



Revista Mexicana de Análisis de la Conducta  
ISSN: 0185-4534  
ISSN: 2007-0802  
editor@rmac-mx.org  
Sociedad Mexicana de Análisis de la Conducta  
México

Lattal, Kennon A.  
Wit, wisdom, and Principles of Psychology  
Revista Mexicana de Análisis de la Conducta, vol. 46, no. 1, 2020, -, pp. 276-281  
Sociedad Mexicana de Análisis de la Conducta  
México

DOI: <https://doi.org/10.5514/rmac.v46.i1.76972>

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## ***WIT, WISDOM, AND PRINCIPLES OF PSYCHOLOGY***

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### **Abstract**

Among the lesser-known legacies of the introductory psychology course for which Keller and Schoenfeld (1950) was created is a famous cartoon. It depicts two rats in an operant conditioning chamber standing near a response lever and a food receptacle. One says to the other, “Boy, do we have this guy conditioned. Every time I press the bar down he drops a pellet in.” This article reveals that the cartoon was created for the *Jester of Columbia*, the campus humor magazine, by two undergraduates who had taken the Keller and Schoenfeld introductory course. In so doing the students experienced the laboratory portion of the course, from which the cartoon derived. Like the cartoon, Keller and Schoenfeld’s textbook offered wisdom about the nature of behavior that has persisted because of its insightfulness and timelessness.

### **Resumen**

Entre los legados poco conocidos del curso introductorio de psicología para el cual se escribió el libro de Keller y Schoenfeld (1950), se encuentra una caricatura famosa. En ella, se muestra a dos ratas dentro de una caja de condicionamiento operante, cerca de una palanca de res-

puesta y al receptáculo de comida. Una rata le dice a la otra, “Muchacho, como le tengo condicionado a este tipo, ¡Eh! Cada vez que presiono la palanca, me deja caer un trozo de comida...” En el presente artículo se da a conocer que la caricatura en cuestión fue creada para la revista de humor *Jester of Columbia*, por dos estudiantes de licenciatura que tomaron el curso de Keller y Schoenfeld. Al cursarlo, los estudiantes experimentaron los módulos de laboratorio, lo cual derivó en la creación de la caricatura. Al igual que la caricatura, el libro de Keller y Schoenfeld ofreció conocimiento acerca de la naturaleza de la conducta, el cual ha persistido gracias a su naturaleza esclarecedora y atemporal.

### **Wit, Wisdom, and Principles of Psychology**

I bought my copy of Keller and Schoenfeld's *Principles of Psychology* (hereafter, *K&S*), one of the original “Appleton Century Crofts” versions with the drab olive-brownish cover with the title enclosed in a small reddish rectangle in the upper left corner, when I was a first-year graduate student in 1964. For it, I paid the princely sum of about \$3.75 US. Today it sits proudly on my shelf of behavior-analytic classics that include a first edition of Skinner's *Behavior of Organisms* and a similar edition of Ferster and Skinner's *Schedules of Reinforcement*. My treasured copy of K&S bears Fred Keller's autograph, which he kindly gave me, along with a personal inscription, when he visited West Virginia University in 1986.

Full disclosure: I have never read K&S cover to cover. Rather, over the years of my long career it has been my go-to resource when I want to know anything about the origins of, or early research on, a concept in behavior analysis. For those purposes, for me, it is second only to *Behavior of Organisms*. Personal examples of this abound. I had independently rather accidentally run across the earliest description of what is now called operant resurgence, an abstract of a 1951 paper by Carey that he had presented at the annual meeting of the American Psychological Association. It was, however, K&S's further articulation of what at the time they called experimental regression that helped

me contextualize and better understand the phenomenon. More recently, when my students and I began researching the extinction burst (Katz & Lattal, 2020; Lattal et al., 2020), K&S was the second source to which we turned (Skinner, 1938, was the first). Sure enough, the extinction burst was not only described, but its description was appropriately qualified with a tacit recognition that the phenomenon may be limited to extinction following low fixed-ratio, particularly FR 1 (what they called “regular”) reinforcement.

My real insights into the value of K&S as a textbook came, however, not from my basic research, which is deeply grounded in the principles of psychology K&S promulgates, but from a rather surprising activity. In researching the history of the famous cartoon shown in Figure 1 (along with a Spanish-language version) (Lattal, submitted), I learned that the cartoon was inextricably tied to K&S. Coincidentally, it appeared in the Columbia University humor magazine, the *Jester of Columbia*, the same year that K&S was published. Before going further with its connection to K&S, a little more background on the origins of K&S is required.

