not easily accounted for by the experimental conditions.

About halfway through the session, Verplanck suggested that we explore the shaping of operant behavior. We decided to see whether we could establish pulling the cord of the window shade on the window at the far side of the room, which was about fourteen feet away from the wall where the lever was situated. The procedure consisted of hand-shaping successive approximations to the final task, i.e., reinforcing getting off the chair, moving farther and farther away from the lever, raising the hand, grasping and then pulling on the window shade cord. Initial movements away from the lever were a bit slow in developing because each time the child was reinforced for moving away, he had to turn back or run back to get the goodie lodged in the receptacle. In a relatively short time, however, the response was well established: After snatching up a goodie, the child would

run across the room, pull on the shade cord, and as soon as he heard the motor buzz, he would dash back to the receptacle and retrieve the goodie.

This was an amazing display! It had much more of an impact on me than our findings on schedules of reinforcement in children (e.g., *Psychological Reports*, 1957, 3, 243–250). The general findings on schedules were that children, like infrahuman subjects, could, with training, coordinate their operant behavior with the timing of reinforcing contingencies. But delivering reinforcers contingent on the topography of successive behaviors clearly showed how new operant behavior—any kind of new operant behavior—is probably established. I had just witnessed a dramatic demonstration of what we had for years been telling our students in introductory psychology, namely, that the implication of a scientific analysis of behavior is prediction and control of individual behavior.

I found myself overwhelmed with thoughts about the ethical problems that could emanate from applying behavior principles to the development of children, so much so that for several years I kept this troubling observation from my colleagues and students alike. But gradually, as I began to realize that, after all, the social and ethical problems of a scientific psychology are no different than those of a scientific biology, chemistry, or physics, I freely told the story. I am confident now, as I was not in 1955, that society, through its professional organizations and its governmental agencies, must evaluate the implications of behavior applications and must institute safeguards to assure that practices in the home, school, clinic, and community are always oriented to the enhancement of the individuals within the context of their social structure.

REFERENCE

- Redd, W. H., Porterfield, A. L., & Andersen, B. L. (1978). *Behavior modification: Behavioral approaches to human problems*. New York: Random House.