

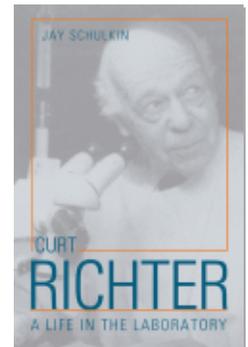


PROJECT MUSE®

Curt Richter

Published by Johns Hopkins University Press

Curt Richter: A Life in the Laboratory.
Baltimore: Johns Hopkins University Press, 2005.
Project MUSE., <https://muse.jhu.edu/>.



➔ For additional information about this book
<https://muse.jhu.edu/book/60340>

Access provided at 22 Sep 2019 11:51 GMT with no institutional affiliation



This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by-nc-nd/4.0/).

Epilogue

A week before Curt Richter died, I traveled to Baltimore with Paul Rozin and Jon Schull (a student of Rozin's, friend of mine, and then a teacher at Haverford College), to visit Richter. It would be the last visit. We three, in addition to many others, are inheritors of Richter's legacy. Even at that time, frail and soon to die, Richter was gracious and ready to interact with us. It was a short visit, but we left feeling warmed by his presence (fig. E.1). Richter had this effect on many people. He had a talent for it.

Guy McKhann, one of Richter's colleagues from the Neurology Department, remarked that Richter always seemed to be exploring or measuring something (G. McKhann, pers. comm., June 2003). And anyone who knew Richter understood that he was not afraid to explore. He lived in a culture that reinforced and cultivated his curiosity. Always, however, Richter was grounded in the practical and the physical. Guy McKhann recalled that when Richter needed to have a pacemaker implanted in his heart, he made sure it was inserted in such a way that it would not interfere with his tennis skill (G. McKhann, pers. comm., June 2003).

Richter had a quiet, reflective side, a side that perhaps did not always come forward. As he neared the end of his life, the biological basis of aging was on his mind. He kept notes on his own experience of aging, such as his loss of vision. When it was discovered that he had retinal detachment, he focused on the organization of the retina and visual acuity. As his friend McKhann noted, when Richter discovered an odd sensation in his finger or another part of his body, he was quick to begin inquiry into the phenomenon (G. McKhann, pers. comm., June 2003).



FIG. E.1. Two young assistant professors, Jon Schull (*standing*) and Jay Schulkin, with Richter shortly before his death in 1988. *Source:* Paul Rozin

Paul McHugh characterized Richter's relationship with Hopkins as "a union of assets" (McHugh 1989). At the start of his career, Richter had integrated well into the medical culture of that new school called Johns Hopkins. There he had encountered Adolf Meyer, whose views about total regulatory behavior, psychobiological adaptation, and clinical integration of a psychobiological orientation made legitimate what would become Richter's sixty-year career at the Hopkins medical school. A number of the colleagues and friends Richter made at the medical school (e.g., E. A. Park, head of pediatrics), would continue their connection with him over the duration of his long career at Hopkins.

Eliot Stellar wrote: "Curt Richer has been my model and inspiration for 50 years now" (Stellar files, University of Pennsylvania Archives). Stellar recalled that he first heard of Richter through his interaction with Cliff Morgan at Harvard, and Richter would remain close to Stellar until Richter's death. Stellar, who became the provost of the University of Pennsylvania, arranged for Richter to obtain a special degree from the university. He always looked on Richter as the "father of our field." Stellar was close to both Richter and his second wife, Leslie, and he wrote to her after Richter's death, "You know how much he meant to me. But I was only one of a whole generation of scientists he inspired" (Stellar files, University of Pennsylvania Archives, December 21, 1988). Hanging in Eliot Stellar's office was a tool Richter fashioned from an umbrella and heavy sock and used to inject and tube feed wild rats (fig. E.2).

