A BRIEF HISTORY OF APPLIED BEHAVIOR ANALYSIS AT THE UNIVERSITY OF WASHINGTON

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In writing this account of applied behavior analysis at the University of Washington, I made an effort to reference as many individuals as I could who contributed to this way of life. Moreover, I tried to identify the programs, places, or circumstances that were important in the development of behavioral analysis at this university. I also attempted to indicate the dates that individuals either arrived or departed from Seattle, when that seemed to be important. I'm sure that I was off a year or so in some cases. I may have also erred from time to time by saying that an individual worked in one place when he or she actually labored in another. Forgive me. I've never thought of myself as a Barbara Tuchman.

One of the problems in writing this chronicle is that although I have been at the University of Washington since 1966 and have a fairly good recollection of individuals and circumstances since then, I was not here when it all began—an emphasis on behavioral analysis. And most would agree that those early days at Washington represented a revolutionary and dynamic epoch in the annals of applied behavior analysis, not only here but throughout the nation. Another problem with writing this piece is that I have spent my entire career at Washington in one place, the Experimental Education Unit. Although I have hobnobbed with dozens of faculty and students from other departments, indeed from other parts of the campus, it is quite likely that I overlooked some behavioral types in other sections of this rather large community. Of course another problem I have in pulling this all together is that my memories, like those of others, tend to fade and blur as time goes by, and are rearranged and shaped by current happen-

ings. Thanks, Elizabeth Loftus for casting doubts on our memories. (Loftus, a member of the Department of Psychology at the University of Washington, has achieved considerable acclaim regarding her research on eyewitness testimony and suppressed memory. As for being a behaviorist, I doubt if we could sign her up.) But keeping in mind those disclaimers, I'll begin this tale.

It all started in the mid 1960s. At that time, there was an extraordinary group of applied behavior analysts in the Department of Psychology at Washington. Sidney Bijou, Donald Baer, Jay Birnbrauer, and Bill Hopkins (although he was at the time more of a math modeler than a behaviorist) were the faculty members. Montrose Wolf was a post-doctoral fellow, and working with them was a clutch of graduate students, including Marilyn Erickson, Robert Peterson, Todd Risley, Warren Steinman, James Sherman, and Robert Wahler.

There were two primary locations at which these researchers plied their trade at Washington. One was the Developmental Psychology Laboratory (DPL), initially called the Institute of Child Development. The laboratory was located near the Department of Psychology, and Bijou was its founder. A developmental clinic was a part of that complex, to which Bijou appointed three successive heads of great future importance in applied behavior analysis: Ivar Lovaas, then Ralph Wetzell, and finally, Robert Wahler. The other place at which Washington psychologists carried out research was the Rainier Training School, about 50 miles southeast of Seattle in Buckley, Washington.

There were several preschool classes at the DPL. Following are some of the staff at that legendary school: Eileen Allen, Joan Buell, Florence Harris, Betty Hart, Margaret Johnston, and Nancy Reynolds. As the story goes, those women were running a terrific preschool but were not keeping data on the youngsters, and certainly were not abiding by

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the tenets of applied behavior analysis. Bijou assigned Wolf to check out the classes and see if some relationships could be established. Wolf immediately saw it as a fruitful place in which to carry out research and coaxed the teachers into setting up a few behavioral studies. The success of those investigations and the excellent teaching on the part of the staff motivated Baer and Sherman to join the team. Barbara Etzel, who was at the time connected with the Department of Psychiatry of the Medical School at Washington also worked with those professionals. The collaborations between the faculty members and the staff at DPL led to dozens of seminal publications in applied behavior analysis, particularly as that methodology relates to the education of preschool children. Following are just two of the citations from that group: Harris, Wolf, and Baer (1964) and Allen, Hart, Buell, Harris, and Wolf (1964).

At Rainier School, the other site for conducting behavior-analytic research, classes were established for children with mental retardation. Two of the teachers there were Cecilia Tague and John Kidder. Birnbrauer and Bijou were the principal psychologists who teamed up with the teachers and others at the school. With those classes, the group arranged reinforcement contingencies in various academic areas and obtained data in those subjects. (Individuals in institutions at that time were quite different than they are today. In the mid 1960s, most of the children labeled as mentally retarded and served in institutions away from home would today be classified as learning disabled and educated in general education classrooms in their communities.) One of the earliest and most often-cited investigations by that group was carried out and authored by Bijou, Birnbrauer, Kidder, and Tague (1966).

It is interesting to note that the reading program that was developed at the Rainier School by Tague, Kidder, Bijou, and others was later refined and distributed as the Edmark Reading Program®. Steven Sulzbacher, who came to the University of Washington in 1966, was another contributor to that program.

