

## STUDIES AND RESEARCH

### MEANINGFUL AND STRUCTURED BEHAVIORAL ANTECEDENTS OF SEMANTICS AND SYNTAX IN LANGUAGE

ERNST L. MOERK AND NEIL WONG

Since ancient times linguists have been impressed by the structure of language. In contrast to and in spite of influence from the atomistic-behavioristic psychology the structural position was, therefore, continuously upheld in linguistics (Bloomfield, 1933). Chomsky (1957) added a more dynamic aspect to this structural position and laid the foundations of what is presently known as 'generative grammar' (Chomsky, 1965, 1966; Katz and Postal, 1964). This insight into the structures of all verbal behavior and into the fact that the infant seems to learn 'deep structures', which are never observable in surface behavior, led to a sharp conflict with behavioristic psychologists who aimed at explaining language acquisition through imitation and reinforcement (Skinner, 1957; Staats, 1968). No mechanisms could be found or even imagined by which the infant could acquire the complex language skills which were required in the performance models of generative grammar. Consequently, the temptation to postulate innate language-specific organizations, McNeill's (1970a) "strong linguistic universals", as necessary bases for these miraculously appearing language structures was great and Chomsky (1966) as well as McNeill (1970b) turned towards this easy escape route.

The unproductiveness of this pseudo-solution was soon recognized (Morton, 1970) and the more psychologically oriented investigators started searching for concepts and structures which are acquired by the infant during the preverbal period and which could consequently serve as a mold and model for the later appearing language structures. Several investigators (Ervin-Tripp, 1971; McNamara, 1972; Kaplan and Kaplan, 1971; Schlesinger, 1971; Sinclair, 1971; Steinberg, 1971) have recently stressed that the effective environment of the infant as well as the infant's own behavior are consistently structured, that both are 'meaningful' to the human organism and that communicative behavior by far precedes verbal communication in the course of development. This later approach to the study of language appears to be more fruitful since it concentrates upon cognitive and communicative antecedents of verbal structure their theoretical conclusions by means of actual in depth investigations of the parallels between preverbal meanings and structures and the meanings and structures as expressed in language behavior. The intention of the investigator was to contribute through this study some factual material to these theoretical advances.