

Environment Shown Great Cause of Insanity

On this page, Emily C. Davis describes some of the outstanding advances in knowledge of mental and nervous diseases which were reported at meetings of the American Psychiatric Association, the American Orthopsychiatric Association, The National Association for the Study of Epilepsy, the American Psychopathological Association, and the American Psychoanalytic Association, at Cincinnati during the week of May 30.

Environment, rather than heredity, is shown to be the great cause of insanity, according to a remarkable investigation announced by Dr. L. Vernon Briggs, of Boston. Dr. Briggs has collected facts on 28,000 people who died in the past fifty years in the sand dune shore country of Cape Cod. This fishing region has had practically all American stock for generations. Records of doctors, churches, courts, hospitals, even old gravestones with frank statements of suicides and diseases, have been laboriously searched for clues to insanity.

Over 3,000 deaths from diseases of the central nervous system were found, and over 1,000 had been in a state hospital for mental disease. Only eighteen per cent. of the thousand were descended from insane parents and only thirty-seven per cent. had insane relatives. This investigation, which has taken fifteen years, is the first to reveal a clear picture of insanity through several generations in a community.

Homes Are Important

Striking evidence that a large proportion of boys and girls who go wrong might have grown up into substantial citizens if their home life had been different was presented by Dr. William Healy, of Boston. Dr. Healy stated that he has followed the careers over ten years of 500 children who were taken from their own inadequate homes and placed with foster parents. All the children were normal mentally but all were considered extremely difficult behavior problems. Ninety per cent. have made good in their new homes, thus showing the importance of environment in the behavior of children, he stated.

Background of Crime

Does a certain combination of character traits and home experiences lead one child to steal while a different group of factors would have led him to destroy property? To answer this, a method of classifying several thousand factors in a child's personality, heredity, conduct, and home life has been evolved by Dr. Luten Ackerson, of the Institute

for Juvenile Research, in Chicago, so that a child who comes to the behavior clinic can be identified as having certain traits and home conditions. When a sufficient number of records are obtained, it may be possible to predict the career toward which a troublesome child is heading before he gets into serious difficulties.

Too Much Emotion

The part played by a child's unbalanced emotions in the later development of mental disease was shown by Dr. Henry S. Sullivan, of Baltimore. Some young children are subjected to such experiences that they react to rage more than to any other emotion. These tend to grow up to become violent, aggressive, and epileptic types. Other young children have all their needs anticipated, and their chief emotion is self-satisfaction. They are not fitted to meet life, and often develop obsessional neuroses quite early. A third type has an infancy and childhood dominated by fear, and these develop defense reactions and set up barriers between themselves and the world.

Grave mental disorders of the dementia precox type are maladjustments to a social environment and not in any sense the outcome of hereditary factors, Dr. Sullivan declared.

Light on Freud

Latest developments in Freud's theories were explained by Dr. Bernard Glueck, psychoanalyst, of New York, who said, in effect, that each human being carries within himself a system of criminal justice. The system is highly individual, based on early training in the home. The normal person, who has learned to control and direct his instincts, gets off easily at his own bar of justice. The neurotic has tried to repress his instincts too much. He goes back and forth, either in his dreams or in reality, from over-indulgence to expiation.

Psychoanalysis is building up an anatomy and physiology of the mind very like the well known sciences of the body, Dr. William A. White, Superintendent of St. Elizabeth's Hospital at Washington, said in praising Dr. Glueck's interpretation. Psychoanalysis began twenty years ago by studying very sick, neurotic patients. Now it deals with a

broader field. It should be part of the workaday equipment of every psychiatrist and should be held socially and professionally respectable, Dr. White declared.

Forestalling Epilepsy

Can the child who is destined to become a victim of epilepsy be picked out from other children and so treated that he will outwit the unhappy fate apparently mapped out for him? Dr. R. L. Dixon, of the Michigan Colony for Epileptics stated that in many cases this could be done.