R. Vance Hall was another behavioral individual

at the University of Washington in the early 1960s. Unlike the others, who were located in the Department of Psychology, he was in the College of Education. While at Washington, Hall carried out several projects with children with learning disabilities at the Pilot School that was directed by Charles Strother, a member of the Department of Psychology. The Pilot School was a forerunner of the Experimental Education Unit, which is described later in this story.

Beginning in 1964 and for the next 2 or 3 years, there was a mass exodus of talent from the Department of Psychology at Washington. Baer set out for the University of Kansas; 2 years later, Sherman joined him there. Hopkins and Risley went to Florida State University, Birnbrauer moved to the University of North Carolina, Wolf returned to Arizona State University, and Bijou found refuge at the University of Illinois. In a few years, many of them were reunited at Kansas. For a continuation of this saga, see the history of the Department of Human Development and Family Life at the University of Kansas in this issue by Donald Baer.

In 1965, a crew of applied behavior analysts came to the University of Washington *from* Kansas. Unlike those who left for Kansas who were psychologists, these immigrants to Washington were special educators. They were affiliated with the College of Education, and more specifically with the Experimental Education Unit (EEU), referred to earlier. The first of this group to arrive in Washington was Norris Haring. He had been the director of the Children's Rehabilitation Unit, a facility adjoined to the University of Kansas Medical Center in Kansas City. Strother, the director of the Child Development and Mental Retardation center (CDMRC) in Washington, engaged Haring to head the EEU, a part of the center. Haring was an avid behaviorist throughout his career, and during his last year or so at Kansas had been greatly influenced by O. R. Lindsley, who had joined their faculty from Harvard University.

Haring brought Harold Kunzelmann with him to Washington to serve as the principal of the EEU. Kunzelmann had studied with Lindsley at Kansas and was understandably committed to the ideas of

precision teaching. Under his influence and direction, all the classrooms at the EEU were designed on the basis of precision teaching, with a sprinkling of notions from Lloyd Homme. There were about 10 classrooms at the EEU at that time, most of which served children and youth with learning disabilities. In those days and lasting until about 1980, there was a definite commitment to contingency management and rate of responding at the EEU; it was truly an experimental and educational place. There was even some unity there from time to time.

Haring, along with Richard Schiefelbusch (who was then director of the Bureau of Child Research at the University of Kansas and played an important role in bringing many of the celebrated psychologists to Kansas), edited the book, *Teaching Special Children* (1976). Not only are there chapters in this volume that describe classes at the EEU and precision teaching generally, but several sections pertain to applied behavior analysis programs in other parts of the country. Based on their work at the EEU, Kunzelmann and colleagues wrote the first book having to do specifically with precision teaching (Kunzelmann, Cohen, Hulten, Martin, & Mingo, 1970).

Among the classes for children and youth at the EEU were a few for preschool children. In 1968, Allen moved over from the DPL and assumed the directorship of those classes. Two of her colleagues in those endeavors were Valentine Dmitriev and Alice Hayden. The latter was a pioneer in designing educational programs for toddlers and preschoolers with Down syndrome. The preschool classes were, of course, fashioned on the principles of applied behavior analysis. In 1974, Allen joined her mates from DPL days in Kansas, staying there until she retired in 1987, then returning to Seattle.

In 1966, Lovitt, who had studied with Lindsley at Kansas, joined Haring and Kunzelmann at the EEU. He enticed Sulzbacher, who was a fellow with the Bureau of Child Research at Kansas, to join him and begin a doctoral program in special education. Sulzbacher was initially affiliated with the CDMRC as a psychologist. He is currently a faculty member of the Department of Psychiatry and Behavioral Sciences at Washington, and is as-

sociated with the Children's Hospital and Medical Center. He has carried out a number of behavioral studies on pharmaceutical and educational themes.

Lovitt worked in a few of the classes at the EEU, and with those teachers, arranged a number of investigations on a variety of academic subjects (e.g., Lovitt & Curtiss, 1969). In 1968, Kidder, who had been at the Rainier School, linked up with Lovitt at the EEU. The two of them began scheduling studies and assisting teachers in the public schools, along with continuing their efforts at the EEU.

In the late 1960s, Robert Burgess, another applied behavior analyst, came to the University of Washington as a member of the Department of Sociology. One of his many doctoral students was Dennis Mithaug. The two of them paired up on a number of projects having to do with social contingencies (e.g., Mithaug & Burgess, 1968). David Schmitt, of behavior-analytic orientation, joined Burgess in the Department of Sociology in the early 1970s. Burgess left Washington a few years later for Pennsylvania State University. Mithaug shifted from sociology to education, and for a few years was engaged in behavior analysis research at the EEU.

