

What is linguistics

Linguistics is the scientific study of language. In contrast to other language-related disciplines, linguistics is concerned with describing the rule-governed structures of languages, determining the extent to which these structures are universal or language-particular, positing constraints on possible linguistic structures, and explaining why there is only a fairly narrow range of possible human languages.

Linguistics is a valuable component of liberal education and is also useful as preprofessional training for individuals interested in teaching languages, in areas of rehabilitative medicine such as audiology or speech therapy, in special education, in work in computer science and artificial intelligence, in work with native peoples or with immigrant groups, or in academic disciplines such as psychology, philosophy, literature and language studies, where the contribution of linguistics is increasingly recognized.

Vocationally, linguistics can have applications wherever language itself becomes a matter of practical concern, as it does in fields ranging from education to medicine to public policy. The influence of linguistic theory is now evident virtually everywhere in language education, from the structure of a grade-school reader to a business "immersion course" in Japanese or French. It has also had far reaching effects on the way in which first- and second-language skills are taught. Linguistics has benefited from the growth of computer science, in answer both to a practical interest in developing computational systems that can deal with language in various ways, and a theoretical interest in the relation between natural and artificial languages. One result of this collaboration has been the creation of career opportunities for linguists in the private sector; another has been the creation of new degree programs and research centers aimed at integrating work in linguistics, computer science, logic, and related fields.

Linguistics As A Science

Linguistics can be understood as a science in both general and specific terms. Generally, we use the term 'science' for any knowledge that is based on clear, systematic and rational understanding. Thus we often speak of the 'science of politics' or statecraft, or 'the science of cooking'. However, we also use the term 'science' for the systematic study of phenomena enabling us to state some principles or theories regarding the phenomena; this study proceeds by

examination of publicly verifiable data obtained through observation of phenomena, and experimentation; in other words, it is **empirical and objective**. Science must also provide explanation after adequate observation of data, which should be **consistent**, i.e. there should be no contradictions between different parts of the explanation or statement; and **economical**, i.e. a precise and non-redundant manner of statement is to be preferred.

Let us apply these criteria of science to linguistics. Linguistics studies language: language is a phenomenon which is both objective and variable. Like natural phenomena in the physical world, it has a concrete shape and occurrence. In the same way as a physicist or chemist takes materials and measures their weights, densities etc. to determine their nature, the linguist studies the components of language, e.g. observing the occurrence of speech-sounds, or the way in which words begin or end. Language, like other phenomena, is objective because it is observable with the senses, i.e., it can be heard with the ear, it can be seen when the vocal organs are in movement, or when reading words on a page.

Observation leads to processes of classification and definition. In science, each observable phenomenon is to be given a precise explanation. Its nature has to be described completely. Thus, for example, the chemist classifies elements into metals and non-metals; a biologist classifies living things into plants and animals. In the same way, linguistics observes the features of language, classifies these features as being sound features of particular types, or words belonging to particular classes on the basis of similarity or difference with other sounds and words.

But while linguistics shares some of characteristics of empirical science, it is also a social science because it studies language which is a form of social behaviour and exists in interaction between human beings in society. Language is also linked to human mental processes. For these reasons, it cannot be treated always as objective phenomena.

In empirical sciences, the methods of observation and experimentation are known as inductive procedures. This means that phenomena are observed and data is collected without any preconceived idea or theory, and after the data is studied, some theory is formulated. This has been the main tradition in the history of western science. But there is an opposing tradition the tradition of rationalism, which holds that the mind forms certain concepts or ideas beforehand in terms of which it interprets the data of observation and experience. According to this tradition, the deductive procedure is employed in which we have a preliminary hypothesis or theory in our minds which we then try to prove by applying it to the data. This procedure was considered to be unscientific according to the empirical scientists because they felt that pre-

existent ideas can influence the kind of data we obtain i.e. we search only for those pieces of data that fit our theory and disregard others and therefore it is not an objective method. On the other hand, it has been observed by some thinkers (such as Popper) that no observation can be free of some theory; it cannot be totally neutral.

