

This chapter explains what linguists are trying to do when they deal with 'semantics', the study of meaning. It shows that the meanings of 'lexical items' (words) are linked together in intricate lexical structures. It also outlines how the meaning of sentences might be handled.

The study of meaning is normally referred to as semantics, from the Greek noun sēma, 'sign, signal', and the verb sēmainō, 'signal, mean'. A linguist who is studying meaning tries to understand why certain words and constructions can be combined together in a semantically acceptable way, while others cannot. For example, it is quite all right to say:

My brother is a bachelor.

The camel sniffed the chocolate and then ate it.

The platypus remained alive for an hour after the hunter shot it. Socrates arrived yesterday.

but not:

!My brother is a spinster.

!The camel swallowed the chocolate and then ate it.

!The platypus remained alive for an hour after the hunter killed it.

!Socrates arrived tomorrow.

These sentences are all well-formed syntactically: nouns, verbs, and so on are all in the right order. But they are contradictory. An English hearer could interpret them only by assuming that the speaker has made a mistake, in which case he would say, for instance, 'A brother can't be a spinster, you must mean "bachelor". (An exclamation mark indicates a semantically impossible sentence.)

A linguist studying semantics would also like to know why anyone who knows a language can recognize certain phrases and sentences as having similar meanings, and would ask how it is that people can recognize:

Indicate to me the route to my habitual abode, I am fatigued and I wish to retire,

I imbibed a small amount of alcohol approximately 60 minutes ago,

And it has flowed into my cerebellum.

as roughly equivalent to:

Show me the way to go home, I'm tired and I want to go to bed, I had a little drink about an hour ago, And it's gone right to my head.

A further human ability which needs explaining is the fact that hearers not only recognize ambiguous sentences, but they can also use the surrounding context to choose the most likely of the possible interpretations. For example:

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Visiting great-aunts can be a nuisance.

is ambiguous. Are the great-aunts coming to see us, or are we going to see them? But if someone came across the sentence:

Visiting great-aunts can be a nuisance: I wish we didn't have to go.

they would have no doubt that we are visiting the great-aunts, rather than vice versa.

Word meaning

Clearly, the question of meaning is to a large extent connected with the meaning of individual words, or (more accurately) lexical items – since (as we saw in Chapter 6) the word 'word' can be misleading: boa constrictor, we noted, is two written words, but a single lexical item. So in a sentence such as:

!My brother is a spinster.

we need to find out about the meaning of brother and spinster in order to see why this sequence is unacceptable.

Three preliminary points need to be clarified in connection with word meaning. First of all, we shall be concerned primarily with content words, such as zoo, apple, jump, red, rather than with function words such as of, that, by, which, whose role is mainly to show the relationship between syntactic units (though the distinction between the two is not always clear-cut).

Second, we shall be dealing only with straightforward descriptive meaning, and ignoring what is sometimes called 'emotive' meaning or 'connotation'. For example, the word adolescent will be taken to mean someone who is between childhood and adulthood. We shall be ignoring the fact that some people use the word to imply that the person concerned is also likely to be awkward, immature, obstinate and moody.

Third, we must be aware that meaning is double-faced. The meaning of a lexical item such as *tree* must be considered in two ways: first of all, as one element in a language system, whose 'meaning' is dependent on relationships with the other words in the system. Second, its 'meaning' is linked up with a certain class of recognizable objects in the external world (Figure 8.1).

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figure 8.2

Yet even colour terms reflect a spuriously simple situation, since the spectrum has well-defined boundaries. More usually, we are faced with a much messier state of affairs. For example, it is impossible to translate the sentence The cat sat on the mat accurately into French without further information about the state of affairs described. We would have to decide arbitrarily whether the cat was sitting on a doormat (paillasson), a small rug (tapis), or a bedside mat (descente de lit). None of the French words corresponds exactly to our word 'mat' or 'rug' or 'carpet': tapis is often used to translate English 'carpet' as well as 'rug'.

English

green

blue

grey

These examples show us that for linguists, it is important to deal with the lexical structure of a language rather than with isolated words. The word green in English only becomes meaningful in relation to its neighbours in the set of colour terms: it denotes the colour between blue and yellow. Purple denotes the colour between red and blue. In semantics, as in phonology and syntax, language is not an accidental junk-heap consisting of a haphazard collection of different items. Instead, it is more like a jigsaw puzzle, where each piece fits into those which surround it, and where an isolated piece simply does not make sense if it is moved from its place in the overall pattern. We have a situation where:

every word is at home Taking its place to support the others.

