

Four conceptions of language

Abstract

This article considers four conceptions of language which have been particularly important in the development of modern linguistics. In each case the general approach is to investigate language by assuming that it is of the same kind as another type of object which is (considered to be) much better understood. The conceptions of language, outlined in this article in chronological order, are: language as a social fact (de Saussure), language as behaviour (Bloomfield), language as a mental organ (Chomsky) and language as an abstract object (Katz).

1. Introduction

Words are the leaves of the tree of language, of which, if some fall away, a new succession takes their place.

Field Marshall John French

What are the properties of language which make it similar to a tree? Could language exist without words in the way a tree may exist without leaves? Could words exist without the tree of language? One way to address these and other similar questions might be to make a list of the main properties of trees. The next step might be to look systematically for identical or similar properties in human languages. This would mean that our knowledge of botany would be guiding our scientific investigation of language. As fundamental differences between trees and languages are many and easily observable, it is evident that this research programme does not hold enough promise to appear worth pursuing. However, this general approach illustrates an important point about the methodology of scientific research in general and the linguistic investigation of language in particular: research into one poorly understood object of study proceeds on the assumption that it shares its essential properties with some other (type of) object which is already better understood. In fact, some major landmarks in the development of modern linguistics are based on four conceptions of language as an object of study: language *as a social fact*, language *as behaviour*, language *as a mental organ* and language *as an abstract object*.

2. Language as a Social Fact

The view of language as a social fact, as suggested by Ferdinand de Saussure (1916), marked a shift away from the predominantly historical interest in language towards its study as a system at the current stage of its development. Saussure believed that important insights into language could be gained if it was investigated from the point of view of its users, who typically do not know anything about its historical development. Since language use reflects the structure of language as a system of units at a particular stage of its development, language should be studied from the synchronic, rather than the diachronic, perspective. Saussure compared a given stage in the development of a language with the configuration of pieces on the chess board at a given stage of a game of chess. Just as the value of each piece is largely determined by its position relative to all the other pieces on the board (at a given stage of the game), a particular language at a given stage of development is a system of language units, or language signs (Saussure's term is 'signe linguistique') whose values are determined by their position in relation to all the other signs in the language system at that particular stage. And just as any change in the position of a given chess piece alters the values of all the other pieces and affects the system as a whole, the change which directly affects one language sign (potentially) affects the language system as a whole. For example, although the Serbian word 'jeftin' (arguably) has the same meaning as the English word 'cheap', it does not have the same value in the language system, because, in English, 'cheap' contrasts with 'inexpensive', whereas in Serbian the same contrast is not lexicalized, so that it is either ignored, with 'jeftin' covering both meanings, or it is conveyed in some more elaborate way. The value of the Serbian word 'jeftin', its position in the language system, would change significantly if the equivalent of the English 'inexpensive' were to become lexicalized in Serbian.

In Saussure's view, language is a social fact akin to other social institutions, such as the legal system or the dress code. Although people's use of language reflects its systematic character, the structure of language as a system is not directly observable or consciously represented by its users. Saussure posited a distinction between observable linguistic behaviour, what he called 'parole' (speaking), and the underlying language system, what he called 'langue' (language). In his view, the main task of linguistics was to discover langue - the language system - by investigating parole - language in use. Saussure's view of language as a social fact is consistent with Émile Durkheim's sociological theory (popular at the time when Saussure was developing his ideas) in which social facts are characterized as representations in the 'collective mind', rather than as material or psychological entities.

The concept of 'langue' as a social fact, and as the proper object of linguistic investigation, had an unfortunate consequence. If 'langue' is a system of relations between language signs which are both external to its users and not directly observable in the manifestations of 'langue' in use (because they are part of the 'collective mind'), there is no place for the category of sentence in linguistic analysis. In other words, it follows from Saussure's position that sentences are an aspect of 'parole' rather than 'langue'. Therefore, they are not a part of the systematic character of a language. So, although we readily produce and comprehend utterances of sentences that we have never produced or heard before and, although we assign them meanings in a systematic way,

Saussure's view of language as a social fact did not (adequately) accommodate this important aspect of language.

