# BOOK REVIEWS

## Linguistic Development

*Sentences Children Use.* By Paula Menyuk. Pp. xii + 165. (MIT: Cambridge, Massachusetts and London, May 1972.) $1.95.

PSYCHOLOGISTS interested in the processes by which children acquire their native language have slowly come to the realization that an analysis of language behaviour in purely descriptive terms is inadequate. Part of Chomsky's revolution in linguistics was to show that grammar is generative—that the speaker's competence consists of rules which allow him to generate grammatically acceptable new combinations of words. If this approach is to be properly applied to child language studies, it will be necessary to analyse children's utterances in more depth and to produce structural descriptions which capture the abstract features which they code. In *Sentences Children Use,* Paula Menyuk states that her purpose is to describe the utterances of children at various developmental stages by "using the techniques of experimental psychology within the framework of a generative model of grammar". The book is devoted to a structural description of the sentences which a group of normal children produced and to a study of their responses in an imitation task. In addition, the utterances and imitations of a small group of linguistically deviant children are analysed.

Menyuk examines the development of both base structure and transformational rules. A case is made that even the early utterances of the child which consist of only single morphemes are nevertheless "sentences" since they are prosodically marked and because they are productively used. She represents these earliest sentences as: topic + intonational marker. Later, multi-morpheme utterances are similarly used generatively; the child does not simply imitate what he hears. This is well known to psycholinguists. What Menyuk adds, however, is a close analysis of the base structure rules. She finds that by the age of three years, all of the children in the normal group have expanded all of the nodes in the base structure, that is, they are able to produce utterances which express all

of the basic categories. This is in contrast to the transformational rules, not all of which are used by all of the normal children surveyed between three and seven years of age.

Another interesting method Menyuk used was to make a careful linguistic analysis of sentences the children produced which deviated from grammatically well-formed ones. Although one may question Menyuk's particular linguistic interpretations, the data are presented for the reader to see for himself, and these observations may prove extremely valuable to students of language who wish to examine the acquisition or development of particular linguistic features.

In spite of the claim to be using the methods of experimental psychology, only one "experiment" is reported: having children imitate both grammatical and deviant sentences actually taken from the production data. In the results, one finds more evidence of what others in the field have claimed—that imitation is not the method of acquisition. Children only imitated structures they were already spontaneously producing and occasionally structures which they were on the verge of acquiring in their productive speech. Furthermore, the length of a sentence was not a factor which determined successful imitation even for children as young as three years and even with sentences up to nine words in length. Structure, not length, determined whether a sentence was successfully imitated.

The same imitation task was administered to a group of children classified as "infantile" in their use of language. Unfortunately we are told very little about this group—how it was obtained, how the children were diagnosed, and how many children were tested. From her results, Menyuk concludes that these children are arrested at an early stage of language development, but one which differs qualitatively from normal-speaking children. She speculates that some kind of short term memory limitation may be responsible for their problems.

One drawback to this book is the inelegant and heavy style of writing. The terminology is unnecessarily convoluted, and explanations often take

too many connecting links for granted. This makes the book difficult to read and easy to misinterpret. The ungrammatical sentences children use nevertheless communicate; the sentences Menyuk uses too often do not. This is a shame, for the book is an important one for showing how a structural analysis can be made. If one can cope with its style, this book offers rewarding insights into the acquisition and development of language structure.

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## Joseph Henry

*The Papers of Joseph Henry.* Edited by Nathan Reingold. Assisted by Stuart Peirson, Arthur Molella, James Hobbins and John Kerwood. Vol. 1: December 1797–October 1832. Pp. xxxix + 496. (Smithsonian Institution: Washington, December 1972.) $15.

To those historians who look for major contributions to modern science, nineteenth-century America cannot but seem an arid region. Americans made very few discoveries of important phenomena, or wide generalizations which brought into relationship facts which had previously seemed isolated. Exceptions to this generalization would include Joseph Henry who, independently of Faraday, discovered electromagnetic induction; and Willard Gibbs who introduced thermodynamics into chemistry. But as Americans themselves came to recognize, by the end of the nineteenth century America had become a dominant power in technology without yet emerging as a great centre of pure science. One might expect then that while filial piety might move those at the Smithsonian Institution to publish Henry's papers, the resulting volume would be of small interest to any but specialists. This would be quite wrong; for Nathan Reingold and his associates have produced a work which should be of great interest to all those concerned with science and its development. They have shown once again that there is no need for parish-pump history to involve Chauvinism or antiquarianism; but that on the contrary the close study of a scientist against his background can