T. S. Eliot

In such a situation, it is useful to look at groups of lexical items which seem to belong together. Each item in a group or set can be defined by its place in relation to the other members of the set. Adolescent denotes someone who is no longer a child, but not yet an adult. Cool is the temperature between cold and

OUTSIDE WORLD LANGUAGE SYSTEM bush tree wood etc.

figure 8.1

Linguists regard these two aspects as complementary: they examine first one, then the other, starting with the internal relationships between linguistic elements.

As with all linguistic elements, every lexical item has its own particular place in the pattern. By studying the relationships of individual items, linguists can build up a picture of the overall structure of a language's vocabulary. When they do this they must forget that a word such as apple refers to an objectively identifiable object in the outside world, and must concentrate solely on its relationships with the other items in the language.

Semantic fields

Every language cuts up the world in different ways. It is not simply that one language sometimes has more subdivisions than another in certain areas. For example, Arabic has numerous words for different types of camel, where English has a variety of words for different types of dog. The situation is far more complicated. The set of words covering a certain area in one language is unlikely to correspond to those in any other language, even when the speakers share similar cultures. This is often illustrated by the field of colour terminology. For example, Welsh and English speakers have in the past led fairly similar lives, yet Welsh glas traditionally covers not only the area that English speakers would call blue, but also part of green and grey as well (Figure 8.2). Nowadays, though, the traditional colour boundaries have faded and merged with the English ones.

warm. For many people, copse refers to an entity between a tree and a wood (Figure 8.3).

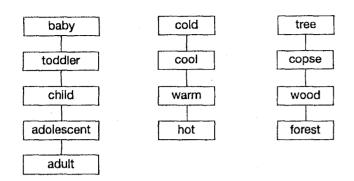


figure 8.3

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Such a study can give a useful picture of the way in which a particular semantic area is divided up. It would be wrong, however, to assume that lexical items cover an entire field like a smooth mosaic. In fact, there are plenty of gaps and overlaps. In English, a gap is sometimes claimed to exist in the field of dead objects. We have a word corpse meaning 'body of dead human being' and carcase meaning 'body of dead animal', but no comparable word for a dead plant. But overlapping is perhaps the greatest problem. For example, cow, princess and tigress overlap in that they are all female. Calf, puppy and baby overlap in that they are all young and immature. Murder, assassinate and execute all involve the notion of killing. Let us consider how to deal with this type of problem.

Coping with overlaps

At one time, linguists hoped it might prove possible to split lexical items up into their component parts. Word meanings, like phonemes (Chapter 5), were assumed to be made up out of a stock of basic components. The word bull might consist of the components MALE/BOVINE/ADULT, as opposed to cow which would be FEMALE/BOVINE/ADULT, and calf which would be BOVINE/NON-ADULT. The attempt to divide lexical items into component parts is known as componential analysis. It feels fairly familiar because dictionaries often perform a similar type of analysis in an informal manner. For example, in the Concise Oxford Dictionary, mare is defined as 'female of equine animal'.

Componential analysis, it was thought, accounted naturally for overlaps, since one could point to components which were apparently shared by overlapping words: cow, princess and tigress overlapped because they shared the component FEMALE. And this type of analysis could also be extended to verbs:

die BECOME NOT ALIVE
kill CAUSE BECOME NOT ALIVE
murder INTENTIONALLY CAUSE HUMAN BEING BECOME NOT ALIVE
slaughter INTENTIONALLY CAUSE ANIMATE BEING BECOME NOT ALIVE

Unfortunately, however, it is somewhat inaccurate to speak of the meaning of words as being 'composed' out of a heap of separate components. At best, these so-called components form only a small part of the overall meaning of the word in question, and the whole approach wrongly suggests that if we looked a little more carefully, we might be able to sort out all of them. The words 'component' and 'componential analysis' have therefore faded out of fashion. Nowadays, people tend to talk of words having semantic properties, which is somewhat more satisfactory, since it does not imply that these properties are building blocks which need to be assembled.

Synonyms and opposites

To gain a fuller understanding of how lexical items hang together within a language, we need to look at the different types of relationship which exist between words. For example, the synonyms and opposites of a word can give valuable insights into its links with the rest of the vocabulary.

Lexical items can be regarded as synonymous if they can be interchanged without altering the meaning of an utterance:

He snapped the twig in half. He broke the twig in half.

By studying interchangeable items, a linguist can build up a picture of those with similar meanings.

