Structural linguistics

an approach to language and language study based on a concept of language as a system of signs that has such clearlydefined structural elements as linguistic units and their classes. Structural linguistics seeks to describe language with aprecision approaching that of the exact sciences.

The term "structural linguistics" became current owing to the focusing of some scholars on the structure of language, which isa system of relations (oppositions) between the elements of a linguistic system. These oppositions occur in an orderly,hierarchical dependence within fixed levels. The structural description of a language presupposes the analysis of an actualtext. This analysis makes it possible to identify such generalized invariant units as sentence patterns, morphemes, andphonemes and to correlate them with speech segments according to strict rules. These rules determine the extent to whichlinguistic units in speech may vary while maintaining their identity; that is, the rules determine the number of permissiblesynonymous transformations of a linguistic unit. Depending on the desired level of analysis, these rules are formulated asrules of the positional distribution of the variants of a linguistic unit. An example is the functioning of the principle ofcomplementary distribution in phonology and morphology. This principle is also applied to transformational analysis in theform of transformational syntactic rules, which regulate the transition from the invariant deep-
seated structure of a sentenceto the multiplicity of this structure's possible forms (the surface representation).

Structural linguistics was the source of generative grammar, and the ideas of structural linguistic analysis were instrumentalin the formulation and resolution of many problems of machine translation. The combination of structural linguistics andtypology gave rise to structural typology, which investigates the structural laws of the elements of linguistic systems and oflanguage as a whole. Structural linguistics also facilitated the large-
scale introduction of mathematical research methods intolinguistics.

Structural linguistics was established in the 1920's and 1930's as an approach distinct from that of the neogrammarianschool, which predominated in the late 19th century and focused exclusively on the history of linguistic elements. Structurallinguistics was also distinct from traditional descriptive grammar, with its flexible concepts and its bias in favor of describingall languages, whatever their structure, with the grammatical formulations of Latin and the European languages. Structurallinguistics emerged from the quest for a more consistent system of linguistic concepts and for methods that could be asrigor

ously applied to the synchronic description of modern languages as the comparative method was applied to comparativelinguistics.

The first attempt to describe a language with exactitude was made by the ancient Indian scholar Panini (fifthfourth centuriesB.C). In the Middle Ages, similar attempts resulted in the formulation of a universal rational grammar, the PortRoyal grammar,and in the philosophical and linguistic works of Descartes and Leibniz. The development of structural linguistics wasconsiderably influenced by I. A. Baudouin de Courtenay, F. F. Fortunatov, E. Sapir, and L. Bloomfield and particularly by F.de Saussure and the work of the Linguistic Circle of Moscow, founded in 1915.

From the 1920's to the 1940's, the Prague, Copenhagen, and American schools further developed the concepts andmethodology of structural linguistics. However, important contributions to structural linguistic theory were also made by suchscholars as A. Martinet, E. Benveniste, A. W. de Groot, J. Kuryłowicz, and A. Sommerfelt, who did not belong to any school.The concepts of a structural approach to the description of language, first formulated as a theory based on phonologicalmaterial, were developed by N. S. Trubetskoi, R. Jakobson, E. D. Polivanov, and the Czech members of the Linguistic Circle of Prague.

During the first stage in the development of structural linguistics, which lasted approximately until the 1950's, the school'stheoreticians devoted considerable, and sometimes exclusive, attention to the formal description of language. They ignoredthe content of language and asserted that a linguistic system should be mathematically precise and regular. As aconsequence, structural linguistics came under attack by both its opponents and its adherents. During the 1950's, theinvestigation of linguistic meaning and the elaboration of such structural methods for describing meaning as componentialanalysis, generative semantics, and interpretative semantics developed intensively. The concepts and methodology ofstructural linguistics have been used in the comparative studies of Jakobson, Martinet, H. Hoenigswald, and P. Kiparsky ondiachronic phonology.

As of the 1970's, structural linguistics is apparently disappearing as a distinct school. The research methods developed forstructural linguistics are used in conjunction with other methods in such linguistic disciplines as psycholinguistics andsociolinguistics. Structural linguistics has also influenced the development of structurally oriented research methods in suchother areas of the humanities as literary theory and criticism, anthropology, ethnology, and sociogy.

Bloomfield's approach to linguistics was characterized by its emphasis on the scientific basis of linguistics, adherence to behaviorism especially in his later work, and emphasis on formal procedures for the analysis of linguistic data. The influence of Bloomfieldian structural linguistics declined in the late 1950s and 1960s as the theory of Generative Grammar developed by Noam Chomsky came to predominate.

Bloomfield was Instructor in German at the University of Cincinnati, 1909-1910; Instructor in German at the University of Illinois at Urbana-Champaign, 1910-1913; Assistant Professor of Comparative Philology and German, also University of Illinois, 1913-1921; Professor of German and Linguistics at the Ohio State University, 1921-1927; Professor of Germanic Philology at the University of Chicago, 1927-1940; Sterling Professor of Linguistics at Yale University, 1940-1949. During the summer of 1925 Bloomfield worked as Assistant Ethnologist with the Geological Survey of Canada in the Canadian Department of Mines, undertaking linguistic field work on Plains Cree; this position was arranged by Edward Sapir, who was then Chief of the Division of Anthropology, Victoria Museum, Geological Survey of Canada, Canadian Department of Mines.

Bloomfield was one of the founding members of the Linguistic Society of America. In 1924, along with George M. Bolling (Ohio State University) and Edgar Sturtevant (Yale University) he formed a committee to organize the creation of the Society, and drafted the call for the Society's foundation. He contributed the lead article to the inaugural issue of the Society's journal Language, and was President of the Society in 1935. He taught in the Society's summer Linguistic Institute in 1938-1941, with the 1938-1940 Institutes being held in Ann Arbor, Michigan, and the 1941 Institute in Chapel Hill, North Carolina.

Bloomfield's earliest work was in historical Germanic studies, beginning with his dissertation, and continuing with a number of papers on Indo-European and Germanic phonology and morphology. His post-doctoral studies in Germany further strengthened his expertise in the Neogrammarian tradition, which still dominated Indo-European historical studies. Bloomfield throughout his career, but particularly during his early career, emphasized the Neogrammarian principle of regular sound change as a foundational concept in historical linguistics.

Bloomfield's work in Indo-European beyond his dissertation was limited to an article on palatal consonants in Sanskrit and one article on the Sanskrit

grammatical tradition associated with Pāṇini, in addition to a number of book reviews. Bloomfield made extensive use of Indo-European materials to explain historical and comparative principles in both of his textbooks, An introduction to language (1914), and his seminal Language (1933). In his textbooks he selected Indo-European examples that supported the key Neogrammarian hypothesis of the regularity of sound change, and emphasized a sequence of steps essential to success in comparative work: (a) appropriate data in the form of texts which must be studied intensively and analyzed; (b) application of the comparative method; (c) reconstruction of proto-forms. He further emphasized the importance of dialect studies where appropriate, and noted the significance of sociological factors such as prestige, and the impact of meaning. In addition to regular linguistic change, Bloomfield also allowed for borrowing and analogy.

It is argued that Bloomfield's Indo-European work had two broad implications: "He stated clearly the theoretical bases for Indo-European linguistics…"; and "…he established the study of Indo-European languages firmly within general linguistics…."