

PSYCHIATRY

Heaven is Called a Dream Based on Childhood Memories

Psychiatrists Are Told of Need for Peace Department; Danger in Sleeping Drugs; Love a Personality Vitamin

HEAVEN is a dream that grown men and women build for themselves out of faint memories of their babyhood.

Dr. Gregory Zilboorg of New York gave this scientific definition of heaven to the American Psychiatric Association.

The baby in his cradle is loved and admired by everyone, fed, and made comfortable in every way without any effort on his part. This happy state is the one to which everyone unconsciously wants to return.

Adults may not picture heaven as a literal state of babyhood, but they do see it as a place where, free from worry and turmoil, from wars, strikes, competition and hostile people, they can be as happy and peaceful as babes in the cradle. Even atheists and others who do not believe in a literal heaven substitute for theological immortality their faith in a bigger and better future for humanity.

Another sign of this unconscious desire to return to blissful state of babyhood is the average man's desire to succeed in business so that he "can retire and live at last," Dr. Zilboorg pointed out. In this dream a 12 cylinder Packard car, Dr. Zilboorg said, represents the bottle of carefully prepared milk formula in the baby's mouth.

This constant desire to return to an earlier stage of life and repeat past experiences, no matter how modified, is one of the outstanding characteristics of man's nature. Psychiatrists call it compulsive repetition and compare it to the return of the seasons, the annual blooming of flowers and other repetitions in nature.

Idealized

"The sense of immortality," Dr. Zilboorg said, "is an attempt to repeat in fantasy the idealized childhood in an adult setting, where the Father in Heaven and Mother Earth make a perfect alliance to care for the idealized infantile life."

The idea of immortality arose from the fact that man cannot believe that

he can die and yet is threatened with death every minute. The only way out of this conflict is in the fantasy of immortality, whether it is a literal heaven or a belief in the future of humanity.

Man's inability to imagine his own death was recognized by the Austrian psychiatrist, Freud. A person may see himself lying dead in his coffin, but actually all the time he is alive, standing off looking at the image of his death. He never actually can feel dead. Dr. Zilboorg suggested that any who do not realize the truth of this should try to imagine their own deaths.

The sense of immortality is at the base of most modern and primitive suicides, Dr. Zilboorg declared. There are various types of suicide, but in most cases man kills himself in order, paradoxically, to live forever. He takes his life in order to prove himself master of it and thus become like God, eternal.

This is the reason why all monotheistic religions, Judaism, Christianity and Mohammedanism, regard suicide as a sin, because by killing himself man is taking on the role of God, which these religions forbid.

Need Peace Departments

Peace departments, not war departments, are the great need of nations today.

This was the suggestion of Dr. C. Macfie Campbell of Harvard University in his presidential address.

We have departments of health, not of disease; departments of education, not of ignorance, he pointed out. But when leading psychiatrists of the world formally urged the nations to strive for peace, they had to address their letter to secretaries for war.

Peace between nations, between labor and industry, and even peace between husbands and wives or other relatives depends, Dr. Campbell said, on each person's knowing and understanding himself and his own needs.

Man craves a certain status or prestige or self-respect, Dr. Campbell explained in defining these needs. Men

and women are not content to be pawns. They need also an opportunity to exercise skill or power or some form of self-expression.

When these needs are not filled, the individual man or woman is dissatisfied, and when this dissatisfaction is multiplied millions of times, it shows itself in conflict between labor and industry and between nations.

Peace, like charity, should begin at home, Dr. Campbell said. Peace of mind for the individual must be attained before there can be hope of peace between nations. The human soul is an arena of combat between appetites and ideals, between childish and mature desires, between reaction and progress. If psychiatrists can make peace begin at home by teaching each how to find peace of mind and how to live peacefully with his relatives and neighbors, whole nations will be able to get along on a frank and honest basis of good will and cooperation.

Sleeping Potions

The use of sleeping medicines, such as bromides, and veronal, amylal and others of the barbiturate type, is apparently leading to a definite increase in mental disease, Dr. Frank J. Curran, of Bellevue Hospital, New York, declared.

The barbiturates are sold in most states without restriction. Dr. Curran urged the association to secure legislation restricting the sale of these drugs, which he termed habit-forming.

