



ELIOT SHIMOFF  
1943–2004

Eliot Shimoff began his first term as a member of the Board of Editors of the *Journal of the Experimental Analysis of Behavior* in 1975 and completed his last term in 1991. He was author and coauthor of articles both in this journal and in the *Journal of Applied Behavior Analysis*. After undergraduate work at Yeshiva University, Eliot entered the graduate program of the Department of Psychology at Columbia University to study sensory psychophysics. His move to behavior analysis was jointly determined by two accidents: *Tactics of Scientific Research* (Sidman, 1960) was passed on to him by a student in another discipline who had expected the book to be about a different kind of science, and mornings on his way to class in Schermerhorn Hall he struck up conversations with Nat Schoenfeld, who arrived in the building at about the same time. As Eliot progressed through his courses, he participated in animal research in Nat's lab at the Franklin D. Roosevelt VA Hospital in Montrose, New York, where he learned to program on PDP8 computers. I, too, was a student of Nat's (Catania, 1997), and according to Eliot, he and I first met when Nat invited me to visit Montrose and give a talk. In 1970 Eliot completed his doctoral degree (Shimoff, 1972) and accepted a faculty position as assistant professor in the Department of Psychology at the University of Maryland, Baltimore County (UMBC). Later promoted to associate and full professor, he remained there for the rest of his career.

At UMBC Eliot started up a rat laboratory. His work was discovered by Byron A. Matthews, a behavioral sociologist who noticed Eliot's electromechanical equipment when he happened to walk by the open door of the laboratory. Soon the rat research was replaced by their interdisciplinary research on human operant behavior (Shimoff & Matthews, 1975). I joined the UMBC faculty in 1973 and before long began visiting their facility. The time we spent together especially increased during the 1974–1975 sabbatical visit of Terje Sagvolden of the University of Oslo, as we explored our mutual interests in human performances maintained by schedules of reinforcement. Eliot's key insight one day, that control of behavior by verbal variables would necessarily make the behavior seem insensitive to nonverbal variables whenever those variables were inconsistent with each other, led us to a series of experiments on the verbal governance of behavior (e.g., Matthews, Shimoff, Catania, & Sagvolden, 1977; Shimoff & Catania, 1998;

Shimoff, Matthews, & Catania, 1986). The students who served as subjects in those experiments came from the introductory psychology course, one section of which Eliot regularly taught.

Eliot's abiding commitment to undergraduate teaching manifested itself in at least three ways. First of all, he was an engaging lecturer and a sought-after advisor; one of the course evaluations from his last year of teaching described him as "awesome." But he probably preferred recognition for treating his classes as laboratories in which commonly held assumptions about teaching could be put to the test. He often collected data on variables that affected his students' academic performances. For example, he found that simply taking attendance improved grades even when students were informed that attendance did not enter into the grade calculation (Shimoff & Catania, 2001). His assumption was the simple behavioral one that students learn what they do, not what they are merely exposed to, so that getting the student to learn more was primarily a matter of getting a student to spend more time on course-relevant activities: for example, attending class, reading course materials, doing computer exercises. His rationale for giving frequent quizzes rather than occasional long exams was grounded on data showing that students spend more time studying in the former condition (e.g., Lloyd, 1978). Finally, he was dedicated to putting available technology to use in improving teaching (e.g., Shimoff, 1998); for example, he brought his expertise on computer operating systems to bear on software exercises and simulations that allowed students in large classes to engage in relevant activities rather than to simply read about them (Matthews, Shimoff, & Catania, 1987; Shimoff & Catania, 1995; Shimoff, Catania, & Matthews, 1987).

Not long after we became colleagues, Eliot and I combined our individual sections of the undergraduate learning course and began teaching it together. Our shared intellectual indebtedness to Nat Schoenfeld no doubt contributed to the ease with which we were able to do this. Over the years in which we taught together, the enrollment in our course gradually rose from about 60 or 80 to as many as 150 or so per semester. Our computer simulations were designed to make up for the absence of an animal laboratory, but whenever possible our course also included demonstrations with pigeons and rats (and humans). In one of those, I worked with a pigeon that had been trained to peck red but not green while Eliot, his back to the demonstration chamber, talked to the class about a pigeon going on green and stopping on red. When the class called the discrepancy to our attention we staged a fight about which of us had gotten things wrong. It culminated in my offer to reverse the performance to the one Eliot wanted. After he claimed that it could not be done within the remaining class time, I did so within 5 or 10 minutes, first by reinforcing pecking in the presence of green and then by using the onset of green to reinforce movements away from the key during red. We asked afterwards whether the students thought our argument had been real; despite some stunned faces early during the demonstration, only rarely did students admit to having been fooled.

Inevitably as time passed, and especially after Byron Matthews took early retirement from the Department of Sociology, Eliot and I spent more time discussing the experiments in the pigeon laboratory. The computers available to the laboratory had evolved from the earliest Apple IIs to IBM PS2s, and Eliot developed and calibrated the software subroutines that allowed the tracking of substantial response rates and the compacting of data while taking maximal advantage of the limited processing speeds and memory capacities at the time. Our technical collaboration quickly expanded to collaboration at the level of research design, experimental procedures, and conceptual issues. After we experimentally had explored various other topics, we came to focus mainly on delay-of-reinforcement gradients (Catania & Shimoff, 1996; Catania, Shimoff, & Kowalsky, 1999), and decided to wait until we had finished a set of interrelated studies to write up the research. The writing of that work for publication has yet to be completed.

By May 2001, Eliot began to be troubled by what turned out to be symptoms of prostatic sarcoma and an associated abscess. His emergency hospitalization early in the summer of 2001 was the beginning of a series of ups and downs that included surgery and chemotherapy and other treatments. He took a medical leave for the 2001–2002 academic year and returned to teaching in the Fall 2002 semester. Eliot was frank about his illness with both his colleagues and his students. He circulated a memo within our department describing his condition and its prognosis; in his introductory course he discussed the topic of death and dying in terms of his

own situation. His openness made it easy to talk with him without continually worrying that one might say something awkward or inappropriate.

Eliot was both orthodox Jew and behavior analyst. He had written on the relation between Judaism and the science of behavior (Shimoff, 1986); these were integrated parts of his life. One day our conversation turned to religion and mortality. He spoke above all of his family and his faith, but we also talked about the fun of teaching and of doing research. He could claim more than ten thousand students who had attended his classes and many more who had used the software we had developed together. He had been paid for doing work that he loved, and in the laboratory we had learned a number of interesting things—at least a few of which were probably worth knowing about. It had been a good life.

In the Fall 2003 semester, Eliot again undertook the teaching of his section of introductory psychology and our team-taught learning course. In the learning course, we did our last pigeon demonstration together. But his worsening condition made it difficult for him to continue and by November he was hospitalized. The remainder of his introductory course was completed by his teaching assistant, Ingibjörg Sveinsdóttir, together with a few of his colleagues.

Eliot Shimoff is survived by his wife, his sister, two sons, two daughters, and a burgeoning number of grandchildren. He died on Saturday, January 24, 2004, his sixty-first birthday.

A. Charles Catania

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