

Lesson 8

Study of Language

Linguistics is the scientific study of language. It concerns itself with the fundamental question of what language is and how it is related to the other human faculties. It studies language as a uniquely human phenomenon (a cultural, social, and psychological phenomenon) by focusing on what one must know in order to speak/sign and understand language.

Linguists seek to determine: what is unique in languages, what are common elements of all languages, how language is acquired, what kinds of unconscious knowledge humans have about language, how it is represented in the human mind, how it interacts with other mental processes, how language varies from person to person and region to region and how it changes with time and what triggers the changes.

History of linguistics

Some of the earliest linguistic activities can be recalled from Iron Age India with the analysis of Sanskrit, the earliest surviving account of which is the work of Pāṇini (c. 520 – 460 BC). Pāṇini formulates close to 4,000 rules which together form a compact generative grammar of Sanskrit. Inherent in his analytic approach are the concepts of the phoneme, the morpheme and the root.

Western linguistics begins in Classical Antiquity with grammatical speculation such as Plato's. The first important advancement of the Greeks was the creation of the alphabet. As a result of the introduction of writing, poetry such as the Homeric poems became written and several editions were created and commented, forming the basis of philology and critic. The sophists and Socrates introduced dialectics as a new text genre. Aristotle defined the logic of speech and the argument, and his works on rhetoric and poetics developed the understating of tragedy, poetry, and public discussions as text genres. In the 5th century BC Greek philosophers debated the origins of human language and thus were the first in the West to be concerned with linguistic theory.

Note: The **Alexandrine grammarians** were philologists and textual scholars who flourished in Hellenistic Alexandria in the 3rd and 2nd centuries BCE, when that city was the center of Hellenistic culture. Despite the name, the work of the Alexandrine grammarians was never confined to grammar, and in fact did not include it, since grammar in the modern sense did not exist until the first century BC. In Hellenistic and later times, "grammarian" refers primarily to scholars concerned with the restoration, proper reading, explanation and

interpretation of the classical texts, including literary criticism. However unlike Atticism, their goal was not to reform the Greek in their day

In the Middle East, Due to the rapid expansion of Islam in the 8th century, many people learned Arabic as a lingua franca. (i.e.also known as a **bridge language, common language, trade language, auxiliary language, vehicular language, or link language**, is a language or dialect systematically used to make communication possible between groups of people who do not share a native language or dialect, particularly when it is a third language that is distinct from both of the speakers' native languages

For this reason, the earliest grammatical treatises on Arabic are often written by non-native speakers.

The earliest grammarian who is known to us is 'Abd Allāh ibn Abī Ishāq al-Hadramī **bd-Allāh ibn Abī Ishāq al-Hadramī** (Arabic, عبد الله بن أبي اسحاق الحضرمي), is considered the first grammarian of the Arabic language.^[3] He compiled a prescriptive grammar by referring to the usage of the Bedouins, whose language was seen as especially pure .He is also considered the first person to use linguistic analogy in Arabic. The efforts of three generations of grammarians culminated in the book of the Persian linguist Sibawayhi (c. 760-793).

Sibawayh made a detailed and professional description of Arabic in 760 in his monumental work, *Al-kitab fi al-nahw* (الكتاب في النحو, *The Book on Grammar*). In his book he distinguished phonetics from phonology

The Renaissance and Baroque period saw an intensified interest in linguistics, notably for the purpose of Bible translations by the Jesuits, and also related to philosophical speculation on philosophical languages and the origin of language.

Before the 19th century, language was studied mainly as a field of philosophy. Among the philosophers interested in language was Wilhelm von Humboldt, who considered language an activity that arises spontaneously from the human spirit; thus, he felt, languages are different just as the characteristics of individuals are different.

In 19th century Europe, the study of linguistics was largely from the perspective of philology (or historical linguistics). Sir William Jones (in 1786) noted that Sanskrit shared many common features with classical Latin and Greek, notably verb roots and grammatical structures, such as the case system. This led to the theory that all languages sprung from a common source and to the discovery of the Indo-European language family. He began the study of comparative linguistics, which would uncover more language families and branches.

