

NEW THEORY

Brain Role Disputed

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WASHINGTON (AP) — Roger W. Sperry of the California Institute of Technology said last night that considerable doubt has been cast on the theory that the two halves of the human brain function separately.

It has been scientific doctrine that the main functions of the brain in 95 percent of all humans center in the left hemisphere of the brain.

Sperry, professor of psychobiology at Caltech and winner of many awards for his research, discussed studies he and several associates have conducted on patients who had undergone commissurotomy.

That is a surgical procedure, undertaken on some epileptic persons with intractable seizures, in which the two halves of the brain are separated surgically.

VERTICAL SPLIT

The surgery, he said, divides the brain and the fiber systems connecting it so that each hemisphere sees only what is on one side of a vertical midline.

Sperry said in a talk prepared for an invited audience at the Smithsonian Institution, sponsored by Doubleday & Co., that the kinds of things he has seen in such patients gives a strong impression that the minor half of the brain is a conscious system in its own right.

"Clearly, the mute hemisphere perceives, learns and remembers at a very human level," he said. "It also reasons nonverbally; makes studied cognitive decisions and carries out volitional actions. It displays typical human emotions."