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EDWIN GARRIGUES BORING

1886—1968

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*A Biographical Memoir by*

S. S. STEVENS

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*Biographical Memoir*

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Edwin K. Borng

# EDWIN GARRIGUES BORING

*October 23, 1886–July 1, 1968*

BY S. S. STEVENS

THROUGHOUT HIS LATER DECADES, Edwin Garrigues Boring had so clearly earned the title "Mr. Psychology" that it became his by popular acclaim. His death in his eighty-second year brought to a close a long and varied career as experimenter, editor, historian, administrator, and counselor to all and sundry. The immense drive that had given energy and surge to all his projects kept him going to the end, even against the ravages of myeloma, with its entailment of fragile and broken bones and its attendant pain and frustration. Seldom has a man fought to stay alive with such zest and humor, or shed such tears of heartbreak over the defeat of the spirit by the failing flesh. To those around him, it was like watching an Olympian brought down.

Boring was born in Philadelphia on October 23, 1886, missing by only twenty-four hours the anniversary he liked to call Fechner Day to commemorate the inspiration that struck the father of psychophysics as he lay abed on October 22, 1850. Boring joined a clan of ten relatives ranging from three older sisters to a great-grandfather and a maiden great-great-aunt. There were strong, vigorous women in the large household and they turned it into a matriarchy laced with high Quaker purpose. Churchgoing and the "plain language" *thee* and *thy*

featured the early years of Garry Boring, as he came to be called. His father belonged to the Moravian Church, but the maternal Garrigues, of Huguenot extraction, set the Quaker tone. The large family lived above and next door to the drug store in which Father Boring compounded prescriptions in partnership with a Garrigues whose granddaughter he had married.

Was it from that family milieu that Boring acquired his high sense of fair play and his determined striving for honesty and objectivity? It is easy to credit the environment. Too easy, perhaps, for by the mere act of noting the family circumstances the biographer half implies that cause has been traced and that personality and temperament stand explained. But what would sociogenesis predict for the youngest child and only son of a druggist, raised in a God-conscious matriarchy? Meekness perhaps? Or submissiveness? Those were surely not the traits of the Boring any of us knew. The genes must have laid the template for the rugged, energetic, dynamic mesomorph whose sheer drive and stamina remained to me an awesome phenomenon throughout thirty-seven years of almost daily association.

We can readily picture the strenuous boy taxing the female household with what was called his "excitability." The women thought him too excitable to send to school until he was nine. Especially when a boy his own age came to visit would the excitement break out. The romping and childish violence would then exceed decorous bounds. He has said that he was starved for playmates, being forbidden to join the boys on the street, but no signs of the apathy of starvation showed up in him. The task of tethering such an energized, muscular youngster could not have been easy.

At last he entered the first grade, oversized and three years senior to the other beginners in the Orthodox Quaker school. He had learned few of the games and sports that most nine-

year-olds have mastered, nor did he have much natural aptitude for coordinated dexterity. His movements all his life were abrupt, energetic, and impetuous. His handwriting was jerky. It was as though more energy was dammed up behind each impulsive movement than his muscles could readily control.

Young Boring's need to excel, frustrated on the playing field, found its outlet in the classroom where he quickly made up the years of schooling he had missed. The capacities of the maturing bright mind had not been dulled by the absence of teachers. Left to himself in play, he had invented his own games and conjured up his own playmates. He discovered the magic of magnetic forces acting at a distance and the mysteries of the electric current. It was a constrained and deprived environment for a spirited boy, but imagination made it rich and energy kept it active.

Winding up his schooldays in a private Quaker high school, he stood near the top of his class and had made an extra-curricular mark on the debating team and the school paper. Boring the writer was already beginning to show.

#### CORNELL UNIVERSITY

Engineering was what he wanted next, although later he knew it would have been physics if he had understood the difference. Anyhow, with his father's support to the tune of \$50 a month, he went to Cornell for an M.E. degree, conferred in 1908, and then on to a job with the Bethlehem Steel Company at 18 cents an hour. Work for pay brought the heady feeling of independence, reinforced by a new-found social life among the young Moravian group in Bethlehem, Pennsylvania. But the threat of a promotion put the real issue into focus. He wanted something and steel-mill engineering was not it. So he quit.

