Linguistics

# Linguistics

Edited by
**Anne E. Baker and Kees Hengeveld**

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# Linguistics

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# Preface

This introduction to the field of Linguistics offers a broad survey of the discipline. The book is intended first of all for students of language, but it is also suitable for others who want to know more about modern linguistics. It testifies to the enormous richness of natural languages and shows this richness with illustrations from a great many different languages.

*Linguistics* is intended in the first place for use in education. To this end, the most important linguistic terms are given in bold when they first occur in the text. These terms have also been included in the index, and are repeated in the summaries at the end of each chapter. Each summary is followed by a range of assignments suitable for developing further the subject studied in the chapter. After these assignments students can test themselves to see whether they have sufficiently mastered the key concepts and principles in the chapter. At the end of each chapter, sources of information, examples and other materials are acknowledged, and suggestions for further reading given.

*Linguistics* is the product of a team of linguists working in the Department of Linguistics of the University of Amsterdam. The book is a revision and English adaptation of Appel *et al.* (eds) (2002), which itself incorporated parts of Appel *et al.* (1992). Appel *et al.* (1992) was edited by René Appel, Simon Dik and Pieter Muysken, while Appel *et al.* (eds) (2002) was edited by René Appel, Anne Baker, Kees Hengeveld, Folkert Kuiken and Pieter Muysken. The English translation was made by Professor Reinier Salverda (Dutch Department, University College London) and formed the basis of our subsequent editing work. The responsibility for the various chapters shifted over the two editions mentioned above. The table below indicates which authors wrote the earlier versions of the various chapters.

| **Chapter** | **1992 author** | **2002 author** |
|---|---|---|
| 1. From Language to Linguistics | Simon Dik, Pieter Muysken | Anne Baker |
| 2. The Language User | Rob Schoonen | Ron Prins, Rob Schoonen |
| 3. Language Acquisition | Anne Baker, René Appel | Folkert Kuiken |
| 4. Discourse | René Appel | Sies de Haan |
| 5. Speech Acts | René Appel | Sies de Haan |
| 6. Constituents and Word Classes | Simon Dik, Pieter Muysken | Kees Hengeveld |
| 7. Simple Sentences | Simon Dik | Kees Hengeveld |

| Chapter | 1992 author | 2002 author |
|---|---|---|
| 8. Complex Sentences | – | Kees Hengeveld |
| 9. Constituent Order | – | Kees Hengeveld |
| 10. Sentence Meaning | Pieter Muysken | Sies de Haan |
| 11. Lexicon | Pieter Muysken | Casper de Groot |
| 12. Word Formation | Pieter Muysken | Casper de Groot |
| 13. Compounds and Idiomatic Expressions | – | Casper de Groot |
| 14. Speaking and Understanding – Speech Sounds | Norval Smith | Louis Pols |
| 15. Sound Systems and Phonological Processes | Norval Smith | Norval Smith |
| 16. Syllables, Stress and Intonation | Norval Smith | Norval Smith |
| 17. Differences and Similarities between Languages | René Appel | Pieter Muysken |
| 18. Language Variation | René Appel | Pieter Muysken |
| 19. Language Change | René Appel, Pieter Muysken | Pieter Muysken |
| 20. Bilingualism | René Appel | Pieter Muysken |

A great many readers and users sent us their comments on the earlier versions, and we greatly benefited from these for the current edition. We thank them all very much. We are also very grateful to the anonymous reviewers who provided us with many helpful comments on the pre-final version of this book. Specifically we wish to thank a number of colleagues for their checking of examples: Titia Benders, Ying Lin, Bibi Janssen and Wim Honselaar. Finally we are indebted to Gerdien Kerssies and Kirsten Smorenberg for their contribution to the technical production of the book.

