

A STILL GREAT VOICE: THE GOLDEN SOVEREIGNTY OF SCIENCE AND  
HUMAN BEHAVIOR

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*And now, I will unclasp a secret book,  
And to your quick-conceiving discontents  
I'll read you matter deep and dangerous,  
As full of peril and adventurous spirit  
As to o'erwalk a current roaring loud  
On the unsteadfast footing of a spear.*

Shakespeare, Act 1, Scene 3, *Henry IV, Part 1*

Fifty years ago this year, B. F. Skinner's *Science and Human Behavior* (1953) was published by Macmillan and was apparently intended as an introductory psychology text (Bjork, 1993). Those familiar with present-day introductory texts in psychology should be properly appalled that any work as brilliant, focused, and influential as *Science and Human Behavior* (*S&HB*) would be placed alongside the typically insipid, thoughtless, and timidly eclectic picture-books now used in psychology courses at all levels.

While *The Behavior of Organisms* (Skinner, 1938) outlined the major empirical program of behavior analysis, *S&HB* is both the theoretical expression of radical behaviorism and the interpretive extension of empirically-based principles of behavior to every significant aspect of human action and interaction. It is the promise of *The Behavior of Organisms* made tenable through much additional laboratory work and, of course, considerable and creative musing on the implications of that work. Moreover, *S&HB* contains early expressions of much that was to come: *Verbal Behavior* (1957), *Beyond Freedom and Dignity* (1971), *The Technology of Teaching* (1968), the analogies between behavior dynamics and biological evolution, the entire field of applied behavior analysis, and even behavioral pharmacology, to name but a few. To my knowledge, no single work in all of the psychological literature can claim as much. Perhaps its greatest, most enduring contribution, however, is found in Skinner's passionate and powerful argument that behavior analysis belongs with the *natural sciences*—biology, chemistry, physics—with profound implications

that set our field apart from much of mainstream psychology and the other so-called social sciences. The work published in the *Journal of the Experimental Analysis of Behavior* (*JEAB*) over its lifetime of some 45 years is a testament to the character and commitment of Skinner's vision. Thus it is fitting that this journal recognizes the golden anniversary of a work that has been so immensely influential, not only in helping to make *JEAB* possible, but in ways perhaps not so obvious today, keeping it alive.

This recognition project was the vision of K. A. (Andy) Lattal who suggested to me almost 2 years ago that we invite a small set of retrospective reviews of *S&HB*. After some discussion and ensuing history, five eminent participants were selected, all with special histories with respect to *S&HB* as they vividly relate in their essays. Beyond these personal histories, each has a unique take on the book. As far as I know, each of the participants will be seeing the other contributions for the first time as they now appear in print. Given this initially agreed-upon procedure, Andy and I wondered if we might be faced with considerable repetition in the submitted papers; but, as I believe most *JEAB* readers will concur, our concerns turned out to be unfounded.

A. Charles Catania, a powerful contributor to the experimental and theoretical development of behavior analysis (e.g., Catania, 1998), places the experimental analysis of behavior firmly within the biological sciences. He gives special emphases to Skinner's analogy between biological evolution and the action of contingencies in changing behavior,

and, in a larger frame, the evolution of Skinner's formulation of behavior analysis particularly from *The Behavior of Organisms* in 1938 to *S&HB* in 1953.

Jack Michael, one of the field's most persuasive spokesmen and thoughtful interpreter of Skinner's works (e.g., Michael, 1993), provides a personal history describing how *S&HB* shaped his long career as a behavior analyst. His review, as his title indicates, serves as a tutorial in summarizing the key innovations in Skinner's formulation of what a science of behavior should be.

Carol Pilgrim, current editor of *The Behavior Analyst* and a multi-award-winning teacher of behavior analysis presents a most valuable history of the initial and subsequent reactions of the academic community to *S&HB*. As she concludes, this history, in part, shows us the essential role this book should play in introducing behavior analysis to students at all levels.

Some 40 years ago as a young student, João Todorov and his colleague R. Azzi translated *S&HB* into Portuguese (Todorov & Azzi, 1967), and thus he brings a unique perspective on the influence of *S&HB* on the extraordinary and continuing development of behavior analysis in Brazil. He provides valuable commentary on the special role of his colleagues, including, of course, Fred Keller, as well as the political dimensions surrounding the history of behavior analysis in Brazil.

G. E. Zuriff, a major scholar and formulator of modern behaviorism (e.g., Zuriff, 1985), in common with the other reviewers

acknowledges the force of *S&HB* in shaping his own career. His essay focuses on Skinner's assault on dualistic explanations and his revolutionary treatments of the concept of self and the issue of private events.

In my view, *S&HB* is Skinner's clearest, most comprehensive, and compelling exposition of his behavioristic framework. His subsequent contributions over the next 37 years were largely elaborations, if not repetitions, of what he had put forth in 1953. As such, *S&HB* is the best treatment of Skinner's views for students and others, including behavior analysts, who want to understand better what our field is about. As the following reviews attest, after a half-century we still have much to learn from it.

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