Traditional Grammar

Traditional grammar refers to the type of grammar study done prior to the beginnings of modern linguistics. Grammar, in this traditional sense, is the study of the structure and formation of words and sentences, usually without much reference to sound and meaning. In the more modern linguistic sense, grammar is the study of the entire interrelated system of structures— sounds, words, meanings, sentences—within a language.

Traditional grammar can be traced back over 2,000 years and includes grammars from the classical period of Greece, India, and Rome; the Middle Ages; the Renaissance; the eighteenth and nineteenth century; and more modern times. The grammars created in this tradition reflect the prescriptive view that one dialect or variety of a language is to be valued more highly than others and should be the norm for all speakers of the language. Traditional grammars include prescriptive rules that are to be followed and proscriptive rules of usage to be avoided. 'When describing an emotion, use of an English word descended from Latin is preferred over an Anglo-Saxon word' is an example of a prescriptive rule, and 'Never split an infinitive' is an example of a proscriptive rule.

The analytical study of language began around 500 BC in Greece and India. The work of Greek scholar Dionysius Thrax is the model for all grammars of European languages that follow. His *He ̄ grammátike ̄ tékhne ̄* (c. 100 BC; The Art of Letters) was the first widely recognized text to provide a curriculum for learning proper Greek. His lessons included an introduction to the alphabet, lessons on how to join syllables together properly, and instruction in the appreciation of word arrangement (syntax). To Thrax, grammar was the technical knowledge necessary to produce the prestige language of poets, orators, and writers.

Around the same time, the Roman scholar Marcus Terentius Varro produced the 25 volumes of his *De lingua latina* (c. 100, About the Latin Language). Varro contrasted Latin with Greek, changed Greek grammatical terms into Latin, and formed his grammar of Latin by adapting Greek rules.

Other Latin grammars, influenced by the works of Thrax and Varro, were produced in the Middle Ages. Aelius Donatus published *Ars Grammatica* (c. fourth century, Art of Letters), and Donat Priscianus Caesariensis (Priscian) wrote *Institutiones grammaticae*(c. sixth century, Grammatical Foundations), which is the only complete surviving Latin grammar.

As printing became more widely available in the Renaissance, European grammarians began the mass production of grammars of their languages by mirroring the Latin grammars of Varro, Donatus, and that the grammatical descriptions of Latin could be routinely applied to their own languages; this perception, however, was not accurate and resulted in many artificial prescriptive and proscriptive rules. Many of these false assumptions still carry over to attitudes about English today.

Continuing with this tradition, grammarians in the eighteenth century studied English, along with many other European languages, by using the prescriptive approach in traditional grammar; during this time alone, over 270 grammars of English were published. During most of the eighteenth and nineteenth centuries, grammar was viewed as the art or science of correct language in both speech and writing. By pointing out common mistakes in usage, these early grammarians created grammars and dictionaries to help settle usage arguments and to encourage the improvement of English.

One of the most influential grammars of the eighteenth century was Lindley Murray's *English grammar* (1794), which was updated in new editions for decades. Murray's rules were taught for many years throughout school systems in England and the United States and helped to create modern attitudes about the existence of a correct or standard variety of English. Murray's grammar represents a practice that continued to develop throughout the nineteenth century and was still dominant in the 1960s when linguistics began to focus more on generative and transformational grammar due to Noam Chomsky's groundbreaking and influential ideas.

Even though linguists today view traditional grammar as an unscientific way to study language and grammar, many of the basic Latin-based notions of grammar can still be found in all levels of the classroom and in textbooks and usage guides available to educators and the public. Traditional grammar books usually provide lists of grammatical terms, definitions of those terms, and advice on using so-called 'standard' grammar, including suggested correct usage of punctuation, spelling, and word choice. This advice is usually based on the prescriptive rules of prestige varieties of English, varieties often only able to be used by those in power either economically or politically.

Linguists, along with many English faculty, would rather have students study language with a descriptive approach that includes the analysis of real samples of a mixture of English dialect varieties, not just the prescribed, and sometimes inconsistent, prestige forms. Linguists or teachers using a descriptive approach say that it allows students to investigate language on a deeper level, enabling students to see the system at work, instead of teaching them isolated prescriptive and proscriptive rules based on Latin, a dead language no longer in flux as English constantly is.

Linguists also believe that the rules of traditional grammar are inadequate because many of the rules are oversimplified, inconsistent, or not consistently conformed to. The grammars of classical Greece and Rome were based on the best orators or poets of the day. However, the best poets or speakers of our day are lauded for their poetic use of language that breaks prescriptive rules. For example, a traditional grammar rule of modern English, often found in usage guides and student handbooks, forbids the use of fragment sentences like 'The train running up the hill.' However, E.E. Cummings

or Maya Angelou could use this sentence for poetic effect without question.

