Structural Linguistics

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Linguistics is the study of natural human language and languages; a linguist is someone who studies and describes the structure and composition of language and/or languages in a methodical and rigorous manner. Although 'structural linguistics' is a term primarily used to characterise an approach to linguistics in the first half of the 20th century what came to be called 'structural linguistics' has existed since antiquity (see Allan 2010) and is still practised today.

Grammatical analysis developed among the Stoics (c.300BCE – 300CE) out of advances in dialectic, which required knowledge of propositional types, propositional structure, the forms of propositions, and valid inferences that may be drawn from propositions (Sextus Empiricus 1955, Diogenes Laertius 1925, Varro 1938). For the ancient Greeks, a proposition (the content of a clause) was expressed as a declarative sentence – one with a potential truth value and therefore also called an assertion, judgment, or statement. Consequently, the analysis of the forms and structures of declarative propositions (single or combined) was concomitantly an analysis of language forms and structures.

The *Syntax* of Apollonius Dyscolus (c.80–160CE) is a magnificent *tour de force* on Stoic principles that argues for the semantic basis of grammar, while still paying close attention to formal aspects of the language under investigation (Apollonius Dyscolus 1981). It is principally an exposition of the language structures found in classical Greek literature and first century Greek; Apollonius offered rational explanations for the regularities he perceived in the morphosyntax of the language. Apollonius inspired Priscian (Priscianus Caesariensis, c.490–560) whose *Institutiones Grammaticae* was the iconic grammar for Latin from the 6th until the 20th century (Priscian 1961). Unfortunately, there is not much systematic analysis of Latin sentence structures in Priscian, but there is guidance on relations between parts of speech and sentence structure in so far as nouns and verbs are recognized as primary, and other parts of speech as subordinate to them. The priority of the noun over other parts of speech goes back to Apollonius; it was adopted by Priscian and taken up from him by the

medieval grammarians (1100–1350). Supposedly, verbs always joined to a nominative; therefore, the verb presupposes a subject (see Priscian 1961 XIII: 28; XIV: 15; XVII: 14) – thus forming a proposition. Medieval grammarians focused on a theory of language structure rather than language instruction (William of Conches 1965, Petrus Helias 1978, Thomas of Erfurt 1972, Bursill-Hall 1971).

20th century European linguistics was greatly influenced by the work of Ferdinand de Saussure (1857–1913). His *Mémoire sur le système primitif des voyelles dans les langues Indo-européennes* was on the vowel system of Proto-Indo-European (Saussure 1879); it was the only book he ever published. Saussure studied among the neogrammarians in Leipzig, but whereas the neogrammarians were rigidly inductive, the *Mémoire* is based on abstract morphophonemic analysis in which the postulated abstract elements are defined on structural function rather than phonetic shape. Emphasis on the function of an element within a linguistic system remained characteristic of Saussure's linguistics throughout his life. Saussure never lost sight of the social and cognitive aspects of language as a system for communication among people; but his emphasis on language as a structured system makes it appropriate to label Saussure a 'structuralist', even though the term was not in use during his lifetime.

Saussure's analysis of language structure was disseminated by the posthumous *Cours de Linguistique Générale* (*CLG*) assembled by his students (Saussure 1916). Linguistic structure is identified in terms of the relationship of segments along the string (syntagmatic relations) and the replacing of individual segments by other members of the same class of segment (associative relations). The place of each constituent in the language system is determined by comparison and contrast with other constituents. Saussure's focus on the structural aspects of language, which was part of a wider contemporary recognition of structures within human behaviour, society, and cognition, gave credence and support to the growth of structuralist linguistics in the 20th century. As Peter Matthews 2001: 142 says, 'The structuralist bible is, by long consent, Saussure's *Cours*.'

In the lectures which gave rise to *CLG* Saussure brought together the various ideas of his illustrious contemporaries and immediate predecessors, fashioning them into what was taken to be a workable theory (Allan 2010; Seuren 2018). Saussure's insistence that linguistics is an independent science that should study language (*langue*) as a self-contained structured system came to characterize 20th century linguistics. His discussion of syntagmatic and associative relations was influential. His explications of the distinction between *langue* and

parole as different manifestations of *langage* were better articulated that what we find in Hermann Paul (Paul 1880). Today Saussure's semiology is influential in fields outside of linguistics; and his vision of language as a socially shared, psychologically real structured system is shared by today's functionalists.

Structuralist linguists, anthropologists, psychologists, sociologists, and postmodernist theoreticians all genuflect to Saussure. Yet, if Saussure was a structuralist, then all the major grammatical theories of the 20th century are structuralist because all of them focus on the systematic structure of language, conceived as a hierarchically arranged whole (Trnka and others 1964). This is applicable to virtually all theories of linguistics.

American structuralism based itself on the pioneering work of Franz Boas (1858–1942) who wrote: 'in an objective discussion of languages three points have to be considered: first the constituent phonetic elements of the language; second, the groups of ideas expressed by phonetic groups; third, the methods of combining and modifying the phonetic groups' (Boas 1911: 35). Two generations of American linguists adopted this method of paying careful attention to the phones uttered; reducing classes of phones to the set of phonemes for the language; then recognizing recurrent sequences of phonemes as morphs, and so on; such that the process of bottom-up segmentation and classification ultimately characterized sentences in terms of their constituents (Blevins 2013). Another Boas legacy was that every language must be analysed only in terms of its intrinsic categories, the linguist scrupulously resisting any temptation to impose the grammatical categories and systems found in language *X* onto another language, *Y*. Leonard Bloomfield (1887–1949) reprised this in Bloomfield 1933: 20 as 'The only useful generalizations about language are inductive generalizations. Features which we think ought to be universal may be absent from the very next language that becomes accessible.' Hence American structuralism (aka descriptivist, Bloomfieldian, taxonomic linguistics) was rigidly inductivist.

Despite a favourable review of the second (1922) edition of *CLG* by Bloomfield 1924, American linguistics barely noticed Saussure until Wells 1947. Bloomfield's approach to linguistics was mechanistic. He proclaims linguistics an empirical science, seeking to establish that objectivity in examining linguistic data can be safeguarded by delimitation of the aims of enquiry, a description of the procedures for analysis, followed by a statement of the results, such that all statements about language should be open to verification or disproof (Bloomfield 1926; 1933).

Another Boas legacy is the importance of the sentence as a grammatical unit in 20th century linguistics. 'Since all speech is intended to serve for the communication of ideas, the natural unit of expression is the sentence; that is to say a group of sounds which convey a complete idea' (Boas 1911: 27). Although Bloomfield was not unsympathetic to the cultural context of language propagated by Boas, he came to exclude semantics from the Bloomfieldian tradition, because semantics is not directly observable in the way that phonemes, morphemes, and sentences are manifest in phones.

One of the main tenets of mechanistic linguistics was that utterances in a language were examined for recurrent patterns, or 'regularities', as Zellig Harris (1909–1992) called them.

> Descriptive linguistics […] deals not with the whole of speech activities, but with the regularities in certain features of speech. These regularities are in the distributional relations among the features of speech in question, i.e. the occurrence of these features relatively to each other within utterances. (Harris 1960: 5)

Within American mechanistic linguistics, renamed 'structural linguistics' at the publication of Harris' *Methods in Structural Linguistics* (Harris 1951), meaning remained the uninvestigated ghost in the machine. Harris took Bloomfieldian mechanism to its logical conclusion by embracing the use of mathematical formulae and procedures in the statement of linguistic units and relations, a practise adopted by his student Noam Chomsky (Chomsky 1957).

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