

## 16. Linguistics

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The ultimate objective of our research is to gain a better understanding of man's mental capacities by studying the ways in which these capacities manifest themselves in language. Language is a particularly promising avenue because, on the one hand, it is an intellectual achievement that is accessible to all normal humans and, on the other hand, we have more detailed knowledge about language than about any other human activity involving man's mental capacities.

Scientific descriptions of language have for a very long time followed a standard format. A number of topics are almost invariably discussed; for example, pronunciation, the inflection of words, word formation, the expression of syntactic relations, word order, and so forth. Moreover, the manner in which these have been treated has also been quite standard. While traditional grammars have many shortcomings, their great practical utility is beyond question; generations of students have acquired adequate command of innumerable languages with the help of grammars of the standard type. A plausible inference that might be drawn from this fact is that languages are somehow not very essential aspects of what all languages share in common. Accordingly, much of the research of the group has been devoted to studying the common framework that underlies different languages, the general principles that are exemplified in the grammar of different languages. Results strongly indicate that this assumption is indeed correct as far as the linguistic evidence is concerned.

The preceding discussion leads quite naturally to the question, "What evidence from outside of linguistics might one deduce in favor of the hypothesis that all languages are constructed in

accordance with a single plan, a single framework?" It seems to us that the most striking evidence in favor of the hypothesis is, on the one hand, the rapidity with which children master their mother tongue, and, on the other hand, the fact that even a young child's command of his mother tongue encompasses not only phrases and utterances he has heard but also an unlimited number of phrases and utterances he has not previously encountered. To account for these two sets of facts, we must assume that in learning a language a child makes correct inferences about the structural principles that govern his language on the basis of very limited exposure to the actual sentences and utterances. In other words, we must assume that with regard to matters of language a child is uniquely capable of jumping to the correct conclusions in the overwhelming majority of instances, and it is the task of the student of language to explain how this might be possible.

A possible explanation might run as follows. Assume that the human organism is constructed so that man is capable of discovering only selected facts about language and, moreover, that he is constrained to represent his discoveries in a very specific fashion from which certain fairly far-reaching inferences about the organization of other parts of the language would follow automatically. If this assumption is accepted, the next task is to advance specific proposals concerning the devices that might be actually at play. The obvious candidate is the theoretical framework of linguistics for, while it is logically conceivable that the structure of language might be quite distinct from that of the organism that is known to possess the ability to speak, it is much more plausible that this is not the case, that the structures that appear to underlie all languages reflect quite directly features of the human mind. To the extent that this hypothesis is correct—and there is considerable empirical evidence in its favor—the study of language is rightly regarded as an effort at mapping the mysteries of the human mind.

The research conducted by the linguistics group has almost from its inception been an integral part of the M.I.T. Ph.D. program in linguistics, which at present is housed in the Department of Linguistics and Philosophy. Many of the results obtained by the group were first presented by faculty or graduate students as part of a regularly scheduled class or are to be found in papers or dissertations written by students in partial fulfillment of different requirements for their Ph.D. degrees. Since dissertations in linguistics often remain unpublished or are published only after considerable delays it has been decided to publish abstracts of the dissertations accepted during the year 1984 in the present RLE Progress Report. It is our plan to publish dissertation abstracts in each subsequent Progress Report.

During 1984 two dissertations were accepted by the Department of Linguistics and Philosophy in phonology and four in syntactic theory. Of the two phonological theses, one is by Malka Rappaport, entitled "Issues in the Phonology of Tiberian Hebrew" and the second, by Diana Archangeli, is entitled "Underspecification in Yawelmani Phonology and Morphology." The first studies some central problems in the phonological analysis of Tiberian Hebrew, focusing on the

accentual system of the language and on a classical problem in the morphological analysis of the Tiberian Hebrew verbal system. The second provides a universal theory of feature underspecification, though focusing primarily on Yawelmani. Both theses assume an autosegmental framework.

Of the four remaining syntactic theses, one is written from the point of view of Lexical-Functional Grammar.<sup>1</sup> This thesis is by Yehuda Falk and is entitled "Grammatical Configurations and Grammatical Relations." The thesis presents and motivates a lexicalist syntactic framework called Configurational Grammar, which, like Lexical-Functional Grammar, recognizes the primacy of both (surface) grammatical configurations and (surface) grammatical relations, but unlike Lexical-Functional Grammar represents both of these at a single level of syntactic representation.

The remaining three theses are viewed from the vantage point of the theory of government and binding.<sup>2</sup> The first, by Lisa Travis, is entitled "Parameters and Effects of Word Order Variation." It investigates different issues raised by the problems of language specific word orders. Among the languages and language families examined are Germanic, Chamorro, Italian, and Irish. The second, by Mario Montalbetti, is entitled "After Binding: On the Interpretation of Pronouns." This thesis is a study of the interpretive differences between overt and empty pronouns in certain configurations involving binding phenomena. The third thesis, by Nigel Fabb, is entitled "Syntactic Affixation." This thesis extends case-theory and the associated notion of "visibility" to cover the distribution of modifiers, predicates, and different morphological realizations of verbs.

#### References

1. J. Bresnan, "The Mental Representation of Grammatical Relations" (M.I.T. Press 1982).
2. N. Chomsky, "Lectures on Government and Binding" (Foris 1981).

