

PSYCHOLOGY

Reading Troubles Seen

Slow progress in learning to read and write may be caused by a number of factors, including 'word blindness,' mental retardation, familial problems and brain damage.

► **TEACHERS ARE URGED** to be on the lookout for children in the lower grades who are not making expected progress in learning to read and write. Some of them may be "word blind."

Two University of Edinburgh, Scotland, faculty members emphasize in the *British Medical Journal*, Aug. 21, 1965, that delay in referring such children to medical and psychiatric doctors or child guidance clinics may produce emotional disturbances as a result of anxiety and stress.

At an average age of nearly 14 years, 40% of the children in selected Scottish schools were found to be three or more years retarded in reading, the researchers reported.

Some children may be unable to tell the difference between even commonly occurring words, or may not be able to discriminate between words closely resembling each other in shape.

A child may also reverse letters, for example, reading b for d, p for q, or transpose letters within words, seeing saw for was, ton for not, won for now.

Some children suffer from impairment of the ability to read, called dyslexia, a less severe form of alexia, which means word blindness. In dysgraphia, difficulty in writing is due to a brain lesion. Some children may have such high intelligence that their difficulties will escape notice. Often they are considered lazy, inattentive or emotionally maladjusted, but may "scrape along at the level of their chronological age group."

Mental retardation explains why some youngsters are late readers, but these children usually make slow progress in all subjects. Many children suffer from brain damage and have a limited attention span.

Medical studies of slow readers should include a detailed family history, since specific reading difficulties are often familial, the investigators said. Frequent absences from school may indicate that there is some physical ailment. If epileptic seizures have occurred or if the child's behavior has changed after an infectious illness, there may be underlying brain damage.

To determine the cause of the learning difficulties, a school psychologist can obtain a detailed account of the child's school progress, the methods of teaching used and his reactions to the school situation. Standardized intelligence tests should be given, along with tests of educational attainment in reading, spelling and arithmetic.

Diagnostic reading tests enable the psychologist to determine the nature of the disability or disabilities. With older children who have largely mastered the mechanics of reading, tests in silent reading are the most accurate way of measuring achievement. Spelling tests will indicate the type of difficulty experienced.

Slow speech development contributes to delay in learning to read and write, because it is frequently associated with poor auditory memory, Dr. T. T. S. Ingram and Mrs. A. W. Mason reported.

They concluded that there is an urgent need for all authorities to make special provision for children with specific reading and writing difficulties so that the youngsters will avoid personal frustration and "contribute their full potential to the community."

The scientists warned that "any form of educational pressure should be removed in order that secondary anxiety may be prevented or reduced."

• Science News Letter, 88:147 September 4, 1965

IMMUNOLOGY

Typhoid Vaccination Has Limited Use in Children

► **UNLESS CHILDREN** are being taken to regions where typhoid fever is constantly present as in tropical and subtropical countries, routine vaccination against the disease may do little good.

Children's symptoms are often different from those of adults with the disease, Dr. J. Neal Middlekamp of Washington University School of Medicine, St. Louis, stated in *Medical Times*, Sept. 1965. He said chil-

dren's typhoid may be atypical, or not conforming in type.

The pediatrician especially warned against the value of vaccine that has been treated with alcohol.

Previous reports have shown that nearly half of 438 men immunized with alcoholized typhoid vaccine got typhoid fever when exposed to outbreaks.

Phenolized vaccine gives better protection than the alcoholized type, but most recommended is the acetone-dried and frozen variety.

Diagnosis of typhoid fever can only be proved by the cultural isolation of *Salmonella typhi*.

Dr. Middlekamp reported 40 cases of typhoid fever during the past 15 years in St. Louis Children's Hospital.

One of the victims died. Twenty-eight lived in the city and 12 were from rural areas.

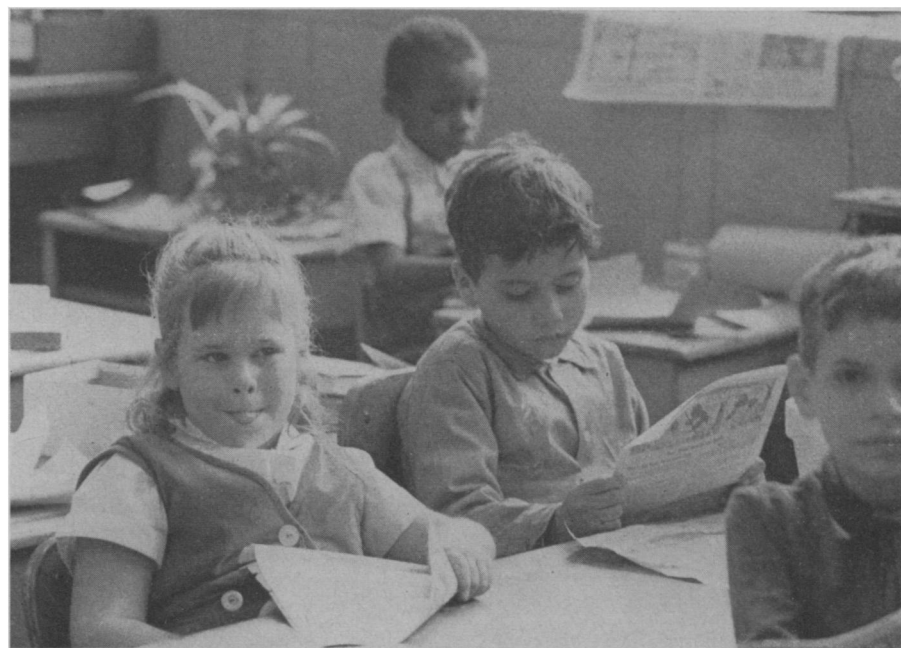
Fever, loss of appetite, diarrhea and vomiting were the symptoms most often encountered.

The best treatment was with chloramphenicol, although in some cases there were side effects affecting the heart temporarily.

Typhoid fever is still one of the most common fever illnesses in children and infants of tropical and subtropical countries, Dr. Middlekamp said. There has been a marked reduction in the occurrence of the illness in the United States during the past 50 years, largely because of sanitation, detection of carriers and the administration of vaccine.

The pediatrician warned that any "physician giving typhoid vaccine must remember that vaccines vary in potency and that protection by good vaccines may be partial." The greater the number of microorganisms, the more difficult it is to protect against them.

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Children's Bureau

BACK TO SCHOOL—Most children will be returning to school soon. Elementary school teachers are warned to be on the lookout for children with a variety of reading and writing problems that may conceivably do damage to later living and learning.