Seven cases of twins were reported in which one developed epilepsy and the other did not. Each twin who was later seized with epileptic fits had not been getting along with other people and yet was highly self-satisfied. Violent fits of anger at trifling situations were common. By mental and emotional examinations school physicians and nurses could detect epileptic personality traits before such a child becomes a serious enough case to reach a family doctor, Dr. Dixon said. Study of the child's mental and physical condition and home life would then enable a mental hygiene expert to show how anti-social traits could be overcome.

Not all children that the neighbors label bad are, or will become, epileptics, he added. But marked epileptic traits combined with neurotic heredity need only an acute illness or a physical or mental shock to start the stage of epileptic convulsions.

Danger Signs Cited

The important question that hundreds of worried mothers put to doctors: "Will a baby that has convulsions become epileptic?" was asked and answered by Dr. William T. Shanahan, of the well known Craig Colony for epileptics.

One convulsion may not be a sign that a child is epileptic, but it may be the starting point toward this disease, he showed. The habit of convulsions can be formed like any other habit, and if seizures occur at intervals for long periods this itself is epilepsy. Convulsions without any apparent cause are more serious in forewarning of epilepsy than those due to teething or indigestion, but any convulsion is dangerous, since it may cause a brain hemorrhage and leave the nervous system less stable.

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Psychiatric Meeting

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Why Are Convulsions?

Two scientists probing into the obscure changes which take place when the body is shaken by epileptic attacks, reported findings which may end in unmasking this mysterious malady. Dr. A. L. Skoog, of Kansas City, announced that he has found in the spinal fluid of persons suffering from various convulsive disorders a certain group of crystalline bodies. With further researches, this may lead to the discovery of a specific substance, peculiar to epilepsy alone, in the spinal fluid. It may also enable doctors to detect the person who is shamming epileptic fits, which sometimes puzzles experts examining the criminally insane.

Dr. Hans C. Syz, of Johns Hopkins University, told of experiments with frogs indicating that brain injury or asphyxiation reduces the power of the nerve cells to keep out harmful substances. In the injured or asphyxiated frog, a poison that causes convulsions is much more quickly absorbed into the brain and spinal tissues to work its havoc with the nerves.

Bouillon Treatment

Encouraging results with a bouillon as a remedy for epileptic patients were reported by Dr. J. Notkin, of the Manhattan State Hospital in New York. The soup, made from a bouillon cube containing bromide, salt, vegetable protein, and seasoning, is being given to thirty-two epileptics. All are having fewer convulsions, and some have none at all. The mental condition of the patients is considerably improved also, he said. This remedy, first introduced by a European physician and known as sedobrol, is more successful than ordinary bromide or luminal which are commonly given to epileptics, Dr. Notkin has found.

Troublesome Teeth

Infected teeth may play their usual role of villainy in epilepsy as in other diseases. Dr. E. B. Bass, of the Abilene State Hospital, Texas, reported a group of cases in which the storms of epileptic attacks were cured by curing diseased conditions of the stomach, and by removal of impacted teeth and curing other pathological conditions.

The question of whether the epileptic can be held responsible for damage done to society while he is in an epileptic spell was presented

by Dr. George Donohoe, of Cherokee State Hospital, in Iowa. In some epileptics a state of automatism takes the place of a convulsive seizure or follows one, and such persons may commit serious crimes, though when the spell is over they are normal, law abiding citizens. Dr. Donohoe advocated that society should protect itself against the law breaking epileptic by placing him in an institution for criminal insane.

Starving the Enemy

A new theory of paresis, that "helpless and hopeless" stage of syphilis, was announced by a young psychiatrist from Ann Arbor, Dr. R. R. Dieterle. He has worked out a new method of examining the gray matter in the brain of paretics, and showing the presence and number of the tiny organisms that cause the disease. These microscope studies reveal that when the disease is acute and the patient becomes emaciated, as he generally does, the organisms migrate toward the blood vessels of the brain, desperately seeking enough of the food they need. Thus, Dr. Dieterle showed that if a patient can stand the severe ordeal of being reduced to skin and bones, the invading army will, by reason of its very numbers, be killed off by famine. When a paresis patient is inoculated with malaria or some other fever in an attempt to burn up the enemy organisms, the wasting away of the patient from the fever is an added factor in destroying the enemy. It is hoped that further researches will lead to discovery of the avenue by which the paresis organisms find their way to the brain, Dr. Dieterle said.