Amsterdam, November 2011
Anne Baker, Kees Hengeveld

part I

# Language and the Language Faculty

Humans generally communicate with each other by means of language. In this respect they are very different from other animals. Human language has a number of specific properties that set it apart from other communication systems. Chapter 1 of this book, *From Language to Linguistics*, discusses these properties of human language, explains how they are studied in linguistics, and what sort of phenomena will be covered in this book.

When we say that humans know a language, this means effectively that they have mentally stored a large amount of knowledge about the language and how it is used. Operating as speakers and hearers, they can employ their language faculty in actual language use. In Chapter 2, *The Language User*, we will discuss how this works and review the mental processes that play a role here.

But the knowledge of a language is not present from the beginning. Children have to acquire their first language and adults also sometimes learn one or more other languages later. This is the theme of Chapter 3, *Language Acquisition.*

chapter 1

# From Language to Linguistics

## 1.1 Introduction

Every person knows a language; many people know more than one. But what do we really know about the language we use every day? What could we say, for example, about the five following sentences:

(1) Impossible a was job it
(2) I am hungry
(3) Why you left wanted to know
(4) Marilyn Monroe wants to become President of Great Britain
(5) The tlint was beert

Everybody will probably agree that (1), (3) and (5) are not good, in contrast to sentences (2) and (4), which are at least well formed. In (1) the order of words is not correct; in (3) there is a word missing; and (5) contains two elements that are clearly not words of English. On what grounds can we make statements like these? Is our knowledge of language simply a collection of all the words and sentences we have ever heard? Could we say, for example, that (1) is not

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good because we contrast it with the sentence *It was an impossible job*? Have we perhaps once heard this last sentence and still remember it as a 'correct English sentence'? This is very unlikely, as we can demonstrate with example (4). Sentence (4) is good English, even though it is not true. We know that this is a well-formed English sentence, even though we probably have never heard it before. Language users are capable of deciding whether a sentence is good or not, not just on the basis of memory, but also on the basis of their knowledge of language. This knowledge of language is not conscious; it is rather abstract and often couched in general rules. As a consequence we may not find it easy to explain why a particular sentence is good or not.

What do we mean when we speak of 'abstract knowledge' here? This can be explained with help from the following example. Suppose somebody shows us an unknown object and calls it a *pewt*. What would we say if there were two of these objects? Most probably we would say *two pewts*. Speakers of English do not need time to think about this; they just know that the form *pewten* would not sound right, even though there are a few English plurals that take *-en*, such as *oxen* and *children*. We learn the basic rules for plural noun formation as children, at a very early age: *cat–cats*, *dog–dogs*, *house–houses*, *goose–geese* and *ox–oxen*. But although we have this knowledge, many people may not be able to say why *pewts* is better than *pewten*. Knowing a language for most language users means that they can understand and produce it, but not necessarily that they can explain how the system works. For this reason we say that this knowledge is abstract and unconscious.

In this introductory chapter we will discuss the phenomenon of 'language' and the ways in which it is studied in the discipline of linguistics. In Section 1.2 we will review a number of important properties of language. 'Language' is here taken to mean natural language, that is, languages that are spoken by humans, and that have developed in a natural way in the course of history, probably from some primitive communication system used by our ancestors. There are also, however, other kinds of language, such as the languages used for writing computer programs. These other kinds of languages, and the way they differ from human language, will be discussed in Section 1.3. In Section 1.4 we will consider the variation that exists within the natural languages, including the difference between sign languages and spoken languages. The ways in which language is studied in linguistics will be discussed in Section 1.5. An important aim of linguistics is to try and make explicit, often in the form of a grammar, the unconscious, abstract knowledge that people have of the languages they speak. Section 1.6 will consider the various different types of grammar we may distinguish, such as, for example, a grammar which describes the history of a language versus a grammar that aims to describe the current situation of that language. Finally, Section 1.7 presents an overview of the various subfields within linguistics. This section also serves as an introduction to the rest of the book.

## 1.2 LANGUAGES

In this section we will consider natural, human languages such as English, Hindi, Turkish, Swahili, etc. What is so special about language as a phenomenon? We can get an idea by looking at the properties of such languages.