Many teachers themselves want to be trained in traditional grammar, even though its inconsistencies may not help them when they have to explain grammatical points to their students. The National Council for Accreditation of Teacher Education (NCATE) requires that teachers in training take linguistics or language
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courses to teach them to examine the differences between traditional grammar and more modern grammars. However, many English teachers view traditional grammar as necessary and newer grammars as little help to them. And even though more modern types of grammatical analysis exist, many students, future teachers, and the general public still believe grammar means the traditional Latin-based grammar of old.

Historical Linguistics

Languages are constantly in the process of change. Spellings of English homophones such as *meet* and *meat* reflect vowel distinctions at an earlier stage in the history of our language, before the two vowel qualities merged. Changes take place on the level of sound structure, grammar, vocabulary, and meaning. *Historical linguistics* is the study of language change by comparison of a language at two (or more) points in time.

The field of historical linguistics developed significantly in the nineteenth century, after European scholars realized that there were systematic similarities between Sanskrit, the ancient language of India, and other well-known languages, such as classical Greek and Latin. These similarities indicated that a genetic relationship must exist; i.e. these three languages must stem from the same ancestor language.

It was already well known that the Romance languages descended from a common language, Latin. A systematic comparison of *cognates*, words in related languages known to have been derived from a single historical source, led to the observation that sound change is, in fact, systematic. For example, there is a set of words starting with *h* in Spanish, such as *hijo* 'son', *hacer* 'do/make', and *harina* 'flour', that have cognates in Portuguese that start with *f*: *filho* 'son', *fazer* 'do/make', and *farinha* 'flour'. Through comparison with the words in Latin (such as *filius* 'son'), for which written records existed, it was possible to write rules to account for the various changes that must have taken place. Written records served two purposes: in addition to confirming the validity of the methodology being developed by historical linguists, they gave important information regarding the direction of sound changes. In the above examples, the Spanish *h* developed from Latin *f* and not the contrary.

The same methodology was then applied to the comparison of other languages that were obviously closely related, even though no written records existed for the original language, or proto-language. For example, the Germanic languages were compared and classified as to how closely they were related to each other. The same was done for the Slavic languages.

Comparison within and between such groupings led to a classification of nearly all the languages in Europe, and some beyond, as members of the Indo-European family, all descended from a hypothetical language referred to as Proto-Indo-European, for which there are no written records.

In English, as well as other Indo-European languages, there are written records of the language at various points in time, making possible a comparison of earlier stages of the language with the present-day forms. The use of written records requires interpretation of the symbols appearing in them, to discover the sound structure of a language at the time of writing. In the case of the Germanic languages, the earliest written records use a different type of script, called *runes*, which themselves changed over time.

Comparison of the sounds in cognate words from related languages led to the development of a technique for *phonological reconstruction*. Sounds are studied systematically in their various positions within a word to obtain a full picture of what the original sound system must have been like that would account for the individual differences in the various daughter languages. Returning to the examples of Spanish and Portuguese, it would have to be noted that not all words with initial *h* in Spanish begin with *f* in Portuguese; some begin with *h*, as in the cognate pair *hombre* (Spanish) and *homem* (Portuguese) 'man'. Likewise, not all words beginning with *f* in Portuguese begin with *h* in Spanish; some begin with *f*, as in *fuego* (Spanish) and *fogo* (Portuguese) 'fire'. All of these patterns have to be examined. Furthermore, the best results require that attention be given to all descendant languages; in the case of Romance languages, this would include not only the languages with many speakers (Italian, French, Rumanian, Portuguese, and Spanish) but also those with fewer speakers (Catalan, Provençal, Rheto-Romance, and Sardinian). The precedent for the rigorous detail required in the comparative method was set by Jacob Grimm, in his work relating the German consonant system to the systems of other Indo-European languages.

Another method used by historical linguists is *internal reconstruction*. This involves the observation of patterns within an individual language to arrive at hypotheses regarding an earlier stage of that language, without taking into account information from outside languages. For example, the prefix *n-* ('not') in the Wayampi language has a variant *na-*, which occurs when the prefix attaches to a consonant. However, there are restricted cases in which the *na-* variant is used before a vowel, as in *or!.* 'he is happy', *na-or!.-I* 'he is not happy'. Through internal reconstruction, we can account for these exceptions by hypothesizing that there must have originally been a consonant (indicated by a capital

C) between the prefix and the following vowel (*na-Cor!. -i).

The study of the loss or retention of specific vocabulary items is another method used in historical linguistics, often called *lexicostatistics*. This can be used to study the degree of change at two stages of the same language or to study the degree of relatedness of two different languages. Usually, lists of basic core vocabulary are used for this type of study.

Dialect geography is another method used by historical linguists. Details of the pronunciation of selected words are plotted on maps throughout the area where a given language is spoken to determine the details and geographical boundaries of different dialects, such as Northern and Southern American English.

When different languages come into contact with each other, some degree of *lexical borrowing* inevitably takes place. The influence of French on English after the Norman invasion of the British Isles in 1066 was a major factor affecting English vocabulary, with words of French origin, such as *arise*, joining the already existing combinations of a verb and an adverb, such as *get up*.

