GEORGETOWN UNIVERSITY PRESENTATION Tuesday, 19 July, 9:00-10:15 a.m.

ZARECHNAK

Mr. Zarechnak opened the session with general comments concerning the problems of dictionary storage. He added that storage would include only those features which are constant, and stems without endings.

Re explained that, serving as a basic approach to MT, an order of precedence would first attempt to solve the problem of a dictionary, and second, the problem of syntactic analysis. Since the sentence is the vehicle which carries the message from the source language to the target language, sentence structure is the level on which analysis of the text should begin. (Note: The work of this project has dealt with chemical texts.)

Mr. Zarechnak further stated that a division of functional analysis could be made onto three distinct levels: first, analysis of the morphological structure of the particular word, independent of its neighboring words; second, syntagmatic or continuous function analysis; and third, syntactic or discontinuous function analysis, e.g., nesting. A fourth level of analysis will necessarily be semantic analysis. In fine, the four levels of analysis are: morphological (word without neighbor), syntagmatic (continuous function), syntactic (discontinuous function), and semantic (e.g., Rain-refreshed forest).

Mr. Zarechnak proceeded to point out that there were obviously many immediate problems in the field of MT, such as subject-predicate relationship, and, in general, those problems encountered in the process of carrying a message from the source to the target language. He also announced that MT must have a series of language sciences to meet and solve the abovementioned problems. He concluded by acknowledging the immensity of the field and the vast contributions that are yet to be made.

GEORGETOWN UNIVERSITY PRESENTATION

A.F.R. BROWN

Dr. Brown had nothing he felt he might offer in the way of linguistic information, in view of the fact that he has spent the past fourteen months concentrating on questions of programming only. A significant product of this fourteen month period is Dr. Brown's "Simulated Linguistic Computer".

Dr. Brown presented his handout A Symbolic Language for Programming the Simulated Linguistic Computer, and taking the word 'haut' as an example (Dr. Brown's work has dealt exclusively with French), he discussed and graphically demonstrated an 'up-dating' procedure.

A brief question-answer discussion period followed. A question of major concern involved the quantity of text that should be required in order to form positive conclusions. It was generally agreed that it would depend upon both the amount of attention directed toward the text, and the extent to which one would rigidly adhere to established categories. There was also general agreement with Mrs. Masterman's comment that it was essential for the message to be preserved, that one could not determine what had been missed in translation by simply reading output.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY PRESENTATION Tuesday, 19 July, 10:45-12:00 a.m

LIEBERMAN

Dr. Lieberman presented a handout concerning a search routine, prepared by Ken Knowlton. Dr. Lieberman offered some general statistical information about the routine. He said that the input for this routine must be punched in a specific manner, which is worked out by the U.S. Patent Office and M.I.T. He further explained that each occurrence is given an integral number of machine words and that as many as one hundred items could be searched for at one time.