He next tried teaching science in a Moravian parochial

school, but he was then in what he liked to call his 133-pound phase, and discipline broke down when some of the larger boys glued him to his chair with a coat of fresh shellac. The rigors of teaching drove him back to Cornell for an A.M. degree. He might have stayed with physics, but the siren memory of his course with E. B. Titchener, taken four years earlier, led him to the psychology laboratory, where Madison Bentley, then in charge of the animal work, gave him the push of encouragement that toppled him into psychology in the fall of 1910. By February of the next term he had won himself an assistantship at \$500 a year, so he struck out for a Ph.D. degree and captured it in 1914 with a thesis on visceral sensitivity, based largely on the stimulation of his own alimentary canal by means of stomach tubes which he learned to swallow with consummate skill. As one of the required minor subjects for the Ph.D., Boring submitted his physiological study of the regeneration of a nerve in his own forearm, which he had cut in order to trace, in a four-year study, the precise course of the return of sensibility.

The brilliant, outspoken, domineering Titchener fascinated Boring almost as much as psychology itself. Boring set high appraisal on his debt to Titchener, whom he regarded as a close approximation to genius. But Titchener's debt to Boring may stand even higher, for it is Boring's accounts that have brought Titchener back to life and defined the role of his structural psychology—a psychology based on the examination of mental contents under laboratory control. Boring was pupil, Titchener was master, but the pupil with a mind of his own was not really a Titchenerian in the "school" sense, and his despair of equaling the master was no better founded than the many other insecurities that plagued him. The "uncultured engineer" became the more accomplished writer, certainly, for the pupil

was brisk and gay and pointed where the master was solemn and often pedantic. The real difference lay, I think, not in their erudition or their capacities, but in their attitudes. The master wrote for himself, whereas the pupil wrote for the reader. Egoism, as Boring liked to say, is the enemy of style.

An instructorship at \$1000 a year made independence sufficiently secure for marriage. The fiancée of two-and-a-half years' standing, Lucy M. Day, had started psychology at Mount Holyoke College and had taken her Ph.D. degree at Cornell in 1912. The marriage of June 18, 1914, was followed by the first of four children on January 11, 1916, which, being Titchener's birthday, was deemed a happy omen all around.

Then came World War I. The birth of a second son put Boring beyond the reach of the draft, but he wanted to be in on the action. He volunteered and was commissioned a Captain in the Medical Department of the Army, where the big thing for psychologists was the mental testing program, the vast assessment effort that startled the nation by revealing that the average recruit had a mental age of thirteen years. R. M. Yerkes was the ranking officer in charge, and after the Armistice of 1918 he invited Boring to Washington to help compile, analyze, and edit the huge report on the test results.

The war period was an active and happy one for those psychologists, for there was purpose in the air and they had a contribution to make. The days were filled with hard work and good fellowship. The Medical Department was a mounted service, and Boring added to the esprit by riding about his places of business on a horse. He also acquired a high respect for the wisdom and scientific honesty of the mental testers, a coterie held to stand outside the bounds of psychology by the Titchener in-group. In the inevitable arguments that arose concerning the nature of intelligence, Boring was later to cut

through to the core with his sharp operational phrase, "Intelligence is what the tests test."

#### WASHINGTON TO HARVARD

His reputation was growing—"Boring is my best student," Titchener had certified—and options for new jobs opened up. He could have gone to Minnesota at \$3000, but an offer of \$2500 to lecture at Harvard for a year and await the inspection of William McDougall, due from England in 1920, pleased him more. Harvard psychology, vulgarized by Hugo Münsterberg, needed to be dragged back into science and made worthy of its place in the nation's oldest university, or so it seemed. Anyhow, Boring moved his family to Cambridge, but before the lectures began there came an invitation from psychologist-president G. Stanley Hall offering \$3000 a year for a three-year appointment at Clark University. It was a graduate-school appointment, not unlike that held by Titchener himself, and too good to be refused.

All went well at Clark until Hall retired, to be succeeded by a new president to whom geography, not psychology, was the favored discipline. That and the so-called Clark controversy, a brouhaha touched off by the overreaction of the new president to the postwar red scare, led to such a falling out that when Harvard beckoned once again in 1922 the call was answered, this time for keeps. He started as Associate Professor at \$5500. A Stanford offer of \$6500 tempted him, as later did also an offer from Princeton of \$5000, and even an offer to succeed Titchener at Cornell at \$6500, but Boring was determined to stick it out at difficult Harvard where the problem then was to rescue psychology from its near oblivion in the Department of Philosophy. Psychology achieved departmental status twelve years later, in 1934.