"These drugs," he said, "are cumulative in the body, producing mental symptoms of such a degree that admission to a mental hospital becomes necessary."

A study of 50 such patients showed that the types who use barbiturates over a long period are the chronic alcoholics, persons suffering from mental disease and those suffering from the type of nervous illness labelled psychoneurosis.

Large single doses of these drugs are usually taken with suicidal intent by mentally sick persons. Dr. Curran reported that one patient had used barbiturates daily for 16 years.

Addiction Declining

Narcotic drug addiction is apparently declining as a result of measures controlling the sale of narcotic drugs, Drs. Lawrence Kolb and C. K. Himmelsbach of the U. S. Public Health Service found.

Many of the addicts who come for treatment at the present time have weak habits or are already partly cured. Only

about one-fifth of the addicts have really strong habits when they come for treatment.

Patients with weak drug habits should be treated, the federal health service doctors advised, by withdrawing the narcotic drug abruptly. Mild measures such as sedatives and special baths are usually sufficient to relieve the withdrawal symptoms in these cases. Abrupt withdrawal in severe addiction, however, was strongly censured by Drs. Kolb and Himmelsbach.

"For addicts with strong habits," they declared, "abrupt withdrawal is cruel, dangerous and unnecessary.

"Such treatment is often given in prisons and sometimes in hospitals because of a feeling that the addict does not deserve anything better. This, of course, goes along with a general hostile attitude towards the addict that is bad psychologically and lays the groundwork for relapse."

Withdrawal therapy, that is, depriving the addict of the narcotic he has been taking, is all that is necessary in curing patients with a normal nervous make-up, and is a very simple matter in these cases. In the case of drug addicts who are emotionally unstable, withdrawal is the most unimportant part of the treatment. These patients, if they are to be cured, must be rehabilitated mentally and emotionally. The nervous or emotional disturbance that originally led to their taking the drug and forming the drug habit is more important than the addicts' physical dependence on the drug. This is the factor which, if untreated, leads to relapses after withdrawal treatment.

Personality Vitamin

Children starved by lack of mother love grow up with stunted emotions and personality, just as children starved by lack of some essential food elements are stunted in physical growth, Dr. David M. Levy of New York has observed. Such a child is never able to display real affection for others.

The element of mother love may be considered as a vitamin necessary for the development of normal personality. This mother love vitamin is not the same as maternal care. Looking after a child's physical needs and teaching him is not enough, and the physically and mentally well cared-for child who is deprived of his mother's affection is starved in much the same way that a child may be starved on three hearty meals a day if the meals do not con-

tain vitamins and other minute but essential food elements.

This finding leads to a tip for persons considering the adoption of children. Children should be adopted, Dr. Levy advised, either before they are a year old or after they have passed the infantile period.

Diet For Epilepsy

Putting epileptics on a diet rich in fats and with little sugar or starch foods prevented attacks of the disease in nearly half of a group of patients, reported Drs. Henry F. Helmholtz and Moe Goldstein of the Mayo Clinic. Their report, based on 15 years experience with the diet, shows that it is fulfilling the hope held when it was first adopted as a method of treating epilepsy.

Blue Dye

Injections into the veins of a blue dye, methylene blue, for the treatment of a convulsive malady was recommended by Dr. Laslo Kajdi, of the Johns Hopkins Medical School, and Dr. C. V. Taylor of Springfield State Hospital. The physicians used it in cases of a disease called status convulsivus, in which series of convulsions follow one after another. In over half the cases the attacks ceased after injection of the dye, consciousness returned and confusion did not follow. The two physicians said that this was the only treatment for the condition so far as they knew which would bring the patients immediately back to consciousness. They tried it on the theory that the condition might be due to lack of oxygen.

Cause of Obsessions

Changes in the brain structure itself are responsible for obsessions, Dr. Paul Schilder of New York told members of the American Psychiatric Association.

The kind of obsessions to which Dr. Schilder referred are a form of mental disorder in which certain thoughts and ideas keep going through the patient's mind against his wish and in spite of himself.

One patient cited by Dr. Schilder got the idea, from her sister's criticism, that she had always been lazy. She resented this very much, but could not stop thinking and saying that she had always been lazy. Her husband tried to help her overcome this difficulty which worried her by telling her "to send the cockeyed world to hell." After that, she could not get out of her mind the idea that she had to do this.

