A post doctoral fellowship to study the language handicapped child is briefly discussed. The report concludes a year of study during which the author attempts to develop a foundation to bring education and medicine together to meet the challenge of the language handicapped child. The major areas of study — reading, linguistics, and psychology as it relates to language acquisition — are identified, and formal classes attended are cited. Research conducted is very briefly mentioned and three broad categories (information, research, and long range planning), under which the author feels the activities of the fellowship can be concluded, are outlined. (CD)
FINAL REPORT
PROJECT NUMBER 9 - 0661
GRANT NUMBER OEG 0-9-310661-4618(010)

POST DOCTORAL FELLOWSHIP
TO STUDY
THE LANGUAGE HANDICAPPED CHILD

RECIPIENT
JAMES J. A. CAVANAUGH, M.D.
GRADUATE SCHOOL OF EDUCATION
HARVARD UNIVERSITY
CAMBRIDGE, MASSACHUSETTS 02138

FEBRUARY 9, 1971

PERIOD OF STUDY JULY 1, 1969 THRU JULY 1, 1970

SPONSOR
PROFESSOR JEANNE CHALL
READING AND ENGLISH DEPARTMENT
HARVARD UNIVERSITY

U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
BUREAU OF RESEARCH,
WASHINGTON, D.C.
THE LANGUAGE HANDICAPPED CHILD

The awareness that some children developed language in an irregular and imperfect fashion became an increasing concern as the changes in our society, which evolved through the mid portion of this century, were reflected in our classrooms and widened the gap between the troubled and the spontaneous learner.

Most handicapped are those youngsters who, by virtue of sensory deficit, live apart from their environment but, equally important, by virtue of sheer numbers, are those children whose recognition and processing of sensory information as it relates to language acquisition and usage is askew.

As the full development of potential in a child is closely linked to his acquisition of language, so his ability to function in society is linked to his use of language. This most human biologic function of the child is less well understood by medicine than are other such functions. The lack of attention on the part of medicine to language acquisition has severely limited the understanding of disorders of language and handicapped the educator in his ability to cope with youngsters who cannot learn in a standard classroom by traditional techniques.

Ironically, the troubled learner turns to the physician for help.

During the five years which preceded the years of postdoctoral study experience with hearing handicapped children and youngsters with perceptual disorders clearly indicated the need to establish a working relationship between medicine and education which would allow the language handicapped child to be easily identified and appropriately educated.
The needs of both disciplines overlap. That disorder of language exists is intellectually held by most but reported in practice by many. Thus, the first need is seen as awareness; of equal importance is knowledge of how the normal child goes about acquiring language. Despite the common attitude of many, including the linguists, that sounds in language acquisition are of only theoretical advantage, there is a practical application and relevance to their studies - at this stage of knowledge it is the pathway for early identification of handicaps. Lack of awareness of available information in this field caused neurologist and pediatrician alike to define inappropriately as variants of normal, children who, by their irregular development of language, were signaling both physician and teacher of the stormy course which lay ahead when they were introduced to formalized education. From understanding of the normal develops a feedback system which, through recognition of the abnormal, allows inquiry of those identified as handicapped to join further insight into normal development.

Early recognition of abnormalities allows better classification of these disorders which leads medicine toward ultimate courses. Such information is fundamental to the development of "cures".

Should a hiatus exist between early identification of an abnormality and its remediation? Should we await the maturation of visual perception in the child which allows him to deal with the orthography of our language or should we address early childhood learning? It is assumed that each child brings to the beginnings of his formalized education information, intuitions and knowledge of his language, most of which have been acquired through the auditory system.

If we are to address early childhood learning, should we concentrate on the visual system, or the auditory system or the motor system. Does the child have to hear in order...
to read or does motor development influence cognitive growth. Physician and educator must know how to ask questions of one another and respond in a fashion that is meaningful to the other.

Because of these reasons and frustrations, a year of independent study was undertaken to allow the development of a foundation upon which a structure could be built to bring medicine and education together to advantage the language handicapped child.

The year of study was undertaken at Harvard University after discussion and advice from Professor Jerome Bruner and Professor Jeanne Chall. The proximity of M.I.T. and particularly the presence of Noam Chomsky and his professional influence on the Cambridge language community was seen as further impetus to locate at Harvard University. Despite a designated twelve month tenure for the program, it was recognized and planned that fifteen to eighteen months would be required to complete the period of study.

I Reading
II Linguistics
III Psychology as it relates to language acquisition

were identified as major areas of study.

Three months were spent as a reading period to read and review introductory material in the above fields.

From September through June two semesters of class work, discussion groups and seminars were attended. Formal classes attended were as follows -
During the year one hundred and six boys and girls, ages 8 through 16, were evaluated for the presence of the central language processing disorder known as developmental dyslexia. These children were used as subjects for a study of syntax development in youngsters with that disorder.

A study of the presence of language learning abnormalities in the siblings of twenty-five youngsters with overt learning handicaps was completed and further study of the correlation between the genetic abnormality of premature greying of the hair and the dyslexia syndrome was accomplished.

The latter work was reported at a meeting of the Irish and American Pediatric Society held at Trinity College in Dublin in July, 1970.
The results of a year of independent study are impossible to cite because by its very nature the year allows further learning as a step towards anticipated results. Three broad categories might be listed under which the activities of the fellowship can be included. These are information, research and long range planning.

The primary thrust of the year falls under the heading of information which flows in two directions. The introduction to a previously unfamiliar literature in cognitive psychology, reading and linguistics which form a continuum in human development allows a bridge between education and medicine necessary to the solution of the problems of the language handicapped child. At the same time during the year the advantage of the superimposition of medical information and interpretation upon learning problems in children creates the beginnings of a foundation upon which to build.

It is apparent from the year of study that much information already exists, however, its dissemination and use has been limited. Early identification and appropriate remediation of the language handicapped child is quite possible. Greater stress must be placed on the early childhood years which are not utilized to begin to meet the needs of the child with a language handicap. At times there seems to be more need for the dissemination of available information rather than for the production of new information. More stress must be laid on the significant role of the parent or parent substitute in the development of language in the child.

The apparent need to get pertinent medical information as it relates to language handicapped children to the educator in an understandable and usable way and to see that educational information gets to the physician is a major problem. It has been planned that there be a medical point of view presented to degree candidates in education through an active participation in their training program as a step toward resolution of this problem. At the same time joint meetings with educators to instruct physicians are being planned.
by the Academy of Pediatrics. These are steps in the right direction.

I

There is indication from studies of groups of children identified as having the dyslexia syndrome that their understanding of the syntax of their language is not significantly different from that of children who have no language handicap.

II

There is indication from studies of sets of children with the dyslexia syndrome that some degree of handicap exists in family members. There seems to be no indication that fewer girls are born to parents with this disability, nor is there indication of potentiation of the defect when both parents are affected.

III

Evidence has accumulated that premature greying of the hair in a family is a hallmark of language learning disability. Because the known association between pigment abnormalities in children and hearing handicaps, it was postulated that early greying of the hair might occur more frequently with disorders of auditory perception than with abnormalities of visual perception. Such was found to be the case however, visual perceptual abnormalities do occur commonly in families wherein this is demonstrated.

The year of study has allowed the recipient a foundation upon which to build to bring education and medicine together to meet the challenge of the language handicapped child.