His Harvard career was almost stifled at the outset when



Boring, struck by a car on a rainy night, was made to lie in a hospital for six weeks with a fractured skull. The concussion enriched the experience of this omnivorous psychologist, for it gave him the vivid firsthand feel of amnesia. He talked with visitors, but within moments he forgot what he had said. In a book written a decade later he raised the question whether a person who converses intelligently, yet a few moments later has no memory of the substance of the conversation, can be said to be conscious. That query was part of his lifelong effort to analyze the meaning of the basic concepts of psychology.

My first encounter with Boring occurred in 1931. Having forgone my admission to the Harvard Medical School and having registered in the School of Education, I wandered over to Boring's office on the third floor of Emerson Hall to see what the author of a highly acclaimed history book might look like. His rotund bulk—he was 5 feet 7 inches tall and weighed more than 200 pounds—was wedged between desk and typewriter in one of the smallest rooms in the building. The laboratory secretary, her \$1000 salary paid out of Boring's pocket in the early years, guarded the entrance from a niche in what had been a hallway.

Psychology, I learned, was a one-professor enterprise, but what a professor! You sat down and the conversation turned on. A liberal education flowed forth as Boring's erudition illuminated whatever issue arose. Talking seemed on his part as natural as breathing, perhaps the easiest form of breathing, and it was easy for a graduate student to acquire the habit of dropping in with a question or two. But that would not do. Boring was a busy man. He had to defend himself eventually by blowing up at my casual encroachment on his time. That was the first of many blow-ups—and reconciliations—that we were to share. A full head of indignation was a memorable spectacle in a personality of such intensity. But he liked the

man who would have it out, apologize, shake hands, and go on again. You gained nothing with him by abandoning the field of battle.

Boring at forty-five was still giving the "systematic course" in the manner of his mentor, for Titchener, like Wundt, had conceived it the professor's duty to present a cycle of lectures that systematically reviewed the literature and gave the references for all that lay within experimental psychology.

The line of descent from Wundt to Titchener to Boring was more than direct, it resembled successive incarnations—three powerful men who dominated their respective scenes by force of will and sweep of activity. Titchener interpreted Wundt to America, translating his Teutonic volumes and finding himself engulfed in new editions that made the translating start over again. Boring, ever fascinated by the phenomenon of Titchener, interpreted him to the world through sketches and vivid anecdotes. All three men were short vigorous mesomorphs. All three found writing a congenial form of daily endeavor. All three became laboratory directors who did not themselves experiment, but who cultivated the scientific outlook and gave their students that greatest of benefactions: sound criticism of their work.

By 1932 instruction in psychology had outgrown the systematic course, or at least the ability of one man, even a Boring, to give it. For the next few years parts of it were passed around among the staff, with the inevitable uneven success, and then in 1939 the proseminar for first-year graduate students was started. Boring led off with history and systems and other members of the staff came on later. That heavy course, with assignments of about 150 pages per week, kept the incoming students highly motivated for twenty-seven years. As Edgar Pierce Professor Emeritus, Boring continued until 1966 to ap-

pear by special invitation and to charm the younger scholars with his vignettes from psychology's past.

#### HISTORIAN AND DIRECTOR

It was not only Boring's massive erudition, it was also his vivid and concrete style that made his *History of Experimental Psychology* the enduring classic in its field. Boring made ideas stand up and seem to walk as they contended, evolved, and faded in the inexorable march of the *Zeitgeist*. When the book was published late in 1929 it met an eager reception, for the world of psychology knew that Boring was doing a history. The book's foundations had been laid in a summer course that he gave in 1924 at the University of California at Berkeley. He had later taken sabbatical leave for a semester in order to finish the writing job, and had circulated a printed card announcing that, although he would remain in Cambridge, he would be out of reach to visitors.

With the first copies of the *History* in circulation, the mail bulged with enthusiasm. Delightful, delightful, delightful—that word recurred in letter after letter from appreciative colleagues. “Thee does express thyself well,” wrote his sister Alice from her post at Yenching University. What gave delight was the reader's discovery that dull old academic history could be dressed in lively phrases with no sacrifice of erudition.

