Roger Wolcott Sperry
Nobel Laureate 1981

On October 9 Roger Wolcott Sperry, Caltech’s Hixon Professor of Psychobiology, was awarded the 1981 Nobel Prize in Physiology or Medicine for his discoveries concerning “functional specialization of the cerebral hemispheres.” His work with split-brain patients, whose nerve fibers connecting the halves of the brain had been surgically severed, provided evidence that each brain half has its own perception, memory, and consciousness. Each hemisphere has its own character and function — the left half being verbal and mathematical and dealing with analytic and sequential reasoning, while the right half is spatial, conceptual, mute, and specializes in visualization and creativity. Sperry’s research has shown that the functions of the right hemisphere are as important as those of the left, which had long been thought dominant. The greater understanding of the brain resulting from his work has relevance to education and philosophy as well as medicine.

Sperry’s general field of behavioral biology (much less psychobiology) did not exist at Caltech in 1938 when Mrs. Frank P. Hixon established a fund in her husband’s memory for studies of “salient and fundamental biology directly concerned with human behavior.” Although she had been uncertain that money given to Caltech for her original purpose of “the correlation of mental or spiritual training with the scientific” would be fruitful, Mrs. Hixon was persuaded by Max Mason, then a member of the Caltech Executive Council. He wrote her that “this unique place” was just the right one to pursue fundamental scientific knowledge of behavior — that in the long run it was most promising to direct “the great forces of natural science into the new science of Man.” Mason’s foresight was confirmed when in 1954 a faculty committee headed by George Beadle brought Roger Sperry to the Institute to occupy the Hixon chair.

Sperry brought an already substantial reputation with him. Born in Hartford, Connecticut, in 1913, he attended Oberlin College (which also produced Robert A. Millikan, Caltech’s first Nobel Prizewinner) where he was captain of the basketball team and also played varsity baseball, football, and track. He was quoted at the time he entered college as hoping to specialize in some area of science or medicine if he could find something of sufficient interest. He received his BA (English) from Oberlin in 1935 and MA (psychology) in 1937. In 1941 he earned his PhD in zoology from the University of Chicago, also another way station in Millikan’s career. Sperry spent a year as a National Research Council Fellow in biology at Harvard and from 1942 to 1946 was a research associate at the Yerkes Laboratories of Primate Biology. During the war he also served as consultant to a government research project on the surgical repair of nerve injuries. He returned to the University of Chicago as assistant professor of neuroanatomy in 1946 and became associate professor of psychology there in 1952.