Abstract

A brief analysis and definition of general linguistics focuses on distinct areas of study within the science, including descriptive, historical, comparative, and computational linguistics. Other branches of the science discussed are psycholinguistics, sociolinguistics, and dialectology. Technical concepts encountered in the literature are also examined. The contributions of linguistics to foreign language teaching are variously noted. (RL)
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LINGUISTICS is the systematic study of language and of languages. Linguists are concerned with the nature of that part of human communication which is verbal, whether oral or written. What are the functions of language? How does it function? What is its internal organization? What features do all languages have in common? What features does each individual language have as its special characteristics? How does a given language differ from its earlier or its later form?

The phenomenon of human communication by language is basic and complex. It is basic because it is the medium by which the experience of the past is made accessible to the young members of a community, and the experience of one individual member of a community is made accessible to another, and because it is the medium by which planning for future activity is made possible, and by which information and suggestion can be exchanged in the process of a cooperative activity.

Language is inevitably complex, since it has to be capable of performing its communicative functions in almost all the situations in which human beings are involved. Even the solitary human being "thinks" in his language and "remembers" in his language.

Because of the complexity of linguistic function, there are many branches of linguistic study. The field of linguistics has become so extensive in the last one and a half centuries that today no linguist is expected to be truly expert in more than a part of the total field. Some of the major subdivisions of linguistics are descriptive, historical, and comparative linguistics. There are productive relationships between linguistics and other major fields of study: psycholinguistics, sociolinguistics, linguistics in connection with information theory and symbolic logic.

Descriptive linguistics typically investigates the structure of a language at a particular time, as nearly as it can be "frozen" for study. It is something like taking one frame of a movie film and studying it. For obviously no language is ever static, and no language is ever uniform throughout a community. But for purposes of study, a kind of cross-section view of the linguistic behavior of a community during a relatively short period of time can be made. The structures of various aspects of that language—pronunciation, grammar, vocabulary—can be described with approximate (though of course not perfect) accuracy and reliability. Such study is called "synchronic," as indicating that the structures it is concerned with are regarded as being contemporaneous.

Historical linguistics is concerned with the changes that a language undergoes in time, and accordingly is called "diachronic." Any native speaker of English who encounters Beowulf, or Chaucer, or Shakespeare, or even so recent a writer as Tennyson, is aware that their language(s) are not his. If we could hear these poets read their works aloud, we would be even more aware of the changes. Many of the features of a present form of a language are made understandable through a knowledge of historical changes from earlier forms. For example, the oddity
of the verb forms "he can, he may, he will, he shall, he must" (without the ending "-s") is due to linguistic changes that took place at least two thousand years ago in a language.

Comparative linguistics is a combination of descriptive and historical linguistics. It studies the relationship between two languages or two dialects. In the nineteenth century, comparative linguistics was almost exclusively concerned with tracing the histories of two or more languages that were "descended from a parent" language. Language "families" were discovered, and the relationships among the related languages and the processes whereby they developed into their later forms were traced. The structure of the parent language was deduced by setting up a model which could account for the development of the daughter languages. This reconstruction of a language which had left no written records has been justly regarded as one of the major intellectual triumphs of the nineteenth century. And the task is by no means finished yet; the field is still a fascinating and important one.

Closely related to comparative linguistic research in related languages is dialectology. The earliest work in dialectology was on a geographical basis, resulting in dialect dictionaries and dialect atlases of several major language communities. (The term "dialect" is a vague one, which linguists use cautiously; they prefer to speak of differences at a geographical boundary. Sometimes these differences cluster geographically, and then there is some assurance in speaking about a geographical dialect boundary.)

Another form of comparative linguistics does not restrict itself to languages which have a common "parent." This is typological comparative linguistics. Languages that have a grammar which operates chiefly with suffixes and prefixes are typologically different from languages with a grammar that predominantly uses prepositional phrases and auxiliary verbs. Languages with a word order "Subject—verb—object" differ typologically from those with a word order "Subject—object—verb." More generally, languages with free word order belong to a different type from those with a fixed word order. In more detailed matters, the consonant systems of Icelandic and Korean, or the tense systems of Finnish and Swahili, can be compared typologically.