Every language is used for general communication. Using a natural language, humans can in principle communicate with each other about anything in their world, from talking about the weather to writing or reading a scientific article about global warming. Depending on the subject a different jargon may be used – when talking about football, people in a café use words that are quite different from those used in a parliamentary debate about health insurance costs. These different jargons are, however, part of the language as a whole. Also, to a very large extent, they employ the same grammar.

As we said in the introduction, languages have a certain structure. We can establish the rules that the sentences of a language need to satisfy. The sum total of those rules is the grammar of that language. The sentence *Tomorrow I will travel to Manchester* is correct, but *I tomorrow will travel to Manchester* is not. This is not to say that the first sentence is the only option we have in English when we want to say this, for we can also say *I will travel to Manchester tomorrow* and *I will tomorrow travel to Manchester*. There are quite subtle differences in meaning between the three correct sentences we have here, though for the moment we will ignore such differences. The key point is that the grammar of English allows for three different word order patterns in which to present the elements of this sentence, and does not allow other orders.

It is a well-known fact that languages may differ from each other in the rules their sentences have to satisfy. Sometimes the difference is only a small one. Compare, for example, the Dutch and German examples below, in (6) and (7) respectively, both meaning 'The publisher had the book translated'.

Dutch

(6) De uitgever heeft het boek laten vertalen.
The publisher has the book let translate
'The publisher had the book translated.'

German

(7) Der Verlag hat das Buch übersetzen lassen.
The publisher has the book translate let
'The publisher had the book translated.'

The relative order of the two infinitives ('let translate') at the end in Dutch is the reverse of that in German ('translate let'). Spanish is different again, as is illustrated by (8), where the verbs are not placed at the end but in the middle.

Spanish

(8) La editorial hizo traducir el libro.
The publisher made translate the book
'The publisher had the book translated.'

There are other languages that are even more different, as we can see in the following examples from Japanese and Irish.

Japanese

(9) Taro wa Hanako ni tagami o kai ta.
Taro *topic* Hanako *to* letter *object* write *past tense*
'Taro wrote Hanako a letter.'

Irish

(10) Tà carr nua seo liom.
Is car new that with+me
'I own that new car.'

We will just take a detour here to describe how we will present language examples in this book using sentences (9) and (10). The first line presents the example in the foreign language written in Latin script; the second line offers an almost literal rendition of every individual element it contains into English. When there is no equivalent English word, we will give the category to which this element belongs in the other language. Thus, *topic* in (9) means that Taro is the person about whom something is being said (see also Chapter 10); the word *o* indicates that *tagami* is the direct object of the verb; and *-ta* is tagged onto *kai* to mark it as a past tense-form. Labels such as *topic* will be given in italics. The third line of (9) gives a free translation of the Japanese example into an English sentence. In (10) the elements meaning 'with' and 'me' are fused in one form and this is indicated by using a '+'. Other symbols (diacritics) have to be fused to reproduce the correct spelling of a word such as 'tà' in Irish. Some languages also use falling and rising intonation on a word to distinguish meaning. In Mandarin Chinese, for example, the word *ma* has at least four different meanings according to the tone used, so the tone has to be indicated as below:

mā (level) means 'mother'
má (rising) means 'torpid'
mǎ (fall-rise) means 'horse'
mà (falling) means 'scold'

Let us now take a closer look at (9) and (10) from the point of view of structure. They reveal considerable differences between English and other languages. Japanese (9) has no prepositions but only 'postpositions', so *ni* only appears after *Hanako*. Also, the verb *kai* takes up the final position in the sentence. The

insertion of *wa* to mark *Taro* as the topic is another typical feature of Japanese. Irish is quite different again. From (10) we see that the verb is in first position, the noun 'car' is followed by the adjective 'new' and the expression 'to own' is expressed quite differently from English by locating the object with the person.