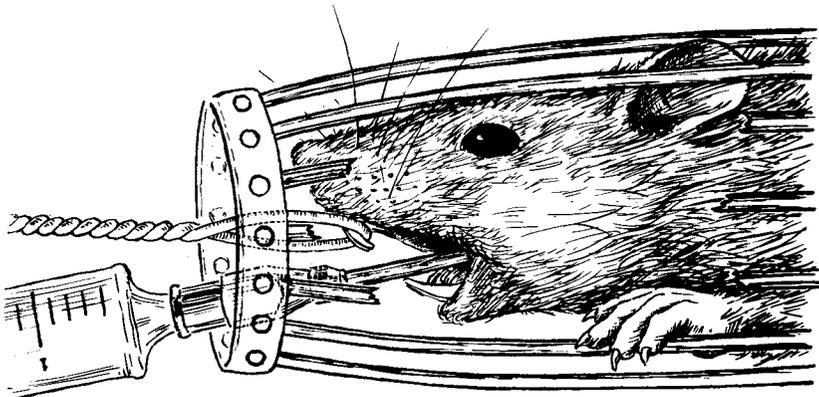


FIG. E.2. Part of an umbrella, used for injecting substances into wild rats. *Source:* Richter 1948c

Paul Rozin said much the same: “Curt is my model in many ways and represents an approach to science which I think I share” (P. Rozin, pers. comm., October 2003). I suspect this is not be an uncommon sentiment among investigators.

Elliott Blass captured the essence of Richter in this depiction of a meeting with him: “The incident occurred on a sunny fall day when Richter and I had an early morning appointment. I was walking along Wolfe Street towards Psychiatry and Curt was walking towards me, athletic, although a little frail. He was immaculately attired, as was his wont, in a gray suit sparkling white shirt and subdued tie and in his right hand was carrying a Have-A-Heart trap which contained a sprightly chipmunk. It all seemed so natural and contained all of the elements that embodied Curt” (E. Blass, pers. comm., October 2003).

Richter’s influence, though selective, did cross the ocean. Derek Denton, from the University of Melbourne, recalled, “I first heard of Dr. Curt Richter’s work when I was a medical student recently arrived in Melbourne from Tasmania in the mid-1940s. In those days, with communications as they were, and Australia relatively isolated, an important event was the occasional talk by a returned traveler telling what seemed novel and exciting in the outside scientific world” (Denton 1976, p. xxix). Denton heard of Richter from one of his colleagues and visited him on several occasions in Baltimore. Denton commented that “overall, in looking at the history of endocrinology during this century, it can be said that in the field of behavioral implications of internal secretions, Richter’s contribution has been outstanding and the unique one” (Denton 1976).

STUBBORN AND TENACIOUS

Richter generated loyalty in those who worked with him and respect from those who understood his science, along with deep appreciation and wonder at the sheer scope of his investigations. It is said, however, that he could be extremely stubborn.

Richter’s stubbornness remains legendary at Hopkins. Many people have related the story of trying to get Richter out of his laboratory space; he was very old but still holding on to the laboratory. Hopkins turned off the heat, and still he remained. Plaster peeled off the walls, and still he remained. The leaders of the Hopkins hospital sent over the young archivist Nancy McCall to coax him out with offers to help him with his papers. McCall was successful, in part because she offered to bring his work over to him and to care for his papers and his laboratory artifacts (N. McCall, pers. comm., August 2002).

Nancy McCall did more than implement the wishes of the Hopkins honchos by extracting Richter from his laboratory; she was truly helpful to Richter at the end of his life. She helped him submit his paper on Meyer to the *Journal of Behavioral Sciences*. The paper would have been published if Richter had agreed to make the apparently minor changes that the editor wanted, but Richter refused, so it never reached publication (McCall 1996; N. McCall, pers. comm., August 2002).

Richter's stubbornness in holding on to his laboratory may have reflected more than just a dogged personality. His papers and laboratory paraphernalia were a prop for him, a way to remain connected to his work and to his identity as a laboratory scientist (T. Moran, pers. comm., August 2002). Moreover, Richter continued to publish and mine the research and to write new papers, particularly about biological clocks, right up until the end of his life. His laboratory represented the paradigm of the laboratory state of mind for Richter, allowing him to stay within the culture of research.

C. S. Peirce emphasized the characteristic of tenacity in a scientist. It takes great tenacity to pursue one's scientific interests (Peirce 1877). The negative side of tenacity is to stubbornly hold onto a hypothesis or engage in a way of doing things even after it becomes unproductive. Richter, like all good scientists, suffered from the negative as well as benefited from the positive aspects of tenacity.