Psycholinguistics is concerned with the processes whereby an infant becomes a post-infant by learning to speak and understand; and with the psychological relations between linguistic stimulus and a hearer's reaction (connotation, association of ideas; a hearer's unconscious transfer of impressions from language to a judgment as to the personality or status of the speaker). A branch of applied psycholinguistics is the study of speech pathology; retarded language acquisition, impairment of production or perception of language by brain damage or as a consequence of disease. Another branch of applied psycholinguistics is the development of pre-tests of attitude to learn a second language.

Sociolinguistics deals with the correlation between linguistic behavior and social functions and social status. There are, in any complex society, varieties of occupations and stratifications. Some kinds of linguistic behavior are favorable to upward mobility; others are not. Information about the varieties of behavior is needed for all socially sensitive members of the community. It is all too easy to draw inferences about temperament, personality, and character from dimly perceived linguistic traits without realizing what is influencing judgments. With knowledge of the features of a socially-determined dialect, applied linguists can plan for a program of making its speakers bi-dialectal, just as a foreign-language teacher can help a learner become to some extent bilingual.

Information theory is an abstract study of the transmission of information, as describable in mathematical measures. It deals with concepts like "entropy, bit or binit (binary unit), channel width, noise, redundancy." It is a highly theoretical approach to language analysis, and so far has not been directly applicable to FL teaching.
Computational linguistics covers the entire scope of those aspects of language which can be handled—directly or indirectly—by modern computers. The output of a computer program with linguistic orientation can be a frequency count of words, sounds, grammatical structures; a word index, a concordance: a statistical tabulation of vocabulary or sound distributions. Some writers of FL textbooks are making use of computer programs to check the introduction of vocabulary and grammatical items at appropriate parts of lesson units, and also to check the recurrence of such items throughout the course.

For purposes of describing language, linguists try to tidy up their very complex object of study by establishing convenient subsections or "levels" of language structure. One generally accepted organization is in terms of the relationships between habit and choice. For many decades it has been customary to begin with the level that involves the greatest component of habit and the smallest of choice: pronunciation, or phonology, as it is technically known. Precisely because the pronunciation behavior of an individual (and of a community of individuals) is the most habitual level of language behavior, it is the most consistent, most predictable, most available for reliable classification and description. Some linguists and most philosophers prefer to start at the opposite level, where choice is dominant: the domain of word-choice, sentence form, stylistic variation.

For purposes of foreign-language learning, there is general agreement that the balance between carefully guided habit-formation and a cognitive understanding of structures for choice-making has to be adapted to the age of the learner, and that the balance has to be shifted from habit-formation to cognitive understanding during the course of the learning program. There is also general agreement, specifically, that the younger the learner, the longer the habit-forming practice. Also, it is generally agreed that regardless of age or educational level, habit-formation comes first.

Hence it is usual to start a language description with statements about its phonology, where nearly all the behavior is controlled by unconscious habits, and where an intrusion of choice amounts to affectation. Phonetics is a well-established science, and for many decades we have had procedures for organizing phonetic observations usefully. The dominance of unconscious habit can be readily determined by asking a speaker of English how he says "No." It will be a very rare speaker who will reply that he closes his glottis, lowers his velum, places the tip and blade of his tongue on the upper gums, expels air from the lung cavity, then raises his velum, moves his tongue to a neutral or low back position, then raises his tongue and rounds his lips. This behavior has to be habitual; how could we talk if we had to decide which muscles to move to say "No"?

Morphology is the level of word-formation. It is the study of grammatical suffixes and prefixes—the familiar verb endings and noun endings, the suffixes that provide for derivation of "gently" and "gentleness" and "gentlemanly" etc. from "gentle." A loose but helpful definition of morphology is that it describes the processes of forming words from smaller meaningful elements of the language.

Syntax investigates the combination of words into phrases, clauses, and sentences. The phenomena of "modification" (adjectives agreeing with the nouns they modify, subject-verb agreement), verb-phrases with auxiliary verbs, prepositions and noun-phrases, conjunctions and subordinate clauses are part of syntax. The phenomena of negation, imperative, interrogation, certain kinds of emphasis are syntactic. Clearly, at this level there is a considerable component of choice. The speaker can choose between "Cats chase mice" and "Mice are chased by cats." The speaker can choose between "You know Dr. Mills on Third Street? Did you know that his dog bit the mailman again?" and "Did you know that Dr. Mills, who lives on Third Street, has a dog who bit the mailman again?"
The domain of freest choice is that of **lexicon** or **vocabulary**. The speaker can choose "pretty, beautiful, gorgeous, pulchritudinous, . . ." depending on his control of a large English vocabulary, his judgment as to the hearer's capacity to get the implications, and his estimate of the importance of being precise. Naturally, there is an element of the habitual even at the lexical level: the choice is by no means total; we cannot convey a message of negation by saying "Sure, Of course, Yes, By all means." But we do have those alternatives to convey a message of agreement and affirmation.