Another patient complained of seeing

dirt everywhere and had to clean her house continually, although she was convinced that there was no dirt in it. These patients are not really thinking, Dr. Schilder explained, but are in a state in which one idea persists in their minds.

The patient who was obsessed with the idea of dirt had had encephalitis. The other patient had not, but must have also had some damage to her brain, Dr. Schilder believes. Such patients, like those who have had encephalitis, show other symptoms of brain damage. Important among these symptoms, he said, are a slight rigidity of the face and faintly mask-like appearance; slight rigidity of the elbows; great urge to talk; and overactivity.

The brain damage may have been present at birth or may have been caused by injury at birth or by some unknown poison or infection. It probably occurred during early childhood. This would account for the infantile attitude toward sex shown by these patients.

Psychiatric treatment was successful in all but one of the seven cases reported.

Birth-Injured

A remarkable case of a boy whose brain was so badly injured at birth that he could not sit up alone and could never talk but who was able to read, to do simple lessons and before his death at the age of 14 showed signs of growing up, was reported by Dr. Arnold Gesell of Yale University School of Medicine.

This lad's case showed that these birth-injured children, of whom there are thousands in the country, are not all feeble-minded. The injury to the brain prevents their having any motor control. They cannot move arms or legs or hands, in most cases, and when they try to do so, their whole bodies jerk and move in a senseless manner which with other symptoms gives the appearance of feeble-mindedness.

Many of these children are unaffected mentally and can be trained both mentally and, in some cases, physically. From the standpoint of treatment the chief problem, Dr. Gesell said, is to appraise correctly and to release the patient's potentialities for self-directed effort.

Classified by Blood Studies

Acute insanity may be distinguished from chronic insanity by certain properties of the blood, Dr. S. DeWitt Ludlum of Philadelphia reported. He classi-

fied mental diseases in four groups according to the protein composition of the blood.

No change in blood proteins was found in normal persons, chronic demented patients who had probably reached a new state of physical and chemical equilibrium, hysterical patients and those suffering from neurotic disorders.

An increase in a protein called euglobulin was found in patients suffering from mental disease due to some poison. The symptoms are probably due to disturbance in the interchange of water between blood and tissues.

Pseudoglobulin, another kind of protein, was increased in the intoxications due to a specific poison acting on a susceptible organ.

Albumin was increased in patients of a non-reactive type. This increase in albumin shows the presence of physiological deficiency of some sort.

Pig Has Nervous Breakdown

Cases of nervous breakdown in sheep and pigs were reported by Dr. H. S. Liddell of Cornell University Medical College.

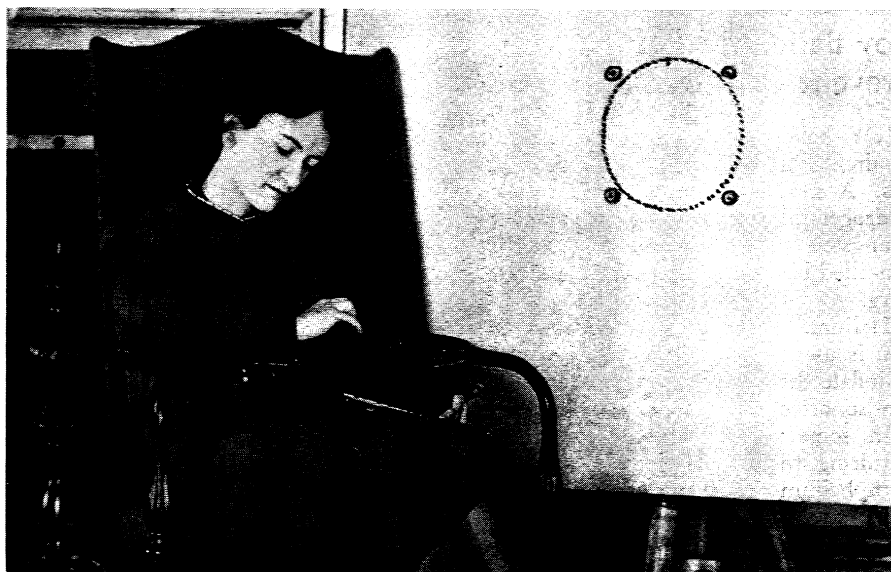
The nervous breakdown was produced experimentally in the animals and is important because it gives psychiatrists for the first time "guinea pigs" on which to test treatments for mental disease before trying them on human patients.