With the rise of historical linguistics in the 19th century, linguistics became a science. In the late 19th and early 20th centuries Ferdinand de Saussure established the Structuralist school of linguistics, with an emphasis on synchronic (i.e. non-historical) explanations for language form.

In the 1950s Noam Chomsky challenged the structuralist program, arguing that linguistics should study native speakers' unconscious knowledge of their language (competence), not the language they actually produce (performance). His general approach, known as transformational generative grammar, was extensively revised in subsequent decades. Other grammatical theories developed from the 1960s were generalized phrase structure grammar, lexical-functional grammar, relational grammar, and cognitive grammar. Chomsky's emphasis on linguistic competence greatly stimulated the development of the related disciplines of psycholinguistics and neurolinguistics. Other related fields are anthropological linguistics, computational linguistics, mathematical linguistics, sociolinguistics, and the philosophy of language.

In North America, the structuralist tradition grew out of a combination of missionary linguistics (whose goal was to translate the Bible) and anthropology. While originally regarded as a sub-field of anthropology in the United States, linguistics is now, considered a separate scientific discipline in the US, Australia and much of Europe.

Edward Sapir, a leader in American structural linguistics, was one of the first who explored the relations between language studies and anthropology. His methodology had strong influence on all his successors. Noam Chomsky's formal model of language, transformational-generative grammar, developed under the influence of his teacher Zellig Harris, who was in turn strongly influenced by Leonard Bloomfield, has been the dominant model since the 1960s.

The structural linguistics period was largely superseded in North America by generative grammar in the 1950s and 60s. This paradigm views language as a mental object, and emphasizes the role of the formal modeling of universal and language specific rules. Noam Chomsky remains an important but controversial linguistic figure. Generative grammar gave rise to such frameworks such as Transformational grammar, Generative Semantics, Relational Grammar, Generalized phrase structure grammar, Head-Driven Phrase Structure Grammar (HPSG) and Lexical Functional Grammar (LFG). Other linguists working in Optimality Theory state generalizations in terms of violable constraints that interact with each other, and abandon the traditional rule-based formalism first pioneered by early work in generativist linguistics.

Functionalist linguists working in functional grammar and Cognitive Linguistics tend to stress the non-autonomy of linguistic knowledge and the non-universality of linguistic structures, thus differing significantly from the formal approaches.

Today's science of linguistics explores:

- the sounds of speech and how different sounds function in a language
- the psychological processes involved in the use of language
- how children acquire language capabilities

- social and cultural factors in language use, variation and change
- the acoustics of speech and the physiological and psychological aspects involved in producing and understanding it
- the biological basis of language in the brain

This special report touches on nearly all of these areas by answering questions such as: How does language develop and change? Can the language apparatus be "seen" in the brain? Does it matter if a language disappears? What exactly is a dialect? How can sign language help us to understand languages in general?

Answers to these and other questions have implications for neuroscience, psychology, sociology, biology and more.

Who is the linguist ?

Linguists focus on describing and explaining language. Linguists are not required to know many languages and linguists are not interpreters. The underlying goal of the linguist is to try to discover the universals concerning language. That is, what are the common elements of all languages. The linguist then tries to place these elements in a theoretical framework that will describe all languages and also predict what can not occur in a language.

Linguistics as a scientific study of language

Linguistics is the scientific study of language. Defining it as scientific is a broad term conveying a wide range of explanations, most important of them is the fact that it follows the general methodology of science like (controlled observation, hypothesis-formation, analysis, generalization, prediction, testing by further observation, and confirmation, modification or rejection of the hypothesis).

In language analyses, the linguist is bound to follow certain procedures and take into account factors which make of his study a scientific one (objectivity + descriptivism). These factors are:

1- Systematicness : The linguist has to set an organized work on the material to be studied, for instance he has to choose between micro and macro linguistics, then he has to define the area of his study regardless of any other field. If the choice had been on one particular language (English for example), the linguist should identify the aspect of the study. If the aspect of the

study is phonology, the linguist will clearly define the subject whether phonetics or phonemics ... and so on for each step.

