
Words belong to different classes

Section 2.1 should be useful to readers who have little previous experience of word classes, or ‘parts of speech’. This section concentrates on English. Then in Sections 2.2 to 2.5, we look at the major LEXICAL word classes occurring cross-linguistically, namely verbs (2.2), nouns (2.3), adjectives (2.4) and adverbs (2.5). Although all languages distinguish a class of verbs from a class of nouns, it is less clear whether or not all languages have a separate adjective word class, as we will see. Adverbs are widespread, but not universal. Section 2.6 discusses adpositions, also a widespread word class cross-linguistically. Each section discusses the distribution, function and MORPHOSYNTACTIC properties of the word class it describes. All the major word classes are associated with a typical set of grammatical categories. We concentrate here on the most common categories found cross-linguistically.

2.1 IDENTIFYING WORD CLASSES

2.1.1 How can we tell that words belong to different classes?

It is easy to demonstrate that words in a language fall into different classes. For example, only certain single words can fill the gap in (1) to complete the sentence:

- (1) Kim wanted to ____ .

The gap can be filled as in (2), but not as in (3):

- (2) Kim wanted to leave/browse/relax/sleep.
- (3) a. *Kim wanted to departure/browser/relaxation.
b. *Kim wanted to underneath/overhead.
c. *Kim wanted to energetic/thoughtful/green/sad.

The words that can fill the gap are all VERBS. Verbs appear in a variety of other positions too, but if we have to find one word to complete (1), it must be a verb. So the words that are impossible in (3) are not verbs: they must belong to other word classes. Note that to try this test you don’t need a definition of ‘verb’, because you’re simply applying your knowledge of English: you know without being told that only certain words fit in (1). From now on, you can use this test as follows: any single word which can fill the gap in (1) must be a verb.

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Before reading further, pick out which words from the list in (4) fit into the empty slots in (5):

- (4) squeamish, happiness, wolves, expect, below, suddenly, writes, Cornish
- (5) ____ became extinct in the eighteenth century.
 ____ seemed to be unpopular.
 I wonder whether ____ will ever return.
 ____ extinct! I don't believe it.
 That ____ could ever return seems unlikely.
 For ____ to be reintroduced to Britain might be a good idea.

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Of course, only three words fit: *happiness*, *wolves* and *Cornish* (a language). As you probably expected, these words all belong to the same word class (they're all NOUNS) while words like *below* and *suddenly* and all the other words in (4) don't belong in this class. Gap tests work in all languages: there will always be positions in a sentence which can only be filled by a specific class of word. From now on, you can use the sentences in (5), adjusted as necessary in order to make sense, to test for the word class NOUN.

Very often, a word can belong to more than one word class. For example, the verb *escape* can fit into the gap in (1), but there's also a noun *escape* as in *The escape went badly*. There's a noun *official*, as in *Some officials are corrupt*, but there's also an adjective *official*, as in *our (un)official policy*. How do we determine the word class in these cases? Discovering the DISTRIBUTION of each word is one method: to do this, we find gaps that can only be filled by members of one particular word class.

Another method involves looking at the form the word takes in different contexts. For example, the verb *escape* can take the same *-(e)d* ending for the past tense which is found on other verbs such as *wandered*, *relaxed* and so on: *I escaped*. But the noun *escape* can't: **The escaped went badly*. And while nouns usually take the *-s* ending when they're plural, as in *some officials*, adjectives don't take this ending: **our officials policies*. In modern linguistics, word classes are distinguished largely by using evidence from distribution and form.

2.1.2 Starting to identify nouns, adjectives and verbs

In this section I am going to demonstrate why we need formal tests to identify word classes, and I will show you how some of these tests work with simple examples from English. You may perhaps have learnt some informal semantic tests for identifying nouns, adjectives and verbs. A typical schoolroom definition of these three major word classes might be:

- (6) a. A noun is the name of a person, place or thing.
 b. An adjective is a describing word which modifies a noun.
 c. A verb expresses an event, action, process or state.

Second, *engine* can never take the typical adjective endings *-er*, *-est*, as in *untidier*, *happiest* (nor can we say **more engine*, **most engine*). So *engine* never has the same set of word forms as an adjective either. But it does take the plural *-s* suffix of nouns, as in *Kim drives engines*.

Another way to use distributional evidence is to show that nouns and adjectives are MODIFIED by different word classes: they keep different company. So, like other nouns, *engine* can itself be modified by an adjective, such as *electric*. But it can't be modified by an ADVERB such as *electrically* (the meaning intended in (8) is that the engine is electric, not Kim):

- (8) Kim is an **electric engine** driver.
*Kim is an **electrically engine** driver.

This is typical behaviour for a noun. But adjectives behave in a different way: they are not modified by other adjectives – such as *unbelievable* in (9) – but by adverbs, such as *unbelievably*. So the asterisks are the opposite way round in (8) and (9).

- (9) *Kim is an **unbelievable skilful** driver.
Kim is an **unbelievably skilful** driver.

This distributional test distinguishes adjectives like *skilful* from nouns like *engine*. To account for all the examples seen here, we simply need to say that nouns such as *driver* can be modified either by adjectives (*skilful driver*), or by other nouns (*engine driver*).

Now consider verbs such as *vegetate* and *survive*; these don't seem to be events, actions, processes or states (or 'doing' words!), but the formal distribution test in (1) shows that they are indeed verbs (e.g. *Kim wanted to vegetate*). As before, you may have to adjust the test slightly in order to fit the meaning of the verb. Again, these verbs take the past tense *-ed* suffix (*vegetated*, *survived*). They also take two other endings that are found on verbs: *-s* and *-ing*. Only verbs in English take *all three* of these suffixes, *-ed*, *-s*, *-ing*. But unfortunately, it's hard to use these suffixes independently to identify verbs, since they each have other grammatical roles. For instance, *boring* has the *-ing* suffix and can be a verb: *Kim's boring me to death*. But it's an adjective in *Kim's very boring*, as we can tell by *very*, which only modifies adjectives: we don't get: **Kim's very boring me to death*.

The formal methods that linguists use to identify word classes concentrate both on MORPHOLOGICAL criteria and on SYNTACTIC criteria. Morphology is the study of word form. Recurring patterns in the form of words, particularly in the affixes that they take, indicate that a group of words belong to the same class. We've seen several examples already: for instance, the observation above that only verbs take all three endings *-ed*, *-s* and *-ing*. This kind of evidence is based on the MORPHOSYNTAX of verbs: the morphology that they take in specific syntactic contexts. We will see plenty more morphosyntactic categories as we go along.

Syntactic criteria show that each word class has a unique pattern of distribution. First, there are certain slots in a sentence that can only be filled by members of one

that of a verb. Of course, nouns aren't simply randomly interchangeable with verbs. We can tell that the words *dog* and *eyes* in (11) really are verbs by substituting more typical verbs:

- (12) a. Revived ferry sale fears **disturb/jeopardize/irritate** islanders.
 b. Treasury **considers/postpones/denies** wider prescription charges.

How effective would the headlines be if we changed them as follows?

- (13) a. Revived ferry sale fears **have dogged** islanders.
 b. Treasury **to eye** wider prescription charges.

These don't achieve the same effect at all because it's now (too!) obvious that *dogged* and *eye* are verbs. You don't have to know the meaning of 'verb' to pick up the various clues to word class that (13) contains – as a speaker of English, you use these clues subconsciously all the time.

In (11b) the form *eyes* was particularly clever, because out of context, it might be either a noun or a verb – both word classes happen to have an *-s* suffix in English, though it performs very different work in each case. So (11b) at first leads us astray by playing on the fact that the word *eyes* can be a noun or a verb. In (13b), though, the use of *to eye* makes it clear at once that *eye* is a verb. Nouns can't fit into that slot:

- (14) *Treasury **to ear/denial/postponement** wider prescription charges.

Although evidence from morphology (word form) can often be used to distinguish word classes, it's not always available. Furthermore, some languages – such as Chinese or Vietnamese – have very few grammatical affixes. For example, nouns in Chinese are not marked for a singular/plural distinction, so for instance the word *xin* translates as both 'letter' and 'letters'. In such languages there isn't much morphological variation, so word form won't usually help to identify word class.