In 1968, Robert Kohlenberg became a member of the Psychology Department at the University of Washington. Over the years he has published applied behavior analysis research on various physiological and ecological topics. His current interest is in functional analytic psychotherapy, a treatment based on radical behaviorism (e.g., Kohlenberg & Tsai, 1991). Alan Marlatt is another member of that faculty who has conducted behavioral investigations. His primary area of interest is with alcoholism and other addictive behaviors. Neil Jacobsen, also with the Department of Psychology, has likewise contributed to our field of behavior analysis. A current interest of his has to do with marital therapy. Both Jacobsen and Marlatt have been presidents of the Association for the Advancement of Behavior Therapy.

Back to the EEU for a moment. Haring recruited Owen White from the University of Oregon in 1972 to assist him on his research. At Oregon,

White had studied and collaborated with several behavioral individuals and was, like several others in Seattle at that time, greatly influenced by Lindsley. Understandably, he was an advocate of precision teaching, conducting extensive research and writing widely on the subject (e.g., White & Haring, 1980). (It is interesting that Lindsley, a behavior analyst of the first order, had far greater influence on the behaviorists at Washington than he had on the behavioral family at Kansas, even though he was at the University of Kansas for about 30 years. Perhaps one reason for that is that whereas precision teaching, his interpretation of applied behavior analysis, fit in nicely with the scheme of things at the EEU, it was generally judged by purists in the field as a somewhat shady method. It may have seemed to them that precision teaching was lacking in the rigors and sophistication of *real* applied behavior analysis.)

Felix Billingsley, another behavior analyst, joined forces with the others at the EEU in the mid 1970s. He has published several behavior analysis articles on methodological issues for youth with severe disabilities. To continue, Ilene Schwartz became a faculty member of the College of Education at Washington in 1991 and has since been associated with the EEU. She was a student of Baer's in Kansas, and her research interests are with preschool youngsters. Schwartz's coming to Seattle has continued the long-standing relationship between Kansas and Washington. Moreover, she will carry on the tradition of conducting behavioral investigations with preschoolers that has been an investigative hallmark of the University of Washington.

There have been a few applied behavior analysts in the School of Medicine at the University of Washington, to go along with those in education, sociology, psychology, and other faculties. In addition to Sulzbacher, Wilbert Fordyce, with the Department of Physical Medicine and Rehabilitation, has directed a number of behavioral studies having to do with the management of chronic pain. Hubert Armstrong and Matthew Speltz, members of the Department of Psychiatry and Behavioral Sciences and affiliated with university hospitals, have conducted and published several behavior analysis

studies. Armstrong's researches have focused on psychiatric day care and self-analysis, and some of Speltz's investigations have dealt with group contingency management.

I don't want to mislead the reader into believing that it has been smooth sailing with respect to practicing applied behavior analysis at the University of Washington since that bunch of brash behaviorists departed in the 1960s. Not true. Those of us who came from Kansas to the EEU took several heavy hits from our university colleagues and the community at large in our early years. Indeed, we still take a slap now and then. I am certain that the others I referred to in this story have been attacked, and have numerous tales of methodological abuse to relate. But I certainly don't believe there will be another coup the likes of the one that sent those prestigious psychologists packing. There are several reasons for that belief. For one, here at the University of Washington we are not all huddled together in one building or department; we are spread out in many parts of the university, even throughout the city. There is still a group of behaviorists at the EEU, a fine collection in psychology, some treasures in psychiatry and behavioral sciences, and a few jewels of our clan in sociology, rehabilitation, and other departments. Another reason for our staying power, related to the first, is that most of the behavioral types around here have found ways to get along with their cognitive, psychoanalytical, and developmental cronies. In most departments, we behaviorists have influenced the nonbelievers, and we, in turn, have accepted some of the ways of our heathen brothers and sisters. Some of this blending of approaches is illustrated in the citations included here. A third reason that behavior analysts will survive at this university, and I believe that to be true in other institutions, is that the professionals of our ilk are more secure with their craft than they were 25 or 30 years ago. Sure, we still compare our treatment with the "traditional" one or another of an "evil empire," but in so doing we are more confident than we were. Also, we are not nearly as preachy and arrogant as we used to be. As a result, the others who are not like us, begin to like us. At

least they no longer hate us and try to muscle us out of our parking spaces and plush offices.

Whether or not the behavior analysts at the University of Washington cluster in isolation or mingle with others is perhaps of little interest to others, for the proof of the process is in the product. Is the world any better off because of the students we have trained and the papers we have published during our long history? I think so.

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