

## DISCUSSION ON PAPERS 19 AND 17

MR. WAHLGREN asked Prof. Summers if he had any procedure for **discovering** homographies of the ДЕХАН type - a chemical name being homographic with a noun of the general vocabulary.

PROF. SUMMERS only deals with such words as they occur in processed texts. For instance ПРОПИИ would not be handled as a general noun, as the general use had not been encountered yet. He has no procedure for handling the resultant ambiguity but expects the problem to be minimal as long as they are handling chemical texts, since the nomenclature is Latin. He asked why Mr. Wahlgren said that he **must** segment down to the minimal, linguistically productive elements.

MR. WAHLGREN explained that you **must** carry out such segmentation if you are to handle all the potential neologisms based on those elements. You should not allow the machine to restrict your freedom in doing segmentation.

PROF. SUMMERS emphasised that only productive elements (i.e. those likely to be involved in producing new words) were worthy of segmentation.

MR. MITCHELL considered the practical work of Prof. Summers and Mr. Wahlgren very valuable, indeed essential, in machine translation. However, as the field of machine translation has significance beyond itself, in the whole field of man-machine communication, the mathematical and philosophical aspects become quite relevant.

PROF. LAMB assured the audience that the system Mr. Wahlgren described would soon be running on the computer at the University of California. He then pleaded for choosing computer procedures and systems that are good from a theoretical point of view, rather than allowing programming tactics to influence theoretical procedures in machine translation. He pointed out that to avoid going back and forth between the main dictionary and the chemical fragments table, Prof. Summers should include the latter in the main dictionary. Finally he emphasised the advantage of a shorter segment table when you choose shorter segments, and segmentation is done properly.

PROF. SUMMERS. Unfortunately, as they were not blessed with the random-access dictionary of Prof. Lamb's group, Georgetown's look-up takes **longer** with shorter segments.

DR. BROWN replied to Prof. Lamb that the chemical fragments **are** also in the main dictionary of Georgetown's scheme. Regarding segmentation,

although Mr. Wahlgren insisted that it was logically necessary to segment as far as possible, he also, like Georgetown, found it **convenient** to put words like ЭТАЖОИ into the dictionary whole, thereby disregarding his purist principles.

PROF. SUMMERS, rounding off the discussion on a harmonious note, stated that Georgetown's procedure for Russian organic chemical names, while not always accurate, worked, and he was quite sure that Mr. Wahlgren's procedure would too!

*J. MCDANIEL.*