

Introduction

More than a year has elapsed since our new research organization was founded by the national government of Japan. It is called the Research Institute of Logopedics and Phoniatics, and is affiliated to the Faculty of Medicine of the University of Tokyo. It is devoted to research work that aims at scientific understanding of speech phenomena and contribution on this basis to medical application. The institute will consist of four sections for research in: (1) speech science, (2) speech physiology, (3) speech perception, and (4) speech pathology. Only the first of the four sections has been established by the government, but we expect to receive grants for the rest in the very near future, on an individual section basis. For the time being, we have started research activities with the following staff:

Director: Ichiro KIRIKAE, M. D., Professor of Oto-laryngology

Professor in charge of the Speech Science Section: Osamu FUJIMURA, D. S.

Associate Professor: Masayuki SAWASHIMA, M. D.

Several research associates are affiliated to the Speech Science Section. Some have

their background as physiologists or oto-laryngologists, some as physicists, and one as a psychologist. There are also close cooperations with other professional groups with backgrounds in linguistics and in electrical engineering. Professor Fujimura has a simultaneous appointment as Professor at the Research Laboratory of Communication Science, University of Electro-Communications, and directs a speech communication group there. He also is associated with the Faculty of Letters, University of Tokyo. There are graduate students in courses of Medicine, Health and Welfare, and Humanities, who work for their theses mainly or partly in the institute.

Research projects being carried out or in preparation at the Speech Science Section are:

- (1) Development of a new dynamic radiographic technique by use of a computer controlled x-ray microbeam.
- (2) Observation and accurate measurements of phonatory and articulatory processes by use of various experimental techniques, in particular (a) radiography, (b) ultrasonic measurements, (c) electromyography, (d) optical means including light flux measurements through the glottal opening and photography with use of fiber optics.
- (3) Studies of the voice source, in particular the characteristics of the fundamental pitch contour, fluctuation and aperiodicity of the voice signal, in relation to the linguistic features and their physiological correlates. Studies of the voice quality including both normal and pathological cases.
- (4) Studies of articulatory description from a synthesis-by-rule point of view.
- (5) Phonological studies of Japanese and other languages.
- (6) Studies of speech performance, in particular reference to the theory of generative grammar.

We are pleased to publish the first issue of our annual bulletin. This is a special issue, and it features contributions from many of the major research groups in the field, both abroad and domestic. By this we intended to clarify the aims and characteristics of our research organization in relation to the present status of speech research in general. Some contributions constitute substantial articles, and some are short in form but as penetrating as they could be. We are truly grateful for these priceless co-operations. We feel encouraged and stimulated strongly, and next year when we publish the second issue, we shall respond with our best in the form of our research reports. Copies of our publications shall be prepared and sent out so they may help re-enforce research co-operation even in distance. For those colleagues of us who are in nearby research groups, we believe that our organized collection of literature as the result of kind co-operation of the overseas research groups will be helpful and convenient.

Our research staff, particularly full-time members, are few in number, but all are more than qualified for their positions. Experimental facilities are regretfully limited, but we are endeavoring by all means to be better equipped. In this connection, we appreciate understanding and co-operation of the Dean and the

Faculty. We also acknowledge outside colleagues' co-operation and assistance in various forms, in particular, research groups of Nippon Broadcasting Corporation (NHK), Nippon Telegraph and Telephone Corporation.

Ichiro KIRIKAE, Director

Personnel

Director : Ichiro KIRIKAE (M. D.) Also chief of the Department of Oto-Rhino-Laryngology

Full-time Staff: Osamu FUJIMURA (D. S.) Professor of Speech Science

Masayuki SAWASHIMA (M. D.) Associate Professor

Hajime HIROSE (M. D.) Research associate

Shiguru KIRITANI (B. S.) Research associate

Two office clerks

Part-time Staff: Miss Shizuka OKAMOTO (B. S.)

Miss Fumiko MITSUYA (B. A.)

Mrs. Doris KATAGIRI (B. A.)

Guest Associate: Susumu KIMURA (M.A.) Lecturer at Gumma University,
Department of Psychology