

Linguistics 1A: Morphology

1 Word classes

In this module we are going to discuss *morphology*, the study of the internal structure of words. Before we can make a start with that, however, it is necessary to consider in some detail something about words that you will be already familiar with: words can be divided into different *classes* or *categories*. It seems to be a universal property of languages that they distinguish at least verbs from nouns, and in many languages other categories can be distinguished as well, such as adjectives and prepositions.

If you would ask the speakers of a language what the difference is between the various word classes, it is quite likely that the answer will consist of informal *semantic* descriptions of the various categories, that is, descriptions stating what elements belonging to a particular class have in common with respect to their *meaning*. For example:

- (1) a. “Verbs express an action, process or state”
b. “Nouns are the name of a person, place, or thing”
c. “Adjectives are words which express a property”

However, consider the following sentence:

- (2) Jane was upset because an unexpected problem with the manual’s availability implied that the risk in case of a fire was very high.

In this sentence, *upset* seems to express a state. Nevertheless, it is not a verb, but an adjective. Similarly, *availability* seems to express a state, not a ‘person, place or thing’. But it is a noun, not a verb. It is not so obvious that the word *unexpected* expresses a ‘property’, but it is an adjective nonetheless. Similarly, it is not so clear that the noun *problem* names a person, place or thing. It certainly does not name anything that is a concrete thing. And does the verb *implied* really express an ‘action, process or state’? Do the nouns *risk* and *fire* express a ‘thing’? If anything, *fire* would appear to express a process, but it is not a verb in this sentence.

On what basis do linguists say, then, that *unexpected* is an adjective in (2), *implied* a verb, *risk* a noun, and so on? The criteria for this relate to how a word can combine with other elements to form a larger word (how it behaves morphologically), and how it can combine with other words to form larger phrases and sentences (how it behaves syntactically). We will consider some of the criteria used to distinguish different word classes in this lecture.

Before we look at the individual word classes in more detail, we will first make a more general distinction between two types of words. Consider the sentence in (2) again. Some of the words in this sentence seem to make more of a contribution to what this sentence expresses semantically than others. For example, if we would leave out the words *was*, *an*, *the*, *that*, *the* and *a* we would still have a good idea of what the sentence is supposed to mean. But if we leave out any of the other words we lose vital information as to the meaning of the sentence. On the other hand, the words *an*, *the*, *that* etc., act as grammatical signposts, indicating the relationships between the

semantically more contentful words, and/or providing some additional grammatical information about them. For example, *that* in (2) indicates that the whole sentence that follows it acts as a sentence that is ‘embedded’ in the larger sentence (more on this in the syntax lectures), while *the* in front of *manual* indicates in all likelihood that the speaker is talking about a particular manual that the listener already knows about (for example, from it just having been mentioned before in the discourse).

The words with more semantic content are said to belong to a *lexical* category. The words that do not add lexical content but have a more purely grammatical role are said to be *functional* categories. The latter typically form a *closed class*. This means that it is very difficult to add new members to them. For example, it is possible to say that “*the* is the *definite determiner* of English”, and “*a(n)* is the *indefinite determiner* of English”. But for reasons that will become apparent in the lectures hereafter (and also in the historical linguistics module in Linguistics 1B), it is not possible to give a list of all the possible nouns of English, since there are productive ways of adding new nouns to English at any moment you want. In this lecture, we will focus mainly on the lexical categories, although some functional elements will make an appearance as well.

Let us start with *verbs*, usually indicated with the symbol V. These distinguish themselves in a number of ways. For a start, they come in particular forms. One form shows an ending that indicates the *tense* of a sentence (past, present) and/or the *person* and *number* of a particular other element (the subject) in the sentence. This form is the so-called *finite verb*. Thus, the italicized forms in the following examples are finite verbs:

- (3) a. Paula *dreams* of a nice holiday.
 b. That woman always *plays* a Ligeti cd on her birthday.
 c. Yesterday I *walked* home.