Pervading all the levels of linguistic analysis is the factor of **style**. Linguists and dictionary makers use this term somewhat differently from literary critics. For linguists, style refers to differences that are correlated with the social situation, and with the relation between speaker and hearer(s). We do not use the same pronunciation, syntax, lexicon (and perhaps even morphology) in speaking to a sibling or a spouse on the one hand, and in addressing a large meeting on the other. Similarly, our written styles on a postcard to a close friend and in a scholarly article (or a sonnet) are different. Either style used in the wrong place would be disastrous. The European who has learned English from a book where a model sentence was "Zounds! Our postillion has been smitten by a thunderbolt!" can anticipate trouble in his first conversation with an American taxi driver. On the other hand, a visiting head of state who addresses the U. S. Congress with "Howdy!" is out of tune.

Linguists, with help from anthropologists and sociologists, are also concerned with the neutral oral behavior at the beginning of an acquaintance: what is it safe to talk about while you "feel out" the other person? Traditionally, in American usage, the weather has been a safe neutral topic, although obviously neither speaker really cares much about the other's views. More recently, means of transportation has become a safe topic: What kind of plane was it? How long were you delayed at X airport? Were the thruways cluttered? Etc. Such topics are by no means the same in all language communities; most Europeans would find them vacuous and would tend to lose interest in further acquaintance with anyone who seemed to take them seriously.

Thus the field of linguistics is a large and complex one. It ranges from laboratory measurement of speech sound waves to philosophical speculation, from careful formulation of grammatical usages to various kinds of frequency counts, from deductions about extinct languages to the principles for devising efficient writing systems for hitherto unwritten languages. "**Pure linguistics**" is the study of one or another aspect of language or a language as a matter of scientific curiosity, in the interest of extending the scope of human knowledge. Hundreds of trained investigators, all over the world, are engaged in such study; and the reports of their findings appear in dozens of technical journals.

The other side of the coin is "**applied linguistics**." Many professions are concerned with some aspects of language for practical purposes. Naturally, members of such professions are eager to draw on the insights of pure linguistics, so far as they are applicable, in order to increase the effectiveness of their practical activities.

One such practical activity is the teaching of foreign languages, and there has been a history of fruitful communication between pure linguistics and applied linguistics in this activity. (Many pure linguists were foreign-language teachers before they were linguists. Also, the national needs of World War II directed the concentrated efforts of many promising young linguists into devising learning materials in "exotic," rarely taught languages.)

Probably the most important first effect of linguistics upon a foreign-language teacher is subtle and hard to pin down. It is a sharpened awareness of the extreme complexity of language behavior, and the resultant difficulty of acquiring the control of a new set of patterns of language behavior. Particularly the teacher who is a native speaker of the foreign language being taught
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is almost certainly unaware of many of the peculiar complexities of that language. But even the other teacher, whose native language is that of the learners, has gained enough skill in the foreign language to perform remarkably complex acts of behavior without being aware of the complexity. The teacher with a systematic, objective, conscious understanding of the complexities is a more realistic, more patient teacher, and one who can more intelligently distribute repeated practice at the points of stubborn difficulty for the learner. Such conscious awareness applies to the extraordinary complexity of pronunciation features as well as to the grammatical usages of case and tense and word-order. How many teachers could know, without specific instruction, about the pronunciations of such an apparently simple sound as English “p,” or the major difference between the “k” sounds of “quiet” and “kitten”? How many would suspect the extent of the grammatical uses of “do,” or the existence of three quite different words all spelled “some”?

A refinement of this general awareness of complexity is the pinpointing of specific sources of learning difficulty. A branch of applied linguistics known as “contrastive analysis” is concerned with the discovery and description of “conflict points.” These are features where the behavior patterns of the learner’s language can be expected to interfere with the acquisition of control of a given pattern in the foreign language. For example, if the learner’s language has five vowels and the foreign language has seven, it can be expected that at least several of the foreign-language vowels will present special difficulty and require special intensive practice. If the learner’s language uses prepositional phrases where the foreign language uses case endings to express similar grammatical functions, trouble can be expected.