2- Objectivity : The linguist has to carry out the work without any personal feelings intervention. Data should be presented in the way they are not in the way they would be (not prescriptive).

3- Explicitness : The results obtained from the work and theories built around, should be publically checked and verified

Being pointed at as scientific also stems from the fact that it makes use of different disciplines or sub-fields since it is a social science that shares common ground with other social sciences such as psychology, anthropology, sociology and archaeology. Linguistics is ultimately concerned with how the human brain functions. Within its scope of language study, other aims may appear. A fact that requires the use of different types of linguistics, most widely used are the following:

Branches of Linguistics

1-Descriptive linguistics: It deals with the study of particular language aiming at understanding both its form and function including all of its aspects (phonology, morphology, and semantics)

2-General linguistics: It is concerned with the analyses of language in general in the intention to build up theories and categorization about human language in general. For example, the statement that all languages are consonantal and vowelized.

3- Synchronic linguistics: It is concerned with the study of one particular language at a given period of its history (often the present), for instance, English language studied synchronically during the Shakespearian period. The twentieth century was marked by a shift from historical linguistics towards synchronic linguistics which sees language as a living whole, existing as a **state** at a particular point in time (as *état de langue*, as De Saussure put it). In order to study the language synchronically, linguists will collect samples within the stated period, describing them regardless of any historical considerations.

4- Diachronic linguistics: This type of linguistics takes into account the different historical changes that one particular language has undergone, their relationships and the

families they descend from. What is to be noticed is the fact that a diachronic study makes use of synchronic studies.

Saussure however emphasizes the synchronic view of linguistics in contrast to the diachronic view of the nineteenth century since people ignore the history of their language.

5-Microlinguistics: It is a narrow scope of linguistics which studies language itself. That is there is no reference made to the way in which this language is acquired and stored in the mind, the way language is interdependent with other fields of knowledge like sociology, psychology...

6-Macro linguistics: Is generally defined as the study of language **beyond** the language i.e, interrelation to what is not purely linguistics. In other words, this type of linguistics deals with language in relation to other disciplines and aims at providing enough knowledge on how languages are acquired, which part of the brain is responsible for language manipulation, how language is related to society, culture, cognitive development of the individual.... In a macro-linguistic study, language is therefore viewed not as a system in itself but as a system in relation to the world of experience or extra-linguistic world. Some of the most significant branches are defined below:

- **Psycholinguistics:** This sub-discipline can be defined as Lyons (1984,p .240) puts it "The intersection of psychology and linguistics". Psycholinguistics is the study of the relationship between linguistic and psychological behaviour or more particularly the study of language and mind. The most important area is the investigation of the acquisition of language by children. Psycholinguists study also first and second language acquisition; the relationship between language and cognition, or "thought"; and how humans store and retrieve linguistic information, or "verbal processing."
- **Sociolinguistics:** Sociolinguistics similarly can be also seen as the intersection of sociology and linguistics. It is the study of language as a social and cultural phenomenon. It studies the language variation, language and social interaction, language attitudes and language planning as major divisions within the subfield of sociolinguistics. They are also concerned with the definition of the different functions of language.

- **Ethno-linguistics:** This branch refers to the linguistic correlates and problems of ethnic groups, for example, the linguistic consequences of immigration. To some extent, it overlaps with anthropological linguistics in the sense that it can also be defined as the study of language in relation to culture.
- **Anthropological Linguistics:** Anthropological linguistics is the study of language and culture and how they interact.
- **Applied linguistics:** A very important branch which is concerned with the application of linguistic knowledge to practical areas or domains such as language teaching and learning, translation, lexicology or dictionary making it ...etc.