English is pretty impoverished where it concerns the number of different endings available to finite verbs. In the present tense there is only a distinct ending *-s* for the third person singular, while past tense forms have an ending *-ed* but show no person/number distinctions at all. Some languages have many more different forms (while some have even less). Greek, for example, distinguishes between six different person and number forms, and does so even in the past tense. Here, for example, are the past tense forms for the verb *pléno* ‘to wash’ in modern Greek:

- (4) 1sg é-plen-a 1pl plén-ame
 2sg é-plen-es 2pl plén-ate
 3sg é-plen-e 3pl é-plen-an

Note that, with this possibility in mind, *absence* of an ending can also give information about person/number/tense on a verb. Thus, in English such absence can signal that the verb is in the present tense and not third person singular. Accordingly, the following italicized forms are finite verbs as well as those in (3).

- (5) a. I *dream* of a nice holiday as well.
 b. You never *play* the piano on your birthday, do you?
 c. Today they all *walk* home, I believe.

You can recognize finite verbs not only by their form, but also by their syntactic distribution. Thus, if a word fits into frames like the following, it will be a finite verb:

- (6) a. When I come home, the dogs usually ____ .
b. The dogs ____ it.
c. Mary ____ her dog yesterday.

Note that the opposite implication does not work, however: if something is a finite verb, it will not necessarily fit into all of these frames, mainly for reasons of semantic compatibility. Thus, (7) is a very strange sentence, but this is not because *sing* is not a finite verb in (7) (it is), but rather because the sentence has an anomalous meaning.

- (7) ??When I come home the dogs usually *sing*.

There are also verb forms that do not express tense. One distinguishes itself in English by sometimes being accompanied by the separate little word *to*, while not having a distinctive ending of its own. This is the *infinitive*. The italicized words in the following are examples of infinitives:

- (8) a. Harry wants *to leave* the country.
b. The shop expects *to deliver* the goods on Friday.
c. Luckily the weather seems *to improve*.

In English the infinitive also occurs, but without accompanying *to*, in a tense different from the present and past discussed above, namely the future tense:

- (9) a. Gerald will *go* to Paris tomorrow.
b. Davina would *dance* the tango.

Given that *will/would* indicates if it is the present future or the past future that we are dealing with (yes, there is such a thing as a ‘past future’, or ‘future in the past’, in linguistics), this is the finite verb in (9). But the lexical content in (9) does not come from *will/would*, but rather from the infinitives *go* and *dance*. Therefore, the finite verb *will/would* really acts like a functional, rather than a lexical, category in (9): it is a so-called *auxiliary verb*. In opposition to that, the verb that provides lexical content is called the *main verb*.

Something similar also holds for the so-called perfect tense in English (this tense roughly indicates ‘past with present relevance’). Here, there is also an auxiliary verb, namely a form of *have*. In contrast to the future tense, the main verb now occurs in yet another shape, namely that of the *past participle*. For ‘regular’ verbs, this looks the same as a past tense form in English, but ‘irregular’ verbs show it is a distinct form (as it is even for ‘regular’ verbs in many other languages). The italicized forms in (10) are past participles.

- (10) a. She has never *travelled* for so long before.
b. He has *gone*.
c. Our cat has never *slept* for so long.
d. That soprano has never *sung* in a Verdi opera.

The term ‘past participle’ implies that there is a such a thing as a ‘present participle’ as well, and indeed there is. The *-ing* forms that occur in the following ‘progressive’ sentences are present participles:

- (11) a. The train is *leaving* the station.
b. Laura is *reading* a book.
c. Larry was *feeding* the cats when Laura came in.

As you see, next to the participle there is an auxiliary verb in (11) again that functions as the finite verb in the sentence. English seems to have the property that every full sentence needs to contain a finite verb. This need for a verb goes so far that, if there is not otherwise any verb at all in a sentence, a dummy verb is used. In English, the verb *be* is used for this purpose. Consider for instance the following sentences:

- (12) a. She is a dentist.
b. He is ill.
c. Clark Kent is Superman.

There is a lexical verb *be*, which means something like ‘exists’:

- (13) a. I think therefore I am.
b. To be or not to be, that is the question.