With a best-selling *History* off the press, the author could have drunk deeply of satisfaction had he not been EGB, who mistrusted his own successes, often rationalizing them as failures. Writing history was library work, not science, was one thought. Boring may now be lost to science was another. And peering out from behind his shroud of chronic insecurity he had a sharp eye for the evidences of his failure to meet his own compulsive standards. I recall that a few years later, with a volume on *Hearing* recently published, I was mulling over one of the

scathing reviews it had received, when Boring sought to comfort me by showing me a review of the *History* that had quite deflated him a few years earlier. It was an enormously long and detailed review and it seemed to me generous withal. But to Boring it seemed a list of his blunders, and he found no solace in the reviewer's praise.

The 1920s and 1930s were the edgy, competitive decades. The focus of Boring's boundless drive was then on personal achievement. He hoped for a smashing success, but seemed somehow to stand half in fear of it, for how would he be sure it was genuine? Yet he chafed when the philosophers in the Department, there being no psychologist to judge him, let him remain for six years as an associate professor while his peers elsewhere were moving up. He fretted over the impossibility of knowing who was boss of the Psychological Laboratory until H. S. Langfeld moved off to Princeton in 1924 and Boring was made director. He fussed about there being only half of L. T. Troland at Harvard, while the other half was trying to put color into motion pictures at the Technicolor Company. Then Troland died in 1932. At the beginning of the Harvard period, William McDougall was on the scene, senior by some fifteen years to Boring, but McDougall seems to have kept his distance and finally to have fled to Duke University in 1927. With McDougall gone, psychology at Harvard could have hung out a sign reading "EGB, prop., 80 hours per week," for Boring was now in full charge and his work schedule equaled that of two men.

Life was not placid on the third floor of Emerson Hall with the 80-hour week setting the standard of effort, and with a compulsive need for well-planned order dictating the operation of curriculum and laboratory. Some people resisted the organized, meticulous demands of a director who filled the calendar with weekly staff meetings—woe to him who should miss one!

—and who kept elaborate accounts, balanced to the penny, both for the laboratory and for his own funds. When he was called upon in later years to verify something connected with his income tax, the men in the tax office stared in disbelief at the detail of his records. Others in the laboratory found fascination in watching a whirlwind of energy exert a breathless push to keep up with all the jobs that can pile in on a willing academic. For Boring was generous with his energy, spending it freely on students and colleagues, dispensing counsel, rewriting their paragraphs, advising them about courses, and finding them jobs and opportunities.

But over everything hung insecurity. Becoming president of the American Psychological Association in 1928, the year he became a full professor, seemed but a natural and just reward for years of service as secretary and council member. Election to the National Academy of Sciences in 1932 brought a burst of pleasure, but it did little to dampen the pervading sense of urgency, the goading and the gnawing. The gnawing was there in a literal sense, for his duodenal ulcer periodically ate its way through to hemorrhage and landed him in bed with internal bleeding. Frequent eating to quiet the ulcer had become the regimen following the unpleasantness at Clark University, and the Boring of 1930 weighed almost a hundred pounds more than the Boring of 1920. Until forbidden by medical fiat, his chain smoking had littered the laboratory with ashes and empty cans. He bought Lord Salisbury cigarettes 5000 at a time, packed 100 to a round tin. Those cigarette cans served many purposes around the laboratory, everything from ashtrays to parts bins and apparatus stands. Boring again took up smoking later on, this time in order to prove that he was master and could take it or leave it as he chose. Shortly thereafter he gave it up for good.