Syntactic evidence to distinguish word classes typically is available, however. In (13a), the verb *dogged* is followed by *islanders*; and in (13b) the verb *eye* is followed by the 'noun phrase' *wider prescription charges*. In fact, these phrases (or ones like them) have to be present, or else the sentences will be ungrammatical (check this for yourself). Here, then, is another distribution test for verbs: certain verbs must be accompanied by a NOUN PHRASE like *islanders* or *wider prescription charges*. In technical terms, as we saw in Chapter 1, this phrase is the OBJECT of the verb. Verbs that need an object (often termed a DIRECT OBJECT) are known as TRANSITIVE verbs.

For completeness, notice that there's also an adjective *dogged* – it has a different (two-syllable) pronunciation from the verb, and means something like 'determined'. The adjective occurs, for instance, in *these dogged islanders*, where it modifies the noun *islanders*. As you'll expect by now, it has a different distribution to that of a verb or a noun. For instance, using the tests in (7), we can get *Kim's as dogged as Chris* and *Kim is so dogged*, but a noun or verb won't work here: **Kim's as dog as Chris*.

The newspaper headlines in (11) make use of words from just three different word classes: *ferry*, *sale*, *fears*, *islanders*, *treasury*, *prescription* and *charges* are all nouns;

dog and *eyes* are verbs, as is *revived* in this usage, and *wider* is an adjective. The majority of words in the headlines are nouns and verbs – these word classes are indispensable and, cross-linguistically, are always the most important word classes. All languages seem to have distinct classes of nouns and verbs, so these are true LANGUAGE UNIVERSALS (= a property found in all languages). Also, nouns and verbs in most languages are OPEN CLASS words: this means that we can add new words to these classes. For example, the nouns *byte*, *blog*, *software* and *laser* are all recent innovations in English, as are the verbs *breathalyse* and *decoke* (to remove carbon deposits from an engine).

In English and other European languages, adjectives (and maybe adverbs) are also open class words, but not all languages have an open class of adjectives, that is, a class to which new adjectives can be added. For example, Igbo, a language of the Benue-Congo family spoken in Nigeria, has a CLOSED CLASS of adjectives with just eight words in it. In fact, perhaps not all languages have a class of adjectives or adverbs at all (see Sections 2.4 and 2.5).

Adding a couple of other typical headlines, we also find the word class PREPOSITION – shown in bold in (15) – but no other word classes. *Bird* is slang for a prison sentence – the headline is about a woman illegally feeding pigeons:

- (15) MPs' report urges action **within** four years **on** design changes.
Pigeon woman is cured **by** spell **of** bird.

(From *The Guardian* 29.7.95)

Prepositions aren't open class words, and some languages have very few or even no prepositions. English, however, has a large class of prepositions conveying many different meanings. From the newspaper headlines, you can see that in English the four classes N (nouns), V (verbs), A (adjectives) and P (prepositions) contain the words we need most when we're trying to write in 'telegraphese'. Cross-linguistically, we can expect the classes N, V and A to be the major LEXICAL word classes, containing most members, and expressing most of the important meanings.

Some prepositions don't really carry much meaning, and are used for purely grammatical purposes: *by* and *of* are like this in (15). Headlines can often dispense with words that mainly bear grammatical information. This is why headlines don't typically contain the grammatical 'little words' like ARTICLES (*the*, *a* in English) which don't have much semantic content; in other words, meaning. All languages have words that express grammatical information, such as definiteness (*the*) or indefiniteness (*a*), or the DEMONSTRATIVES (*this*, *that*, *these*, *those*), or negation (*not*); a language may well not have counterparts to these specific grammatical elements, but there will certainly be grammatical words of some kind. These purely grammatical words are known as FUNCTIONAL categories, and they contrast with LEXICAL categories, which are rich in meaning. Other functional categories include CONJUNCTIONS (such as *and*, *or*, *but*) and PRONOUNS (such as *she*, *her*, *they*, *them*). We will see more as we go along.

We've now seen something of the way speakers of English 'decide' (subconsciously) the classes of the words they encounter. We've also begun to see how linguists

discover the different word classes by running a set of diagnostic tests based on morphological and syntactic evidence.

To summarize, we've argued in this section that words fall into different classes. Evidence comes partly from morphosyntax: each word class has its own unique set of affixes. But morphological evidence of this kind is not always available, so syntactic evidence is vital too. Each word class fits into certain slots which are unique to it, and each class co-occurs with (keeps the company of) specific words from other classes. Furthermore, each word class has specific functions, performing certain tasks in a sentence.

We next turn to a wider examination of the major lexical word classes, looking at their typical behaviour cross-linguistically. Section 2.2 looks at verbs; Section 2.3, nouns; Section 2.4, adjectives; Section 2.5, adverbs; and Section 2.6, prepositions.

2.2 VERBS

2.2.1 An introduction to verb classes

The major function of verbs is to express what is known as 'predication'. A PREDICATE expresses an 'event' in the sentence, which may be quite literally an event (such as *collapse* or *explode*) but also includes actions, processes, situations, states and so on. Though the role of predicate is typically fulfilled by a verb, we will see later that this isn't always the case.

In all languages, verbs fall into various syntactic sub-classes. Three of the most important are discussed in this section, starting in (16) with the sub-class of intransitive verbs. The verbs are in bold:

- (16) a. Lee **sneezed**.
The volcano **erupted**.
- b. ótáù **síkáàna** (Mbalanhu)
night falls
'The night falls / is falling.'
- c. **Bhéic** sé. (Irish)
yelled he
'He yelled.'

Each of these verbs requires a single participant, the entity involved in the event or action which the verbs express. The participants in these examples are *Lee*, *the volcano*, *ótáù*, *sé*. In linguistic terminology, we say that the participant is the ARGUMENT of the verb. ('Argument' is a technical term, and doesn't mean that the verb and the participant are quarrelling!) Verbs with only one participant or argument are called INTRANSITIVE verbs. Note that it may well be the case that this single argument is an entire phrase, maybe even referring to many people: *Lee and Kim sneezed*; *All the students sneezed*. But nonetheless, the verb *sneeze* has just the one argument.

You should have the following results. In (21a), *capitulated* is intransitive – it has only one argument, *Lee and Kim*: note that you can get this answer without actually knowing the meaning of the verb. *Gave* is ditransitive, although note that in (21b) the participants appear in a different order than that in (19): the recipient (*the children*) in this example comes before what is given. *Assassinated* is a transitive verb, which is why (21c) is impossible: its direct object is missing. Both verbs in (21d) are transitive: both *love* and *detest* have two arguments. You may have thought that these are intransitive verbs, because there is no argument immediately following the verb. But this is wrong, as we can tell because **Kim loves/detest*s is ungrammatical. The direct object arguments, *sprouts* and *cabbage*, would normally be positioned immediately after the verb, but in (21d), each of them has been moved from its usual position, for emphasis. Even displaced in this way, *sprouts* and *cabbage* still fulfil the requirements of both verbs for an ‘item loved/detested’ participant. So even if an argument is displaced from its usual position, it still ‘counts’ as an argument of the verb that it’s associated with.

In English, there are very many verbs that are ‘ambitransitive’: these can be either transitive or intransitive, such as *sing*, *cook*, *read*, *eat*. Fewer verbs can only be transitive (*devour*, *reject*) or only intransitive (*erupt*, *disappear*). This situation is not necessarily the same for all languages. For instance, in Jarawara, an Amazonian language (Dixon 2004b), about half the verbs are strictly intransitive, somewhat fewer are strictly intransitive, and maybe a third of the total are ambitransitive.

More verb classes are illustrated as we go along, in Chapters 3, 4 and 5. What we have seen in this section is that across all languages, verbs occur with specific ‘core’ arguments: these are the arguments required by the verb. The verb also selects the particular grammatical properties of its arguments, as we’ve seen. This relationship between a verb and its arguments is one kind of DEPENDENCY: a relationship contracted between elements in a sentence. We will see other kinds of dependencies throughout this book.

2.2.2 Verbs and their grammatical categories

Verbs have more cross-linguistic differences in the grammatical categories they express than any other word class. The major categories are illustrated here.

2.2.2.1 Tense and aspect

These are the most common morphosyntactic categories associated with verbs, and this discussion provides only a brief sketch of these extensive categories. Starting with English, you may be surprised to learn that morphologically speaking (in terms of form) English verbs have only two tenses, namely present and past:

- (22) a. Kim **helps** Lee every day.
 b. Kim **helped** Lee every day.