But the forms of *to be* that occur in (12) are not instances of this main verb (compare the impossibility of ‘she exists a dentist’ etc.). The verb does not seem to have any meaning at all in (12). Like the instances in (11), this *be*, therefore, is a functional, rather than a lexical, category. The only reason for its appearance in (12) just seems to be that English sentences want to have a verb. Such a meaningless verb that only occurs to link the other (meaningful) parts of a sentence in case those are all non-verbal is called a *copula*. Many other languages have copulas as well, but it is not a cross-linguistic universal requirement that a copula must appear in sentences of the type in (12). For example, in the Russian present tense no copula appears (although in the past tense a copula does show up):

- (14) a. Vasja poxož na otca.
Vasja alike to father
‘Vasja looks like his father.’
b. Takie predrassudki očen’ rasprostraneny.
such prejudices very spread
‘Such prejudices are very widespread.’

Let us now turn to *nouns*, which are usually indicated with the symbol N. One thing that indicates something is a noun is its ability to carry a particular ending again, in this case an ending that indicates the *plural*. Thus, the words in (15) are nouns:

- (15) house – houses, chair – chairs, cat – cats, street – streets, iguana – iguanas

Again, though, the criterion does not work the other way around: if something does not easily carry the plural ending, this does not necessarily mean it is not a noun. In

particular, whereas *count nouns*, such as the ones in (15), happily pluralize, so-called *mass nouns* do not do so that easily:

(16) water – ?waters, sand – ?sands, gold – ?golds, glue – ?glues, coffee – ?coffees

It is often possible, though, to ‘individuate’ mass nouns in particular contexts and have them refer to something that is made of the stuff they name, in which case they can be pluralized after all:

- (17) a. The ship sank in the territorial *waters* of Ireland.
b. The caravan crossed the *sands* of the desert.
c. Britain won three *golds* and five *silvers* at the event.
d. I tried three different *glues* and it still won’t stick.
e. After she drank six *coffees* she started shaking.

Other nouns that do not always readily pluralize are the *abstract* nouns (as opposed to *concrete* nouns such as all the ones mentioned so far):

(18) luck - ?lucks, hate – ?hates, anger - ?angers

It is possible to think of exceptions even in this case though:

- (19) a. One of my pet *hates* is the litter in the street.
b. This psychotherapeutic theory distinguishes between two different *angers*, the suppressed one and the demonstrative one.

A syntactic sign that something is a noun is that it can be combined with a so-called *determiner*, such as a definite determiner (*the* in English), an indefinite determiner (*a/an* in English) or a *demonstrative* determiner (*this/that/these/those* in English):

(20) the cat, a house, the water, that street, this sand, those tables, the anger

Here, too, there is a class of nouns that does not always neatly fit the criterion, namely *proper nouns* (‘names’):

(21) ?the Jane, ?the Edinburgh, ?a France, ?this Merlin

But if we add some modification to the noun, or a proper context, the test usually does work again:

- (22) a. She is no longer the Jane I knew.
b. The Edinburgh of the 15th century was very dirty.
c. In this book the author describes a France that tourists do not often see.
d. Let me tell you a story about a sorcerer called Merlin. This Merlin...

Note that verbs do not combine with determiners:

(23) *the walked, *this gone, *a breathes

Another syntactic difference between nouns and verbs is the following. Verbs can combine directly with nouns (actually it would be more precise to say that verbs can combine with *noun phrases* as will become clearer in the lectures on syntax):

- (24) a. Jane examines patients.
b. Alaric destroyed Rome.

But nouns themselves cannot directly combine with other nouns just like that. Rather, what happens is one of two things. Either the noun that a noun is combined with must occur in a special form. Or the two nouns must be linked by an otherwise meaningless preposition. In Modern English both things occur: if a noun combines with another noun to its left, the latter has to occur in a special possessive form, with an added *-s* ending. If a noun combines with a noun to its right, the latter must be introduced by the preposition *of*. Thus, compare what happens in (25) with (24):

- (25) a. *Jane examination patients
b. Jane's examination of patients
c. *Alaric destruction Rome
d. Alaric's destruction of Rome

In the discussion on verbs it emerged that there are not only lexical verbs, but also functional ones (such as the copula and auxiliaries). We may therefore ask ourselves if there are also functional nouns, next to all the lexical ones we have seen until now. The answer is: maybe. A good candidate for this status are *pronouns*. In contrast to 'normal' nouns, these do form a closed class. And they do seem to have less lexical content than normal nouns. As their name (pro-noun) indicates, they stand in for another, more contentful, noun, if it is clear from the context what they are intended to refer to. Examples in English are the *personal pronouns*: *he, she, it, him, her, we* etc., the *possessive pronouns*: *his, her, my, your* etc., the *reflexive pronouns*: *myself, yourself, himself, herself* etc., the *reciprocal pronoun*: *each other*, and the *impersonal pronoun*: *one* as in *one does not expect that from a well-behaved person*.

