

# behavioral sciences

## I.Q. testing by brain wave

Traditional I.Q. tests are biased. Psychiatrists and psychologists agree that written mental aptitude tests discriminate against ghetto and minority-group members because of the emphasis placed on knowledge of the English language.

Psychologist John Ertl of the Center of Cybernetic Studies at Ottawa University says he can now tell how smart a person is by flashing a light in his eyes. In his test, the subject, wearing a helmet, sits in a dark room for five minutes and watches a light flash 200 times. The brain-wave changes caused by the light are picked up by electrodes in the helmet and timed by a computer. The speed of the brain-wave response to the light is the measure of intelligence. The quicker, the more intelligent. Independent tests on 1,028 children confirmed this.

However, there are drawbacks to this method of testing. Mental alertness and capacity are measured, but not the factors (verbal, mathematical, spacial, etc.) that are involved in intelligence. And, says Ertl, "I expect that it will be misused to pigeonhole people, just as the I.Q. test was."

## Mystic migraine treatment

For years American psychologists would not believe that a person could consciously control his autonomic nervous system. And only recently, with Dr. Neal E. Miller's successful experiments (SN: 3/14/70, p. 275) at Rockefeller University, was evidence for visceral learning conclusive enough to convince the skeptics. Now researchers at the Menninger Foundation in Topeka, Kans., have taken the process one step further. Patients have been taught to use will power to control suffering from migraine headaches.

The technique—Yogis and Eastern mystics have been using it for years—consists of learning to control the usually automatic processes of the internal organs. In the case of migraines, the pain is caused by dilation of the blood vessels of the scalp. The patient attempts to lessen this scalp pressure by causing an increase of blood pressure in his hands, and therefore a decrease in scalp pressure. The patient is not taught how. He merely watches the dial of an instrument measuring rate of his blood flow so he knows when he is succeeding. After sufficient practice he is able to alter the blood flow at will.

"We don't really know precisely why it works," said Dr. Joseph Sargent, who is conducting the experiment. "My only interest is to demonstrate whether it is possible, and it looks like it is."

## Regressive children

Until now, encopresis (fecal soiling as a long-term behavioral pattern in children over five) has been a rarely reported and little studied problem. But during the past two years more than 20 encopretic children were referred to the Loma Linda Medical Center in Loma Linda, Calif. Researchers there, noting this increase, decided that perhaps the problem is more common than previously assumed and decided to look into it.

Their report, to be published in the forthcoming issue of the *JOURNAL OF CHILD PSYCHIATRY*, concludes that a child who is afraid to express himself directly ex-

presses anger against his parents by regressing to or refusing to outgrow infantile toilet habits. The 20 children (all boys) in the year-long study ranged from dull to superior in intelligence, had no other behavioral problems and were neat and compulsive in their activities. But they all had problems in relating to their parents. The fathers were detached figures and the mothers were threatening and overprotective at the same time. The home atmosphere was one of an unacknowledged power struggle between a depressed, compulsive wife and an uncommunicative, pseudo-dictatorial husband.

Dr. Norma G. Norriss, who conducted the study with Drs. Edward T. Himeno, Jean M. Hoag and Janet Jacobs (a graduate student), explained that success in treating the children was possible "if the parents could actively look into and deal with their family problems and begin to treat their children sensitively as persons."

## Protecting the patient's privacy

The collection and dissemination of personal information has become a part of everyday life. But the issue of confidentiality is being increasingly raised. Which, if any, information should be given to credit bureaus, to prospective employers, to insurance companies, etc.?

With the increasing health insurance coverage of mental disorders, the issue is seen in a new light. In the July *AMERICAN JOURNAL OF PSYCHIATRY* Dr. Maurice Grossman of the Stanford University Medical School questions the morality of divulging psychiatric information to insurance companies. He admits their need for such information but warns that "there is no predicting the ultimate use or misuse of permanent records of this nature." He concludes that the information should be passed on verbally whenever possible and that privacy be the responsibility of the insurance companies. It is to their benefit, he says, "because protecting the patient's rights to confidentiality will have a beneficial effect on the outcome of treatment."

## Citizenship attitudes assessed

In April the results of the science and writing portions of the National Assessment of Educational Development were issued (SN: 5/1/71, p. 306). Last week in Boston the results of the citizenship tests were released. Reading test results will come out next year.

In the attempt to assess what 100,000 young persons know and have learned about citizenship, researchers found that students and young adults in the South are less tolerant of unpopular opinions than are their contemporaries in the Northeastern, Central and Western states. The South was 12 to 14 percent behind the rest of the nation in these categories. Residents of big cities and smaller communities showed less tolerance than residents of suburbs and medium-sized cities.

Besides attitudes, the students were tested on structure and function of government. Northeastern 13-year-olds were ahead of the nation in this area. And Central and Western 17-year-olds and young adults were 14 percent above Southerners. Southerners had only one area of superiority. They scored five points higher than the Northerners on questions dealing with knowledge of local politics.