One principle that motivates sound change is simplification. This may involve the weakening of more complex sounds to less complex counterparts, such as a change from the affricate t ʃ to a simple fricative ʃ or s. Loss of consonants at the end of syllables or words is another example of simplification. On the grammatical level, simplification may involve the elimination of certain grammatical inflections of nouns. But simplification on one level may actually increase the complexity of a language on another level and trigger additional change.

One way by which simplification is achieved, particularly on the level of word structure, is through *analogy*. The extension of use of the plural suffix *-s* in English to words that originally had other plural endings has taken place by analogy. For example, the word *hippopotamus*, which came from Latin, originally took the plural form *hippopotami*. However, the word '*hippopotamuses*', based on the main pluralizing pattern in English, is now the more commonly used form.

Analogy is also used in the creation of new words based on an already existing pattern in the language. The development of terms such as *chairperson* took place by analogy with the words they were replacing, in this case *chairman*.

Languages may change with respect to their sound structure or grammar. The meanings of words can change, and old vocabulary items may be lost or new ones may be added.

The change of word-initial *f* to *h* in Spanish is one example of a sound change. Another change in this language is from *o* to *ue* in all words in which *o* had intonational stress (Latin *novem* 'nine', Spanish *nueve*). This change is *conditioned*; it occurs under specific conditions, i.e. only in particular phonetic environments. If all occurrences of *o* had changed to *ue*, without reference to any phonetic environment, the change would be *unconditioned*.

One type of grammatical change consists of the change or loss of affixes. Latin had a set of case suffixes that occurred on nouns to distinguish between subject, direct object, and indirect object, as in the word for 'daughter': *fili-a, fili-am,* and *fili-ae,* respectively. In Portuguese, *filha* is used without such case distinctions; i.e. Portuguese has lost the Latin case system. Other grammatical changes may affect pronouns, as in the elimination of *thee* and *thou* from most present-day dialects of English. The relative word order of the subject, object, and verb may also undergo modifications over time.

Words may change their meaning or develop secondary meanings. For example, the word *deer,* referring to a specific animal, developed from the more generic Old English word *de-or* 'beast'. In recent years, the word *mouse* has acquired an additional meaning, referring to a computer accessory.

The acquisition of new vocabulary may take place through innovation (such as *byte),* blending of alreadyexisting vocabulary (*brunch*, from *breakfast* and *lunch*), or the use of derivational processes existing in the language (*computer* from *compute*). It may also take place through *lexical borrowing* as the result of language contact. Some examples of such borrowing into English include *canoe* (borrowed from Carib), *jaguar* (from Tupinambá), *safari* (from Swahili), and *smorgasbord* (from Swedish).

As changes take place in different geographical regions where a single language is spoken, different dialects develop. If speakers of different dialects are isolated from each other over long periods of time, the dialects may undergo so many changes that speakers from the different groups no longer understand each other. At this point in time, what were originally different dialects of the same language have become different languages, which are members of a linguistic family or possibly a subgroup within the family. For example, the Scandinavian languages (Danish, Icelandic, Norwegian, and Swedish) make up a subgroup within the Germanic language grouping. They are much more closely related to each other than they are to English, German, or Dutch, having descended from a common ancestor language referred to as Old Norse.

A detailed comparison of individual languages showing a high number of cognate words provides the information necessary for a classification and subclassification within a language family. A diagram, similar to a family tree, can then be used to show the internal *classification* of the family. This type of detailed classification was first done for Indo-European by the nineteenth-century historical linguists.

The methods of historical linguistics are now being applied to the study of many indigenous languages and language families. It is possible to recognize languages that are similar to each other, by identifying a significant number of cognates (words coming from a single source). Through a systematic comparison of the similarities and differences in the sound structure of cognates, it is possible to reconstruct what the sound system of the common ancestor, or 'proto-language', must have been like to account for the present form in the

various languages. Protoforms are preceded with an asterisk to indicate that they are hypothetical. For example, in proto-Tupi-Guarani, of lowland South America, one of the reconstructed consonants is *ts, which has reflexes of ts, s, h, and 0 (zero) in individual languages of the family.

Phonological reconstructions have been done for several indigenous language families of the Americas, as well as in other parts of the world. The quality of a reconstruction depends on the availability of adequate and accurate data of individual languages within a given family. As more data become available, the reconstructions are revised as necessary, and sub-classification is possible.

The word and sentence structures of some indigenous language families, such as the Tupi-Guarani family in South America, have also been reconstructed. Grammatical reconstructions require much more data than do reconstructions of sound and are sometimes done in stages, as an increasing number of grammatical descriptions of individual languages are made available. To give an example, the set of pronouns and personal prefixes was first reconstructed for proto- Tupi-Guarani without reference to the particular grammatical contexts in which they were used. Additional data were necessary before a more complete description could be made.

Summarizing, the methods of historical linguistics, which were developed and tested in the study of Indo-European languages, are now being applied to the study of languages in other parts of the world.

