PRESENTATION BY DR. PARKER-RHODES

THE paper is intended to contain a fully mathematical model of syntactic
structure. The use of lattice theory, which is the mathematical basis of
the paper, is not merely formal but is employed to find algorithms. The
algorithms are used to predict what will be the syntactic function of a
compound substituent when we are given those of its components. A strong
point in favour of the theory is that it makes use of the possibility of
forming direct products of lattices. The theory has a certain predictive
value. For instance, it predicts a limit to the variety of constructions
to be found in any language subject to the restriction that the theory
makes no predictions or remarks about the morphology of any language studied.
The forms, words and pieces of linguistic apparatus generally used to ex-
press the different syntactic functions are left entirely open. When the
theory is used to construct programmes one encounters the sort of problems
usually encountered when applying a mathematical theory to a concrete
problem. There is, for example, the problem of actual encoding of the
information. The theory itself does not lead to a single and unique
programme for analysis.

DISCUSSION

PROF. ZARECHNAK remarked that the paper was useful and interesting in terms
of experiments. Some problems can be predicted if one starts with a model.
Intuitively you form a set of rules to solve a certain type of problem and
then when the algorithm is tested, it frequently happens that, even when all
the conditions are present, the phenomenon which is present is not the pheno-
menon expected to occur.

DR. PARKER-RHODES replied that the remark raised two points. In the first
place, an algorithm, when found, doesn't usually work at the first trial
and has to be made foolproof. The second point concerns the border line
between syntax and semantics. For instance, in adjective-noun combinations
the main semantic weight is sometimes on the noun, sometimes on the adjec-
tive and sometimes evenly balanced between the two. A word such as ЧЕЛОВЕК
has a very wide and general meaning and one must expect an accompanying
adjective to do most of the work.

PROF. JOOS raised the question of idioms in which there is a disparity
between the semantic and the formal syntactic structure and instanced two
 (admittedly extreme) examples: "I can't seem to find it" and "You can get
your own breakfast". From the formal grammatical point of view neither of

these sentences means what is said. Many of the difficulties encountered in translating from Russian were of this kind and differed only in degree from the examples given.

DR. PARKER-RHODES replied that the points made were very much on the border line between syntax and semantics and that an even worse problem was raised when the output language has an anomalous idiom of a similar kind. The problem was essentially one of meaning transfer but we must not be too optimistic in not expecting people to raise other sorts of questions, because such questions do arise.

S. WHELAN