Some other branches can be considered as intermediate, i.e, between micro and macro-linguistics:

- **Comparative linguistics:** This type of linguistics is concerned with making comparison between different states of language “**état de langue**” in different periods of that language history.
- **Contrastive linguistics:** A very important branch which studies the differences or contrasts between different languages at different levels: phonological, Morpho-syntactic, grammatical, lexical or semantic. Contrastive linguistics studies are undertaken mainly for applied linguistic purposes.

8-Historical Linguistics: Historical linguistics also known as philology (sometimes known as diachronic linguistics) is the study of language change and the relationships of languages to each other.

The above branches are a clear evidence of the practical applications deriving from linguistic research. We can even say that it is difficult to think of an aspect of human behaviour which is not concerned with language. Hence, all fields of human experience can benefit from linguistics.

Names for the discipline

Before the twentieth century, the term "philology", first attested in 1716, was commonly used to refer to the science of language, which was then predominantly historical in focus. Since Ferdinand de Saussure's insistence on the importance of synchronic analysis, however, this focus has shifted and the term "philology" is now generally used for the "study of a language's grammar, history and literary tradition", especially in the United States, where it was never as popular as it was elsewhere (in the sense of the "science of language").

Although the term "linguist" in the sense of "a student of language" dates from 1641, the term "linguistics" is first attested in 1847. It is now the usual academic term in English for the scientific study of language.