The present tense of the verb in (22a) is marked by the *-s* inflection (ending), although this only occurs on the third person singular form: so in *I help(*s) Lee*, the verb has no actual suffix. This tense is sometimes referred to as ‘non-past’, a more accurate label, because most ‘present’ tense verbs don’t refer to something that is happening right now. So (22a), for example, refers to a habitual event. The PAST TENSE in (22b) is marked with the *-ed* suffix, and this doesn’t change for person and number. These *-s* and *-ed* endings are the only pieces of regular verbal morphology that represent tense in English, although *-s* actually has a dual role, as we’ll see later.

What about the future tense? English certainly has ways of referring to future time: one is to use the present tense of an AUXILIARY element *will*: *She will help Lee tomorrow*. But the main verb, *help*, doesn’t inflect here. There is no ‘future’ verbal morphology equivalent to the *-s* present tense or *-ed* past tense endings. The present tense of a verb can also refer to future time – as in *She leaves the country tomorrow* – or we can say *She is leaving the country tomorrow*, using another auxiliary, *is*. Note that the *-ing* suffix here isn’t a tense marking: it can occur with any time reference, as in *She was leaving*, *She will be leaving*.

Tense is defined by Comrie (1985a: 9) as the ‘grammaticalized expression of location in time’. The point is that different languages will ‘choose’ to grammaticalize (= represent grammatically) different contrasts in time – these are its tenses. This does not mean that a language can only refer to the points in time for which it has a morphological marker for tense, as we’ve already shown for ‘future’ in English. Other languages may have many more tense distinctions than English, or even fewer tenses, even none at all. Some Austronesian languages (e.g. Leti, Saliba) have no grammatical tense: there is no verbal morphology which represents tense in these languages, nor are there separate tense markers or auxiliaries. There are words that refer to time, however, such as Saliba *lahi* ‘yesterday’ and *malaitom* ‘tomorrow’.

Most languages have a basic two-way tense opposition: either between past and non-past tenses – like English – or else between future and non-future tenses. Within these major divides, some languages have much finer tense distinctions, particularly the African Bantu family, and native Australian and American languages. The Wishram-Wasco dialect of Chinook, a native American language spoken in the states of Oregon and Washington, has four past tenses represented by different inflections, or markings on the verb, shown in bold:

- | | | | | |
|------|----|---|----------------------------|-----------|
| (23) | a. | ga- čiu _x | ‘He did it some time ago.’ | (Chinook) |
| | b. | ni- čí _x | ‘He did it long ago.’ | |
| | c. | na- číú _x ^w -a | ‘He did it recently.’ | |
| | d. | i- čí _x | ‘He just did it.’ | |

Note that the tense inflections are prefixes in this language.

A category closely related to tense is that of ASPECT. Aspect marks such properties as whether an action is ongoing or completed. For example, in *Kim was eating his dinner*, the verb *was* is past tense but we understand that the eating event wasn’t over. This sentence has the PROGRESSIVE aspect, marked in English partly by the *-ing*

- (28) a. Kalulu a-na-b-a mkazi wa njovu. (Chichewa)
 hare SU-PAST-steal-ASPECT wife of elephant
 ‘The hare stole the elephant’s wife.’
- b. Mkazi wa njovu a-na-b-**edw**-a (ndi kalulu).
 wife of elephant SU-PAST-steal-PASSIVE-ASPECT by hare
 ‘The elephant’s wife was stolen (by the hare).’

In both Chichewa and English, the passive affects the arguments of the verb, and also the form of the verb itself. The noun phrase *mkazi wa njovu*, ‘the elephant’s wife’, is the direct object in (28a), and becomes the subject in the passive (28b): in the terminology introduced in Chapter 1, it gets promoted to subject position. The subject of the active sentence, *kalulu*, ‘the hare’, is demoted in the passive: it becomes the object of a preposition *ndi/by*, or it can be omitted entirely. The valency of the ‘steal’ verb is altered in the passive: in (28a), it takes two core arguments, a subject and a direct object, while in (28b), it has only one core argument: *mkazi wa njovu*, ‘the elephant’s wife’. The phrase *ndi kalulu* ‘by the hare’ is not a core argument: it can be omitted entirely.

The passive in English is characterized by an auxiliary *be* or *get* (as in *It got stolen*) plus the PAST PARTICIPLE form of the main verb (*stolen, seen, killed*) but there’s no specific passive affix. Chichewa, however, marks the passive directly on the verb, using the *-edw* suffix in (28b).

2.2.2.4 Agreement

Verbs in many languages ‘agree with’ one or more of their arguments (see Chapter 6). This means that various properties of the noun phrase arguments are also marked on the verb, the most common properties being person and number, and then gender or noun class. The situation most familiar to speakers of European languages is that of subject/verb agreement. English has very little verbal agreement – only the third person singular in the present tense is overtly marked (for example, *I play* versus *He plays*). This is the dual role of the *-s* suffix mentioned earlier: it represents both 3SG and present tense.

The Australian language Gunin also has subject/verb agreement, but in Gunin it is the gender of the subject that is cross-referenced (morphologically marked) on the verb, as shown in (29). Gunin has five genders, one denoting all humans (male or female) and four covering all non-human nouns (see Section 2.3.3.2 for more on gender).

- (29) a. benyjin **bi**-yangga (Gunin)
 man GENDER-goes
 ‘The man is walking.’
- b. leewa gadi **a**-yangga
 dog run GENDER-goes
 ‘The dog is running.’

Cross-linguistically, verbs often agree with their objects as well as their subjects. This example is from a Malayo-Polynesian language, Kambara:

- (30) Nyuna na-tinu-nya na lau (Kambera)
 she 3SG.SU-weave-3SG.OBJ the sarong
 ‘She weaves the sarong.’

Here, the verb has markers representing both the subject and the object: the subject marker is the prefix *na-* and the object marker is the suffix *-nya*. Note that the verb here, *natinunya*, could actually form a perfectly good full sentence by itself; literally, it means ‘she weaves it’; both the independent subject pronoun *nyuna* ‘she’ and the object *na lau* ‘the sarong’ could therefore be omitted quite happily. Far from being an unusual situation cross-linguistically, this is commonplace – albeit not in European languages. We say of such a verb that it has PRONOMINAL AFFIXES – morphological markers that can replace independent pronouns. Many more examples will occur throughout this text.

2.3 Nouns

2.3.1 Semantic roles for noun phrases

Noun phrases (NPs) most typically function as the arguments of verbs. NP arguments can be classified both in terms of the semantic role that they fulfil and in terms of their syntactic function in a sentence (Section 2.3.2). First, we look at SEMANTIC ROLES, also known as thematic (or theta) roles. It is the verb that determines what semantic roles its arguments must take. Let’s look at some examples:

- (31) Lee handed the letter to Kim.
 AGENT THEME RECIPIENT
- (32) Kim detests sprouts.
 EXPERIENCER STIMULUS
- (33) Spiders frighten Lill
 STIMULUS EXPERIENCER
- (34) The flowers wilted.
 PATIENT
- (35) The ball broke the window.
 INSTRUMENT PATIENT

As you can see from these examples, there is no correlation between the number of arguments that a verb takes and the semantic role that these arguments fulfil. An AGENT is an animate being deliberately performing an action. Subjects are very often agents, but certainly not always: none of the subjects in (32) to (35) is an agent. Verbs like *love*, *fear* and *detest* have an EXPERIENCER subject – the

One hypothesis might have been that subjects all bear the same semantic role. But we already know from Section 2.3.1 that this is not the case: different verbs require their subjects to bear different roles. So in (36a), the subject is an AGENT, in (36b) and (d), an EXPERIENCER, and in (36c), a PATIENT (apples are the ‘thing grown’).

Looking at the distribution of the phrases in bold, we might conclude that subjects precede the verb in English. This is certainly true, and as noted in Chapter 1 it is indeed one of the ways we can tell subjects in English. It is definitely not true of all languages, however, as we saw for Irish in (16c), where the verb precedes the subject. Having observed that ‘English subjects precede the verb’, you may wonder if *every* NP that precedes the verb in English is a subject. We particularly need to know the answer to this in (36d), where two NPs precede the verb. Only *she* is marked in bold, though. How do we know that *she* is the subject and not *apples*? There are two ways of testing this, and these tests give us two further properties of subjects in English.

