

Electronic Control of Man's Brain

San Diego

Advances in electronics and knowledge of how the brain works make it possible for man to make significant changes in his behavior, a Yale brain researcher says.

"In the past the mind belonged to the philosopher. Today it belongs to the neurophysiologist," said Dr. Jose M. R. Delgado.

What is needed now, he said, is to establish which kinds of behavior to modify.

Some of the behavior-control procedures now possible include:

- Implanting electrodes deep in the brain of mental patients and preventing or provoking certain kinds of behavior by stimulating brain centers with tiny electrical charges.

- Implanting tiny tubes in the brain and releasing into them drugs which change the activity of brain centers and hence behavior.

- Having a direct line of communication from a brain to a computer and back to the brain without having information pass through the sense organs.

This is done by implanting electrodes in several brain centers. Electrical discharges from one center go to the computer, which reads them and sends a message to another center, which reacts to stop the discharges from the first center.

This procedure makes it possible, Delgado said, to control behavior in mental patients by programming the computer to send a counter-acting signal every time a brain center responsible for antisocial behavior begins firing.

So far the computer-brain tieup has been tested only on chimpanzees. Aside from the potential application in mental patients, it demonstrates the possibility of learning by feeding information directly into the brain.

Thus it is possible to control behavior secretly because there are no visible wires or electrodes.

Day-and-night supervision is possible without even touching the individual.

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