Body versus Mind

The proposition that an individual's body is a signpost to his mental tendencies was advanced by Dr. Clifford B. Farr, of the Pennsylvania Hospital. Results of physical measurements were reported by Dr. Farr, showing that the slender type is apt to be a quiet, reflective person, who fails to express ideas and emotions in action. The sturdy individual is more likely to be active and normally interested in the outer world.

Attention to physique may be important in childhood, he stated, since even inherited bodily tendencies may be normally developed, over-developed, or stamped out. Children of pronounced long, lean type should be encouraged to developed social traits, he said.

Poisons in Blood

Studies of the blood in mental attacks caused by disturbed metabolism, ill-functioning kidneys, and chronic infections were reported by Dr. Howard D. and Aurelia P. McIntyre, of Cincinnati. They found that in a number of cases of manic excitement, delirium, and acute mental confusion, the patients' blood showed chemical abnormality. When physical causes were traced and removed some patients recovered, mentally as well as physically. Those whose nerve cells had become seriously injured by the poisons could not be restored, the physicians reported.

Dull Children "Wasted"

Significant figures from Massachusetts, significant because they show that almost every state must have thousands of feeble-minded children that are needlessly "wasted," were presented by Dr. Neil A. Dayton, of the Massachusetts Department of Mental Diseases. All children retarded three years in school are now examined by a psychiatrist, said Dr. Dayton, in describing the first successful attempt of a state to round up its entire new generations of the feeble-minded. Fourteen clinics travel around the state and six thousand feeble-minded children are being trained in special classes.

It is not a person's intelligence, but his character that determines whether he will make a useful, contented citizen, Dr. Dayton declared. Persistence, manual skill, honesty and normal conduct can be inculcated in the great majority of the feeble-minded.

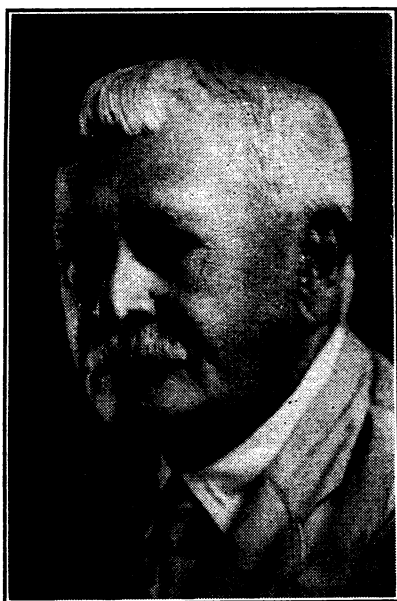
Youngest Child Brightest

Some plain facts on the much disputed question of whether young parents have brighter children and whether the oldest child in the family is really the most intelligent were presented by Prof. L. L. Thurstone, in a preliminary report of investigations in progress at the Institute for Juvenile Research. Study of 150 problem children shows that those born of younger parents rate about the same in intelligence as those born of older parents. Within the same family the second child born tends to be slightly brighter than the first, the third is brighter than the second, and this is equally true among the American and foreign born parents.

"It is sometimes said that when children come close together in age there may be a disadvantage to a child following close to the preceding

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CHEMISTRY



CHARLES EDWARD MUNROE

Explosives Inventor

Every great explosion in America finds Dr. Munroe investigating it before the smoke blows away. Or perhaps one should say before its echoes die.

For Dr. Munroe invented the smokeless powder of our navy. He is the great authority on TNT and other such dangerous materials that most of us hardly dare to think about. From the seventies, when as professor at the Naval Academy, he hammered chemistry into the Navy, until now, when he steers research, as chief explosives chemist of the U. S. Bureau of Mines and chairman of the National Research Council's explosives committee, Dr. Munroe has contributed mightily to the chemical knowledge of the nation. Chemical manufacture has benefitted by his planning of the chemical censuses made by the government as well as his researches. His early experiments, when chemist to the U. S. Naval Torpedo Stations and War College, laid the foundation of the modern use of explosives. It was logical that Dr. Munroe was the government's chief advisor on explosives during the World War.

