

this disease, however, the patient often does not know he has it. In fact, he may not even feel sick. So he fails to get treatment for himself at an early stage when it can be most helpful, and fails to stop the spread of his germs to other persons.

In this early stage, long before the patient is coughing or spitting blood or having night sweats or feeling tired, X-ray pictures can detect the disease. Consequently, tuberculosis authorities urge more widespread use of X-rays to

find the patients who need treatment and to check the spread of tuberculosis.

The National Tuberculosis Association is conducting its annual Early Diagnosis Campaign, to remind people generally of the importance of finding the unsuspected tuberculosis patients in every community and every home.

One place to start looking for unsuspected tuberculosis, the association believes, is in the army of defense industry workers.

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which bacteria digest and get nourishment from their food. Sulfanilamide, according to Dr. Long's theory, must compete with one or both of these other chemicals for a place in the bacterial enzyme system. If it wins the chemical war and gets to the enzyme system first, the germs cannot flourish and the patient can overcome them and get well.

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#### MEDICINE

## Sulfa Drugs Able to Cure by Chemical Warfare in Germ

**Believed Antagonistic To Chemical Playing Role In Bacterial Enzyme System Essential To Germ's Life**

**S**ULFANILAMIDE and the other sulfa drugs cure by waging and winning chemical warfare within the bodies of invading disease germs. This explanation of how the sulfa drugs probably work was suggested in a Sigma Xi lecture at Mississippi State College by Dr. Perrin Long, professor of preventive medicine, Johns Hopkins Medical School.

Dr. Long is an authority on the sulfa drugs, being one of the first American physicians to use them and the man chiefly responsible for introducing Pron-tosil, granddaddy of the sulfa drugs, to this country.

"Two main theories as to the mode of action of sulfanilamide have been evolved," Dr. Long said.

He favors what he calls the "inhibitor theory," according to which chemical warfare is waged in the invading disease germ's body.

The warfare is between the sulfa drug and one or both of two other chemicals, para amino benzoic acid and methionine. The first of these has been found in yeast and is very likely present in all living things, including bacteria. Scientists have recently found that it has to a high degree the power of inhibiting or stopping sulfanilamide's action against disease germs. It does this both in the test tube and in the infected animal.

Methionine is one of the essential amino acids from which proteins are built. It is found in normal blood and probably is also present in body tissues.

Like para amino benzoic acid, methionine can stop the bacteriostatic activity of sulfanilamide.

One or both of these chemicals may play a role in some enzyme system by

#### PSYCHOLOGY

## Psychologists Honored For Research on Vision

**O**NE of the highest honors in the field of psychology, the Howard Crosby Warren Medal, was awarded by the Society of Experimental Psychologists to Prof. Clarence H. Graham, of Brown University.

The award was made for Prof. Graham's notable researches in the field of vision. He has been particularly interested in exactly what happens to the eyes and to the nerves involved in vision when light strikes the eye or when the intensity of light suddenly changes — as when you step from bright sunshine into a darkened theater.

Prof. Graham was recently appointed



#### HONORED

*Dr. Clarence H. Graham, of Brown University, shown here at work in his laboratory, was awarded the Howard Crosby Warren Medal for his distinguished research in the psychology of vision.*

to the National Research Council's Committee on Sensory and Perceptual Problems, which is a subcommittee of the

Emergency Committee on Psychology devoted to defense problems.

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# PSYCHOLOGY

## German Army Psychologists Make Effective Use of Science

### Peculiar Notions of Nazi Ideology Are Disregarded When It Comes to Selection and Training in Army

GERMANY has been using scientific psychology as an effective military weapon in the army and "fifth column" for at least five years. Even Freudian doctrines have been put to use, despite public condemnation of psychoanalysis in Germany.

This is revealed by a clever piece of scientific detective work done for our own defense program by Dr. H. L. Ansbacher, of Brown University. As a contribution to the work of the Emergency Committee in Psychology, Dr. Ansbacher has made a thorough search of every available scrap of writing published by Germany's corps of military psychologists.

