

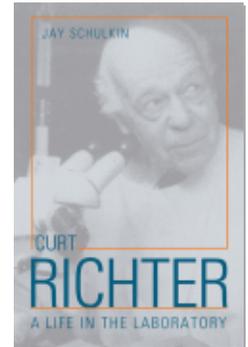


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Curt Richter

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Curt Richter: A Life in the Laboratory.
Baltimore: Johns Hopkins University Press, 2005.
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FOREWORD

The pictures of my two mentors hang in my office. One is Jean Mayer, my thesis sponsor. The other is Curt Richter, whom I did not meet until after my thesis was complete. But more and more, as the years pass, I realize that Curt Richter has been my model for how to do science, how to be an inquirer. I consider Curt Richter to have been the greatest psychobiologist of the twentieth century. He epitomized the approach of finding “big phenomena” (as my colleague, Philip Teitelbaum, describes them), that is, large, striking effects, which he then explored. Over and over again, he discovered something really important, brought it into the laboratory, tamed it with his ingenuity, amazing engineering ability, and great hands, and shed light on something interesting to us all. Richter’s nose for phenomena was his greatest asset. His style was to open scientists’ eyes to something we had not appreciated and give us some ideas about how to investigate it. Then, in most cases, he was on to something else. This breadth is apparent from the very beginning of his career. “His first seven papers (1921–25) deal with determinants of spontaneous activity, biological clocks, endocrine control of behavior, the origin of the electrical resistance of the skin, brain control of the motor system, and a device to aid in the measurement of salivation. All these beginnings developed into lifelong interests. . . . The breadth of this total entry into the scientific literature is so great, that none of his first seven papers refer to any of the others!” (Rozin 1976a).

Richter is the quintessential example of what Jay Schulkin calls “a laboratory state of mind.” As Eliot Stellar described Richter, “It is hard to imagine the joy of scientific investigation unless you’ve witnessed it directly. To see curiosity and humbleness go hand in hand, to see unabashed enthusiasm for new ideas, to see excitement over little achievements that inevitably add up to

a big picture, to see that weather-eye out for the new shape of understanding, all this is to see Curt Richter” (Stellar 1976, p. xi).

There is very little big theory in the Curt Richter corpus, and not much fancy equipment. His striking effects did not require, and usually did not receive, summary statistics, let alone inferential statistics. He just came up with one winner after another. He understood how to use natural pathologies, reproduced in the laboratory, to illuminate the normal state of affairs. He worked seamlessly across physiological and behavioral analyses, always with an idea of how what he studied was adaptive in an evolutionary sense. And he worked steadily, and really hard. His career was uninterrupted by moves of his lab from one place to another. Richter did his thesis under John Watson at Johns Hopkins University and stayed there for his whole life. It is hard to imagine anyone more associated with Johns Hopkins.

Richter’s major theoretical contribution was the idea of behavioral homeostasis, and he provided a massive amount of evidence for it. He brought ideas about constancy of the internal environment (Claude Bernard) and homeostasis (Walter Cannon) into the realm of behavior and psychology.

Richter is like the proverbial elephant explored by small creatures standing on its surface. Few, other than Jay Schulkin, have the full picture. Is it the *same* Richter who invented the activity wheel, pioneered the studies of food self-selection and biological clocks, and studied inhibitory reflexes, taste, domestication, and sudden death? Yes, it is.

Richter is vastly underappreciated for several reasons, not least because he worked on such a broad set of problems. Individuals usually become famous because a lifetime of excellent work connects their name to some major advance, but Curt worked on too many things to make enough of a mark in any one, with the exception of behavioral homeostasis. His genius was spread across three disciplines: physiology, animal behavior/evolutionary biology, and psychology, and this created another intellectual dilution effect. Also, his focus was almost entirely on collecting data and reporting it; he wrote relatively few reviews and made almost no attempts to reach a broad psychology and biology audience. He had very few students because he was a professor in a medical school as opposed to a Ph.D.-granting department, and this in the days before postdoctoral fellowships were common. His influence was through the colleagues he inspired, including Eliot Stellar, Philip Teitelbaum, Alan Epstein, Jay Schulkin, and me.

I have tried, in my modest way, to find big phenomena and to open up new views and opportunities for our enterprise. I am in Richter's shadow, but I am glad to be there and to have been inspired by him.

Richter is a great and unique inquirer. And this book about him is written by another very special inquirer. Jay Schulkin's natural link to Richter is their common interest in mineral appetites, particularly sodium and calcium. Richter was the pioneer in this area, and Schulkin is an eminent student of these phenomena today. Indeed, he has written two books on the subject.

But there are other parallels between these two scientists. Richter was a poor student as an undergraduate at Harvard, someone who did not thrive in the lecture-exam framework, who went at his own pace, and who took off when he had a lab to work with under John Watson. (According to Richter, Watson left him alone and told him to go into the lab and find something interesting. Richter did, producing in 1921 a classic thesis on activity rhythms in rats.) Jay Schulkin was also a nontraditional student. He left high school before graduating and studied with George Wolf at SUNY Purchase College, performing some promising research. I first met him when he came to the University of Pennsylvania to see about graduate work there. He wasn't just a student in the narrow sense of the word but quintessentially a student, an inquirer in the broader sense. Watson let Curt Richter fly, and it was Eliot Stellar who let Jay fly in the anatomy department at Penn. Eliot tailor-made the curriculum for Jay, so he could go through without taking all the academic steps that are usually requisite. And Eliot was rewarded with some first-rate research and collegueship.

Jay collaborated with more colleagues at Penn than anyone I can remember. He coauthored papers with Eliot Stellar, Alan Epstein, Harvey Grill, John Sabini, Jon Baron, and me. Here he departs from Richter. But both were turned off by the classroom and turned on by the lab (Richter) or the world of ideas (Schulkin). Richter continued on as a magnificent loner, with few collaborators at his academic level. Jay is most at home playing with ideas with his colleagues. His empirical work is mostly with collaborators, but his remarkable philosophical ventures and syntheses of literatures are done on his own. Neither had many students. Curt Richter's reprint folder in my file cabinets is one of my thickest. Jay Schulkin occupies a linear space on my bookshelves that few others can equal. I look up right now and see eight books, from an edited volume in 1989 to a book called *Rethinking Homeostasis* (what could be more

about Richter!) in 2003. And now the present book, on Richter himself. Five of the Schulkin books on my shelf are inspired by Curt Richter.

What a natural combination this book is. What a treat for us all, as one delightful oddball tells us about the biggest and best of the twentieth century's oddballs in psychology. The book is the definitive analysis of the contribution and the man, a true labor of love. The great scope of Richter's contribution is available in only two places: the book edited by Eliot Blass, *The Psychobiology of Curt Richter* (1976), and this more thorough, personal, and biographical account. They don't make them like Curt Richter any more. They never did.

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