Structuralism

(From the Encyclopedia of Linguistics, 2005)

Structuralism is a mode of inquiry that consists in interpreting the phenomena it looks at as made up of relations among the various entities rather than as those entities per se. The particular units are thus defined solely by virtue of the network of relations into which they enter. They are, in other words, defined in negative terms rather than in terms of positive contents, so that any change in any one of the relationships will automatically affect the entire set of relationships within the given structure. Another way of putting this is to say that all structures constitute fully integrated systems, in which the elements are fully dependent on one another and are sensitive to the most minute of alterations taking place in any part of any given system. Because each structure is fully and exhaustively defined by the relations among the elements, it makes little sense to speak of universal structures; each structure is, as it were, a law unto itself. Yet another feature of structures in general is that they provide us with a snapshot of the phenomena rather than the evolutionary stages through which those phenomena pass; they are static and synchronic par excellence. Furthermore, many structuralists have been at pains to point out that the structures they describe are posited as such and not inherent in or latent to the phenomena themselves.

It is important to stress that structuralism did not initially emerge as a school of thought or a philosophical tendency. Yet, toward the end of the nineteenth century and in the early decades of the twentieth century, structuralism had established itself as a major force to reckon with, reaching its pinnacle of glory by the 1930s. Structuralism swept across almost all fields of inquiry, making significant contributions to the humanities and the social sciences. //Among the most important names associated with the movement are Ferdinand de Saussure, Claude Lévi- Strauss, Roland Barthes, and Louis Althusser. Ferdinand de Saussure, hailed as the Father of Modern Linguistics and author of *Cours de Linguistique Générale* (1916; *A course in general linguistics*), which

was published posthumously, inaugurated the structuralist revolution in linguistics. (It has, however, been argued that some of the key principles of structuralism may actually date back to thinkers such as Leibniz, Marx and Engels, Humboldt, Herder, and so on.) It is important to point out that the term 'structuralism' came to acquire markedly different characteristics in the United States, where it is used to refer to the set of methodological principles brought to bear on linguistic analysis by the followers of Leonard Bloomfield, whose 1933 book Language has been referred to as the Bible of American structuralism. Among the distinguishing traits of Bloomfieldian structuralism are its stubborn aversion to questions of meaning and its close ties with behaviorist psychology. Bloomfield was also keen on making linguistics a genuinely scientific discipline, which, under the terms of the philosophy of science then in vogue, meant rigorously restricting evidence to empirically available data.

But, apart from these crucial differences, Bloomfield's structuralism was at one with its European counterpart in insisting that language be viewed as a self-contained whole and that the entities be identified relationally rather than in terms of any positive content. The key relations were those of contrast and equivalence. The sound system, or phonology, of a given language, for instance, was seen as being made up of units called 'phonemes', whose existence was predicated on the identification in the language in question of a set of contrasts with other phonemic units, each of which was to be likewise posited on the strength of the same principle. The litmus test of a contrast was a 'minimal pair', which is a pair of words identical in every respect except for the particular contrast as in cat and mat, in which the only difference is marked by the contrast between the phonemes /k/ and /m/, or in the pair mat and mate, in which the only difference consists in the change of vowels. Where two phonetically distinct items did not enter into a relationship of contrast but instead manifested what is technically known as 'complementary

distribution' (that is, where one occurs, the other can never occur), the two variants were to be regarded as systematic variants of the same phoneme called 'allophones'. The same procedures were then applied to other levels of analysis, notably word structure, where the analysis yielded analogous entities such as 'morphemes' and 'allomorphs'. At the sentence level, the structuralist method yielded what is referred to as 'immediate constituent analysis'. Thus, a sentence such as The dog barked all night was analyzed as containing the immediate constituents 'the dog' and 'barked all night'. The resulting constituents were further analyzed into the immediate constituents 'the' and 'dog' and 'barked' and 'all night', respectively, and the constituent 'all night' further on into 'all' and 'night', with the process ending once the ultimate constituents had all been identified. Finally, as what would have come as an unpleasant surprise to Bloomfield himself had he lived long enough to witness the development, the techniques of structural analysis were carried over to the analysis of meanings, paving the way for a structurally oriented theory of semantics. Unlike its European counterpart, Bloomfieldean structuralism invested a considerable amount of effort in identifying what came to be known as 'discovery procedures', that is, a set of methodological principles with guaranteed results that would automatically and infallibly generate the right analysis from a given set of empirical data. These discovery procedures came under heavy attack from Noam Chomsky and the followers of the new paradigm of transformational-generative linguistics that he inaugurated in the 1950s. Chomsky dismissed the whole idea of discovery procedures and claimed that a linguistic theory should instead aim at attaining explanatory, rather than merely observational or descriptive, adequacy.