MINING THE DATA

Richter mined his own material throughout his lifetime. His laboratory books were neat and orderly, maintained by a devoted staff who took pride in contributing to science (A. O'Connor, pers. comm., July 2002). His laboratory notes reveal someone exploring, continuously jotting remarks about his subjects; periods of research interests are marked by sustained effort¹ (Moran and Schulkin 2000).

Richter was most productive in terms of publishing scientific papers from the 1930s through the 1950s. He managed to publish even in the 1920s when he was establishing his laboratory. In fact, there is no period in Richter's career, right from the beginning, when he was not scientifically productive. Richter stayed with core issues and experimental manipulations as he expanded into new terrain. He used his resources over and over again.

One does not get the sense that Richter changed his mind about core ideas; what would have made him think that perhaps a range of appetitive behaviors

required various forms of learning? In fact, core ideas or metaphors underlie the behavior of all scientists (Galison 1988). For Richter, the core ideas centered around behavioral adaptation, regulation of the internal milieu, cyclic behavior, and instinctive behavior. Richter set out to demonstrate behavioral competence, the physiological signals that orchestrate adaptation to perturbations in the internal milieu.

A CAREER IN RESEARCH

Richter enjoyed considerable scientific success. Though less known than Cannon, Watson, and Lashley, he scaled to the heights of the American scientific establishment. Psychologists elected him to the most select scientific societies in the country, and he very much enjoyed participating in these prestigious societies.

It should not be surprising that Clifford Morgan dedicated the first edition of his book *Physiological Psychology* (Morgan 1943) to Lashley and Richter, two key people in psychobiological research. One was highly theoretical, the other thoroughly experimental. One dominated an intellectual culture, the other represented the paradigm of a laboratory state of mind. Lashley made fundamental contributions to the intellectual issues of the day and pushed the conceptual envelope; Richter continued to experiment and explore.

By the 1950s, a small but growing group of scientists devoted to understanding the regulation of specific hungers and circadian clocks within psychobiology would recognize the importance of Richter. During the 1950s, Richter was part of a group of investigators, including Pfaffmann, Young, Dethier, and Stellar, associated with setting standards for the preparation of solutions for research in ingestive behavior. Of these, Dethier, Richter, and Stellar were at Hopkins in three different departments: Psychology, Biology, and Psychiatry, respectively. Although many students of psychology might not recognize his name, there remains a large group of scientists all over the world who understand the importance of Richter to the field of psychobiology (Denton 1972, 1982). He was always understood as a serious investigator, serious enough to be nominated for the Nobel Prize and, on his death, to be described, along with Beach, Tinbergen, and Lorenz, as one of “four giants” (Dewsbury 1989).

Richter's contributions to the study of ingestive behavior have been catalogued by many investigators (e.g., Denton 1972; G. P. Smith 1997). In 1980, a conference on the biological and behavioral aspects of salt intake, at the Monell

Chemical Sense Center in Philadelphia, celebrated, in part, the research of Curt Richter (Kare, Fregly, and Bernard 1980).

I dedicated a book to Richter and started a series in honor of him, and several other individuals have dedicated papers and books to Richter. For example, Edward Stricker, a behavioral neuroscientist in the regulation of food and fluid intake and a student of Neal Miller, included the following dedication in his *Neurobiology of Food and Fluid Intake*: “This handbook is dedicated to the memory of Claude Bernard, Walter Cannon, and Curt Richter, whose pioneering work provided the foundation for the modern behavioral neurobiology of food and fluid intake” (Stricker 1990). There is the Curt Richter Prize for Outstanding Research, given by the journal *Psychoneuroendocrinology*, and there is the Curt Richter Chair in Chronobiology at Florida State University, currently held by Friedrich K. Stephans.

Richter continued to win awards, including the Passano Award in 1977, but to the place where he got his degree, he would remain largely a stranger, despite the fact that for several years Hopkins’ Psychology Department had a Curt Richter lecture series (E. Blass, Stewart Hulse, P. Teitelbaum, and Howard Egeth, pers. comm., August 2000).

