

PSYCHOLOGY

Inherit Neuroticisms

British psychologist finds that "neuroticism is inherited at least to the same extent as intelligence and possibly up to 80%."

► IF PARENTS are to take the credit for passing intelligence along to their children, they must also take the blame if their children grow up to be neurotic.

In a study of the occurrence of neuroticism in identical twins as compared with that in ordinary twins, Dr. H. J. Eysenck, London's Maudsley Hospital psychologist, found that "neuroticism is inherited at least to the same extent as intelligence, possibly up to 80%."

This information has been passed along to the British Association for the Advancement of Science by Dr. S. Crown, who reported a whole series of interesting psychological research carried out at the Maudsley Hospital.

There, too, Miss F. Goldman has found evidence to indicate that early weaning of babies may lead to pessimism and aloofness in later life.

Mrs. A. Petrie has shown that following pre-frontal leubotomy, a cutting of the front lobes of the brain to treat some forms of insanity, there is a shift of personality in the patient, who becomes less intelligent, less neurotic and more extraverted.

Another Maudsley Hospital investigation shows that people suffering from excess thyroid secretion are more neurotic and introverted than other people. Patients suffering from similar organic diseases were found in another inquiry to tend to show similar personality patterns and can be distinguished from patients with other kinds of bodily ailments "by the nature and/or extent of these traits of personality."

Doctors may soon be able to detect patients suffering from a certain type of "sub-cortical" brain damage by means of a very simple test in which the patients are asked to make models from wood blocks. It has been found that patients with lesions of the basal ganglia portion of the brain would make the model correctly but could not orient it properly. The test is known as Koh's Block Test.

Dr. J. Brengelmann found that after electric shock treatment for insanity patients were, at least temporarily, less good at learning than they were before the treatment. This deterioration in learning ability was so characteristically associated with clinical improvement that Dr. Brengelmann found he "could predict with some degree of accuracy whether or not a patient had benefited clinically from the treatment" simply by testing his loss of learning ability.

Dr. Crown comments that Dr. Brengelmann's discovery is "of greatest interest and

importance in that it demonstrates experimentally that one of the immediate effects of a widely used physical method of treatment is to cause at least a temporary deterioration in learning ability."

Science News Letter, September 29, 1951

WILDLIFE

Sprays Used to Keep Deer from Nibbling Trees

► DEER ARE becoming such a nuisance on the West Coast that farmers are spraying their fruit trees with repellents to keep them from nibbling the leaves and bark.

According to Walter E. Howard of the University of California at Davis and Henry E. Hjersman of the California Division of Fish and Game, deer in California have increased to nearly 1,000,000 head while their natural range has been decreased. Protection of does has also aggravated the situation.

As a result deer have done considerable damage to orchards, gardens and vineyards. Even the building of eight-foot fences has proved ineffective.

Farmers are using repellent sprays which go under a number of commercial brand names. They contain various chemical ingredients which by smell or taste repel the deer. One of the most successful commercial repellents contains a polysulfide type of rubber latex which not only has a bad taste but also sticks to the leaves and bark for about six months.

Such sprays applied to two-year-old fruit and nut trees did not damage the foliage, even when used at twice the strength suggested by the manufacturers and sprayed as often as every two weeks. Trees sprayed included apple, apricot, pear, peach, quince, plum, cherry and almond.

"The incidence of deer damage in California will probably increase steadily because of the rapid human expansion and increased agricultural demands in the state," predict the two California scientists. "This will call for a greater use of the repellent sprays."

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BIOCHEMISTRY

Atomic Poisoning of Living Plants Studied

► WHETHER ATOMIC fission products can be taken into plants in such quantities as to contaminate them is being studied at the University of California College of Agriculture in Berkeley.

Two fission products, cesium and strontium, though not essential to plant growth, were found to be absorbed in plant roots in laboratory studies by Drs. Roy Overstreet and Louis Jacobson.

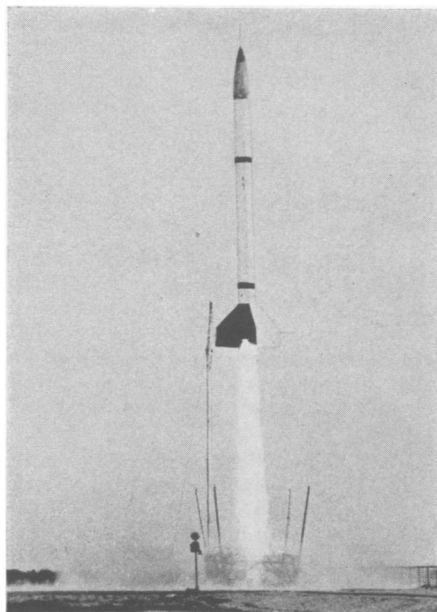
These tests are a part of a study to find out exactly what influences the intake of minerals, especially the essential ones, in plants. The problem is aimed at producing a favorable environment in the soil for mineral absorption.

For two years Drs. Overstreet and Jacobson worked to perfect a stable culture process to study mineral absorption by plants. Roots of barley plants grown in the dark were found best suited to this study. The roots are put in culture solutions containing various radioactive mineral salts. In this way rate and amount of mineral absorption can be determined.

Potassium, phosphates, and bromides were found to be absorbed more rapidly when certain amounts of calcium were added. There was also found a competition between the hydrogen in acids and the minerals to be taken into the plant. The reasons for this have not been determined, but future experiments may answer the questions of ion absorption.

This work is being done partly under a grant from the Atomic Energy Commission.

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THE "CORPORAL E"—This surface guided missile, developed as a research instrument by U. S. Army Ordnance, is a companion of the "Niki" which was the first guided missile of any type designed and built wholly in the United States. It is the fourth missile of a series of different types developed under Army supervision.