Individually, these publications escaped the attention of the outside world, because as contributions to science they were insignificant. But pieced together, they disclose a unified approach to the problem of applying psychology to military problems in a very effective way.

Peculiar notions of Nazi spokesmen on race psychology and the influence of physical makeup on the mind are thrown into the discard by the German army when it comes to making practical military use of this science, Dr. Ansbacher found.

"The honest research psychologist must admit," said Dr. Max Simoneit, regarded as the dean of German military psychology, "that nature in some cases upsets his rules of types."

Neither do totalitarian ideas regarding the unimportance of the individual apply in Germany to the selection of German army officers or to the training and discipline of the army, Dr. Ansbacher's survey revealed.

In fact, the greatest danger for an army is seen by Dr. Simoneit in its becoming a mass; the greatest asset, superior leadership.

"Our hope for victory is founded on intellectual superiority of the German

officer," Dr. Ansbacher quotes this German leader as saying.

Although some psychologists in the German army favor strictest discipline according to traditional Prussian fashion, a newer viewpoint is expressed by Dr. W. Hansen, German military psychologist. He favors individualized training, Dr. Ansbacher found.

"The days of blind obedience are gone," Dr. Hansen declared in a psychological journal in 1938. "Mere subordination would not be adequate to modern fighting conditions. Through machine gun nests, tanks, and airplanes an army fights in such small units that every single man must furnish his own inspiration and be his own officer."

"Therefore the active participation of the individual in the training process must be elicited. The sergeants must be educated to understand the individual and deal with him accordingly."

Digging further through the writings of German psychologists revealed that sergeants are actually educated along these lines.

In the German army, it is the psychologists who select the commissioned officers, not the officers who pick psychologists. The psychological examination for commissioned rank lasts two full days and is conducted by a board consisting of two officers, one physician, and three psychologists. This is the main task of German military psychology.

They try, in this comprehensive examination, to evaluate the candidate on general intelligence (loaded on the practical side), use of willpower, planning, attention, clear thinking under physical and emotional stress, energy, perseverance, willingness to try with all one's might and to the limits of capacity, ability to command or manage people, and total personality as revealed by life history.

During the examination, motion pictures of the candidate are secretly made

and studied to reveal his facial expression while thinking and under various kinds of strain. Even his handwriting and voice are subjected to scrutiny for any clues they may give to his personality.

According to a special report to Secretary of the Navy Knox, the military psychologists also train military spies, the Gestapo and "fifth column" agents for service abroad.

This part of the psychological laboratory has been kept secret, but Dr. Ansbacher was able to find references to two books by Dr. A. Blau, who seems to head this work. One is an official handbook on propaganda, the other on "Psychological Warfare."

Other obscure papers reveal how German military psychologists operated to obtain information about the mental make-up of other peoples.

The psychologist was directed to study individuals of a foreign nation by intimate living among them as a friend. He must speak their language. But he must not live so long in the foreign land that he "loses his perspective." And furthermore, he must write his report after he has returned to German soil.

This is how the Balkan people are characterized on the basis of such individual psychological studies, together with community studies and analysis of statistical material:

"Extremely conservative, very superstitious, strongly devoted to their families, governed by home rule to a great extent, and seeing in work no other satisfaction than profit. In spite of different languages and governments, they form an essentially homogeneous group, distinct as a whole from the neighboring groups."

And here is a portrait of the English people as seen through the eyes of the German military psychologist who drew on 19th Century literature and documents for his analysis:

"Strong spirit of individual enterprise, initiative, sense of responsibility, and striving for personal freedom and self-government combined with strong national unity. The economic aspect takes the foreground, the military the background, and an unshakable belief in the right of the English people to rule is supreme."

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Naturalists, who found a mule deer fawn curled-up motionless in a "freeze" pose for defense in its mother's absence, photographed the infant for 30 minutes, and it seemed not to move even an ear and kept eyes wide open.