THE CLOSING OF RICHTER’S LABORATORY

I asked Timothy Moran, who has now been in Richter’s department at Hopkins for close to thirty years and who knew Richter quite well, to tell me something about the closing of Richter’s laboratory. Here is his response:

Here is the story about the closure of Curt’s lab. The lab was still in complete operation in 1975 when Paul McHugh became chair. In 1978–79, Paul and Curt came to the agreement that Curt’s work with animals would stop. That part of the lab was closed and a part of it was converted to an ECT suite for the department. Bob Robinson was given Curt’s running wheel cages and equipment for preparing the standard diet and used them until the late ’80s. The Psychiatry Department moved out of the Phipps Clinic in the spring of 1982, except for the space occupied by Curt’s lab and the small group environment laboratory that Joe Brady had established with NASA support. After about a year, renovation of the building began to convert the space for use by the School of Nursing. During that extensive renovation, there were times when there was no heat or air conditioning in the part of the building that Curt occupied. I don’t remember the exact date that the lab closed but there was a small “celebration” to mark the event. By that time, the

building had been renovated except for Curt's space, and walking into Curt's lab was like going back in time. At the time of the move to the Meyer Building, Curt was offered space in the new building but declined since it was not sufficient space to bring along all his records. He also was offered space during the renovation, but again declined. The Institution was losing patience, as his space was wanted and the delay of closing the lab added significantly to the expense of renovating the building. However, they did allow him to remain through those years and the final closure was with his agreement (T. Moran, pers. comm., July 2003).

But it was a sad day, for Richter's life was embodied by that laboratory.

A CYBERCONFERENCE ON RICHTER

Chesney archivists Nancy McCall, Lisa Mix, and Marjorie Kehoe organized a cyberconference, inviting scholars to peruse and discuss Richter's archived documents. McCall and her colleagues at the archives broke new ground by looking to electronically preserve Richter's papers and notes. Their aim was to make Richter's material available to scientists and to generate interaction among them about this leader in the field of behavioral biology.

The cyberconference was introduced by Paul McHugh, Richter's last chairman and a great admirer of Richter. In his remarks, McHugh said that "Richter was a member of our faculty that we were most proud of here at Johns Hopkins, not only for the important research that he did, but particularly because of the way he did this research, systematically, coherently, and with data collection methods that were impeccable."

The cyberconference can be found on the Internet at www.medicalarchives.jhmi.edu/oldconfer/html/pbl/ricwelcm.htm. There one can read articles by Nancy McCall which lay out some of the history of Richter's laboratory. In "Richter's Long Farewell," a brief article about the closing of the laboratory, McCall notes that Richter wanted to reanalyze some of his data in light of new findings. In this and another article on the Web site, McCall also describes the archived documents and their condition, along with the interesting history of the documentation process.

The cyberconference Web site contains some outstanding articles about the contents of the Richter collection, a history of the Psychobiology Laboratory, possible data, interesting photographs, Watson's handwritten notes on the structure of the laboratory, and a bibliography of Richter. Other articles include two from students of Daniel Todes, a science historian of the behavioral

sciences at Hopkins; one by Jesse Bump on Richter's general interests and another by Christine Keiner on the scientific structure of Richter's laboratory. Lisa Mix writes about the use of the Richter data collection, and Lynne Lamberg has included a piece about preserving the life of a laboratory. Lamberg also published an article in the *Journal of the American Medical Association* describing Richter and the cyberconference (Lamberg 1996).

RICHTER AND THE LABORATORY

Science is often discussed more in terms of the dominance of theory or observation than in terms of the interplay between theory, observation, and the instruments used in scientists' experimentation (see Galison 1987, 1988). Richter was rooted in some core ideas, but his reasoning focused on the experiment and laboratory invention and tools that aided the discovery of experimental facts.

As one colleague of Richter's insightfully characterized him: "Richter was more comfortable on the floor looking at the activity charts than discussing the ideas of the clocks and looking at people" (J. Wirth, pers. comm., September 2002). He is not known to a number of investigators and is often not mentioned in history textbooks when he should be (e.g., Finger 1994). But his legacy as a craftsman scientist will continue. He may not have been a good theorist, or cared to be. He was, however, a primary researcher who influenced a number of biologically oriented researchers, particularly after World War II.

Richter, unlike, for example, Cannon or Meyer, was not a public intellectual, nor did he cultivate a sense of what medical education should mean to students. Public intellectuals Cannon and Pavlov (see Todes 2002) nurtured many students who would become leaders in their fields. Richter's impact is often more circuitous. Many of us in the field, I would suggest, would consider ourselves students of Richter, not because we studied with him directly, but because of his influence on the field of psychobiology.