

NEUROPSYCHIATRY

Depression and dopamine

Some researchers have speculated that depression may be related to a decrease in the production of dopamine, a neurochemical associated with motor activity (SN: 12/13, p. 554).

No such decrease is apparent in the dopamine excretion of manic-depressive patients during a depressive state, report Drs. F. S. Messiha of the Maryland Psychiatric Research Center and D. Agallianos and Courtney Clower of Maryland's Spring Grove State Hospital.

However, say Drs. Messiha, Agallianos and Clower in the Feb. 28 *NATURE*, dopamine excretion in the urine of manic-depressives is significantly increased during a manic phase. Lithium carbonate, a drug that is becoming increasingly popular as a treatment for manic-depressive disorders, was found to restore the excessive dopamine excretions to normal levels.

The researchers concluded that a surplus of dopamine is one of the biochemical changes associated with the manic phase of an affective disorder.

PSYCHOLOGICAL MEDICINE

Cancer and personality

Psychologists agree, as a general principle, that the kind of physical ailments an individual develops is related to his over-all personality. Just how far this principle can be carried is a controversial question. In the February *PERCEPTUAL AND MOTOR SKILLS*, Dr. Robert W. George, a psychologist at Tarkio College in Tarkio, Mo., suggests that it may be true even for diseases like cancer.

Dr. George reports experiments at several Michigan hospitals in which cancer patients were asked to look at ambiguous drawings whose perspective could be interpreted several ways, and to report how often the perspectives seemed to reverse. Cancer patients saw the reversals significantly less often than patients with other diseases.

Such perceptual tests have previously been associated with personality patterns: Extroverts, for instance, see the reversals less often than introverts. Although his findings might reflect merely an unexpected side effect of cancer, Dr. George concludes that further experiments may demonstrate "important organismic differences which predispose certain individuals more than others" toward cancer.

PHYSIOLOGY

Quiet sleep and conditioning

It is a common observation that a person's frame of mind prior to sleep may influence the quality of his sleep. Drs. Maurice B. Serman of the Veterans Administration Hospital in Sepulveda, Calif., and Richard C. Howe and Lorraine R. MacDonald of the School of Medicine at the University of California at Los Angeles have demonstrated a specific instance of this phenomenon.

Working with cats, Drs. Serman, Howe and MacDonald conditioned the animals to produce, while awake,

increased amounts of a brain-wave pattern associated with motionlessness and the suppression of learned motor responses. Electroencephalograph records of this pattern are similar to recordings of a brain-wave pattern associated with quiet sleep in cats.

Once the animals were reinforced for producing the pattern when they were awake, the researchers report in the Feb. 20 *SCIENCE*, they also showed more periods of quiet in the sleeping state. They conclude that at least some aspects of sleep may be determined by waking experience, "through the modification of common neural mechanisms by environmental contingencies."

PSYCHOLOGY

Schizophrenics and their families

Researchers continue to accumulate evidence that schizophrenics are characteristically abnormal in their relations with their immediate families.

When listening to tape recordings portraying various patterns of conflict between a mother and a father, Dr. Newton L. P. Jackson Jr. of the University of California at Los Angeles reports in the February *JOURNAL OF ABNORMAL PSYCHOLOGY* that schizophrenics with a relatively good adjustment tend to side with whichever parent is dominant in the conflict. Schizophrenics with a worse level of adjustment tend to support the maternal figure, regardless of her role in the conflict.

Control subjects, by contrast, support whichever parental figure is losing the conflict.

He drew his conclusions largely from patients' reactions to tape recordings portraying various patterns of conflict between a mother and a father. The tendency of the most ill-adjusted schizophrenics to choose sides solely on grounds of gender, says Dr. Jackson, may reflect a primitive stage of development. Perhaps, he says, "as a child matures, he first learns to rely on the decisions (usually his mother's) of a single parental figure."

SOCIOLOGY

Alienation from the Army

Some sociologists have argued that military service reduces alienation among blacks, since it offers equitable employment and involves them in the concerns of the society as a whole. Others have argued that black veterans wind up highly alienated because of the discrepancy between their position inside the military and their position upon returning to civilian life.

A survey by Dr. James Fendrich and Michael Pearson at Florida State University lends support to the second argument. Recent black veterans in the Jacksonville, Fla., area, they report in the March *TRANSACTION*, mostly reject the idea that Americans are concerned with justice and equal opportunity.

Although not many of the veterans were interested in joining a radical social action movement, 58 percent believed a major race riot could break out in their home town at any moment. Most were hostile to police and were making little use of veterans' benefits. Such veterans, Dr. Fendrich and Pearson conclude, "may be harbingers of a whirlwind of defensive and offensive violence."