We can, however, reconcile these two procedures. There are aspects of language which we can observe quite easily and which offer concrete instances of objective and verifiable data. At the same time, we need to create hypothesis to explain this data, so we may create tentative or working hypothesis to explain this data, which we may accept, reject or modify as we proceed further. With such an open attitude, we may collect more data. This alternation of inductive and deductive procedures may help us to arrive at explanations which meet all the requirements of science, i.e. they are exhaustive, consistent and concise.

Thus, linguistics is both an empirical science and a social science. In fact, it is a human discipline since it is concerned with human language; so it is part of the study of humanities as well. This includes the study of literature, and appreciation of the beauty and music of poetry. In understanding language, humankind can understand itself. Moreover, since every branch of knowledge uses language, linguistics is central to all areas of knowledge. In regard to linguistics, the traditional distinctions of science, art and humanities are not relevant. As Lyons puts it, linguistics has natural links with a wide range of academic disciplines. To say that linguistics is a science is not to deny that, by virtue of its subject matter, it is closely related to such eminently human disciplines as philosophy and literary criticism.

What linguistics is not

Firstly, Linguistics is not to be viewed as a historical (diachronic) study. In a historical study of language, we see how different languages have developed from old languages , such as English from Older English (or Anglo-Saxon , as it is often called), or French from Latin , and how these older languages in turn have developed from still earlier languages, which perhaps no longer exist- for example, Latin , Greek, and Sanskrit from the language we call Indo-European. We have do not, incidentally, deal with such dramatic problems as the origin of language , or the world's first language, in view of the fact that there is hardly any evidence we can point to in order to solve such questions scientifically. 'Comparatively philology' is a branch of linguistic study which has been practices in an amateurish kind of way for many

hundreds of years, though not systematically until the end of the eighteenth century. It is, however, only one aspect of Linguistics as a whole- and really quite a small, though complex one. (Historical studies account for but one paper in most final examination.) we shall define Linguistics as 'the science of language', and clearly there is a lot more to language , or to any other phenomenon , than its history. Linguistics is in fact primarily concerned with non-historical (i.e. synchronic) study of language , the study of a state of a language at a given time, seen regardless of its previous or future history : to look, for instance, at English as it is used now , in the 1980s , or as it was in Shakespeare's time, and not at the way in which Shakespeare 's became modern English, or the way in which the English current today is even now in the process of changing into the English of the twenty-first century. Most of the important questions at all. What are the jobs that language does in the society? How does it do them? How do we analyze any language which we come across? Do all languages have the same parts of speech? what is the relationship between language and thought? Or language and literature? To answer such questions, and many more besides, we are forced to look at language in non-historical way, to see it as an object of study which has to be examined empirically, in its own terms, like the subject-matter of physics or chemistry.

Secondly, Linguistics is not to be interpreted as language learning or teaching. A 'linguist', in our sense, is not someone who has a skill in using many languages, though this sense is of course a current one for the word. One of the most frequent conversations that I have is based on this ambiguity.

It runs as follow.

Interlocutor: You're at the university, are you? (Friendly smile) And what do you do there

Self: I teach Linguistics

Interlocutor (Face drops): Oh. And how many languages do you speak

This is difficult conversation to continue. Few professional linguists are actually fluent in more than one language. In trying to answer, I attempt to point out that it is not a question of 'speaking' a language which makes someone a linguist, in our sense, but of being able to 'speak about' a language, of knowing about the principles on which languages can be said to work, and about the kinds of difference which exist between one language and another. Moreover, the number of languages which linguists will 'know about' in some

degree of detail will vary from one year to the next , and depend largely on the kind of students they have at any one time, and the kind of interests these students have. For example, if I have students who for some reason want to do some work on , say, an African language like Twi, then, unless I can refer them to a colleague who is a Twi specialist, I have simply got to begin studying this language myself, so that I can help them find their way about in it. By examples such as this, I would point out to my interlocutor that what linguistics really gives one is an ability to approach the study of language confidently and methodically ; it indicates an analytic state of mind towards all kinds of things which take place in language; and while it certainly does improve one's ability to learn new languages, this is a byproduct of the training one receives, and quite incidental. But such arguments interlocutors usually have no time or desire to hear. More often than not in a conversation of this kinds these days, I do not try to explain my sense of 'linguist' along these lines, but in answer to the question ' How many languages do you speak?' simply answer, tongue in check, 'twenty-eight'!