So, languages can be quite diverse in structure. Nevertheless, linguists have been operating for centuries on the idea that the languages of the world must have a common basis. As Roger Bacon wrote in the thirteenth century:

---

*Grammar is substantially one and the same in all languages, despite its accidental variations.*

---

Another anonymous writer a century earlier had already written:

---

*He who knows the grammar in one language, also knows it in another, as far as the essentials are concerned.*

---

Which aspects of grammar or structure could constitute these essentials? In (11) we give some examples of universal properties of language.

(11) a. All languages consist of small elements. In spoken languages these elements are the speech sounds, and in sign languages they are, amongst other things, hand shapes (see Section 1.3). From these small elements all larger units, words, or signs, are built. And these in turn are combined to make sentences.
b. All spoken languages have vowels and consonants.
c. In all languages the users can express a negative statement, ask a question, issue an order.
d. All languages have words for BLACK and WHITE or DARK and LIGHT. (The capitals indicate that these are concepts and not words.)

These properties, which are shared by all languages, are known as **universals**. They are discussed in more detail in Chapter 17, where we will consider differences and similarities between languages.

Of particular interest here is the property mentioned in (11a) above, since this feature is a specific characteristic of human languages. It is known as the **compositionality** of language. A word on its own has a particular meaning but it is at the same time composed of combinations of sounds that help distinguish meaning, so 'boy' is different from *toy* on the basis of the two sounds *b* and *t*. This will be talked about further in Chapter 14. Words when combined with other words can also form a complex message. And these messages may vary depending on the order in which the words are presented. For example, sentences (12) and (13) consist of exactly the same five words, each with their own meaning. Yet (12) and (13) clearly have different meanings.

(12) The lifeguard saved the girl.
(13) The girl saved the lifeguard.

An important further property of human languages is illustrated in (14).

(14) the dog [of the man [with the hat [without a feather]]]

In this example we see how the phrase *without a feather* forms part of the phrase *with the hat without a feather*. These two phrases are of the same type because they both start with a preposition, *without* in the first case and *with* in the second. The prepositional phrase *with the hat without a feather* forms in turn part of the prepositional phrase *of the man with the hat without a feather*. This phenomenon, where a linguistic unit of a certain type contains another linguistic unit of that same type, is known as **recursion**.

Recursion is also found when we embed a sentence within another sentence, as in example (15).

(15) Sheila assumes [that Peter knows [that Ahmed thinks [that he is a liar]]].

As the brackets show, the sentence *that he is a liar* is contained within the sentence *that Ahmed thinks that he is a liar*, which itself forms part of the sentence *that Peter knows that Ahmed thinks that he is a liar*, which is itself contained in the sentence *Sheila assumes that Peter knows that Ahmed thinks that he is a liar*.

In principle, recursion can go on infinitely. Recursion can be exploited for amusement as in the nursery rhyme *The house that Jack built* (16).

(16) This is the farmer sowing the corn,
That kept the cock that crowed in the morn
That waked the priest all shaven and shorn,
That married the man all tattered and torn,
That kissed the maid all forlorn,
That milked the cow with the crumpled horn,
That tossed the dog,
That worried the cat,
That killed the rat,
That ate the malt,
That lay in the house that Jack built.

A question on a different level is whether only humans can express themselves in a human language. Could animals perhaps also learn to use human language? Here it is more or less natural to think first of certain birds, such as parrots and cockatoos, that can imitate human speech. These birds, however, have no clue as to what they are 'saying'. But what about the great apes? They are, after all, our closest evolutionary relatives and share a large amount of our DNA. None of the great apes has, however, developed a speech organ with which it could produce a wide variety of sounds. Experiments to teach the great apes to do this have failed. One chimpanzee, Vicki, could articulate

no more than four words: *mama*, *papa*, *cup* and *up*, and this only after endless practice and then still with great difficulty.