Book writing seldom lay for long in the background. After

the *History* came *The Physical Dimensions of Consciousness*, a treatise designed to show how psychology can get along without the traditional cleavage between mind and body—including the dualistic cleavage inherent in Titchener's psychophysical parallelism. Although the book showed that Boring in 1932 had departed far from the Titchenerian tradition, it was not so much a declaration of intellectual independence as an effort to achieve clarity for the meaning of the basic terms of psychology, terms like consciousness, sensation, and the rest. It was then, in 1932, that Boring paid me, a green graduate student, the high compliment of asking me to read the manuscript. Chapter by chapter I worked through it, a bit overeager, perhaps. We discussed many issues at his bedside, for the ulcer was acting up again. Neither of us, it seems, was wholly satisfied with some of the arguments. Boring knew whereof he sought escape, but at that stage he was too entangled in his past to effect a clean restatement. I sensed what he was driving at, but I was too inexperienced to see how the text could be made to strike closer to the target. Boring was later to call it his "immature book," one that was written a couple of years too soon, for some of the research that he was directing was soon to clarify the relation between tonal sensation and its four attributes: pitch, loudness, volume, and density. Then in 1935 a series of papers on operationism began to appear, and it now seems clear that an operational restatement of psychology's basic concepts was Boring's real aim. The papers appeared under my name, but it can be proved from page upon page of editorial criticism that large segments of those papers were generated more by Boring than by me.

#### CRITICISM

It is hard to portray the vigor and thoroughness with which Boring would criticize and rewrite the amateurish manuscripts

of some of us beginners. Take as an example my 1935 paper on "The Operational Basis of Psychology." The final draft, the fourth, ran to 4000 words. Not counting his handwritten emendations in each revision of the text, Boring's comments and criticisms ran to 8000 words. You were not always favored with a 2-to-1 ratio, but in that instance the paper needed a double-barreled blast. Let me cite a few excerpts from those yellowing sheets of critical comment, for they show what an apprenticeship under a sharp and unstinting master could be like.

"p. 1, 2, 3. Drivel and hot air. Every psychologist knows all about this. Who wants to listen to you say it all over again.

"And condense! You write as if words were cheap. Young authors ought to have to pay \$8 a page out of their own pockets for publication. Then they'd learn to make words count.

"p. 6. You must cut out the flamboyant. Example: 'One wonders why an urgent reform of this sort came through physics when psychology needed it so badly.' (a) You have no time for daydreaming and wonderment when composition costs somebody \$5 a page. (b) You have to be pretty ignorant to do any sincere wondering. Psychology is a crazy little new hick science, and the idea that a general scientific reform affecting physics would come through psychology is preposterous.

"The First Person Singular. You use *I*, *my*, *me* in the part I have deleted. Let me lay down the law.

"The FPS is egoistic. There is no harm in egoism; it is one of your personal assets and it furnishes you with your personal drive. But, like the sex instinct, you have got to suppress it in public, except when you sincerely think it is wanted."

"First let me talk about the nature of the job of criticism. I have spent 10 hours on what I present to you up to here . . . in my study, behind a closed door, with the warning signal on outside, and in concentrated, rather nervous (and I am afraid

you will think irritable) attention. I want you to know just what you ask for when you ask for criticism.

“Do I have to go into such detail? I do not know how else to do it. To tell you that you are verbose does no good. I told you that about your introduction and you wrote another just as bad. To say ‘be succinct,’ etc., means not enough. Such tricks have to be illustrated, and therefore I have to get the mood of a paragraph every now and then and write the paragraph for you. (I suppose an artist teaches painting in the same difficult way.)

“I want you to come near exhausting your own skill before you come to me for this sort of aid.”

A later paper on operationism, this one aimed at the journal *Philosophy of Science*, evoked only some 2000 words of criticism. Boring finally approved the paper, but he warned about the reaction to be expected from the philosophers on the first floor of Emerson Hall. His final paragraph read:

“It is a good paper. But I have this slight reservation, because I know it is epistemology and that neither you nor I is an epistemologist. And I have observed that my brightest and best epistemological ideas meet nothing but yawns from my colleagues below decks. I never know why. I still think I’m bright, but I know they do not; and so I distrust myself. But in writing to other dumbheads (= psychologists) I am not inferior; I know I seem bright to them. So why not you too?”

That was in September 1935. In October Boring was deep in one of his recurrent tussles with Gestalt psychology. On October 8 he wrote me a brief note.

“What a time I am having with Koffka. I promised to review him [for *Psychological Bulletin*], and for the last ten days I have done nothing but read and make notes. Meanwhile I chafe because I do not get to something more important. I have just this minute finished p. 528 and am 77% done. This is dull,



tedious; but I itch to write the review. I hope to say something about Gestalt psychology which is really informing, and also something general about system writing.

"I write to preempt you as chief critic. . . . You and I have a common systematic faith. (Operational definition of many of Koffka's terms would ruin him.)

"You are drafted then. Wait on me! I don't know when. But this is to work you up to the right humor."