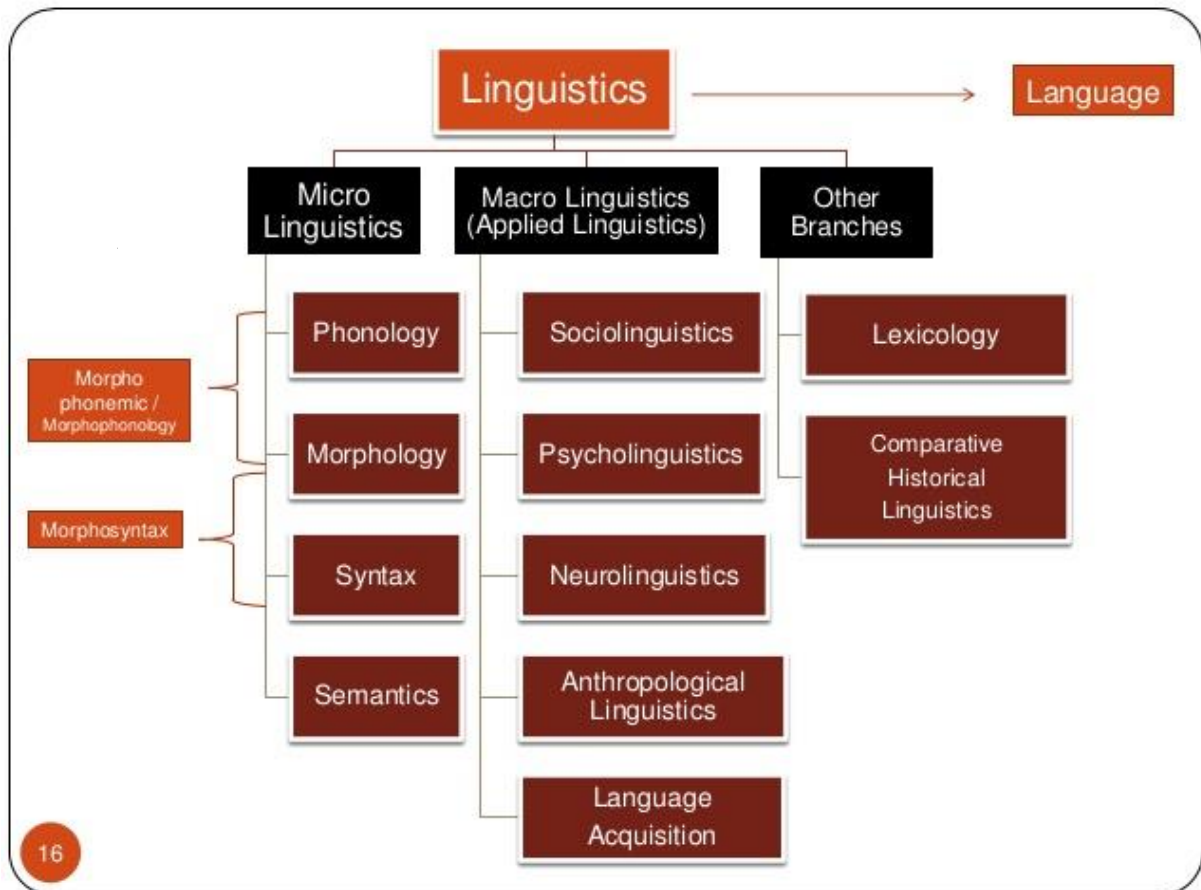
Description and prescription

Linguistics is **descriptive**; linguists describe and explain features of language without making subjective judgments on whether a particular feature is "right" or "wrong". This is analogous to practice in other sciences: a zoologist studies the animal kingdom without making subjective judgments on whether a particular animal is better or worse than another.

Prescription, on the other hand, is an attempt to promote particular linguistic usages over others, often favouring a particular dialect or "acrolect". This may have the aim of establishing a linguistic standard, which can aid communication over large geographical areas. It may also, however, be an attempt by speakers of one language or dialect to exert influence over speakers of other languages or dialects. An extreme version of prescriptivism can be found among censors, who attempt to eradicate words and structures which they consider to be destructive to society.

Study of Language

Traditional and Modern Approaches to Language Study



Human language had been studied from different perspectives. Traditional approaches to language study are referred to as *traditional grammar* and modern approaches to language study are referred to as *modern linguistics* or *simply linguistics*.

Linguistics is generally and commonly defined as the science of language or the scientific study of language. The term scientific is used in opposition to traditional grammar which gave the priority to the written language rather than the spoken one.

Traditional grammar was non-scientific in the sense that it was **prescriptive** since it was more or less concerned exclusively with the standard, literary language and tended to disregard or to condemn it as incorrect less informal or colloquial usage both of speech and writing.

Traditional grammar was developed on the bases of Greek and Latin languages and it was also applied with minimal modifications to the description of a large number of other languages. An Example of traditional grammar is its concern with the grammar of Arabic, as a matter of fact the interest is only in Classical Arabic (standard Arabic) and so does not apply to the variety of Arabic or its dialects (the one we speak in our everyday life).

It should be specified here that Standard language in opposition to other dialects is the one that has acquired prestige and became the instrument of administration, education, literature and media. It is used by a great number of people and for a wider range of activities and it is the variety of language which was the subject matter of traditional grammar.

The other varieties or dialects which can be regional or social, i.e. they can vary from one generation to another or from one social group to another, which were not included in the scope of study of traditional grammar which regarded them as imperfect approximations to the standard. This is the reason why this type of grammar is called prescriptive since it accepts one part or a variety of a language, the standard, as correct or pure and rejects the other parts or varieties as being incorrect. The important point here is that the regional or social varieties of a language or dialects, let's say Arabic for example, are no less systematic than the standard language and should not be described as imperfect approximations to it. It is important to emphasize here this point since many people are inclined to believe that it is only the standard language taught in schools that is subject to a systematic description. From a purely linguistic point of view, all the dialects of a language are of equal consideration, something which traditional grammar failed to realize.

One of the principal aims of modern linguistics has therefore been to construct a theory of grammar which is more general than the traditional theory, one that is appropriate for the description of all human languages. This theory is said to be *descriptive* and not *prescriptive*, i.e., it describes language as it is, not as it should be. In other words, it studies language objectively, without judgements or criticism. Modern linguistic theory is scientific because it is also explicit and empirical, i.e., based on observable facts. What is generally understood by scientific description is one that is carried out systematically on the basis of objectively verifiable observations. The linguist is therefore interested in all languages and all varieties of the language and his principle is one of generalization.

