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Modern Language  
Conf. on  
Speech  
Analysis

Approaches to a basic understanding of the mechanics of speech production, transmission and perception will be sought at a special conference on Speech Analysis to be held at the Massachusetts Institute of Technology tomorrow and Tuesday.

In announcing the program for the conference, Dr. William N. Locke, Head of the Department of Modern Languages at the Institute, emphasized that "there is an increasing demand for a coherent theory explaining the way in which we are able to communicate through a system of conventional sounds called speech."

"Speech is basic to our entire social organization," said Dr. Locke. "In order to account for the behavior of man, we have to account for speech. The applications of speech analysis are far reaching. They range from methods of speech correction to systems of quantitative measurements of speech symbols that may enable engineers to transmit speech more accurately and economically.

The conference has been planned to consider speech from the points of view of psychology, linguistics and acoustics. Each of

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these aspects will be explored through a three-hour session of informal papers and discussions.

"The Psychological Approach to Speech Analysis" will be the subject of a panel and general discussion on Monday morning (June 16). "Signal Analysis and the Human Ear," will be discussed by William H. Huggins, Air Force, Cambridge Research Center; "The Mechanism of Speech Perception," by Joseph C. R. Licklider, Acoustics and Lincoln Laboratories, M.I.T.; "Air Language," by Frederick C. Frick, Human Resources Research Laboratories, Bolling Air Force Base; and "Some Experiments on the Perception of Synthetic Speech Sounds," by Franklin S. Cooper, Pierre C. Delattre, Alvin M. Liberman, John M. Borst, and Louis J. Gerstman, Haskins Laboratories.

"The Linguistic Approach to Speech Analysis" will be considered on Tuesday morning (June 17). "Phonemes and Allophones in Speech Analysis," will be presented by W. Freeman Twaddell, Brown University; "Identification of Phonemic Elements," by Eli Fischer-Jørgensen, University of Copenhagen; "Phonetic and Phonemic Segmentation," by Kenneth L. Pike, University of Michigan; and "The Elementary Quanta of Language," by Roman Jakobson, Harvard University.

"The Acoustical Approach to Speech Analysis" will be the subject of the Tuesday afternoon panel. "The Information-Bearing Elements of Speech," by Gordon E. Peterson, Bell Telephone Laboratories; "The Mechanism of Speech Production as a Guide to Acoustic Analysis," by Kenneth N. Stevens, Acoustics Laboratory, M.I.T.; "Identification of Speech Sounds as Discrete Units," by Sze-Hou Chang and Martin W. Essigmann, Northeastern University; "Automatic Recognition of the Spoken Word," by Kingsbury H. Davis, Rulon M. Biddulph, and Stephen Balashek, Bell Laboratories; and "The Problem of Selective Voice Control," by Winston E. Kock, Bell Telephone Laboratories.

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Moderators for these sessions will be, in turn, Walter A. Rosenblith, Acoustics Laboratory and Research Laboratory of Electronics, M.I.T.; William N. Locke, Head of the Department of Modern Languages, M.I.T.; and Leo L. Beranek, Technical Director of the Acoustics Laboratory, M.I.T.

Opening remarks on Monday morning will be given by Jerome B. Wiesner, Director of the Research Laboratory of Electronics, M.I.T., and E. Colin Cherry, Guest of M.I.T. from Imperial College, London, will address the conference dinner Monday evening on "The Unity of the Communication Sciences." On Tuesday evening there will be a special symposium on Mechanical Translation which participants of the conference may attend.

Sponsoring the conference are the Acoustical Society of America, the Psycho-Acoustic Laboratory of Harvard University, and a number of M.I.T. projects active in speech analysis research.

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NOTE TO EDITORS: Though unrelated to this program, a conference on Building in the Atomic Age will be held at M.I.T. during the same period, June 16 and 17. The program for this second conference has already been announced.