Four days later, on Saturday, October 12, he sent me the review together with a note:

"Well I got through reading Koffka Thursday, wrote this review hot yesterday [Friday], revised it today, and now it's ready for you. I did not expect to be this far so soon. After almost three weeks struggling through the book, it did not seem possible to write the review [5300 words] in a day; but I did, finishing it at 1 AM.

"The review is not so important as I had hoped it would be. I was going to discuss the fundamental principles of system-making and apply them to Gestalt psychology, and do some other nice things of that sort. The present length of the review made me abandon that plan, and it would not be fair to take the stage from Koffka, since a review should primarily depict him. So you need not look for epoch-making paragraphs, because they are not there."

On the contrary, the review produced some great paragraphs, or so it seemed to me, especially as it subjected some of Koffka's concepts to a well-reasoned test of their operational meaning.

#### COLLABORATION

Despite all the rewriting and reworking of papers that we managed on each other's behalf, our names appear together on just two papers, only one of which was a scientific effort. It was a point of honor with Boring that he would put his name

on a paper only if he was the major contributor. And how he scorned those senior workers who use their position to force their names onto the papers of their juniors!

Our one collaboration, in 1935, concerned the problem of the auditory attribute called tonal brightness. It was Boring's idea that with the laboratory's newly acquired miracles, a cathode-ray oscilloscope and a sharply tuned wave-analyzer, we might be able to settle a long-standing question concerning the bright and dull tones that can be produced with a siren whose holes are appropriately spaced. What we found was that tonal brightness turns out to be essentially the same as tonal density, but that is another story. The point here is that, when we came to write up the experiments, Boring disclaimed co-authorship, saying it was my expertness with the apparatus that produced the results. I argued that his were the ideas that initiated and guided the study, and I vowed to do nothing about publication if I had to do it alone. With the argument deadlocked, and both of us in a stubborn humor, several weeks passed before Boring, who could tolerate no job unfinished, dropped by again one afternoon and said, "See here, aren't we being childish?"

Boring never quite abandoned his hope that he could make a student what he called literate, meaning capable of conversing in writing. Notes, comments, observations, instructions, banter of all varieties streamed from his typewriter on small scraps of paper, or the backs of old library cards. We would find them in our pigeonholes at the top of the stairs. Boring wanted us to reciprocate, of course, but my own painfully penned missives were cramped and few. He said I should learn to type. I did. I typed several papers and the better part of a book, but whereas Boring could sit at the typewriter bolt upright, looking more than anything like the classic portrait of Brahms at the clavier, I slouched and slumped and finally slipped back into

longhand. Boring, a 4-5-2 on the somatotype scales, was too low in the third component to empathize fully with introverted impediments.

If I dwell on these personal relations, it is to try to exhibit the full dimensions of the versatile, strenuous, high-principled Professor of Psychology. Graduate students or instructors could seldom gather for five minutes before the conversation turned to the latest doings or sayings of the Chief, as he was then often called. He loomed so large in the life of the laboratory that all else shrank by comparison. It seemed to me then that he could do anything, achieve anything, if only he would stop worrying about all the details. But worry is the hallmark of insecurity and frustration.

By his forty-seventh year, Boring stood ready to try any remedy that promised relief from his deep sense of defeat, even psychoanalysis, with its five sessions per week and its threat of added financial insecurity. Unsatisfied with the first analyst he tried, he turned to Hanns Sachs, a kindly soul who reminded him of Titchener. Boring was never sure that psychoanalysis gave him his money's worth (cost: \$1680, at half price), but the harm done was at least no more than pecuniary. Watching from the sidelines, I could detect no obvious changes as he threw himself into one job after another with his full frantic vigor. Some years later, in a published symposium, both he and his analyst undertook to analyze the analysis. Both analyst and patient acknowledged that the personality emerged unchanged.

#### PSYCHOLOGY ONE

Prominent among the annual chores was the introductory psychology course. "Psychology One" it was destined to be called when television taped it in 1956 in order to charm and instruct its audiences. As course assistant in the 1930s, I witnessed the

careful planning and the intense concern that went into each lecture. There were many great moments in the course. Boring's mimicking of the expressions of emotion as outlined by Darwin was one highlight, and no one could outperform his portrayal of the complete shrug. The renowned indifference of the Harvard undergraduate disintegrated under the gay onslaught of a short, bear-shaped man bubbling with facts and ideas, the whole of it spiced by demonstrations. The large lecture room known as Emerson D was usually full to overflowing, and the batting average ran around .500 for a burst of applause at the end of the hour.