First, subjects in English control SUBJECT/VERB AGREEMENT: verbs and auxiliaries change in form to match or ‘agree’ with particular features of the subject, such as person and number. So in (36a), the verb *buys*, third person singular, agrees with the singular subject, *this woman*, while in (36b) and (36c) we get plural auxiliaries *are/were* to match plural subjects – *all those people* and *apples*. If you aren’t quite satisfied that *apples* really is the subject in an example like (36c), perhaps because of its semantic role, note that the subject/verb agreement test proves that *apples* really is the subject: we get *apples were grown* rather than **Apples was grown* (at least in standard English). This confirms that subjects are defined by their syntactic properties, not by their semantic roles. It also shows that we must distinguish between the semantic role and the grammatical relation of an NP: remember that subjects are often agents, but not always. Turning to (36d), the verb *enjoys* is a third person singular form: it agrees with *she* (3SG) and not with *apples*, which is plural. So *she* is the subject of the verb *enjoys*.

The second test for subjecthood in English involves CASE-MARKING. Pronouns have a special form in English which is restricted to the subject position. This test is appropriate for the subject of a verb (or auxiliary) that is FINITE, such as *loves* (present tense) or *tasted* (past tense). We’ll explore the verbal property of finiteness further in Chapter 3, but for now you can consider it to be equivalent to ‘bearing tense’. The correct subject pronouns are in bold (examples are again from standard English):

- (37) a. **She**/*her loves apples.
 b. **We**/*us don’t grow that kind of apple.
 c. **They**/*them saw her/*she
 us/*we.
 d. Those apples tasted great to her/*she
 us/*we.

CASE means that the form of a noun phrase or a pronoun changes according to its grammatical relation (more details in Chapter 6). In the pronoun pairs *I/me*, *we/*

apples; Lee enjoys **all the varieties of apples that we grow in the orchard**.

A third grammatical relation is that of PREPOSITIONAL OBJECT, taken by the NPs in bold in *on the bus*, *by train*, *with three friends* and also by *her* in *to her*. The words *on*, *by*, *with* and *to* are prepositions (see Section 2.6). English subject pronouns have a special form, as we saw above, but the objects of both verbs and prepositions share the same form: for instance, words such as *her* and *us* can be the object of either a verb, like *saw*, or a preposition, like *to*.

Although the most typical function of NPs is as arguments of a verb, noun phrases can in fact also be predicates, expressing an event or a situation:

- (40) a. Zainal **guru** **saya**. (Malay)
 Zainal teacher my
 ‘Zainal is my teacher.’
 b. Marija **rebēnok**. (Russian)
 Mary child
 ‘Mary is a child.’

The NP predicates, in bold, are *guru saya* ‘my teacher’ and *rebēnok* ‘a child’. The English translations also have NP predicates: *my teacher*, *a child*. However, in English the predicate NP is linked to the subject by *is*, a form of the verb *be*. Such linking verbs are known as COPULA verbs. In the examples in (40), though, there is no copula, which is actually a common situation cross-linguistically. In fact, even in English we can omit the copula to express disbelief: *Zainal a teacher? Who would ever have believed it?* This knowledge may also help you with the subject slot in ‘__ extinct’ in (39), which also omits the copula.

We have seen so far that noun phrases most often function as participants or ARGUMENTS of verbs. They can be classified in terms of their semantic functions (agent, theme and so on) or in terms of their syntactic functions, known as grammatical relations – for instance, subject, direct object, and prepositional object. We return to grammatical relations in Chapter 6.

2.3.3 Nouns and their grammatical categories

2.3.3.1 Number

Many languages mark nouns and noun phrases according to whether they are singular or plural. Typical examples are shown from an Austronesian language, Saliba, which like English has plural suffixes on nouns:

- (41) a. natu-gu b. natu-gu-**wao** (Saliba)
 child-my child-my-PLURAL
 ‘my child’ ‘my children’
 c. natu-m d. natu-m-**wao**
 child-your child-your-PLURAL
 ‘your child’ ‘your children’

Note though that only human nouns are marked for number in Saliba; number must be inferred from the context when discussing animals and inanimate objects.

Not all languages use plural nouns after numerals:

- (42) a. ci / cŵn b. pedwar ci c. *pedwar cŵn (Welsh)
 dog / dogs four dog four dogs
 'four dogs'

In Welsh, the noun following a numeral must be singular, as in (42b), not plural, as in (42c).

Although the basic options for number are singular or plural, some languages also make finer distinctions, as we saw in Chapter 1, using DUAL forms for two items, and even TRIAL forms for three items. It's also common to find a distinction between COUNT nouns and MASS nouns, as in English (see Section 1.1.2). Count nouns, unsurprisingly, refer to items that can be counted (e.g. *dog, pen, bean*) unlike mass (or non-count) nouns (e.g. *furniture, air, oxygen, rice, wheat*). Normally, then, we don't expect non-count nouns to occur in the plural: **three rices*. It is possible, though, to flout this convention in English; I'll leave you to think of some examples.

2.3.3.2 Gender or noun class

In many languages, nouns fall into different genders or noun classes. Typically, the classification is essentially grammatical, and may have only a loose correlation – or no correlation at all – with the semantic properties of the nouns. Gender may be marked on the noun itself. In Spanish and Italian, for instance, nouns ending in *-o* are usually masculine (Italian *il libro* 'the book') and nouns ending in *-a* are usually feminine (Italian *la casa* 'the house'); obviously, these classifications are purely grammatical. In some languages, such as German or French, nouns have gender but this is not typically marked on the noun itself; instead, the gender of a noun is marked on the articles, words for 'the' and 'a'. This is also true of the articles in the Italian examples above (*il* vs. *la*). In German, articles agree in gender with a singular noun, so the word for 'the' can be *der* (masculine nouns), *die* (feminine nouns) or *das* (neuter nouns). It is common for adjectives within the noun phrase to also agree with the noun in gender; see example (64).

If you have only met European languages up till now, you may consider it normal to have 'masculine' and 'feminine' genders. But many other languages have far more distinct genders, based very loosely on other semantic or biological categories, such as human and non-human. The Niger-Congo languages of Africa, probably the largest language phylum (= group of related languages) in the world, typically have extensive systems of noun classification. For instance, in the very large Bantu family, languages each have up to 20 genders, if the singular and plural for each noun class are included. The gender or noun class is indicated in this family by a prefix on the noun itself. Our examples are from Northern Sotho, a Bantu language of South Africa:

- (43) a. **mo**-tswadi b. **ba**-tswadi (Northern Sotho)
 CLASS 1-parent CLASS 2-parent
 ‘parent’ ‘parents’
- (44) a. **le**-oto b. **ma**-oto
 CLASS 5-foot CLASS 6-foot
 ‘foot’ ‘feet’

Here, class 1 indicates human beings, and class 2 is the plural of class 1. Class 5 (and its plural, class 6) indicates body parts, but is also used for nouns representing many other concepts, including natural phenomena, fruit and vegetables, various birds and animals, and nationalities, among other things. The meaning of a noun therefore does not correlate strictly with noun class.

2.3.3.3 Possession

Possessive constructions are often quite complex. For a start, a language may regard some types of noun as not referring to possessable things at all, including features of the natural world such as rocks or rivers. In terms of possessable nouns, it’s very common to find a division between what is known as ALIENABLE and INALIENABLE possession. Typically, nouns for body parts or for a person’s relatives are in the inalienably possessed class; these include terms for things that you can’t put aside or dispose of. Alienable possession covers other types of noun, such as possessions, animals or food. These examples are from Jarawara, a language of southern Amazonia:

- (45) a. Okomobi kaa taokana b. ami kaa jomee (Jarawara)
 Okomobi POSS gun mother POSS dog
 ‘Okomobi’s gun’ ‘mother’s dog’
- (46) a. Okomobi teme b. ami tame
 Okomobi foot.M mother foot.F
 ‘Okomobi’s foot’ ‘mother’s foot’

Alienable possession is illustrated in (45), and inalienable possession in (46). You can see that alienable possession requires the use of an extra possessive morpheme, *kaa*, whereas inalienable possession merely involves placing two nouns side-by-side. Cross-linguistically, this is expected: alienable possession typically involves additional morphology, while inalienable possession just involves the juxtaposition of the nouns.

2.3.3.4 Case

Case is a grammatical property that occurs in many languages, but by no means all, and indicates the grammatical function of an NP in a phrase or sentence. Case marks,

for example, whether a noun phrase is a subject or an object of a verb: it denotes the relationship the NP has to that verb. Not all languages have case-marking: this means they don't mark the grammatical function of an NP on that NP in any way. English has very little case morphology: we saw earlier that only pronouns have a special form when they fulfil the grammatical relation 'subject' of a finite verb. Even then, the forms *you* and *it* have no distinctive case-marking. Some languages have even less case-marking than English:

- (47) a. Saya benci dia. (Malay)
 I hate he/she
 'I hate him/her.'
- b. Dia benci saya.
 he/she hate I
 'She/he hates me.'