Sometime during the years of the Second World War, Keller and Schoenfeld began planning an introductory psychology based on an assumption that many of their colleagues at Columbia “await only a crude approximation of a systematic text and an integrated curriculum before giving up their older ways of teaching” (Keller, 2009, p. 165). That, of course did not happen, but they nonetheless won approval for the course and in 1946 offered Psychology 101-102, Introduction to Psychology a two-semester course taught from the behavioristic perspective of B. F. Skinner. The systematic text Keller alluded to in the quotation above was at first mimeographed notes that they distributed to the students. Keller noted that “[r]eluctantly, in the school year we [i.e., Keller and Schoenfeld] decided to write our own text, and we managed to turn out, installments, a rough draft which we sold to our classes” (p. 167). The title of the book, *Principles of Psychology*, also was the title given earlier to the first English-language psychology textbook, by Herbert Spencer, and thereafter to the first psychology text-

book written by anyone from the United States – William James's. The title's lineage gives away Keller and Schoenfeld's vision of what they were creating. As had their predecessors' books of the same title, they sought to systematize *all* of psychology under a set of natural-science principles – behavioral principles – that would be taught first and then built upon by the various specializations of modern psychology.

Now, back to the cartoon. Both of the young men responsible for the cartoon enrolled in the two-semester introductory psychology course for which K&S was written, in the 1949-1950 and 1950-51 academic years, respectively. The two also were heavily involved with the campus humor magazine, the *Jester of Columbia*, where the cartoon appeared in 1950, the same year that K & S was published. I speculate that their cartoon was a very clever and thoughtful tongue-in-cheek jab at the rat lab they were required to take as part of the course. Ironically, it turned out to become what remains to this day an iconic image in the teaching of behavioristic psychology. Moreover, isn't it interesting that the course content inspired the cartoonists to think about the reciprocal nature of behavioral control as they portrayed it? Understanding the cartoon's history led me directly to the course that was its provenance, and understanding the course required a more careful and general consideration of K&S, which reflected the substance and wisdom of the course.

Prescient is the wrong word to describe K&S, because they did not anticipate the future of our discipline. They created it – succinctly, expertly, and circumspectly. Consider its table of contents and you see the skeleton of any contemporary introductory behavior principles/concepts and principles course. Unfortunately, that table of contents does not reflect the contents of contemporary teaching of introductory psychology, but it comfortably could substitute for the table of contents of the textbooks used in most introductory behavior analysis courses. Open one of the latter along with K&S's and the examples, unsurprisingly, will be different. It is, after all, a 70-year-old science textbook with inevitably outdated examples, for the research areas discussed in K&S have evolved mightily since 1950 (some more than

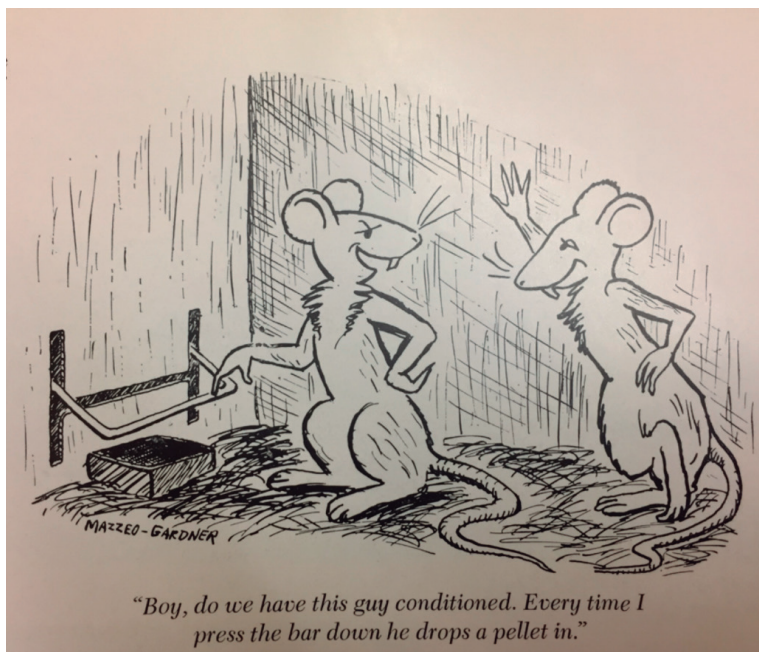


Figure 1. The Columbia Jester cartoon inspired by Psychology 1-2 at Columbia University in 1950 and a more contemporary rendering of the cartoon in Spanish.

others). However, K&S has good bones. It is one of those rare textbooks that is transcendent. It is *the* map that led to contemporary teaching of behavior analysis and that guided many, many students to a rich and useful understanding of behavior. It presented experimental findings that also invited extrapolation of the principles (one of which was cleverly articulated by the student cartoonists) beyond the confines of the operant conditioning chambers that were their crucibles to their application in helping others in education, psychotherapy, industry, health, and many other human concerns. The wisdom of K&S is more enduring and important than even the clever cartoon it inspired. And it was a very good cartoon.

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