3. Language as behaviour

The view of language as behaviour emerged in American descriptivist linguistics under the influence of positivism (in philosophy) and behaviourism (in psychology). An important methodological stance of logical positivism is that scientific research must be based either on statements which are tautologically true, such as: *either P or not P*, or they must be based on direct observation. The immediate consequence of this view for the scientific study of language was that all analyses and generalizations should be based strictly on the description of observable linguistic behaviour. The main methodological stance of behaviourist psychology was that scientific theories could be refuted only by observable phenomena. Hence the descriptivists' view that insights into language should be firmly grounded in observable data – the products of linguistic behaviour – and that they should not be informed by the researcher's introspection or the native speaker's intuition. This meant that more attention was paid to particular languages than to the universal properties of human language, as we can only have direct data from particular languages. However, although descriptivist linguists initially thought of human languages as infinitely diverse, by the 1950s their interest had shifted towards the possibility of devising a discovery procedure, a mechanism which would take a corpus of utterances as input and yield a grammar as output (Harris 1951).

The most important theoretical tenet of behaviourism was that all human behaviour could be explained in terms of stimuli and responses to stimuli without reference to mental structures and processes. This stance had two major implications for the study of language: first, language was characterized as 'the totality of utterances that can be made in a speech community' (Bloomfield, 1928/57). Second, since meaning is not directly observable and it could not be studied without reference to intuitive, introspective judgements, it was considered not to be the proper object of linguistics. Though to a lesser extent than Saussure's conception of language as a social fact, the view of language as the product of behaviour (especially in the early stages) also tended to focus on the phonological and morphological analysis of language, rather than on the less directly observable structural relations between words within sentences.

4. Language as a mental organ

The view of language as a mental organ is central to the most influential modern linguistic theory, the generative approach to language, developed by Noam Chomsky since the 1950s and his many followers (see Chomsky 1986, 1988, 2000). Although the system of ideas which characterizes present day generative linguistics is very complex, the basic assumptions on the nature of language are fairly clearly established and they appear to be fundamentally commonsensical.

The idea that language is a mental organ is best illustrated by an analogy with other biologically specified properties of human beings. The development of any organism is partly determined by its genetic make-up and partly by environmental factors. For example, the onset of puberty and the height of a person are genetically

determined, but they are also affected to some limited extent by external factors such as nutrition. Given the diversity of environmental circumstances in which people grow up and the uniformity in their physical appearance, there can be hardly any doubt as to the primacy of genetic make-up over the environment. The same observation carries over to our mental capacities. For example, the numerical ability is unique to humans, who develop it in a uniform way regardless of the differences in their socio-cultural and physical environments. Similarly, the design features of language, such as recursion, arbitrariness and duality of patterning, cannot be explained as the result of environmental factors. Therefore, we should assume that both our ability to count and our linguistic ability are genetically specified. In other words, just as arms and legs are physical organs, language is a mental organ. The interaction with the environment triggers the development of language, but the environmental inputs are simply not sufficiently structured for it to be plausible to assume that language development involves the construction of more and more detailed mirror images of the external world. Other comparable capacities would include our musical ability and the ability to construct scientific theories.

If language is a mental organ, then linguistics should be seen as a sub-discipline of psychology, ultimately biology. It should aim to discover the properties of language which make it possible to answer the following questions:

- (i) What do we know when we know language?
- (ii) How is knowledge of language acquired?
- (iii) How is this knowledge of language put to use?