From what has been said so far and according to many other contemporary linguists such as Lyons, the traditional grammarian tended, therefore, to assume upon the standard written language or literary language. In conscious opposition to this view, the contemporary linguist maintains that the spoken language, whatever its form and variety, is primary and that writing is a means of representing it.

It is also important to mention that linguistics is primarily concerned with the non-historical (synchronic) study of language, i.e., the study of state of a language at a given time, regardless of its previous or future history. For example, it is interested in English as it is used now in opposition to a diachronic study of language which is a description of its historical development, i.e., through time. This terminology (diachronic/synchronic) has been introduced to modern linguistics by father figure of modern linguistics, the Swiss scholar Ferdinand De Saussure whose lectures were reconstructed, as specified by Lyons and others, from the notes of his students and were published in 1915 after his death as *Cours de linguistique générale*.

The table below represents the significant differences between the two approaches, traditional and modern one:

Traditional Grammar

Modern Linguistics

What is the use of studying Linguistics ?

Linguistics training provides students with valuable intellectual skills, including critical thinking, analytic reasoning and logical argumentation. It also develops students' practical skills in making observations, identifying patterns, analysing data, formulating and testing hypotheses, making arguments and drawing conclusions, and communicating their findings through speaking and writing.

Linguistics majors are either required or encouraged to have proficiency in at least one language besides English and their native Chinese language. Many Linguistics majors spend time studying or travelling abroad. This helps them understand how languages vary and how their native language fits into a broader picture. It also provides them with an excellent opportunity to develop multilingual competence.

Students trained in Linguistics can compete from a position of strength whenever rational, independent and creative thinking is valued and strong verbal and analytical skills are required. Linguistics majors are well prepared for a variety of jobs as well as postgraduate and professional programs. They can pursue careers in such areas as the public relations, civil services, publishing and communication industries, translating and interpreting, computational fields, language education, and the teaching of English/Chinese as a second language. They can also choose to further their studies in Linguistics and Applied Linguistics, or (sometimes in combination with training in another specialization) in the related disciplines of Cognitive Science, Psychology, Speech and Hearing sciences, Anthropology, Philosophy, Education, Communication Sciences, Library/Information science, Computer Science and Information Technology, or Law.

Additional Reading:

What is Linguistics?

Linguistics is the study of human language. Knowledge of linguistics, however, is different from knowledge of a language. Just as a person is able to drive a car without understanding the inner workings of the engine, so, too, can a speaker use a language without any conscious knowledge of its internal structure. And conversely, a linguist can know understand the internal structure of a language without actually speaking it.

WHAT DO LINGUISTS STUDY?

A linguist, then, is not an individual who speaks many languages, more accurately called a "polyglot" or a "bi-" or "multilingual". Rather, linguists are concerned with the grammar of a language, with the social and psychological aspects of language use, and with the relationships among languages, both historical and in the present. As in any complex field, there are several major divisions within the field of linguistics.

Formal Linguistics

Formal linguistics is the study of grammar, or the development of theories as to how language works and is organized. Formal linguists compare grammars of different languages, and by identifying and studying the elements common among them, seek to discover the most efficient way to describe language in general. The ultimate goal of this process is a "universal grammar"-the development of a theory to explain how the human brain processes language. Within formal linguistics, there are three main schools of thought:

--**Traditional.** The traditional approach to grammar is the one that is probably most familiar to the majority of us. A typical definition in a traditional grammar is "A noun is a person, place, or thing." "Adjective clause," "noun clause," "complement," and "part of speech" are other familiar terms from traditional grammars.

-- **Structural linguistics**, a principally American phenomenon of the 1940's, was heavily influenced by the work of B.F. Skinner. Of the areas of linguistic study to be described below, structuralists are principally concerned with phonology, morphology and syntax. Structuralists exclude meaning from the study of language, focusing instead on linguistic forms and their arrangement. "Phoneme," "morpheme," "form class" and "constituent" are terms typically used in structural grammars.