Despite the major differences between Bloomfieldean linguistics and generative grammar, it is nevertheless true to say that Chomsky's approach is structuralist in an extended sense of this term—although it is also the case that, thanks to the tireless criticism of the early Bloomfieldean practices by the early transformational-generative grammarians, the term 'structuralism' itself fell into disrepute and acquired pejorative connotations that survive now. Chomsky retained the basic idea of language being structured but opted for an atomistic approach to the notion of structure instead of the holistic vision that underwrote the European (mainly French) approach. The elementary building blocks of the structure were no longer negatively defined but were invested with positive attributes. Generative phonology adopted as its basic building blocks 'distinctive features' that were universal and not language specific. The so called phonemes were from now on seen as merely contingent and language-specific combinations of these features. This important theoretical intervention permitted Chomsky and his followers to posit a universal base for all languages, shifting the focus of attention to language as an innate species-specific attribute of man and redefining linguistics itself as a branch of cognitive psychology.

It should not be concluded from the foregoing remarks that structuralism in its classic sense is by now a spent force. Quite on the contrary, Saussure's teachings continue to inspire generations of scholars and is still a point of reference for so-called poststructuralism, whose advocates, far from rejecting *tout court* the legacy of Saussure's teachings, use them as a springboard for further advancing his insights, albeit to logical consequences unimagined by the Swiss savant. As for Bloomfield's legacy, it too arose from the ashes and gained a further lease on life in the form of what is referred to as neo- Bloomfieldeanism, notably in the work of Bernard Bloch (1907–1965).

- Philipp strazny. 2005. Encyclopedia Of Linguistics. Published in G.B. by Fitzroy Dearborn- An Imprint of the Taylor & Francis

Structuralism (2)

(From the Encyclopedia of Language and Linguistics. *2006. Elsevier Ltd.*)

The term 'structuralism' can be applied to a wide range of approaches in linguistics and in other areas. Each variety of structuralism has its origins in the work of Ferdinand de Saussure, as presented in the Cours de linguistique générale (Saussure, 1972,1983) which was originally published posthumously in 1916. Within linguistics, virtually all approaches are structuralist in that they are concerned with the workings of a linguistic system. However, 'structuralism' is usually taken to refer to a range of approaches which were developed in the first half of the 20th century and largely abandoned following the development of Chomskyan 'generative' linguistics. Outside linguistics, 'structuralism' refers to a more diverse range of approaches in a wide range of fields,

including anthropology and literary criticism, which propose explanations of texts, behaviors, and cultural phenomena in terms of a structured system of oppositions, contrasts, and hierarchies.

Structuralism in General

The key property that makes an approach 'structuralist' is that it considers phenomena as systems, or the products of systems, rather than as collections of isolated items or in terms of their history. Many different phenomena have been approached in structuralist terms, but the origin of the notion is in Saussure's approach to the study of language. Features taken to be typical of structuralism appeared in the work of some of Saussure's predecessors and contemporaries, and Saussure never used the terms 'structuralist' or 'structuralism' in his own work. Nevertheless, the work that has been by far the most influential in the development of structuralism is Saussure's posthumously published Cours de linguistique générale (Saussure 1972, 1983). This work was not authored by Saussure but compiled from the lecture notes of students who attended the third of three series of lectures given by Saussure in Geneva between 1906 and 1911. Saussure divided 'langage,' the whole of language, into 'langue' and 'parole' and identified langue as the focus of linguistic study. He made a distinction between diachronic (i.e., historical) studies, which compare langue at different points in time, and synchronic studies, which study langue at one particular point in time. ***Perhaps the most important observations he made about langue were, first, that there was an arbitrary connection between linguistic signs and what they represent and, second, that the value of a particular unit within the system depends on its opposition to, or how it contrasts with, other units within the system.*** For example, there is no reason other than historical accident why the English word for a young female human should be girl while the French word for the same concept should be fille. Further, the existence of the terms boy in English and garçon in French are required in order for girl and fille to have the values they do. Within linguistics, these notions led to a focus on language systems at a particular moment in time (alongside ongoing work on the historical development of languages). Beyond linguistics, it led to the search for similar systems in other areas.

Structuralism within Linguistics

A number of schools of linguistics in the early 20th century built on Saussure's ideas. These included: the Geneva school, where Saussure's ideas continued to be developed for at least three generations; the Copenhagen Linguistics Circle, associated with Hjelmslev's glossematics; Firthian contextualism in London; the Prague School, most famously associated with the work of Trubetskoy, Jakobson, and Martinet; and American Structuralism as developed by Bloomfield, Sapir, and others. It is often assumed that structuralism came to an end when Chomsky published Syntactic Structures in 1957. But Chomsky rejected specific aspects of American (perhaps even more specifically Bloomfieldian) structuralism, in particular the focus on 'surface' forms rather than the underlying cognitive system and the 'taxonomic' approach which aimed to describe languages rather than explain them. Bloomfield aimed to develop a scientific approach and his benchmark for scientific methodology was behaviorism, which denied reference to the mind, or mental entities. Chomsky pointed out the extent to which behaviorist explanations were vacuous and that there was considerable evidence for a system of knowledge underlying linguistic behavior. Chomsky also rejected Bloomfield's notion that the careful use of 'discovery procedures' would ensure that linguistics was an objective, empirical science. He argued that strong and clear evidence about the linguistic system could be provided by the intuitions of speakers. While Chomsky rejected significant aspects of American structuralism, his work and that of later linguists has built on a number of insights provided by structuralists. Chomskyan linguists do not question the value of descriptive work and the descriptive work of structuralists provided a large amount of useful data. Rather, they believe that it is important to go further and to look also for explanations of linguistic phenomena. Some work in the Chomskyan tradition is a development of the work of structuralist linguistics. For example, Chomsky's own work with Morris Halle (Chomsky and Halle, 1968), which analyzed the English phonological system in terms of a number of distinctive features, can be seen as a development of the Prague School work on phonology, which analyzed the sound systems of languages in terms of a series of contrasts. Structuralist linguistics is often assumed to be of only historical interest. But it has left its imprint on more recent work in more than the fairly vacuous sense in which most, if not all, approaches to linguistics assume the existence of a linguistic system.