Perfect synonymy is rare. That is, it is very unusual for two lexical items to have exactly the same meanings in all contexts. Occasionally, such synonymy is found between formal and informal vocabulary items. For example, *rubella* is the term found in medical literature for the disease that is more generally known as *German measles*. But, usually, a lexical item only

partially overlaps another, and the two are synonymous only in certain contexts. To return to the words *snap* and *break*:

He snapped his fingers

does not mean the same as

He broke his fingers.

And although

He broke the record for the 100 metre sprint is an acceptable sentence,

He snapped the record for the 100 metre sprint would seem unusual to most English speakers.

The study of opposites is more complex, as there are several different types of opposite. For this reason, the word 'antonym' has been avoided. Some writers use it for all types of opposite, others for one kind only.

The most obvious type is a pair of words in which the negative of one implies the other:

He is not married: he is single. He is not single: he is married.

A second type of opposite is one which is not absolute, but relative to some standard. *Small* and *large*, for example, always imply some comparison:

What a large mouse! (=what a large mouse in comparison to a normal-size mouse)

What a small elephant! (=what a small elephant in comparison to a normal-size elephant)

A third type is when one word is the converse of the other. The choice of one opposite rather than another depends on the angle from which you view the situation being described:

I give you the book: you take the book.

Classification (inclusion)

A further way of examining lexical structure is to note the ways in which a language classifies items. In English, for example, claret and hock are classified as 'wines'. Tea and coffee are referred to as 'beverages'. And wines and beverages both come under the heading of 'drinks'.

This indicates that the vocabulary of a language is partially hierarchically structured. In Figure 8.4 below, more general items come at the top, and more specific items are subdivisions of these:

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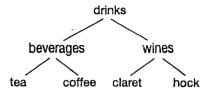


figure 8.4

The vocabulary of English is classified in this way in Roget's Thesaurus. Each entry has under it a list of hyponyms (i.e. lexical items subsumed under it). Its main drawback is that it does not distinguish between the stylistic or social variables which control the choice of synonyms.

The advantage of looking at these different relationships is firstly, they enable us to understand the multiple links between different words. Second, they can all be expressed by means of logical notation, so allowing us to be explicit in our description. Indeed, some linguists have claimed that the entire meaning of a word can be expressed in terms of its logical relationships with other words.

Fuzziness and family resemblances

So far, we have assumed that words have an agreed-upon meaning which we can discover and describe. But this is true only of some lexical items. For others, it seems to be impossible to agree upon a 'proper meaning'.

Consider the words bachelor and tiger. As a first step, we can look up these words in the Concise Oxford Dictionary. Here a bachelor is defined as an 'unmarried man'. Both unmarriedness and maleness seem to be essential properties of the word bachelor. If someone said, 'I met a bachelor and he was married', the automatic response would be 'Then he isn't a bachelor'. Or if someone said 'I know a girl who is a bachelor', the normal response would be, 'That's impossible' (unless they happened to be talking about someone who possessed a Bachelor of Arts degree). It is therefore clear that bachelor

contains the properties MALE and UNMARRIED. This word has proved easy to analyze.

Let us now look at the word tiger. A dictionary definition is 'large Asian yellow-brown black-striped carnivorous maneless feline'. Which of these are essential characteristics? Presumably 'carnivorous' is not really essential, because you could say, 'Harry's tiger is not carnivorous' without getting the response, 'That's impossible, it can't be a tiger'. But what about stripiness? Here people's reactions differ. If you said 'Harry's tiger isn't striped', people's reactions fall into two categories. Some might say, 'Then it's not a tiger', indicating that stripiness is an essential part of being a tiger. But others might make a comment such as 'Well I suppose you can get albino tigers just as you get albino blackbirds', or 'Since tabby cats don't always have tabby kittens, maybe you can get unstriped tigers'. To such people, stripiness is not an essential property of tigerhood.

In brief, with some words (such as bachelor), there is a relatively high level of agreement as to which properties constitute an essential part of their meaning, but with others (such as tiger), no such agreement is found.

Fuzziness is another problem. Words often have fuzzy edges. There is no absolute divide between a cup and a mug, a glass and a vase, or a plate and a saucer. They all merge into one another. People use them inconsistently, calling something a vase one day, and a glass the next. They might call it a vase if it held flowers, and a glass if it held orange-juice.

Family resemblances create further difficulties. Sometimes a word such as *furniture* covers a whole range of things, which share characteristics with one another, as do members of a family. Yet it may be impossible to think up a set of characteristics which describes them all.