Out of a group of sheep which had been trained to take part in certain laboratory experiments, three suddenly became neurotic and refused to be led to the laboratory. Like a neurotic person, these animals developed tics, irregular breathing and rapid heart beats.

The pig had been trained to open the lid of a box to get an apple which was delivered at certain signals but not at others. Later a slight shock was given when the pig opened the lid of the box, but the animal paid no attention to this.

Then the signals were made more complicated. One kind of shock was given on feeding day and another kind on other days. Soon the animal resisted efforts to give the shock but remained quiet on feeding days. The pig continued to open the lid of the box to get the apple, but when its attempts to do this were met with another shock, it refused to open the lid until a piece of apple was dropped.

Finally the experimenter refused to drop the apple until (*Turn to Page 332*)



THE OSCILLION

Seated in an easy armchair is Mrs. William E. Danforth playing the electrical musical instrument developed by her scientific husband, Dr. W. E. Danforth, for use in the non-paid Swarthmore Symphony Orchestra. By sliding the finger on the strips of metal atop the box the tones of the French horn or the bass clarinet issue from the loud speaker seen in the right background.

PHYSICS

Electric Instrument Invented To Take Place of French Horn

WHEN Dr. W. F. G. Swann, the well-known scientist who is director of the Bartol Research Foundation lifts his baton in his extra-curricular job as conductor of the non-paid Swarthmore (Pa.) Symphony Orchestra he can call into service two novel electrical musical instruments used nowhere else in the world.

Like most non-paid musical units the Swarthmore Orchestra finds difficulty in obtaining a full complement of instruments to render standard symphonic works.

But ingenuity, in the person of the Bartol scientist, Dr. William E. Danforth, has devised electrical apparatus that can pinch-hit for the missing French horn and bass clarinet. A simple elongated box that one holds on the left forearm and plays by moving the fingers on two metal strips does the trick, when linked to radio amplifying apparatus and a loud speaker.

Slight pressure of the right forefinger on one of the strips causes the loud speaker to give a tone controlled in a

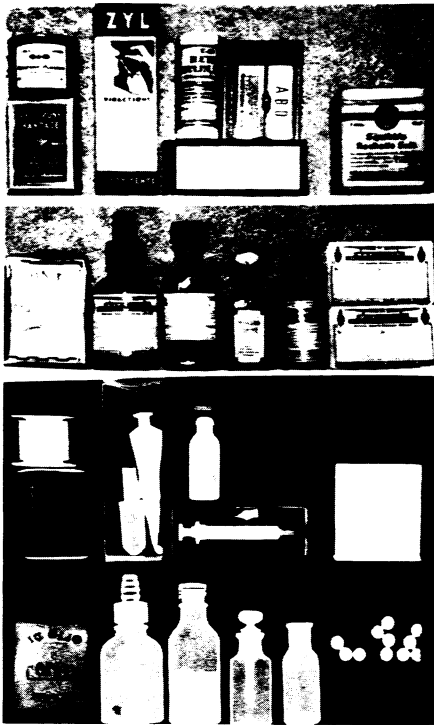
fashion similar to the fingering of a violin. The loudness of the tone produced is controlled by moving a small lever with the left thumb. The other fingers of the left hand control the range of pitch of the instrument.

Dr. Danforth explained to Science Service that while none of the principles used in the instrument are new to electrical science, certain features of design, ease of playing and "life" of the tone produced, are improved over what has previously been available.

Fundamental to the operation of the "oscillion," explained Dr. Danforth, is a gas discharge oscillator. When the finger is placed on the strip an electrical condenser starts charging up like a small water tank being filled through a pipe.

After a certain amount of electricity is stored up in this way the electricity is discharged through the gas discharge tube. This is as if someone suddenly pulled the bottom out of a water bucket and let the water fall all at once.

After the discharge, the condenser again begins to store (*Turn to Page 332*)



OUTSIDE AND INSIDE

A shelf of medical sundries, such as might be found in almost any household, and the same shelf, as the X-ray sees it. Note that both sides of the bar of castile soap are visible at the same time: the lettering on the back side is reversed.