--**Generative/transformational.** The generative/transformational approach to the description of language was introduced in 1957 with the publication of Noam Chomsky's SYNTACTIC STRUCTURES. Generative approaches include meaning in the study of language, and look for patterned relationships between "deep" structures of meaning and "surface" structures of linguistic forms actually used by the speaker. Since Chomsky's original proposals in 1957, there have been numerous elaborations and alternative theories (some discussed by Newmeyer, 1980), so that today, a number of approaches are being considered.

The following are the principal areas of study within formal linguistics:

--**Phonetics.** Phonetics is the study of the sounds of language and their physical properties. Phonetics describes how speech sounds are produced by the vocal apparatus (the lungs, vocal cords, tongue, teeth, etc.) and provides a framework for their classification. Two practical applications of phonetics are speech synthesis, the reproduction by mechanical means of the sounds produced in human language; and speech recognition, the developing capacity of computers to comprehend spoken input.

--**Phonology.** Phonology is concerned with the analysis and description of the meaningful sounds uttered in the production of human language, and how those sounds function in different languages. The letter "p," for example, can be pronounced in several different ways: an English speaker interprets these different pronunciations as one sound, whereas a speaker of some other language might interpret the pronunciations as two or more sounds. It is phonological analysis

such as this that allows the foreign language teacher to pinpoint and correct students' pronunciation difficulties in the foreign language classroom.

--**Morphology.** Morphology is the study of the structure of words. Morphologists study minimal meaning units, or morphemes, and investigate the possible combinations of these units in a language to form words. For example, the word "imperfections" is composed of four morphemes: im+perfect+ion+s. The root, "perfect," is transformed from an adjective into a noun by the addition of "ion," made negative with "im" and pluralized by "s."

--**Syntax.** Syntax is the study of the structure of sentences. Syntacticians describe how words combine into phrases and clauses and how these combine to form sentences. For example, "I found a coin yesterday" is embedded as a relative clause in "The coin which I found yesterday is quite valuable." Syntacticians describe the rules for converting the first sentence into the second.

--**Semantics.** Semantics is the study of meaning in language. The goal of semantic study is to explain how sequences of language are matched with their proper meanings and placed in certain environments by speakers of the language. A demonstration of the importance of meaning to the grammar of a language is the following well-known example from Chomsky (1957): Colorless green ideas sleep furiously. This is a grammatical sentence; but because semantic components have been ignored, it is meaningless in ordinary usage.

Sociolinguistics

Sociolinguistics is the study of language as a social and cultural phenomenon. Studies of language variation, language and social interaction, language attitudes and language planning are major divisions within the subfield of sociolinguistics.

--**Language Variation.** Language variation is a term used to describe the relationship between the use of linguistic forms, geography, and certain social categories, such as social class, ethnic group, age, sex, occupation, function, and style. The combination of these various factors in speech result in an individual's idiolect, or particular and idiosyncratic manner of speech. When a variety of language is shared by a group of speakers, it is known as a dialect. A dialect, whether standard or nonstandard, includes the full range of elements used to produce and present speech: pronunciation, grammar, and interactive features. In this respect, dialect should be distinguished from accent, which usually refers only to pronunciation.

All speakers of a language speak a dialect of that language. The speech of a resident of Alabama is quite different from the speech of a New Englander, as the Texan differs in language variety from the resident of rural Kentucky, and so forth, even though the language spoken by all is English. Further differentiation is possible by investigating factors such as social class, age, sex, occupation, and others.

--**Language and Social Interaction.** Language and social interaction refers to language and its function in the real world. Three subfields of sociolinguistics investigate this relationship: pragmatics, the ethnography of communication and discourse analysis.

Pragmatics. Pragmatics is the study of the ways in which context affects meaning. Thus, as a function of context, the intended meaning of an utterance is very often significantly different from its literal meaning. For example, a sentence such as "I'm expecting a phone call" can have a

variety of meanings. It could be a request to leave the phone line free; or a reason for not being able to leave the house; or it could suggest to a listener who already has background information that a specific person is about to call to convey good or bad news.