The third major lexical category are *adjectives* (for which the abbreviated notation is the symbol A). These can be spotted morphologically by often having, next to their basic form, a *comparative* and *superlative* form as well:

- (26) cold – colder – coldest, strange – stranger – strangest, dry – drier – driest

Note that in English for some adjectives the comparative and superlative take the form of a description with *more* and *most* rather than the adjective taking on the endings *-er* and *-est*. Very roughly speaking, this is the case for 'longer' adjectives:

- (27) enthusiastic
*enthusiasticer / *enthusiasticest
more enthusiastic / most enthusiastic

flabbergasted
*flabbergasteder / *flabbergastedest
more flabbergasted / most flabbergasted

Yet again, the test cannot be reversed: there are words of which a comparative or superlative cannot normally be formed, for semantic reasons, but which behave like adjectives otherwise. Examples are the following:

- (28) pregnant *pregnanter/*more pregnant/*pregnantest/*most pregnant
 dead *deader/*more dead/*deadest/*most dead
 locked *lockeder/*more locked/*lockedest/*most locked

Syntactically speaking, an adjective can be used in two ways. It can be one of the elements that is linked by a copula, or it can modify a noun. In the former case we speak of *predicative* adjectives, in the latter case of *attributive* adjectives. Usually, the same adjective can be used either predicatively or attributively; this is illustrated in (29) (predicative adjectives) and (30) (attributive adjectives).

- (29) John is ill.
 Mary is pregnant.
 That painting is beautiful.
 The door is locked.

- (30) an ill person
 a pregnant woman
 a beautiful painting
 the locked door

Some adjectives, however, resist being used predicatively and can only be used as attributive adjectives:

- (31) the alleged offender
 *This offender is only alleged.

 a former president
 *This president is former.

A class of words that seem closely related to adjectives is that of the *adverbs*. Adverbs are much like attributive adjectives, but instead of modifying a noun they modify a verb. In English, a lot of adverbs can be morphologically recognized by their *-ly* ending, which distinguishes them from their corresponding adjectives:

- (32) a. Susan walked *quickly* to the store.
 b. Frank *hastily* scribbled it down.
 c. She *probably* left.

Other languages can have a special ending for adverbs as well, for instance French *-ment*. However, not all adverbs show such endings:

- (33) a. Harry *often* talks about music.
 b. The baby is eating *well*.

In some languages there is no special adverbial morphology to begin with, and adverbs look just like adjectives, as the following examples from Dutch illustrate:

- (34) a. een *snel* spel (*snel* = adjective)
 a quick game
 b. ze schrijft heel *snel* (*snel* = adverb)
 she writes very quickly
 c. een *grappig* gezicht (*grappig* = adjective)
 a funny face
 d. de baby lachte *grappig* (*grappig* = adverb)
 the baby smiled funnily

The final word class to be mentioned is that of the *prepositions* (for which the abbreviated notation is P). They seem to fall in between the classes of lexical words and function words. It is not so easy (though not impossible) to add to the stock of prepositions in a language like English, so they form a somewhat closed class. Often, however, they do have lexical content. In particular, they can express notions of place, direction and time (though these are sometimes to be taken in an abstract sense). Syntactically, they usually combine with a noun (or rather, a noun phrase) to their right. Thus, the italicized words in (35) are prepositions.

- (35) *in* Amsterdam
with Mary
to France
after dinner
before noon
off the wall

In some languages prepositions are actually *postpositions*, meaning that the noun they combine with is to their left instead of to their right. An example of a language with postpositions is Hindi:

- | | | | |
|------|----------------|------------------|-------------------|
| (36) | larki ko | larki se | larki par |
| | <i>girl to</i> | <i>girl from</i> | <i>girl after</i> |
| | 'to the girl' | 'from the girl' | 'after the girl' |