

PRESENTATION AND DISCUSSION OF PAPER 21

PRESENTATION BY PROF. LAMB.

Prof. Lamb introduced new ideas developed since the paper was written. Suppose that an item a appears in the text with the following set of right neighbours:-

ab 12 times  
ac 6 times  
ad 5 times  
ae 1 time

Suppose also that a is the current most restricted unit with a T/RN ratio of 6. Instead of postulating a horizontal grouping of ab, ac, ad and ae, the new proposal is that only ab be accepted as a horizontal group at this stage. This group is chosen because b is more often the right neighbour of a than any other unit.

Revising token/right neighbour ratios gives, since ab is now one unit, a T/RN ratio for a of  $12/3 = 4$ , lower than before. Later, a horizontal grouping of a with c will be made, giving a revised T/RN ratio of  $6/2 = 3$  for a.

Suppose later that ab has a high T/RN ratio, and horizontal groups

(ab)f, (ac)f

have been formed. Only then do we form a vertical group from b and c. The condition is that they share a horizontal grouping (with a) and the resultant groups share a horizontal grouping (with f) of higher degree. It will be noted that horizontal groupings tend to reduce T/RN ratios while vertical groupings tend to raise them.

This improved version of the process has been run on the computer with the same text as was mentioned in the paper. The first vertical grouping it formed was 'he' and 'they'.

DISCUSSION

MR. BECKMAN asked for examples of Prof. Lamb's three kinds of hierarchical relationships at the morphophonemic level.

PROF. LAMB explained that the strata were concerned with only one of these three relationships, the eme - allo relationship. Thus, in Russian or German, the morphophonemic  $||d||$  is related to the phonemic  $|d|$  or  $|t|$ . In this case  $||d||$  is the eme and  $|d|$  and  $|t|$  are its allos.

This is a relationship *between* strata. The other relationships occur only within a stratum. For example |d| is a voiced stop, this being an example of |d| being a member of a class.

DR. PARKER-RHODES referred to the theorem concerning token right neighbour ratios, and said that this implies some model of language. He asked for more details of the model, since the sufficiency of the model is a necessary condition for the working of the process.

PROF. LAMB agreed that a model was necessary, and that one exists, but there was not time to describe it. He is writing a paper on the subject, but could give no reference since the paper was not yet complete.

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