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pig opened the box. This forced the pig to come to a decision and act on it. But the effort to do this was evidently too much for the pig and within a few days it developed neurotic symptoms. Since its whole disposition has changed and from being friendly and docile it became morose and hostile.

Because the pig or sheep has a simple way of life, uncomplicated and unobscured by the ethical standards and social traditions of human life, it provides an ideal test subject, Dr. Liddell pointed out, for analyzing the essential conditions that produce nervous strain and derangement.

Use Little of Brain

The very small part of man's relatively large brain necessary for intellectual processes, or what is commonly called thinking, was described by Dr. Leland B. Alford of St. Louis.

This might be called the seat of the intellect or the brain center for thought except that such psychological terms have gone out of fashion. It is located,

in right-handed persons, at the center of the left side of the brain.

Any other part of the brain can be injured or removed without interfering with intellectual processes, Dr. Alford and other scientists have found. Dr. Alford illustrated this point with several case histories, among them that of a 60-year-old business man. Apoplexy left this man almost completely paralyzed and unable to speak except for one expression of two words and the ability to swear when angry. In spite of this, the patient for two years has been conducting his business and managing several farms through an agent who is able to make out the patient's incoordinated gestures. Although the patient could not write his name upon request, he recently drew a plot of some farms without error. His mentality is excellent, Dr. Alford said, though X-ray pictures show a large part of his brain has been injured.

This and several other cases show that, contrary to general opinion among psychologists, different parts of the brain are responsible for speech and for thinking or intellectual processes. The brain area concerned with speech can be injured without affecting mentality.

The cortex or outer part of the brain is not so much concerned with thinking processes as psychiatrists have believed, Dr. Alford said.

Calcium for Hallucinations

Discovery that calcium, harmless chemical normally present in the body, can be used to calm the excitement and banish the hallucinations of mental disorders was reported by Dr. R. W. Robb of the Osawatomic (Kansas) State Hospital.

Scientists have known many drugs that would produce hallucinations but very few, other than narcotics such as morphine, have been known to relieve hallucinations, Dr. Robb pointed out.

The fact that lack or deficiency of calcium in the body causes nervous irritability is well known. Dr. Robb discovered its soothing effect when he gave it to a patient in the course of certain tests he was making. This patient's improvement led him to try it in 40 other cases of long standing. All were improved by the weekly injections of calcium.

Science News Letter, May 22, 1937

Soviet health officials are to study medical lore of India and Tibet, to see whether certain native remedies may have scientifically sound value.

RADIO

Hope to Predict Radio Conditions in Advance

HOPE that scientists will be able to predict radio transmission conditions a month or more in advance was held out by A. K. Ludy of the U. S. Coast and Geodetic Survey and A. G. McNish of the Carnegie Institution's Department of Terrestrial Magnetism. To correlate more closely the activity of the earth's magnetic field with radio transmission, these scientists are compiling a twice daily measure of the magnetic conditions as observed at seven world-wide stations. These "character figures" will be distributed by Science Service throughout the world and are expected to reveal practical useful relations between radio and earth's magnetism.

Science News Letter, May 22, 1937

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electricity and repeats the process at regular intervals. Thus is produced a rapid succession of electrical pulses which are sent through a radio tube amplifier to a loud speaker. If the pulses come 256 times a second, for example, the note middle C is produced by the instrument.

The frequency of the pulses and therefore the pitch of a note is determined by the value of electrical resistance through which the condenser discharges, just as the speed of filling a water tank depends on the size of the pipe through which the water flows. Movement of the fingers on the strips atop the little instrument box changes the electrical resistance and, hence, the tone produced.

"Admittedly," said Dr. Danforth, "no electrical device at present available can imitate all the effects available in conventional instruments. But electrical systems can simulate these effects and, moreover, can produce effects which the conventional instruments cannot. Among these are unlimited volume, unlimited range of pitch, wide variations in timbre and sensitivity of the instrument to a very light touch. Acceptance of these features must await the day when trained composers are moved to weave them into artistic creations."

Science News Letter, May 22, 1937

Guatemala plans to use airplanes to spray banana plantations.

The decimal system was used in India about 2,700 B. C., judging by discovery of a regularly marked measure.