On this view, the knowledge of language is characterized as a (generative) grammar: a finite system of interacting rules and principles which specify (more technically, generate) an infinite number of expressions each of which is a structural configuration (e.g. of words into phrases and sentences) associated with a phonetic form and meaning. At the core of our ability to acquire language lie some universal innate properties of grammar, which guide the child's language development. These innate properties constrain the range of possible grammars of language and enable the child to find out which of the possible grammars is best evidenced by the linguistic behaviour of those around him. So it is this genetic endowment that enables the child to go beyond the evidence presented by the data in determining the grammar. For instance, a child acquiring English figures out that: 'John is too stubborn to talk to' means, roughly: 'John is so stubborn that nobody can talk to him' without explicit instruction and without being distracted by its similarity with utterances like 'John is too stubborn to talk to Bill', which might suggest that 'John is too stubborn to talk to' means 'John is too stubborn to talk to some person or other, by analogy with 'John has eaten an apple' versus 'John has eaten', where 'John has eaten' means 'John has eaten something edible'. Therefore, evidence from language acquisition supports the view that the child constructs the grammar on the basis of innate mental structures which heavily constrain the range of available choices at any given stage of his linguistic development. The question of how knowledge of language is put to use is investigated by designing 'performance models' based on the mental grammar.

The research program of Chomskyan generative grammar differs in two important respects from those associated with the view of language as a social fact and the view of language as behaviour. First, there is a shift of emphasis from the study of individual languages to the study of Universal Grammar (UG), where the latter is another name for language as a mental organ seen in terms of the properties by virtue of which it identifies the set of grammars that a human being can learn under the conditions in which language acquisition normally takes place. Second, language as an object of study is an element of the mind, which Chomsky calls *Internalized language* (I-language). The approaches which consider language to be a social fact or behavior and the products of behavior are concerned with the study of language as external to the minds of its speakers. In Chomsky's terms, they are concerned with the study of *Externalized language* (E-language). Chomsky argues that E-languages (which correspond closely to what people normally mean when they speak about English, French, German, Chinese, Swahili, etc.) are epiphenomenal. In other words, they are complex constructs resulting from the interaction of various socio-political and historical factors. Therefore, understood in this way, a particular language like English or French is not a proper object of scientific investigation. Although people ordinarily speak about particular languages as individual objects that exist independently of individual speakers (in utterances like: 'French is the language of diplomacy.'). Chomsky insists that this shift of focus from E-language to I-language is a shift towards the commonsense view of language, because when we say that a person knows a language we usually mean that they know how to relate sound patterns with meanings in a particular systematic way.

Language as an abstract object

In contrast to Chomsky's mentalist conception of language, Katz (1981) presents a detailed argument in support of the view of language as an abstract object. The distinctive characteristics of abstract objects are (a) that their existence is independent of the existence of the mind and (b) that they do not occupy a position in space and time. Presumably, natural numbers, which underlie the laws of nature, would exist even if human or other intelligence did not, and they are not located at particular places and times. In the light of these observations, a natural language, such as English or Japanese, might seem a poor candidate for the category of abstract object. However, Katz (1981) argues that the task of writing the grammar of a language is too stringently constrained by Chomsky's requirement 'that a grammar represent a language only in the particular form that knowledge of the language takes when such knowledge is realized in the human mind or brain' (Katz 1981: 92). Arguably, this requirement has some unwelcome implications for linguistic analysis. For example, let us say that two grammars of a given language (G1 and G2) have been written. G1 reflects the speaker-hearer's knowledge better than G2, but G2 is simpler and more elegant than G1. G1 and G2 are equivalent in all other respects. The question is: 'Is G1 to be preferred to G2, or is G2 to be preferred to G1?'. On Katz's view it would be a mistake to reject G2 just because it is less psychologically plausible than G1. He points out the importance of the distinction between the knowledge of something and the object of knowledge itself. For example, natural numbers are distinct from the different ways in which they are represented in various calculators. By the same token, the speaker's knowledge of language is distinct from language itself. Chomsky (1986: 49) rejects this view by drawing the following

analogy between language and the heart as biological organs: the heart may be simply and elegantly described as a pump, disregarding what actually makes it beat as a part of the organism, but it does not follow that such a description would be superior to one which looks at the actual anatomy and physiology of the human heart. Therefore, if G2 is simpler and more elegant than G1, but G1 is more plausible as a psychologically real description of the speaker-hearer's knowledge of their language, then it is obvious that G2 should not be preferred to G1.

