

Caltech: 100 years of discoveries

Perry studies brain 'hemispheres'

Scientist's research won him the Nobel Prize

By Jane Gillett
Staff Writer

What we think and feel and experience affects how our brain functions.

The two hemispheres of the brain operate autonomously and each performs specialized functions.

These two facts are commonly accepted by scientists today. But as recently as 10 years ago, the "split brain" research that psychobiology professor Roger Sperry began at Caltech in 1954 was considered by many scientists to belong in the realm of philosophy and mysticism.

Sperry's discoveries have revolutionized the way medicine, education and psychology understand the brain. In 1981, his research won him a share of the Nobel Prize for medicine.

Scientists recognized the two halves of the brain functioned differently before Sperry's research, but considered the right hemisphere virtually useless.

"The classic view in neurology that the right half of the brain is word-blind and word-deaf, as well as mute, and generally retarded and lacking in higher thought has had to be revised," Sperry told the Star-News after winning the Nobel Prize.

A quiet researcher who often worked

alone, Sperry discovered that the brain's left hemisphere performs analytic and higher verbal and mathematical skills, while the right side is more holistic and copes better with spatial relationships. The right side of the brain is the home of artists, while scientists, lawyers and writers make more use of the left side.

In the late 1960s, he began to break away from the traditional scientific view that the brain functions solely through the work of nerve cells and biochemistry.

Sperry determined that conscious thought actually plays an active operational role in brain function. By the mid-1970s, his discoveries had gained wide acceptance among the behavioral and human sciences and became known as the "consciousness revolution."

In a 1987 article in a campus publication, Sperry told of the "terrific reception" his new consciousness view received at a 1965 lecture at the University of Chicago, where he earned his doctorate. When he gave the same lecture that year at Caltech, it went over "like a lead balloon."

"Occasionally I've heard surprise expressed that this sort of thinking — which is often interpreted as an intrusion of philosophy into the sciences —

should arise at, of all places, Caltech," he said in the article.

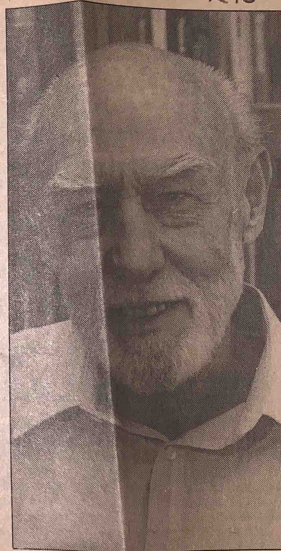
In recent years, Sperry, now 78, has been absorbed with the philosophical implications of how the consciousness revolution affects morals and values and influences "how we run the planet," said Polly Henninger, a visiting associate in biology at Caltech who studied under Sperry in the early 1980s.

Henninger recently returned from the national conference of the American Psychology Association in San Francisco, where she said a standing-room-only audience attended a presentation by a colleague of Sperry on the effect of the consciousness revolution on psychology.

"It was very well received," she said. "One colleague said, 'That's Sperry, always the visionary.'"

Sperry suffers from a neuro-motor disease that affects his speech and could not give an interview. He had never been conversational but was always a good listener, Henninger said.

"He's been called 'the brain scientist of our time,' and I think that's true," she said. "He can hear what you're saying and give you a sentence or two that will help clarify what you're working on. One sentence can keep me going for a week."



Courtesy of Caltech

Psychobiologist: Professor Richard Sperry's research on the brain earned him the Nobel Prize in 1981.

Freshman duped to move own bed

Pranks often prevent Caltech students from getting a good night's sleep. Take the 1962 case of one hapless freshman.

At the time, Beckman Auditorium was under construction, and workmen erected a towering scaffold to build the roof.

Two Page House upperclassmen spied the scaffold and thought it was the perfect scene for a prank. They decided to pick on a freshman down the hall — literally, by picking the lock on his door, then pushing his bed outside the room. They were quite surprised when the freshman appeared unexpectedly.

Instead of fessing up to their plans, the two culprits said the bed was taken from another student's room as part of a prank. To their disbelief, the freshman — who apparently didn't recognize his own bed — offered his help.

In the dark of night, with block and tackle, the three moved the bed piece by piece. The entire bed — steel frame, box-springs, mattress, sheets, blankets and pillows — were hoisted 40 feet to the top of the scaffold. The covers were even turned back.

That night, the freshman walked back to his room, unlocked his door, and surprise — no bed.

His bed remained atop Beckman Auditorium for several weeks.

K-15 Addendum

PASADENA STAR-NEWS

Date: 10-31-91
Page: A-2

Fair Play

The Star-News promptly corrects all errors of substance. We also seek to clarify or add fairness and balance to stories printed in the newspaper. If you wish to report an error or request a clarification of a story, call 578-6450. Tell us what you believe needs to be corrected. Your call will be forwarded to the appropriate editor or reporter, or a message will be taken. We'll get back to you within 24 hours, or by Monday if you call on a weekend.

A headline and caption on the weekly Caltech profile on Page A-3 of Monday's Star-News misspelled the name of Roger Sperry.