Yet his greatest works are not in the technical papers he has published or the dangerous experiments he has performed, but in the lives and achievements of those he has taught.

Thousands who have studied with him at Harvard, the Naval Academy and the George Washington University, have been inspired by him. He has the ability to unfold the vistas and ideals of science in such a way that those who see with him also accomplish.

Dr. Munroe is a forty-niner and since that year of his birth he has kept at the forefront of scientific exploration.

There is another picture, so often lacking in accounts of our intellectual leaders. Dr. Harvey W. Wiley, who took a special course with Dr. Munroe at Harvard in 1872, wrote in an appreciation:

"He loves his country home, its gardens, its orchards, and its surroundings. Going back each day from his work in the Bureau of Mines, he indulges in agricultural and horticultural pursuits. His home is a typically beautiful cottage and his garden and orchards are well kept and his lawn is properly mowed. As he sits on his lawn *sub tegmine fagi*, surrounded by his grandchildren, he presents the picture of a patriarch as noble and benignant as ever honored the homes of the chosen people of God."

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one," said Professor Thurstone, "but to my astonishment, I find that children one year apart seem to be as bright as those two or three years apart."

The study will be extended until 10,000 children have been classified, he stated.

Nurses Study Mental Cases

Newest ideas in hospital care for the mentally sick were reported by two psychiatrists. It can be truthfully said that a nurse is not adequately trained unless she has practical training in care of mentally diseased cases, declared Dr. C. A. Bonner, of Boston. Any physically ill person is always nervous, and a nurse who understands mental aspects of illness is better equipped, he said. The supply of nurses specializing in mental cases is entirely too low to care even for the army of mental patients. Six general hospitals are now sending nurses for three months intensive training to the Boston Psychopathic Hospital. The courses have already shown their value in improving nursing conditions for patients, he said.

New Hospital Ideas

The experiment of caring for mental patients in a general hospital has been tried and found successful, Dr. Thomas J. Heldt, of the Henry Ford Hospital in Detroit, reported. Any first-class general hospital should be able to care for certain types of nerv-

ous and mental patients, if it has a neuro-psychiatrist, he said. Many persons with mental troubles are coming willingly to the general hospital for treatment when they would have been alarmed at entering a mental institution. Dr. Heldt finds it possible to care for all types of cases, without even bars or locked doors, so long as proper supervision and care is provided. In the general hospital it is also possible to readily investigate and remedy any physical disorders, which are sometimes the fundamental cause of acute mental attacks.

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ZOOLOGY—MEDICINE

Fish Tapeworm in U. S.

The dangerous fish tapeworm of Europe, the largest of those repulsive parasites that commonly attacks human beings, has become established in the United States, and is to be the object of special study this summer by a group of scientists backed by the National Research Council and under the immediate direction of Prof. H. B. Ward of the University of Illinois, foremost authority on internal parasites. They will go to the extreme northern part of Minnesota, which is the center of the threatened area in this country, and spend the summer tracing the connections of the infestation, which is complicated by the fact that the worms live part of their lives in fish and the rest in human beings and other warm-blooded creatures.

Fish tapeworm is a relatively common affliction among the peoples around the Baltic Sea, and is said to occur also to some extent in Switzerland. In some cases it does relatively little harm, while in others it introduces an extreme condition of pernicious anemia, which sometimes ends in death.

Prof. Ward states that the infestation was introduced by immigrant laborers in the iron and lumber industries, who not only carried the parasites internally but also imported their favorite dried and salt fish from the homelands. Salting does not kill the pest, and imperfect smoking also leaves it alive. There is evidence now, however, that the native fishes in some of the northern lakes may have become infested, and it is to ascertain the truth or falsity of these reports and to work out methods of keeping the infestation from spreading, that the expedition under Prof. Ward is to take the field this season.

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