Katz (1981: 79-80) also challenges Chomsky's view that individual languages are not proper objects of scientific study because they are socio-political constructs. In his view, this is 'like claiming that the concept of number is not an object of mathematics but a socio-political one.' Chomsky (1986: 47) rejects this objection out of hand by describing it as a 'curious conclusion' (for other criticisms and a defence against them, see Katz 1985).

Although some criticisms of Katz's view of language seem very convincing, a reasonably strong case can be made in support of the conception of language as an abstract object. On the one hand, the idea that language can be seen and studied scientifically as an abstract object does not entail that it is not also a psychological object. Hence, it is far from obvious that the only interesting and useful scientific approach to the study of language is psychological (biological). In other words, the conceptions of language as a mental organ and the conception of language as an abstract object might both provide the basis for credible scientific research. Moreover, the scientific study of various physical organs, such as the human heart, can easily draw on readily available evidence of their structure. By comparison, the evidence for the analysis and description of language as a mental organ is rather scant. Thus, if an organ, say the human heart, were not available for relatively direct observation, then it would be perfectly sensible to investigate it by trying to figure out the best abstract model in the hope that it will also turn out to be the one that corresponds most closely to the real thing. In fact, much work within Chomsky's generative approach in linguistics seems to proceed in this way. On the other hand, Katz (1985: 199-200) argues that theories of language grounded in individual psychology are not abstract enough to provide plausible explanations of language structure. His discussion of analytic sentences is particularly convincing. Analytic sentences such as 'Nightmares are dreams' and 'Flawed gems are imperfect' are necessarily true in virtue of the semantic level of grammars. The Chomskyan approach, which characterizes the grammar in psychological terms, cannot provide an adequate account of necessary truths. 'Nightmares are dreams' and 'Flawed gems are imperfect' are true sentences regardless of our psychological (biological) make up, but, on the Chomskyan approach, they have to be analyzed as necessarily true because humans are psychologically (biologically) designed to in such a way that we cannot think of them in any other way. However, while this and related issues remain open for debate, there can be no doubt that Chomsky's psychological approach is the most influential perspective from which language has been studied within linguistics.

Bibliography

- Bloomfield, L. (1928) 'A set of postulates for the science of language.' *Language* 2. Reprinted in Joos, M. (ed.) (1957) *Readings in linguistics*. Washington: American Council of Learned Sciences.
- Bloomfield, L. (1933) *Language*. New York: Holt.
- Chomsky, N. (1986) *Knowledge of Language: Its nature, origin and use*. New York: Praeger.
- Chomsky, N. (1988) *Language and problems of knowledge: The Managua lectures*. Cambridge Massachusetts: The MIT Press.
- Chomsky, N. (2000) *New horizons in the study of language and mind*. Cambridge: Cambridge University Press.
- de Boysson-Bardies, B. (1999) *How language comes to children*. Cambridge Massachusetts: The MIT Press. [[shouldn't this be under B?]]
- de Saussure, F. (1916) *Cours de linguistique générale*. (Edited by Bally, C. and Sechaye, A. (1968) Paris: Payot.) [[And this under S?]]
- Harris, Z.S. (1951) *Structural linguistics*. Chicago: The University of Chicago Press.
- Katz, J. (1981) *Language and other abstract objects*. Oxford: Basil Blackwell.
- Katz, J. (1985) 'An outline of Platonist grammar' In Katz, J. (ed.) *The philosophy of linguistics*. Oxford: Oxford University Press.
- Pinker, S. (1994) *The language instinct: The new science of language and mind*. London: The Penguin Press.
- Sampson, G. (1980) *Schools of linguistics: Competition and evolution*. London: Hutchinson.