Generative Grammar
(from the Encyclopedia of Linguistics)

Generative grammar is a conceptual model whose central tenet is that language is a property for which human beings are biologically prewired. While all models of language assume some role for both biology and environment, they differ with respect to the emphasis that they place on each: empiricist models attribute a greater role to the environment, and focus on differences across speakers' grammars (for instance, how the particular input that children receive influences the development of their grammar). Nativist models, in contrast, attribute a greater role to the biological component, and focus on commonalities across speakers' grammars. While all nativist models assume language to be biologically determined, they differ with respect to the nature of such knowledge: The emergentist approach, favored largely by psychologists, attributes knowledge of language to

generalpurpose learning mechanisms, and thus assumes this ability to be no different from any other cognitive capability; the generative approach, in contrast, subscribed to by many linguists, views linguistic knowledge as being unique and specialized, and stemming from brain structures devoted specifically to the processing of language.

The generative framework had its origins in the 1950s with the publication of Noam Chomsky's 1957 book Syntactic structures, which built on the work of his teacher Zellig Harris. Chomsky's approach was a reaction to the behaviorist theory of language prevalent at the time, championed by the psychologist Skinner. Under a behaviorist model, the brain is considered a blank slate with regard to linguistic knowledge; children must thus be explicitly taught their language by the adults around them in a stimulus–response manner, their behavior being rewarded when they imitate the adults' language correctly. Chomsky instead advocated a view subscribed to in the previous century (to which behaviorism had been a reaction) that some brain activities are unconscious and reflexive, just as is the case for many physical processes. Much of human beings' linguistic knowledge, Chomsky argued, is abstract and unconscious, but can be brought to conscious awareness by examining speakers' usage of such linguistic knowledge (known as the competence/performance dichotomy).

Under a generative approach, human beings are assumed to be prewired for language, beginning life not with a blank slate but rather with a linguistic template or blueprint that they flesh out upon exposure to specific linguistic data. Instead of learning language by imitating those around them, children create their own grammars. One reason for assuming this is that they make errors that adults do not (e.g. 'I hurted myself') and generate novel forms, neither of which should occur if they learned solely by imitating. In addition, most children are not given explicit instruction in their language or corrected on errors, necessary in an imitative model, yet all manage to acquire language. Furthermore, although the environments in which children acquire their language vary, they all go through similar stages in acquiring a language and during the same general time frame (for instance, forming sentences with content words such as nouns and verbs around 18 to 24 months, and function words like 'will' and 'my' between 24 and 30 months). Moreover, although children do not hear examples of every possible structural pattern, they nonetheless attain a grammar capable of generating all the possible sentences in their language (known as the poverty of the stimulus argument). And, although each is exposed to different data and in a different order, they all end up with the same basic grammar for their language, which would be unexpected under an imitative account.

The name 'generative grammar' is used to refer to this model since speakers are assumed to possess a grammar capable of generating all the possible sentences in their language (while excluding all the impossible ones). The grammar consists of a finite number of rules, yet is capable of generating an infinite number of sentences from such rules due to their ability to refer back to each other repeatedly (known as recursion). For instance, one can continue to embed sentences within one another as in the example 'John thought that Mary said that Fred believed that Cindy suspected that the student had read the book,' each further embedding resulting in a new sentence. Another central feature of such a grammar is that it is highly constrained. For instance, all syntactic rules make reference to the internal structure of the sentence (known as structure dependency). Thus, yes–no questions in English are formed by moving the auxiliary to the front of the sentence ('Will the student read the book?'), such a rule being framed in terms of an internal grammatical unit (the auxiliary 'will'). No language has rules that are structure independent, such as moving the third word to the front of the sentence to form a question, which refer instead to surface properties such as linear position. That the latter formulation will not work can be seen when the subject is replaced with a pronoun: while the structure-dependent rule will generate the correct question since it always moves the auxiliary ('Will he read the book?'), the structure-independent formulation will not, as the auxiliary is no longer the third word ('Read he will the book?'). Constraints such as structure dependency support the idea of speakers possessing unconscious, abstract linguistic knowledge, as there is no overt evidence of the syntactic groupings of words in the input that they hear. And, the fact that speakers were never taught such constraints, let alone being aware that they exist, coupled with the fact that these hold across all languages, supports the idea of there being a wired-in universal component to language.

