

RESEARCH PROJECTS

As we described in the Annual Bulletin No. 1, our institute in the future will consist of four research sections, covering research fields of:

- 1) fundamental studies of language and speech (Speech Science)
- 2) functional studies of articulatory and phonatory processes
(Speech Physiology)
- 3) psycho-physiological studies of speech processes in particular auditory processes and perception of speech (Speech and Hearing)
- 4) studies of pathological cases (Speech Pathology).

By now, funds have been granted to us by the government to establish only the first section. The research efforts, however, cover already some of the areas to be covered by other sections.

The progress in the research projects as reported in this issue is made possible not only through extraordinary efforts of the staff members of the institute, but also active participation of cooperating groups. In particular, Professor I. Kirikae, our director, is in charge of the Department of Otorhinolaryngology of the Tokyo University Hospital, and there he has research groups on speech, hearing and many other areas. There is good cooperation between these groups and our institute. Dr. M. Sawashima, associate professor of this institute, also directs the speech group there. Mr. S. Shibata, research assistant at the hospital, stays with us for his research work. Many of the projects reported in this issue are being carried out by participation of the staff members of this otorhinolaryngology department.

I hold a simultaneous appointment as professor at the University of Electro-Communications and direct a speech group there. Among the staff members there, Professor H. Ishida participates in the Dynamic Cineradiography project and is mainly concerned with the on-line use of the PDP-9 computer. Mr. S. Maeda, research assistant, conducts his experiment on the voice aperiodicity partly in this laboratory. He also cooperates in many other projects reported here. Two graduate students conduct their experiments here as part of their studies for the Master's degree.

I also teach theory of grammar at the Department of Linguistics and the Division of Humanities, Graduate School, University of Tokyo. I supervised a student's work for the Master's degree and his thesis on the Japanese phonology is summarized in this issue. We also enjoy close cooperation of Professor H. Takahasi and his staff at the Department of Physics and the Computation Center of the university. Mr. H. Kameda, a graduate student in the Division of Science, works at our laboratory for his Doctor's thesis on interrelating problems of the computer software systems and natural languages. His work on the command language for time sharing systems is summarized here.

These research activities are supported financially by the national government of Japan and in part by some outside sources. In particular, the project of Dynamic Cineradiography which is the most large-scaled is supported by PHS Research Grant No. 07233-01 and 07233-02 from the National Institute of Neurological Diseases and Blindness, U.S.A. A high speed digital computer (PDP-9 of DEC, U.S.A.) with some peripheral equipment was purchased and installed at our laboratory by this grant. Other supports are related to cooperative works with the Japan Broadcasting Corp. (Radio & Television Culture Research Institute) and with the Nippon Telephone and Telegraph Corp. (Research Laboratory of Electrical Communication). Some instruments have been contributed to our laboratory as gifts from Nippon Electric Co. and Tec Corp.

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