

Recollections

Prompted by reading Judith Goodstein's history of Caltech, Millikan's School, Jack Allen wrote to the Goodsteins with some historical anecdotes of his own. Like his old friend David Goodstein, Allen was in low-temperature physics. He came to Caltech in 1934, where attempts to liquefy helium were not successful, whereupon he went on to Cambridge University, where he co-discovered superfluidity in liquid helium. Before he retired, he was chairman of the physics department at St. Andrews University in Scotland. Along the way he encountered a number of the major figures in 20th century physics, including some of Caltech's best and brightest, whom he observed with a keen appreciation of the absurd. He has graciously allowed E&S to publish some of his recollections, presuming that none will invite legal objection.

When R. A. Millikan was still in Chicago, he was working late one night and then walked home across the dark campus. On the way a chap bumped heavily into him. Millikan thought he was being mugged. He felt for his watch in his upper left waistcoat pocket and felt nothing. He grabbed the man, shook him till his teeth nearly fell out and shouted, "Give me that watch!" The chap, now terrified, gave him the watch and ran away. When Millikan got home, he found he had two watches.

Another story about Millikan concerns his attempt to find out the nature of cosmic rays. He had a nice

waterproof, gold-leaf electroscope and wanted to test the absorption of the rays by water at different latitudes. The farthest north was to be James Bay, part of Hudson Bay. On the way he stopped in Toronto and hired a rowboat to do a test in the Toronto harbor. Unknown to him, J.C. McLennan of the University of Toronto (who was there when I got my PhD at Toronto), was doing something similar; the nature and origin of cosmic rays was a hot subject in the early twenties. McLennan also had a rowboat and an electroscope, and by chance they were both in their boats in the bay at the same time. They were both hot-headed and keen on priority. So, with neither telling the other what they were doing (although they knew perfectly well), they each proceeded to try to ram the other's boat. After one or two bumps they decided it was unrewarding to pursue, so they parted, still saying nothing.

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Theodore von Kármán had a great sense of humor. He liked to show that the Kármán street of alternately right- and left-handed vortices is what makes flags wave in the breeze—among other things. He claimed to have the highest frequency of car collisions in California, and was of the opinion that the distance between successive collisions could be treated as a mean-free-path problem in kinetic theory.

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Richard Tolman was chairman at a conference I once attended at Stanford. One speaker was of Chinese origin and had a name spelled something like Hyem Hsieh. Richard looked at the paper, hesitated a minute, and then introduced him: "We will now have a paper on . . . by, hmm, by Dr. YMCA."

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I only got to know Werner Heisenberg after the war when I got him to come and give us some lectures. At a celebration dinner at the end, he gave a little farewell speech, telling us how he became a physicist. He had intended to study math, and, in those days, to enroll in the University of Munich, one had to go to the professor and ask to be admit-

ted. He went to the math professor's office and sat across the desk from him. Unknown to Werner, the professor's dog came in each day and slept under the desk. Werner, changing position, moved his leg and caught the dog, who snarled and nipped his ankle. Werner jumped up in pain and ran from the room, chased by the dog. He sought refuge in the room of the professor of physics—that was his story. I liked him enormously and we kept up New Year's letters for years until he died.

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Niels Bohr went to America in the early years of World War II. Once, when he was incognito, riding the elevator to his secret office in a New York building, Bram Pais also happened to be in the elevator. He said, "I'm pleased to see you, Professor Bohr." Bohr replied, "You must be mistaken; I am Mr. Black." Then he said, "You must be Dr. Pais," to which Bram replied, "You are mistaken; I am Mr. White." Then they chatted together. Another story about Bohr involves Rutherford's funeral. Bohr was an official mourner at the ceremony in Westminster Abbey and had to wear a top hat. He had a very large head, and it was only after a long search in London costumiers that a top hat big enough for him was found.

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In about 1950 I attended a lecture given by Max Born in London. During the question period Maurice Pryce asked a rather impolite question (he was like that). He said something like, "If you had been born yesterday, I could have understood your statement about. . ." Max replied, "I *was* Born yesterday; I have always been Born."

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Erwin Schrödinger gave the closing talk at the low-temperature conference in 1946 in Cambridge. He remarked that it was such a pleasure that everyone gave their papers in English. Why, even Walter Heitler and Fritz London (then both at DeValera's Dublin School of Advanced Studies, which aped Princeton's) had refrained from using their native Erse. It brought the house down.