Note that the subject and object forms of each pronoun do not differ from each other in form, so that *saya* in Malay translates as both 'I' and 'me', and *dia* translates as *he/she* as well as *him/her* (the pronoun having no gender distinction either).

Conversely, some languages have rich case systems, such as Turkish, Finnish, Latin and the Slavonic languages (e.g. Russian and Polish). Examples from Latin are shown in (48). The 'nominative' case (NOM) indicates the grammatical relation of subject, and the 'accusative' case (ACC) indicates the grammatical relation of direct object:

- (48) a. Nauta puellam amat. (Latin)
 sailor.NOM girl.ACC loves
 'The sailor loves the girl.'
- b. Puellam nauta amat.
 girl.ACC sailor.NOM loves
 'The sailor loves the girl.'

Note how flexible the word order is in Latin: since the grammatical relation of the noun phrases is always marked on the NPs themselves, they don't have to occur in a fixed order, unlike in English. So (48a) and (48b) have the exact same meaning, no matter whether it's the subject *nauta*, 'the sailor', that's initial in the sentence, or the object *puellam*, 'the girl'.

2.3.4 Nouns, definiteness and determiners

Some languages, such as the Scandinavian languages Norwegian, Swedish and Danish, can mark definiteness morphologically – via a change in the form of the noun – as well as using a definite article, a word for 'the':

- (49) a. mus-en (Swedish)
 mouse-DEF
 'the mouse'

- b. den hungriga mus-**en**
 the hungry mouse-DEF
 ‘the hungry mouse’

The suffix *-en* marks definiteness, and can co-occur with *den* ‘the’, as in (49b).

The noun itself doesn’t have any ‘definiteness’ morphology in English. Many languages, including English, can distinguish definite from indefinite nouns by using a separate functional element – an article, such as the definite article *the* or the indefinite article *a/an*. Articles are members of a larger class of functional words known as DETERMINERS. Some of the main subclasses of English determiners are shown in (50), with the determiners themselves in bold:

- (50) a. Articles: **the** paper(s); **a** problem; **an** egg
 b. Demonstratives: **this** paper; **these** papers; **that** egg; **those** eggs
 c. *Wh*-determiners: **what** colour(s); **which** paper(s)
 d. Quantifiers: **some** milk/eggs; **each** paper; **every** boy; **all** cases;
no time; **most** eggs; **few** eggs; **much** time; **any** eggs
 e. Possessive determiners: **my** child; **her/his** child; **our** child; **Lee’s** child
 f. Pronouns: **we/us** linguists; **you** boys

The reasoning behind classifying all these items as members of an overarching category ‘determiner’ is that we can only put one of them in the single slot before a noun in English: ___N. For instance, we get *this child*, but not **this my child*, or **these which eggs*. However, the situation is actually not quite as simple as this, particularly with regards to the quantifiers (words like those in (50d), which specify quantity), because we do get phrases like *my every wish*, *some of the eggs* and so on, which have a more complex syntax.

Note also that in (50e), examples of possessive determiners include whole NPs such as *Lee’s* in *Lee’s child*, or *my cousin’s child*. These seem to fill the same position as single-word possessive determiners, and we can certainly choose only one of them in the pre-noun slot: we don’t get **This is Lee’s her child*. But if the ‘determiner’ position can be a whole phrase, it again suggests that the situation is quite complex syntactically.

Finally, it might seem strange to suggest that pronouns such as *we*, *us*, *you* should be placed in the class of determiners, along with words like *some* and *the*. But the fact that pronouns don’t co-occur with determiners (**the she*) suggests that pronouns aren’t nouns. (Proper nouns – names – can’t generally take determiners in English either, but they can in certain contexts: *The Kim Jones I know has black hair*; *I can hardly recognize the London I once loved*.) Interestingly, pronouns can often replace determiners, which suggests that they may indeed be in the same word class:

- (51) **We/us linguists** aren’t stupid. (*Compare*: These linguists ...)
 I’ll give **you boys** three hours to finish the job! (*Compare*: those boys ...)

One of the properties of such determiners (*we, us, you*) is that they can occur without a following noun:

- (52) **We** ___ aren't stupid.
I'll give **you** ___ three hours to finish the job!

You might doubt that this is a general property of determiners, since *the* and *a* can't occur alone: **The/a* ___ *could be problematic*. However, plenty of other determiners can occur without a following noun and, as (53) shows, they have just the same distribution (= are found in the same places) as a full noun phrase:

- (53) **These/those** ___ are good!
I'll give **some** ___ to Lee.
I'll give **that/this** ___ away.

For reasons like these, some linguists propose that noun phrases are really 'determiner phrases'; we return to this question in Section 4.1.8.

Determiners are paired only with nouns, and don't co-occur with other word classes. For example, we get **Their expects are unrealistic*, where *expects* is a verb – the noun *expectations* would be fine. Knowing that determiners pair up with nouns, we can use them to test for word class. So if we're unsure whether or not, say, *singing* can be a noun, we can try it with a determiner: *This singing is nice; Her singing is awful*. Since these are grammatical, we can conclude that *singing* is a noun here.

Cross-linguistically, determiners are common. They typically occur either initial in the noun phrase, as in English and Japanese, or final, rather than in the middle of the phrase. This becomes clear if the noun phrase also has an adjective: (54) is from Akan, a Kwa language spoken in Ghana:

- (54) mmea nketewa no (Akan)
women PLURAL.small the
'the small women'

There are, however, many languages without the range of determiners that we find in English. For instance, many lack definite and/or indefinite articles (e.g. Russian, Finnish and Chinese). Some languages have one and not the other; for instance, Welsh has definite articles but not indefinite. But there are other ways of distinguishing definite and indefinite nouns, as illustrated by Chinese in (55) (the small functional element glossed as ASPECT serves here to indicate a completed event):

- (55) a. Ta mai pingguo le. (Chinese)
he buy apple ASPECT
'He bought an apple.'

- b. Ta pingguo mai le.
 he apple buy ASPECT
 'He bought the apple.'

The word order in (55a) indicates an indefinite noun phrase (*an apple*), while in (55b) the word order shows the noun phrase to be definite (*the apple*).

2.4 ADJECTIVES

Adjectives indicate physical properties of nouns, including their size, shape, colour and so on. They also indicate qualities, such as 'good' or 'bad'. An interesting question is whether or not all languages have adjectives.

2.4.1 Positions and functions of adjectives

There are two basic functions which adjectives and adjective phrases (APs) fulfil, known as the ATTRIBUTIVE and the PREDICATIVE functions. Attributive adjectives directly modify a noun, and normally have a fixed position. In some languages, the adjective precedes the noun, as in English, Hungarian and Greek (the adjective is in bold):

- (56) a **piros** autó (Hungarian)
 the red car
- (57) i **omorfi** jineka (Greek)
 the beautiful woman

In other languages, such as French and Breton, attributive adjectives normally follow the noun they modify:

- (58) un den **bras** (Breton)
 a man large
 'a large man'

We saw in Section 2.3.2 that NPs can have a predicative function; see (40). Adjective phrases can also be predicates, fitting into slots such as those in (59):

- (59) a. He felt __. She is/seemed __.
 (very sad, quite hungry, amused, amusing)
- b. I find it __ to think she's an acrobat.
 (fairly hard, impossible, most distressing)

As with predicate nominals, in some languages there is no copula linking the subject (here, *Ali*) to the predicate adjective (here, *marah*):

- (60) Ali marah. (Malay)
Ali angry
'Ali is angry.'

This construction can occur in certain contexts in English too, which is why we find examples like *Cornish extinct! I don't believe it.*

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Before reading further, please look at the examples in (61). Most adjectives can occur in either the attributive or the predicative positions, but not all can. Using the appropriate terminology, describe the distribution of *awake* and of *utter*:

- (61) The man was awake / *the awake man
*The failure seems utter / an utter failure

<<<<<<<<<<<<<<<<<<<<<<<<<<<<

Awake can only be used as a predicative adjective, not an attributive one. We can confidently classify it as an adjective, because like other adjectives it can be modified by words like *quite/more/most*, as in *quite/more/most awake*. *Utter* can only be an attributive adjective, and not a predicative one. Again, it takes at least some of the typical adjectival modifiers, as in *I felt the most utter fool*. These examples show that like all the major word classes, adjectives fall into different sub-classes.