While the idea of an innate, prewired blueprint has remained constant in generative grammar, the conceptual details have varied across the decades. In the 1960s, the emphasis was on the distinction between a deep structure, which conveyed the semantic properties of a sentence, and a surface structure, which supplied its pronunciation. Thus, the passive sentence 'The book was read by the student' was assumed to come from the same deep or underlying structure as its active counterpart, 'The student read the book', as both have the same meaning. In the 1970s, the emphasis shifted to finding the set of transformations used to derive the various syntactic patterns of each language. The list included transformations for passives, yes–no questions, and wh-questions ('which book did the student read?'). While the number of sentences in a language is potentially infinite, it was assumed that the number of transformations could be reduced to a finite set. However, it soon became clear that there were many more transformations than it was possible to enumerate. Emphasis then shifted to narrowing down the transformations by type. Two general types were established: noun phrase (NP) movement, which moved a phrase within a sentence, as in passives, and wh-movement, which moved a phrase outside a sentence to a presentential landing site, as in wh-questions. Eventually, these two transformations were collapsed into one general transformation, move alpha, which allowed movement of any constituent anywhere, subject to certain constraints.

In the 1980s, the model was flipped on its head. Rather than looking for the possible structures in a

language, the emphasis instead shifted to determining the impossible structures. This represented a significant evolution in the conceptual model: whereas the number of patterns possible in a language is potentially infinite, the number of constraints is thought to be very small. In addition, it also made it possible to shift the emphasis to universal aspects of language, rather than simply to those properties that an individual language possessed. The grammar was now taken to consist, not of a set of rules, but rather of a set of autonomous modules that interacted with each other; one conception of such a model became known as government-binding theory, named after two of the modules, while alternative models were also proposed such as lexical-functional grammar. The overall conceptual model became known as the principles-and-parameters model since it considered language to consist of a set of wired-in principles that all languages shared, along with a set of parameters that they also shared, but whose values varied cross-linguistically and needed to be set upon exposure to language-particular data (such innate knowledge being referred to as Universal Grammar). An example of a principle would be a movement constraint known as subjacency, which prohibits movement of a phrase out of more than one clause or noun phrase in a single step (the name 'subjacency' referring to the fact that movement can occur to an adjacent clause, but not a subadjacent one). Thus, one cannot say 'Which book do you know the student who read?' since 'which book' has been moved from within the relative clause ('the student who read which book') and the upper sentence ('you know the student who read which book'). While such a constraint is thought to be universal, the constituents out of which the element may move (the bounding nodes) vary cross-linguistically. English is freer in its movement allowances than Russian, but less so than Italian or Swedish; a language like Japanese, in contrast, allows no overt syntactic movement. Thus, a parametric difference linked to this principle would dictate what the bounding nodes for a given language are.

In the 1990s, the emphasis turned to making the model even simpler conceptually. The new approach, called minimalism, assumed a much more limited role for the syntactic component. It now was seen as a computational device that simply checked that sentences were formed correctly. All morphology was assumed to be attached directly in the lexicon; the syntactic component then checked to see that features on the words matched. If so, the derivation was said to converge, otherwise, it crashed. Thus, the sentence 'The student enjoys the book' would be acceptable since 'student' and 'enjoys' are both third-person singular, whereas 'The student enjoy the book' would be ungrammatical as the number agreement on the noun and verb do not match. The formation of sentences was now assumed to occur by means of a few basic operations such as merge, used to generate basic declarative sentences, and move, used to derive patterns such as passives and questions. Another conceptual model that developed during this decade was optimality theory, which attributed variation among languages to their different rankings of a set of universal constraints. Since any model proposed for a grammar must be one that is learnable by the child, language acquisition research has helped to shape development of the generative framework, and much first- and second-language research today is solidly grounded in such a framework. First-language researchers are interested in questions such as whether the principles of language are all present at birth or instead come online gradually as the child develops cognitively (the continuity/ maturation debate). Second-language researchers are interested in determining whether second-language learners have full access to the language faculty as first language learners do, partial access only (properties that are the same transferring, but new ones not being acquirable), or no access at all. And, a central question for both first- and second-language acquisition is whether there is a critical time period during which language must be acquired, as is true for other biologically determined properties.

While the conceptual details of the generative grammar model have changed greatly over half a century, the basic underlying tenet, that language is a species-specific property for which human beings come prewired, has remained constant. Future research will undoubtedly yield new insights into the specific shape of the grammar, while remaining true to the model's belief in a wired-in blueprint.