Solid stuff went into Boring's lectures: the basic physics of light and sound, the structure and physiology of the sense organs, the principles of perceptual constancy, the illusions, the facts of learning, the nature of reflex action, the physiology of emotion, and many other topics that taxed the understanding of the undergraduate.

Although he had small regard for the writing of elementary texts, a distraction from the main business of science, he collaborated with H. S. Langfeld and H. P. Weld in the editing of a series of textbooks, widely known as the BLW texts. They were pitched at a level that challenged undergraduates in the Ivy League and the other colleges that have relatively high standards of admission, and they sold well in those places. But they represented no newsstand psychology. The first volume, appearing in 1935 and called *Psychology: A Factual Textbook*, gave no quarter in its attempt to marshal what psychology knows, as opposed to its opinions and its conversational theories. A new text, much rearranged, appeared in 1939, and a final one, greatly enlarged, appeared in 1948. Although the separate chapters of the various BLW's were contributed by specialists, their drafts went through the homogenizing process of a Boring-

type editing, so that the final text had a uniformity of style seldom achieved in a collaboration.

During World War II Boring turned his skills to another group endeavor—the production of a popular book on military psychology, one that might speak to the common soldier. Now, a man of Boring's perspicacity could see that no level of "academic" writing, no toning down or talking down, would capture attention and keep the soldier reading if he picked up the book in a Post Exchange. It had to be done in a popular style, in the true meaning of that term. It demanded short sentences, concrete examples, brisk paragraphs, all of it talking straight to the reader. Few academics can switch from one style to another, but through two editions of *Psychology for the Fighting Man* Boring teamed up with a science writer and proved his ability to command a style that peddled the facts of psychology through the sale of some 380,000 copies. The royalties accrued to the sponsor, the National Research Council.

At the other end of the audience spectrum stands the specialist in a scientific discipline. When you write history for his eye, the style may safely move up the scale of difficulty, for the expert will pounce on the fact rather than the expression. Boring's often-expressed diffidence about tackling the history of the experimental specialties in psychology rested on his conviction that his knowledge could not equal that of the devotee. Nevertheless he resolved to try his hand at the history of sensation and perception. The book was delivered in 1942 to a world at war and little concerned with scholarship. Never very popular by market standards, the book has nevertheless proved its usefulness. The specialist rejoices to have it at hand.

#### NEW VENTURES

In 1949, having completed twenty-five years as director of the Psychological Laboratory, first in the top floors of Emerson

Hall and, after 1946, in the basement of Memorial Hall, Boring persuaded the Dean to accept his resignation. Thereupon began what by his own judgment were to become the best years of his life. The tasks ahead were the things he liked best and did best. In his sixties and seventies his successes finally caught up with his aspirations, but without seeming in the slightest to diminish his drive or to blunt the edge of his ever-probing curiosity.

In 1950 there appeared a new and much enlarged edition of the *History of Experimental Psychology*, whose first edition had appeared in 1929. The new volume became a classic, replacing a classic, for in the new edition Boring showed even more clearly how the *Zeitgeist* operates on Great Men, and how they in turn lend their names to the forward steps of science, providing the tags with which we learn to sort out and remember history.

The purchase in 1951 of an old farmstead at Harborside, Maine, where the Borings had for some two decades been regular summer visitors, was the beginning of a happy, active rustication that filled the summers with the challenge of endless projects indoors and out, and provided a study where Boring's indispensable typewriter and dictation machine could be kept busy at least half the day. Children and grandchildren enlivened Harborside, and Frank Boring, like his father also a psychologist, became the sailor of the family.