2.4.2 Adjectives and intensifiers

Just as nouns are paired with a class of functional elements – determiners – within the noun phrase, so adjectives also pair with a special set of functional words, as we saw in the previous section; see also (7) earlier in this chapter. Example (62) illustrates (in bold) some of these INTENSIFIERS (also known as DEGREE MODIFIERS) in German adjective phrases, and their English equivalents:

- (62) **sehr** schwer; **zu** voll; **ganz** sicher (German)
very heavy; **too** full; **quite** certain

Other English examples of intensifiers include *rather*, *somewhat* and *enough*, although *enough*, unlike the other intensifiers, is placed after the adjective it modifies: *full enough*. Intensifiers specify the extent or degree to which something is, say, full or heavy. Intensifiers may precede the adjective they modify, as in English (generally) and German, or follow it, as in Breton *klañv kaer*, literally 'sick very', meaning 'very sick'.

Although the ability to occur with the intensifier *very* is probably the best test for adjective status in English, *very* can only modify adjectives which are GRADABLE,

such as *heavy*, *cantankerous*, *supportive* – someone can be supportive, for instance, to a greater or lesser extent. So *very* is unlikely to occur with non-gradable adjectives such as *definitive*, *residual*, *syntactic*.

2.4.3 Adjectives and their grammatical categories

It is common, though certainly not universal, for languages to have the morphosyntactic category known as COMPARISON. In English, we represent the comparison of adjectives in two different ways. The first is morphological, via changes in the form of the adjective itself; for instance, in *straight*, *straighter*, *straightest*, the base form of the adjective *straight* takes a comparative suffix *-er* or a superlative suffix *-est*. The second method is via the addition of a functional element, *more/most*: *more honest*, *most honest*; see exercise 2 in Chapter 1 for an indication of when each strategy is used. Some languages have an extra degree of comparison that doesn't occur in English. For instance, the Celtic family has an EQUATIVE, used in the 'as <Adjective> as' construction. Where English simply uses the base form of the adjective, Welsh has an *-ed* equative suffix:

- (63) Mae 'r cwpan cyn llawn-ed â 'r botel. (Welsh)
 is the cup as full-EQUATIVE with the bottle
 'The cup is as full as the bottle.'

The other morphosyntactic category for adjectives which is widespread is AGREEMENT. Adjectives are often marked to agree with the nouns they modify. Inherent features of the noun such as gender or number are often cross-referenced on a modifying adjective, and in some languages, the case of a noun is also cross-referenced on the adjective. In French and many other European languages, adjectives agree in gender with the noun they modify, changing their form accordingly:

- (64) a. le vin blanc b. la porte blanche (French)
 the.M wine(M) white.M the.F door(F) white.F
 'the white wine' 'the white door'

The noun *vin*, 'wine', is masculine, so the attributive adjective, *blanc*, appears in its masculine form too (as does the determiner *le*). The noun *porte*, 'door', is feminine, so we find the feminine form of the adjective, *blanche* (and also the feminine determiner *la*). It should be noted, though, that many French adjectives do not have distinct masculine and feminine forms. For instance, *noir* 'black(M)' is pronounced identically to *noire* 'black(F)' – the spelling rule, which adds *-e* in the feminine, therefore does not reflect a genuinely different form.

2.4.4 Are adjectives essential?

We saw earlier that not all languages have an open class of adjectives. For instance, Dixon (2004b) reports that the Jarawara language of southern Amazonia has a closed

class of 14 adjectives, with meanings such as 'bad', 'another', 'big' and 'little', and 'young' and 'old'. Typically, if a language has only a few adjectives, their meanings are fairly predictable, covering properties such as size and quality. Foley (1991) reports that the Yimas language of New Guinea has only three clear examples of words that are unambiguously adjectives: *kpa* 'big', *yua* 'good' and *ma* 'other'; note the overlap in meanings with those mentioned from Jarawara.

How, then, do languages like these – and many others – manage without the huge, open class of adjectives familiar from European languages? What happens instead is that other major word classes, particularly nouns and verbs, take over the functions fulfilled in other languages by adjectives. We will look at two instances.

Our first examples are from Kwamera, an Austronesian language spoken in Vanuatu. Kwamera does have a class of attributive adjectives, as in *iakunóuihi óuihi nah*, literally, 'child small that', i.e. 'that small child'. But in places where many other languages have a distinct class of predicative adjectives, Kwamera uses what appear to be verbs. The evidence that they are verbs comes from their morphology, or form. Let's start by examining the morphosyntax of some typical Kwamera verbs. In (65), the verb meaning 'dislike' has the first person singular *iak-* prefix. Note that there is no free pronoun for 'I' in this example: instead, the 1SG pronominal prefix on the verb tells us the person and number of the subject. The verb in (66) has two prefixes: *r-*, which is third person singular, agreeing with the subject *Iau* (a personal name); and *am-* meaning PROGRESSIVE (i.e. the talking is still in progress).

- (65) *iak-imiki* kuri u (Kwamera)
 1SG-dislike dog this
 'I don't like this dog.'
- (66) *Iau r-am-agkiari* ihi
 Iau 3SG-PROGRESSIVE-talk still
 'Iau is still talking.'

These same verbal affixes also occur on words which we translate into English as adjectives, such as 'big' and 'small', in predicative positions:

- (67) *pukah u r-asori*
 pig this 3SG-big
 'This pig is big.'
- (68) *ianpɪn iak-am-óuihi* ihi ...
 when 1SG-PROGRESSIVE-small still
 'When I was still small ...'

Since they take the same prefixes as verbs, this is evidence that the words for 'big' and 'small' in predicative positions actually are verbs in Kwamera.

Now we turn to Yimas, a Papuan language which, as noted, has a closed class containing three true adjectives. These form a tight unit with the noun they modify, and must occur immediately before the noun, not after it nor separated from it. One of these adjectives is shown in (69):

‘Happiness does/feels on me’. This example uses the ‘adjectival’ noun *wapun*, ‘happy/happiness’:

- (73) *wapun* *kantk-n* *amayak*
 happy.V.SG with-V.SG COPULA.1SG
 ‘I’m happy.’

This literally means something along the lines of ‘Happiness is with me’, and we can see that, like other nouns in Yimas, *wapun* belongs to a specific noun class (class V in this case), and triggers agreement (on *kantkn* ‘with’), as do other nouns in the language.

In sum, it appears that many languages typically either use verbs in place of adjectives, or nouns, for example by saying something like ‘Kim has kindness’ rather than ‘Kim is kind’. Are there, then, languages without a recognizable class of adjectives at all? This is a controversial issue, but in fact, two linguists from very different grammatical traditions have argued recently that all languages do have a formal class of adjectives: Baker (2003), from a Chomskyan generative grammar perspective, and Dixon (2004a), from the broadly functionalist/typological perspective. In some languages, we would have to conclude, this may be a very small class of adjectives, as in Yimas. Whether or not adjectives are an essential word class, they are certainly widespread cross-linguistically.

2.5 ADVERBS

2.5.1 Adverbs and adjectives

In English, central members of the traditional word class of adverbs are words like *suddenly*, *slowly* and *gradually*. These central adverbs are formed from the related adjectives by an affix *-ly*, which turns adjectives like *sudden* into *suddenly*, and so on. Similarly, in French, *-ment* turns *sage* ‘wise’ into *sagement* ‘wisely’, and so on. We can’t, however, identify adverbs in English by their morphology. Numerous adjectives in English don’t take the *-ly* affix at all: *big*, *small*, *ill*, *young* and many more. Some irregular English adverbs have the same form as the adjective: *She works fast/hard* but not **She works fastly/hardly*. Just to confuse matters, there’s an entirely different adverb which does have the form *hardly*, as in *She hardly works*, but which has just the opposite meaning! Conversely, some *-ly* words are definitely adjectives, not adverbs: examples are *ungodly*, *kindly*, *ungainly*, *lonely*. We can tell that these are adjectives because they modify nouns but not verbs: *this ungodly hour*, but not **He speaks ungodly*. One of the chief functions of adverbs is to modify verbs, as in *Kim stopped suddenly*.