Discourse Analysis. Discourse analysis examines the way in which sentences are combined in larger linguistic units, such as conversational exchanges or written texts. Matters of coherence and cohesion of texts are also investigated, and the links between utterances in sequence are also important topics of analysis.

Ethnography of Communication. The ethnography of communication uses the tools of anthropology to study verbal interaction in its social setting. One practical example of the use of ethnographic research is in the study of doctor-patient communication. Such a study involves microanalysis of doctor-patient interaction by noting not only what is said, but also the duration between turns, interruptions, the style of questioning, changes in pitch, and nonverbal aspects of interaction, such as eye contact, physical contact, and gestures.

--**Language Attitude Studies.** Language attitude studies investigate the attitudes that people hold, or appear to hold, vis a vis different language varieties and the people who speak them. While studies in language and social interaction investigate actual language interaction, language attitude studies explore how people react to what occurs in language interaction and how they evaluate others based on the language behavior they observe.

--**Language Planning.** Language planning is the process through which major decisions are made and implemented with regard to how and which languages should be used on a nationwide basis. Language attitude studies are an essential component of language planning. In the United States, such issues as declaring English the official language, or the establishment of bilingual education programs are major language planning decisions.

It is in the multilingual, emerging nation-states of the third world, however, that language planning is the most significant. Governments must often decide which of a country's several or many languages should be developed--that is, written, standardized, or modernized; and how a country's languages will be used (in the government, the schools, the media, and so on). Status planning involves the initial choice of which language to be used for which function. Corpus planning involves the development or simplification of writing systems, dictionaries and grammars for the indigenous languages, in addition to the coining of words to express new concepts. In such contexts, language planning is an important part of affecting economic, political and social development.

Psycholinguistics

Psycholinguistics is the study of the relationship between linguistic and psychological behavior. Psycholinguists study first and second language acquisition; the relationship between language and cognition, or "thought"; and how humans store and retrieve linguistic information, or "verbal processing."

--**Language Acquisition.** The study of how humans acquire language begins with the study of child language acquisition. Principally, two hypotheses of language acquisition have been presented. The first, deriving from the structuralist school of linguistics mentioned above, holds that children learn language through imitation and positive-negative reinforcement. This is known as the behaviorist approach. The second, the innateness hypothesis, proposes that the

ability to acquire a human language is an inborn, biologically innate characteristic. Furthermore, this innate language-learning ability is linked to physiological maturation, and begins to decay around the time of puberty. The innateness hypothesis derives from the generative/transformational school of linguistics.

Such descriptions of language acquisition are further tested in exploring how adults acquire language. It appears that most adults learn language through memorization and positive-negative reinforcement--a manifestation of the behaviorist model. Whether this is a result of the decay of the innate ability described above, or a result of other psychological and cultural factors, is a question of great interest to the psycholinguist. Recent evidence that the innate ability to learn language may only be suppressed after puberty could lead to important innovations in the treatment of language disorders and in teaching foreign languages to adults.

--**Verbal Processing.** Verbal processing involves four skills: speaking, understanding, reading and writing, and implies both the production of verbal output, and processing the output of others. For example, although the sentences of a language may theoretically be infinitely long, our processing capabilities place constraints both on their length and on certain of their structural characteristics. While we readily comprehend "The dog bit the cat which chased the mouse which ran into the hole," we have some difficulty sorting out "The mouse the cat the dog bit chased ran into the hole." Why this is so, in terms of cognition, perception, and physiology, is a major concern of the psycholinguist.

Applied Linguistics

The findings of linguistics, like the findings of any other theoretical study, can be applied to the solution of practical problems, as well as to innovations in everyday areas involving language. Such activities are the concern of applied linguistics.

Some of the many positive contributions of applied linguistics are the development of first and second language teaching methodologies; practical literacy work; the development of alphabets and grammars for unwritten languages; dictionary compilation (lexicography); the use of expert witnesses in legal cases involving language; the development of special teaching strategies for speakers of nonstandard English; and speech synthesis and speech recognition (described above).