Behavioral Sciences

On Understanding Grammar. Talmy Givon. Perspectives in Neurolinguistics and Psycholinguistics. 379 pp. Academic Press, 1979. $24.

Sentence Processing: Psycholinguistic Studies Presented to Merrill Garrett. William E. Cooper and Edward C. T. Walker, eds. 447 pp. Halsted Press, 1979. $29.95.

Nonspeech Language and Communication: Analysis and Intervention. Richard L. Schiefelbusch, ed. Language Intervention, 4. 529 pp. University Park Press, 1980. $24.95.

The three volumes reviewed here might be considered a random sample of the disciplines related to the study of language. Givon is a linguist; the authors represented in the Cooper and Walker volume are primarily psycholinguists; and the contributors to the Schiefelbusch volume come mostly from the background of working with language-handicapped individuals.

If a survey of linguists were taken, Givon would not be considered representative of the field. His book, hailed in the Preface by Dwight Bolinger as "one of the truly prized statements of our current knowledge to appear in this decade," is an argument for broadening the scope of current linguistics. Givon's criticism is leveled mostly at transformational linguists, whom he caricatures as being obsessed by formalisms. Descriptions of distributional characteristics of linguistic constraints become sufficient explanations for their existence. In Givon's view, linguistics has become bureaucratized, an incestuous network of empty formalisms, and needs to be liberated. True explanation for linguistic facts is to be found by relating these phenomena to other parameters considered relevant to language, such as the propositional content of the sentence, the discourse pragmatics of the communicative situation, the nature of the communication channel, the nature of the cognitive structure of humans (including the child's developing system), historical language change, the phylogenetic history of communicative systems, and our ontological characteristics.

The book is a listing of evidence for the importance of these parameters, and its success varies for the different areas explored. My ratings for successfulness are reflected in the order in which they are listed above. What is impressive about Givon's effort is the number of different languages to which he makes reference and the range of phenomena he is willing to consider. While the book is informative and interesting and many of Givon's explanations are intuitively appealing, the reader is left with the feeling that many of his structural facts would not have been formulated through a strictly functional investigation.

The volume edited by Cooper and Walker contains a reasonably representative sampling of adult psycholinguistics, tied together on a personal level as a tribute to the M.I.T. psycholinguist Merrill Garrett. There are several excellent state-of-the-art chapters. Cutler and Norris review current knowledge about sentence-monitoring techniques in "on-line" studies of sentence comprehension. The different characteristics exhibited by the various techniques that ask subjects to monitor sentences for targets at different structural levels reveal a wealth of information about the nature of sentence comprehension. Shattuck-Hufnagel reviews the cumulative evidence from a rapidly growing bank of speech errors (or "slips of the tongue") and synthesizes a useful list of parameters that any model of speech production would have to take into account. Unfortunately, speech er-

rors continue to be one of the few existing sources of information on the nature of sentence production, with very few methodological breakthroughs.

It would be fair to say that most of our psycholinguistic knowledge is knowledge about comprehension. Other chapters with an empirical thrust report a few experiments and add a more general discussion about the broader theoretical implications. For example, Bever and Townsend show various nonlinguistic parameters that influence the comprehension of main and subordinate clauses in English. It is of interest to note that the point of their demonstration is to argue that such nonlinguistic parameters should *not* be incorporated into a more general grammar of human language, for although such a strategy would increase the power of the model in accounting for a broader range of phenomena, it would decrease the theoretical interest in the model as an explanation of grammar. Since the nonlinguistic parameters are already independently explained on the basis of world knowledge, these need not be incorporated into an account of grammar. Thus, Bever and Townsend argue for the scientific usefulness of keeping "grammar" as narrowly defined as possible.

This position, of course, is not in agreement with Givon, who apparently feels that we need to add these nonlinguistic parameters into the ever-expanding inquiry into language. A look at the history of science shows that such polar conflicts can be healthy to a field. Incidentally, present-day psycholinguists can liven up their own field considerably by broadening their scope beyond English, a strategy that may help resolve confounding of variables within this often overused language. Not a single study in Cooper and Walker ventures past the confines of English.

Schiefelbusch's book will be of service to practitioners who are interested in alternatives or supplementary channels to the vocal-auditory channels of communication for children with severe speech impediments. Most of the papers are atheoretical in nature. They fall into three rough categories: descriptions of nonspeech communication systems, including Ameslan and other natural sign languages; assessment of children who present the necessity for using a nonspeech communication channel; and descriptions of programs designed to teach these various systems. The book symbolizes a growing awareness on the part of researchers that language is not bound to a specific modality but is a highly flexible system that can be transferred from the vocal to the manual mode, as amply demonstrated through studies of sign language.

As with most biological processes, language will by necessity interact with the other systems within the organism. Consider the following alternatives: if you narrow down your definition of language to eliminate its overlap with other systems, and if you are still left with a substantial central core, you will have discovered the essence of language and thus enriched our understanding of the mind; on the other hand, once you have eliminated the overlapping domains, if you are left with very little that is unique about language, you will be better off treating language as a measure of other nonlinguistic parameters and describing those interfaces, since that is what defines language. Where will you invest your empirical energy? At present, it is perhaps a matter of the individual scholar's personality.—*Kenji Hakuta, Psychology, Yale University*