Traditionally, English adjectives are distinguished from adverbs because they don’t generally occur in the same syntactic environment. Adjectives modify nouns, such as *song*, as in (74); and adverbs modify adjectives, such as *sad*, (75a), other adverbs, such as *lucidly*, (75b), and verbs, such as *spoke*, (75c). Here, we follow the linguistic practice of putting the phrase in square brackets and indicating its category (NP, AP etc.) at the left edge:

- (74) [_{NP} a **strange** song]
- (75) a. a [_{AP} **strangely** sad] song
 b. She spoke [_{AdvP} **strangely** lucidly].
 c. She [_{VP} spoke **strangely**].

This set pattern of distribution is the only one possible in standard English: compare **a strangely song*, **She spoke strange lucidly*. In fact, in standard English adjectives and adverbs cannot occur in identical positions, but instead occur in what is called COMPLEMENTARY DISTRIBUTION: where one occurs, the other doesn't, but together they cover all the available positions. So, adjectives modify nouns, but adverbs modify the other lexical word classes; together, they modify all the available word classes, and their environments don't overlap. We can predict which will occur in any given syntactic environment. Because adjectives and adverbs complement each other in this way, some linguists consider them to be sub-classes of the same word class. We can regard this to be the adjective class, since this is more basic in form.

To qualify as sub-classes of a single word class, there must also be grammatical properties common to both groups. Adverbs and adjectives fulfil this requirement too. First, they share modifiers: they take the same intensifiers, as in *very/quite/most unusual(ly)*. Second, they can both occur in the *as _____ as* comparative construction: *as miserable as Kim*, *as miserably as Kim*.

Third, the comparative suffixes *-er*, *-est* occur on a few adverbs, such as *soon* (*sooner*, *soonest*) as well as on adjectives such as *red* (*redder*, *reddest*). There are some distinctions: (76) shows that, for example, the adjective *uncertain* can take a following *whether ...* sentence, whereas the related adverb can't.

- (76) He seems **uncertain** whether she's left or not.
 *He spoke **uncertainly** whether she'd left or not.

But on balance, the evidence for treating the central class of *-ly* adverbs in English as a sub-class of adjectives seems convincing.

In many languages, there is no formal distinction between adjectives and adverbs. German illustrates: in (77), *schlecht* 'bad' has the function of a predicative adjective, while in (78), it has the function typical of adverbs, modifying the verb.

- (77) Er ist **schlecht**. (German)
 he is bad
 'He is bad.'
- (78) Er singt **schlecht**.
 he sings bad
 'He sings badly.'

Finally, let's consider words like *still* (as in *I'm still waiting*), *yet*, *always*, *already* and *sometimes*. These aren't related to any adjective, and can't take any of the typical adjective/adverb modifiers: **very already*, **more sometimes*. However, since they

modify verbs (*Kim always ate fruit, She still reads that newspaper*) we can indeed consider them to be a sub-class of adverbs.

2.5.2 The adjunct function

As a word class, ‘adverb’ has traditionally been rather problematic, since it’s been used as a ragbag for any words that don’t neatly fit into the categories of nouns, verbs or adjectives. For instance, in traditional grammar, words like *today, tomorrow, yesterday* and *tonight*, as well as phrases such as *this week, next week*, would be termed ‘adverbs’. Here, we’ll see that they are actually nouns or noun phrases (NP). They can occur in all the typical NP positions, with typical NP functions: as subjects, (79a); direct objects, (79b); and as the objects of prepositions, (79c):

- (79) a. **Tomorrow/today/tonight/this week** seems fine.
 b. I planned **tomorrow/yesterday** very carefully.
 c. I’ll finish it by **tonight/tomorrow/next week**.

And they can also take the -s possessive ending, like other NPs: *today’s bike ride, tomorrow’s lectures, next week’s wedding*. But unlike adverbs, they can’t be modified by the intensifiers *very, quite* and so on: **very tonight, *quite tomorrow*. So we can conclude that *today, tomorrow* etc. are not adverbs at all, and in this respect, the traditional view is incorrect.

Why, then, have these NPs traditionally been termed ‘adverbs’? The reason is that – like adverbs – they often occur not as subjects, objects and so on, but rather as optional modifying phrases. Preposition phrases (PP) can also occur in this same context. For instance:

- (80) We’re leaving **next week/today/tomorrow** (NP).
 We’re leaving **in a week** (PP).
 We’re leaving **rather hurriedly** (AdvP).

What these elements (in bold) modifying *leaving* all have in common is not their word class, but rather, their syntactic function. All of them fulfil what is known as the ADJUNCT function in (80) – they are optional modifying phrases. Confusingly, this function is also referred to as the ADVERBIAL function, no doubt because it is adverbs that often fulfil this function. But as (80) shows, not all adjuncts are adverbs. As we will see in Chapter 3, adjuncts can also be entire modifying sentences.

2.6 PREPOSITIONS

2.6.1 Identifying prepositions in English

In English, but not in all languages, we find phrases like ***under** the floor, **towards** that conclusion, **outside** my house*, where a PREPOSITION (the word shown in bold)

has combined with a noun phrase to form a preposition phrase (PP). Perhaps the most typical role of prepositions is to mark locative and temporal information in a language – that is, information concerning location and time. In English, prepositions such as *under, over, into, on (top of), beside, towards, in (front of)* mark location, while prepositions such as *before, during, after, while, until* and *since* mark temporal information: *before the meeting, during the war, until four o'clock*. Many prepositions express either kind of meaning: *after the game, after the traffic lights; over the bridge, over the summer*. Prepositions also express the manner in which an event is carried out: *with a knife, by means of poison, in a loud voice*, and so on. There are also metaphorical uses of prepositions: compare *against the kerb* (spatial) and *against my better judgement*.

In terms of function, many PPs are optional modifiers of verbs, as in *We left [before the meeting], She sang [in a loud voice]* – the PPs are in brackets. In this grammatical function, a PP is an adjunct, as we saw in Section 2.5: an optional, modifying phrase.

Now let's start to identify the preposition class in English. Just like nouns, adjectives and adverbs in English, prepositions pair up with their own special set of modifiers: these are *straight, right, well* and *just*, and we can also add the more restricted modifier *bang*. All of these (underlined) immediately precede the prepositions (in bold) in (81):

- (81) The weight is well/just **inside** the limit.
 We were bang on target/**on** time.
 She pushed the box well/right/straight/just **under** the bed.
 Go straight/right **to** the top of the stairs!
 The library is just/right **by/beside** the town hall.

Although the ability to take these modifiers is a good test for preposition status in English, it does need to be used with caution, because some of the modifiers can occur with word classes other than prepositions (e.g. *just fine*, where *fine* is an adjective). Also, not all prepositions work with all of these modifiers, most often because their meanings are not compatible. A final note of caution is that the purely grammatical preposition *of*, as in *the top of the stairs*, cannot take a modifier either. The modifiers do, however, enable us to identify various other words as prepositions when we might otherwise not have been sure of their word class.

First, let's consider words like *afterwards* and *nearby*. As we will see, these can be classified as intransitive prepositions. So far, the prepositions we've seen were used transitively: they take an object NP. Examples are *inside the limit, on time, under the bed*, where the prepositional objects are underlined. Though most prepositions are transitive, a number can be used either transitively or intransitively, i.e. without an object; examples are *inside, over, before*, as in *That student was here before (the others)*, and *underneath*, as in *Put your case underneath (the bed)*. The prepositions *afterwards* and *nearby* differ only in that they are always intransitive:

- (82) I'll see you right/straight/just afterwards.
She lives right/just nearby.

The co-occurrence with the modifiers *right*, *straight* and *just* identify *afterwards* and *nearby* as true prepositions.

Second, consider words like *upstairs*, *overhead* and *online*. Traditionally, these would be termed 'adverbs', but using the modifiers *just* and *right* as a test for preposition status, they are shown to be prepositions:

- (83) She lives right/just upstairs/downstairs
The plane flew just/right overhead.

Third, we can re-evaluate what are traditionally termed 'verbal particles'. The term refers to the small words that go together with verbs in 'phrasal verb' expressions like *run down*, *put back*, *take over* etc. Not only do they look identical to prepositions, these 'particles' are also classified as prepositions by the *right* test. The prepositions are again in bold:

- (84) Lee ran his apartment right **down**.
Put those chocolates right **back**!

Prepositions are used widely in English, and although not all members of the word class behave in a standard way, they do share properties in common.