FUNCTIONAL APPROACHES

(From the encyclopedia of linguistics)

Functional linguistics appeared as a reaction to formal approaches to grammar, especially generative and transformational approaches. One of its basic assumptions is that language is a symbolic system with a certain purpose or purposes, mainly communication, although there are other possibilities too, such as the use of language as an instrument of thought. Apart from structures and form, any linguistic system also has functions. Functional approaches to language assume that there is a correspondence between form and function, and this correspondence is always motivated. However, a very subtle theoretical matter is what kind of function we are referring to. Apart from the most general functions of communication and organization of thought, it is possible to refer to functions at more atomic levels (i.e. functions of linguistic elements or functions of linguistic constituents, considered in different levels of linguistic analysis etc.). At the most general level, however, there are several typologies with different functions that try to provide different functional alternatives, like the ones proposed by authors such as Karl Bühler (cognitive, expressive and conative/instrumental), M.A.K. Halliday

(ideational, interpersonal and textual), or Roman Jakobson. Today, there are two main approaches that claim to be 'functional'. These are M.A.K. Halliday's systemic functional linguistics, and Simon Dik's functional grammar, both discussed below.

Michael Halliday's systemic grammar follows the tradition of the London school and, more concretely, the work of John Rupert Firth, who developed his own theory studying language as part of a social system. According to Firth, language was used with a specific purpose in situational contexts, which, in turn, reflected cultural contexts. Other minor influences on Halliday's work are the linguistic theories of the Prague school around Nikolay Trubetskoy, Louis Hjelmslev's glossematics, and the ideas of the American linguist Benjamin Lee Whorf.

In 1961, Halliday, one of Firth's disciples, developed from Firth's ideas a theory that dealt with different scales and categories. He used the categories of structure, system, unit, and class, as well as three scales (rank, delicacy, and exponency) that connected the categories with one another and with the data. This grammar received criticism, especially concerning the categories of class and structure, the scale of rank, and the taxonomic nature of the theory, as mentioned by Christopher Butler (1985:29–38; 1995:529). Later, this grammar evolved toward what was first called systemic grammar (Halliday 1967/1968), and some years later, systemic functional grammar (Halliday 1973, 1985), which is the current form of the theory.

Systemic grammar is based on a distinction between three main meta-functions of language: (1) the ideational function, which deals with the expression of content and with the experience of the speaker within the real world; here, it is possible to distinguish two subfunctions: experiential and logical; (2) the interpersonal function, which is used for establishing and maintaining social relations; and (3) the textual function, which deals with the creation of texts and the relations that are established within them. These meta-functions occur simultaneously in language. This simultaneity can be applied to two axes for the organization of the theory: the systemic (paradigmatic) and the structural (syntagmatic) axes. Each of these meta-functions involves different systems that can be organized according to the different units of the scale of rank (clause, phrase, group, word, informative unit). In fact, these three descriptive dimensions of the theory eventually become even more complicated, because Halliday also talks of a stratification in phonology, lexicogrammar, semantics, and context. The use of many axes for the organization of this theory makes systemic grammar a complicated one that tries to gather the complexity of language into many dimensions. In this respect, it does not have among its priorities the criteria of parsimony and elegance that appear in other theories. Additionally, systemic grammar is characterized by its being a theory that is sociologically oriented: that is, it classifies different contextual parameters of a social nature into dialectal and diatypical (based on different registers), and the latter into: field, which is the type of social activity in which language is inserted; tenor, which concerns the role relationships of roles among those who interact; and mode, which refers to the medium of communication. These types of parameters are related to the meta-functions of language: field to the ideational function, tenor to the interpersonal function, and mode to the textual function. Halliday's theory encompasses all usage domains of language, and in that respect it can be rightly considered a functional theory.

Simon Dik's Functional grammar presents a different approach. It claims to be a functional theory, since language is conceived mainly as an instrument of social interaction, and this characteristic is incorporated into the model. Despite this claim, the results, both in this first version of the theory (1978) and in the second proposal. Dik's grammar was influenced by the work of many previous authors, like Joseph Greenberg, James Fillmore, David Perlmutter and Paul Postal, Emmon Bach, H. Paul Grice, Herbert Clark, and Susan Haviland, among others. The architecture of its model receives ideas already put forward by William *reference grammar*, but their proposal is original and different.

Dik (1989) proposes adequacy standards for his grammar, such as psychological adequacy, typological adequacy, and pragmatic adequacy, without which it would not be possible to account for language as an instrument of social interaction, and therefore the grammar would no longer be a functional grammar. However, the proposed model presents a high degree of formalization that is characterized by having an internal architecture with different levels that appear included one within another. The resulting embedding could be represented as: [Level 4 [Level 3 [Level 2 [Level 1 Nuclear Predicate]]]]. Any clause has this basic configuration, to which the rules of expression can be applied in order to produce the concrete form of the sentence in English. In a posterior elaboration of the model by Kees Hengeveld (2004), the mentioned scheme constitutes the representational level, but this level is produced from information in the interpersonal level, and it is determined as much by the cognitive context as by a *cognitive component.*

In this new formulation of Dik's functional grammar, the roles of the interpersonal factor and the communicative context appear more clearly, which characterize this model as even more functional.