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.

At the blackboard, Dr. Lieberman drew a representative flowchart and offered information and explanations of what happened in the actual search. He demonstrated that several requests might be satisfied by one text sequence. Search time for scanning 200,000 words of text is about ten minutes plus 0.2 seconds for each encounter if context is to be printed out.

The source material which was used included: 100,000 words each of 1) Associated Press Material, 2) German Newspapers, 3) Patent Office Material.

Some general discussion of the handout text ensued.

YNGVE

Dr. Yngve initially offered some general comments about COMIT. He added that the program was to be distributed through SHARE. He then presented his approach, with particular emphasis centered around the 'depth phenomenon' and subsequent phrase structure. He treated related questions such as: how such memory is needed for specific procedures; e.g., expansion of the sentence into (a) subject and (b) predicate.

He proceeded with the presentation, offering a definition of the 'depth of a node' as being "the number of right branches required to go from that node back to the top". In estimating the size of a temporary memory, he suggested that a memory of about seven items is needed for producing English. He added that one result of the depth phenomenon is that we now have a definite reason for explaining why some sentences are awkward.

Dr. Yngve then discussed unordered phrase-structure rules, adding that a grammar of this kind can be constructed, as is implied in the M.I.T. handout. He then presented some sample output from a COMIT program, designed to generate

sentences at random. He explained that the program was text-oriented, that he had used a childrens book, Engineer Small, which, with its forty word vocabulary, was understandably limited. The product result is output without initial input.

Dr. Yngve concluded with an invitation for open discussion. He also invited all interested conferees to gather in the conference room, Tuesday evening at 8:30, for an informal discussion and explanation of COMIT.

BERKELEY PRESENTATION   Tuesday, 19 July, 2:00-3:15 p.m.

LAMB

Professor Lamb began his presentation by taking an arbitrary and discontinuous Russian sentence plus a good translation of it.   Placing it on the blackboard, he proceeded to work out a lexeme by lexeme assignment of the translation.   He offered as his main topic for discussion: the idea of using lexemes in a translation system.   This topic, he added, could be placed under the heading of "helpful concepts and ideas", as had been suggested in the invitation letters in the way of recommendations for conference presentations.

Professor Lamb next invited the conference participants to look at the Berkeley handout material that he had distributed earlier, as he proceeded to discuss the individual items.   First, he explained his Diagram of the Structure of a Translation System and discussed the Types of Relationships Between Levels.   He made a point of emphasizing the fact that the advantage of this linguistic system was its simplicity.