However, could it be that the great apes can learn language, but not in the form of human speech? There have been many experiments with great apes to try and teach them a language using plastic buttons or computer symbols. Also, because great apes use their hands to make gestures, experiments have been done using a sign language for the deaf, American Sign Language. The results of these experiments are rather contentious. Some researchers claim that the great apes learn enough to be able to combine symbols and gesture signs, that is that they have learnt the syntax of the language in question. American researchers carried out such an experiment with the chimpanzee Nim Chimpsky. In (17) we give some of the most frequent combinations of gestures made by Nim.

(17)

| | |
|---|---|
| PLAY ME | PLAY ME NIM |
| TICKLE ME | TICKLE ME NIM |
| EAT NIM | EAT GRAPEFRUIT NIM |

What can these gesture combinations tell us about the grammar underlying the 'sign language' of Nim? The combinations of three gestures in the first two examples in (17) amount to no more than a relatively redundant extension of the combination of two gestures. After all, NIM and ME refer to the same person, or rather, ape. Also, the combinations remain very restricted. Many of the longer utterances merely consist of repetitions of earlier gestures. A later experiment with a bonobo, Kanzi, showed that the ape could apparently understand many spoken words and sentences without having the explicit training that Nim had received in the earlier research. His production in a symbol system on a board was however quite limited. The spontaneity and creativity that are so characteristic of humans when they are using language is difficult to find in apes. It is claimed that they do transmit some words to others of their kind – but the extent of this is in no way comparable to human adults passing on their language to their children. This last point brings us to another typical feature of natural, human languages: that they are acquired (by children) through interaction with their environment, and thus handed down from one generation to the next.

## 1.3 Other Languages

Natural languages, as we have mentioned above, are used by humans to communicate with each other. There are, however, other languages and communication systems, and the question is in what ways these are different from, or similar to, natural languages. Below, we will discuss in more detail some

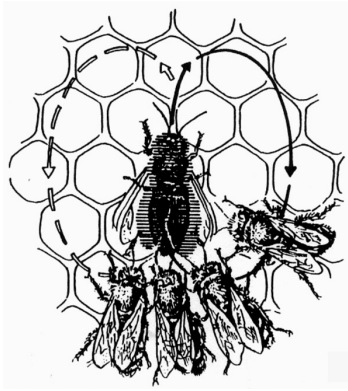

**Figure 1.1** The 'wiggle' dance of bees, according to Frisch (1923). Frisch, K. von (1923) Über die 'Sprache' der Bienen, Jena: Gustav Fischer Verlag.

of these 'other languages'. At the same time, we will use this discussion to highlight the special character of natural languages.

Humans are not the only ones who communicate with each other. Various kinds of animals do this too, and use a communication system or a language for this purpose. Birds, for example, can signal with their call or song that there is an enemy nearby, or that they have taken possession of a certain area, etc. But the range of possible messages they can convey is very limited. This is a key difference with human language. We can see this clearly by looking at an animal language of which the structure has been investigated, that is the language of bees. By executing different dance patterns on the side of the beehive, one bee can signal to another where it can find flowers with the basic ingredients needed to make honey. As the Austrian biologist, Karl von Frisch, discovered early in the twentieth century, Italian and Austrian bees do not speak exactly the same 'language'. The Italian honeybee, for example, knows three dances. The 'round dance' is used to indicate food sources located less than ten metres away from the beehive. By dancing with varying degrees of energy, the bee can indicate how large the food source is. The 'sickle' dance is used when food sources are located at a distance of between ten and hundred meters from the beehive. In addition, the bee can signal the direction of the food source. In the 'wiggle' dance, the intensity of the bee's movement and the number of repetitions signal the size of the food source, and how far away it is. In Figure 1.1 we see a drawing of the 'wiggle' dance.

In an experiment, a computer-controlled artificial bee was used to give messages to other bees. After some initial hesitation, the real bees dutifully flew out to the food source that had been indicated. You might imagine that bees are able to communicate about many more things than just food sources, but the content of their communication seems to remain restricted to this one subject. In another experiment, a bee was made to walk rather than fly to the food