In the teaching of several of the commonly taught foreign languages, there is a tradition covering several generations which embodies more or less accurate use of some of the most obvious of the conflict points. More detailed and exact analysis is being reflected in better sequencing and better distribution of practice materials in textbooks; the teacher who understands the basis of the textbook construction can use it more effectively.

The usefulness of a conflict point is not a matter of age or recency. Some of the most important conflict points for practical purposes rest on phonological, morphological, syntactic, and vocabulary comparisons that have been familiar for generations. They are tested, and probably more usable than the latest theoretical discussions. (Teachers need particularly to be on guard against the use of fashionable technical terms: it is pointless to list examples, since they change almost year by year.) The criterion is not up-to-date-ness, but usability in the preparation of lesson plans and the preparation of teaching material in an effective sequence and relative intensity.

Somewhat related to the general topic of conflict points is that of an awareness of the relations of habit and choice in the two languages. What is compulsory in one of the languages may be optional in the other: for example, subject pronouns with verb forms which do not have a noun subject. Other, less obvious, examples reveal themselves with closer study of contrastive analyses of the two languages involved.

Probably the most radical of insights from linguistics for purposes of foreign-language teaching has to do with vocabulary. The technical names for the aspects of linguistics having to do with vocabulary learning are polysemy and vocabulary distribution. Both demonstrate the futility (if not worse) of trying to “learn vocabulary” by matching a FL word with an English word—and all the more, the zero or negative pedagogical effects of testing such word-matching memorizing.

Polysemy is familiar to anyone who has used a moderate-to-large dictionary: Even the simplest conversations or reports may use a word in a wide range of meanings, depending on the context in which it is used. To teach one of those meanings as the meaning by matching it with a FL word (which
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probably has its own polysemic structure) is to invite frustration in the learner's attempt to interpret that FL word at their next meeting.

Vocabulary distribution is concerned with the frequency with which a given word occurs in a body of printed or spoken material—put in reverse, the probability that a given word will occur in a text or a portion of a text. The figures are astonishing, to one who has not studied them. In English, for example, the twenty most frequently used words account for more than half of the words in a page of text or a minute of conversation! At the other end of the scale, a vocabulary of two thousand words amounts to only one twenty-fifth of the total vocabulary of a large body of text or several hours of conversation. In other words, twenty-four twenty-fifths of the total vocabulary is beyond the scope of a two-thousand word vocabulary. Obviously, it is pointless to drill a learner on word number 2,001: that word may not occur again for hundreds of pages of print or hours of conversation.

Naturally, work continues in both pure linguistics and its applications to practical problems of FL learning. There are several topics, of real importance to FL learning, where research is scanty and ill-digested. To mention only two:

What are the usages of hesitation formulas in the languages? Nothing is a surer sign of incomplete control of a spoken FL than a non-native-like usage of hesitation formulas. There are major differences; that we know. One favorite place for hesitation in English is a pause after a prolongation of the definite article, while the speaker seeks for the appropriate noun or noun-modifying adjective. This is not an acceptable place for a pause in a language with grammatical gender, where the very form of the article implies a prior choice of noun.—What are the tolerated limits of stammering? In the English-speaking world we know that British males are permitted a greater latitude in stammering than American males.

Textbook writers and teachers of FLs need much more precise descriptions of the meanings and functions of grammatical categories. There is much about the modal auxiliaries in English that remains fuzzy, despite rather intensive study for the past decade. Is anyone really satisfied with the descriptions of the significant differences between "a lamb" and "some lamb"? Or with the formulations of the functions of the various tenses dealing with "past time" in the Romance languages?

In short, research in the pure and in the applied fields is continuing. Breakthroughs of major or minor importance can be expected from time to time. The scientific zeal of the pure linguists, and the professional alertness of members of the FL teaching profession, can be trusted to keep the channels of communication open.

Those who are interested in a much fuller treatment of these topics can be referred to William G. Moulton, A Linguistic Guide to Language Learning (2nd. ed., 1970), available from the Materials Center, Modern Language Association, 62 Fifth Avenue, New York 10011. Professor Moulton's book (140 pages) also contains an up-to-date bibliography.