These problems indicate that it is impossible to set down fixed meanings for all words. Humans, it turns out, understand one another not by learning fixed definitions, but by working from a prototype, or typical example. A prototypical bird is likely to be something like a robin, with a beak, wings, stick-like legs, and an ability to fly. A penguin or an emu is still sufficiently like a bird to be regarded as a bird, even though it is not such a 'normal' or prototypical bird. This flexibility allows a great number of things to be classified as birds, even a one-legged, one-winged parrot without a beak.

It is not yet clear how to write this type of flexibility into a linguistic description. We need to pretend things are cut and dried in order to write a useful description of them; on the other hand we have to be aware that they are not. Where the balance should lie is still under discussion.

Making sense of the world

But what are these shadowy prototypes, and where do they come from? Humans, it appears, build themselves mental models in order to make sense of the world around them. In a simple case, as with birds, they decide which bird is the 'best' or most typical bird. But they also form ideas about more abstract concepts, often based on their own culture. English speakers regard a week as having seven days, divided into five working days followed by a weekend - though nothing in the external world forces this viewpoint. In other parts of the world, a week may have a different number of days. An Inca week had nine: eight working days, then market day on which the king changed his wives. Or take the word mother. Western parents assume that a mother is someone who not only gives birth to a child, but also usually looks after it and lives with the father - a culturally based picture, which is not necessarily true around the globe. Similarly, many people in England claim they live in a layered society, with upper class, middle class and working class tiers, a notion inherited from books and newspapers. And so on, and so on.

The term mental models was coined by psychologists for the images people construct of the world. But the phenomenon is of wide interest, and other names have been adopted. The word representation is preferred by those working in cultural studies. This term covers not only subconscious or inherited representations, but also those consciously put across by, say, politicians, when they invent euphemisms such as pin-point strikes to lead people into believing that bombs can be precisely dropped on particular targets. The use of metaphor in both propaganda and poetry will be further discussed in Chapter 12.

The meaning of sentences

So far, we have dealt only with the meaning of words. But what about sentences? In fact, the meaning of words tells us quite a lot

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about the meaning of sentences, since sentences are individual words linked together by means of the syntax. This enables us to understand why a sentence like:

My brother is a spinster.

is, if taken literally, contradictory. We would be saying:

My male sibling is an unmarried female.

where *male* and *female* are opposites. Some semanticists talk about such sentences as being 'false', in that they could not possibly be 'true': they deal with meaning by working out conditions under which sentences will be either 'true' or 'false'.

The amalgamation of word meaning and syntax not only enables us to reject anomalous utterances, it also allows us to make deductions about normal sentences. Take the sentence:

The cobra killed a rat.

Our knowledge that kill has the properties CAUSE DIE allows us to draw the conclusion that 'The rat died'. In linguistic terminology, The cobra killed a rat entails 'The rat died'. Similarly, we know that cobras are snakes, so we can conclude that 'A snake caused the rat to die', or going further: 'An animate being, a snake, a cobra, caused an animate being, a mammal, a rat to become not alive'. A large proportion of our ability to understand sentences comes from logical inferences of this type.

After a sentence has been 'unpacked' into its underlying meaning, many linguists assume that semantic representations should be expressed in some type of formal logic.

Formal logical systems can (in theory) provide formulae for the representation of the sentences of any language, and can show the logical relationships which exist between sentences. And logic has the great advantage of being able to show certain ambiguities quite clearly. Take the sentence:

All the nice girls love a sailor.

This could either mean 'Every nice girl loves some sailor or other: Alice loves Joe, Mary loves Bert, and Desdemona loves Billy'. Or it could mean 'Every nice girl loves one particular sailor: his name is Jack Tar'. Logic provides a precise notation in which the two different structures are clearly shown. At the moment, however, it is not clear which type of logic (if any, of those currently in use) is best for language.

Of course, working out logical relationships is not the only way in which humans cope with meanings. In addition, they put their common sense to work. If someone said:

That girl's an elephant.

a strict logical system would reject it as an impossibility, since girls are not elephants. But a human being would try to work out why the speaker said something so apparently idiotic. We will discuss how people do this in the next chapter.

Questions

- 1 How might a linguist study the internal relationships between lexical items?
- 2 What is inclusion? Give examples.
- 3 Distinguish three types of opposites found in language.
- 4 Why is it impossible to assign firm meanings to some words?
- 5 What is a **prototype**, and why is this notion important for the study of meaning?
- 6 How might one represent the meaning of sentences?

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