Another challenge that spiced his seventies was the founding and editing of *Contemporary Psychology*, a journal devoted solely to book reviews. Seldom has a fresh venture started life under such competent ministrations. Certainly, few new publications could boast a greater accumulation of editorial experience—or sagacious good sense. For in addition to all his other "editings," Boring had for thirty years served in one or another capacity as an editor of the *American Journal of Psy-*

*chology*, the world's oldest journal in the field. But the challenge of the new publication lay not so much in editing per se as in molding a new medium to a high criterion of urbanity and interest. The tone was set on the editorial page, "CP Speaks," where psychologists were treated to editorial pronouncements that blended Boring's brand of wit and wisdom. Boring found it great fun, so much fun that he suffered keen disappointment at the end of his six-year term when his age of seventy-five was judged too great for appointment to another term. As it turned out, he would have made it through, just barely. Instead, he turned to other business, mostly writing, editing, and lecturing.

And of course there were honors to be received. Clark University, whose president had rebuffed him in 1922 as a supposed subversive during a red scare, invited him to return thirty-four years later for an honorary degree. The next year, 1957, the small, select Society of Experimental Psychologists, of which Boring was a charter member, held a special dinner in his honor, an occasion on which contributions from many students and colleagues were presented to Harvard to start the Boring Library Fund. "Thank you all," he wrote, "not only for what you have done, but also for not waiting until I was dead!" That was the year of his retirement, but only in the sense that he dropped from the regular payroll. Activity did not falter, and when the psychologists moved into the new William James Hall in 1964-1965 he was given space and facilities with which to carry on.

A grand occasion for him and all his many friends was the American Psychological Association meeting of 1959 when the Gold Medal was bestowed upon him as a "psychologist whose lifetime career has made a truly distinguished contribution."

#### PERSPECTIVE

Boring managed to be all things to psychology, perhaps the last great universalist of the profession, beloved by biotrope and

sociotrope alike. "Mr. Psychology" he was indeed, with energy and interest to lavish on every aspect of his calling. He performed its humblest chores and held its highest offices. He excelled as teacher, historian, critic, editor, expositor, and statesman. It was he who in 1943 chaired the committee that put the American Psychological Association together in its present unified form. And his effectiveness extended beyond psychology, to such things as the chairmanship of the Publications Committee of the American Philosophical Society, to which Boring was elected in 1945.

"A hodgepodge of a life" was his modest phrase for it, and such it might seem if we focus only on the catalogue of his pursuits. Why, his letter writing alone would fill the working day of any ordinary man, for he conversed with psychologists the world over—a stream of correspondence that ran to about a thousand letters a year, with seldom a letter of only one page. Many of those letters contain masterful discussions of a principle or an idea. Many glow with warmth and gay humor. All are literate.

A hodgepodge indeed! Many facets perhaps, but a constellation of polished facets is what makes a gem.

Take any facet of Boring and it shines. His prodigious output touched so many people in such varied ways that his public enjoyed no single consensus regarding the true nature of the man. There was Boring the incisive biographer, Boring the champion of women in psychology, Boring the maker of aphorisms, Boring the resolver of the moon illusion, Boring the defender of justice, Boring the advocate of scientific controls, Boring the philosopher of science. The list goes on and on. Where is the unity in all this? What structure held the facets of the gem in place?

A tremendous human being stood behind those many manifestations, the kind of human being that nature does not



often contrive as it sorts the genes into the configurations that determine the shape of life. It seems most unlikely that a person like Boring could have begun as an empty organism (to use his phrase) waiting for experience to wire it up for action. His was a constitution highly endowed with muscle and brain, and with a vast capacity for intense feeling and deep emotion. Credit the environment for the content (but not the quality) of his thought. Credit Bentley for enticing him out of physics and into psychology. Credit Harvard's need of rescue for his many years in Cambridge. Such are the accidents that shape the content, but the happenstance of existence provides no explanation for the enduring invariance of energy and action that we witness in Edwin Garrigues Boring.

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## KEY TO ABBREVIATIONS

- Am. J. Phys. = American Journal of Physics  
 Am. J. Psychol. = American Journal of Psychology  
 Am. Psychol. = American Psychologist  
 Am. Scientist = American Scientist  
 Contemp. Psychol. = Contemporary Psychology  
 J. Abnormal Social Psychol. = Journal of Abnormal and Social Psychology  
 J. Hist. Behav. Sci. = Journal of the History of the Behavioral Sciences  
 Proc. Am. Phil. Soc. = Proceedings of the American Philosophical Society  
 Proc. ——— Internat. Congr. Psychol. = Proceedings of the ——— International Congress of Psychology  
 Psychol. Bull. = Psychological Bulletin  
 Psychol. Rev. = Psychological Review

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