2.6.2 Postpositions

So far, we've considered words like *in*, *over*, *beside* in English, which are called 'prepositions'. When these prepositions are transitive, their object NP follows the P, as in *over the summer*. However, in some languages, the object NP always precedes the P, as in Japanese:

- (85) a. tookyoo **kara** (Japanese)
Tokyo from
'from Tokyo'
b. sono hito **to**
that person with
'with that person'

In Japanese, these words in bold, *kara* 'from' and *to* 'with', are not prepositions, but POSTPOSITIONS: they follow the NP which is their object. The cover term for the whole word class is ADPOSITION, meaning both prepositions and postpositions. In Chapter 4, we return to questions of word order of this kind.

2.6.3 Grammatical categories for adpositions

In most languages, there are no adpositional inflections: only the major lexical word classes noun, verb and adjective are typically associated with any morphosyntactic

categories. In other words, we don't often expect to find 'endings' (or other kinds of affix) on prepositions and postpositions. However, a minority of languages do have inflected prepositions. Well-known examples are the Celtic and the Semitic families. In the Celtic language Irish, for example, prepositions inflect to show person, number and gender:

(86)	a.	<i>le</i>	b.	<i>leis</i>	c.	<i>léithi</i>	(Irish)
		'with'		with.3SG.M		with.3SG.F	
				'with him'		'with her'	

The preposition 'with' is *le* in its citation form (the one in the dictionary, for instance) but there is a distinct form of the preposition for each person and number, and distinct genders in the third person singular forms. In Irish, these inflected forms replace the free pronominal objects of prepositions that we find in most other languages (*with him*, *with her*, etc.).

2.7 CONCLUSION

This chapter provides an overview of the distribution, function and morphosyntax of the major lexical word classes, verb, noun, adjective and adverb, as well as the adposition class. Word classes are distinguished by their morphosyntactic categories, their functions and by their patterns of distribution. 'Distribution' covers both the slots which words can appear in, and the modifying words that co-occur with them. We saw that specific functional elements (small, closed class words) often pair up with a particular lexical word class such as a noun or an adjective. To count as a distinct word class, a set of words must have some properties which distinguish them from other word classes in the language. If we don't find any such properties, then it would be unscientific to make artificial divisions in the data. It is important, then, not to expect all languages to look the same. For instance, we shouldn't think that just because, say, English and Italian have an open class of adjectives, then all languages must have one.

We have seen that grammatical information can be represented either morphologically (that is, via changes in the form of words from major classes) or, alternatively, by the use of separate 'functional' elements. Although both methods of representing grammatical information can occur within a single language, languages tend to lean towards one method or the other. Languages that have a lot of morphology represent grammatical information without needing many of the small, purely grammatical, 'functional' words. Good examples are the African Bantu languages, native American languages and, within Europe, Greek and the Slavonic family (Russian, Polish etc.), as well as non-Indo-European languages such as Finnish and Turkish. Conversely, languages with little morphology, such as Chinese, Vietnamese, Cambodian, and Malay/Indonesian, tend to need more of the small 'functional' elements to represent grammatical information.

FURTHER READING

Elementary reading on word classes in English can be found in Aarts (2008). A vastly more detailed treatment of word classes and most other aspects of English grammar can be found in Huddleston and Pullum (2002). A smaller, student's version is Huddleston and Pullum (2005). More advanced and technical readings on identifying word classes (also known as parts-of-speech) are Lyons (1966), Schachter (1985) and Emonds (1986), papers which tackle the problems from very different angles. A more advanced and technical discussion of the lexical categories verb, noun and adjective can be found in Baker (2003), a book which argues that these three word classes can be recognized universally, despite some claims to the contrary. Hurford (1994) is an indispensable guide for the beginning syntax student, providing definitions and examples of many of the concepts that I will be using throughout. See also Aarts (2008) for the concepts of 'subject' and 'object'. On grammatical categories, see particularly Anderson (1985) and Chung and Timberlake (1985). More detailed information can be found on aspect in Comrie (1976) and on tense in Comrie (1985a); see also Whaley (1997: Chapter 12). General help with describing syntax and morphosyntax for the beginning student can be found in T. Payne (1997, 2006).

EXERCISES

1. This exercise is intended to help you consolidate the notion of 'subject' in English.

Task: (i) Identify all the subjects in each of the following examples, using the tests established in Section 2.3.2. (ii) List the categories of phrases that can be subjects, apart from NP. Add any other examples you can think of. You can turn the noun phrases into pronouns where possible, in order to test for the nominative case forms, and you can change the tense of the verb or auxiliary, in order to test for subject/verb agreement. You can also try changing the person and number of the putative subjects, to see how this affects case and agreement. Some of these examples contain more than one clause (a concept discussed in Chapter 3); this means that there may be more than one subject in some examples. Pick out all you can find. (iii) Flag up any interesting issues raised by these data, or other examples you've thought of.

- (1) Next week might turn out to be fine and sunny.
- (2) Political science and engineering are the most popular subjects at the University of Northumberland.
- (3) Some days when she's working in town, Mel cycles to work.
- (4) Yesterday's news really upset me.
- (5) Given the problems posed by the mass protests, there's little hope that this government will survive.
- (6) These old black-and-white films on TV, Kim just can't bear to watch.
- (7) From Durham to Newcastle takes 15 minutes on the train.

- (8) After the storm, a flood of disgusting brown water surged through the streets.
- (9) The regeneration of run-down inner city areas sometimes leads to a great demand for housing.
- (10) The original Georgian glass in that window was shattered by the boys' football.
- (11) Where Kim's going on holiday is a big secret.
- (12) Just jealous of my vast wealth is what you are.
2. This exercise is intended to get you to think carefully about English word classes. In each of the following examples, decide on the word class of the items in bold. Consider the evidence given throughout this chapter and note any problems posed for it by the data here. Remember to include the evidence provided by the words which modify the items in bold, and try adding different modifiers to help with your diagnoses. Give as much evidence as possible for your answers, looking at the distribution, morphology (inflections) and function of the words. It will probably help to compile your own list of the relevant properties for nouns, verbs, prepositions and adjectives. There are 16 example sentences; you should use at least 10 of these in your answer.

Hints

- Examples marked with % are restricted to certain dialects of English. Of course, you may not find them grammatical if you don't speak such a dialect, but the point is that they provide evidence for how words are used in certain varieties of the language.
- Some of the words pose quite a challenge; if you can see evidence pointing in more than one direction (for instance, some word might be an adjective or might be a preposition), note this too.
- Remember that words can fall into more than one class, in different contexts. Just because something is, say, an adjective in one context doesn't necessarily mean that it is an adjective in all other contexts.

- (1) She lives just/right/really/%real **near** the shops.
- (2) You can't get any **nearer** than the **nearest** supermarket.
- (3) We're just **delighted** to hear your good news.
- (4) We walked **lengthways** across the quad/**clockwise** round the gardens.
- (5) She studies an **unwritten** language. *Compare:* *She unwrote the language.
- (6) This film is **devoid** of meaning.
- (7) It fell straight **apart** the moment I opened it.
- (8) I'm still quite **undecided**.
- (9) %We had a right **tasty** meal.
- (10) **Afterwards**, we travelled **southwards towards** the mountains.

- (11) I'm not **that bothered** about the exams.
 (12) I'm not too **conversant** with **that software**.
 (13) This proposal is well **worth considering**.
 (14) The kids ran **aboard** (the ship) as **soon** as they could.
 (15) The boat floated **downstream** and drifted **ashore**.
 (16) **Since** the war, the journalist has lived **overseas**.

3. In (1) through (6) that follow are some examples from Malay.

Task: (i) Go through them, noting as many grammatical differences between Malay and English as you can; there are around half a dozen things to spot. Pay particular attention to the pronouns – words such as 'I/me/my', 'he/him/his' in English.

- (1) Saya sayang dia.
I love he/she
'I love him/her.'
- (2) Dia sayang saya.
he/she love I
'He/she loves me.'
- (3) Kawan saya doktor.
friend I doctor
'My friend is a doctor.'
- (4) Buku ini mahal.
book this expensive
'This book is expensive.'
- (5) Buku-buku itu murah.
book-book those/the cheap
'Those/the books are cheap.'
- (6) Maria membeli sepasang kasut untuk saya.
Maria buy pair shoe for I
'Maria bought a pair of shoes for me.'

(ii) Can you say how Malay distinguishes the subject of the sentence from the object? Is this the same as English or different?

4. The following data are from the language Zina Kotoko, a Chadic language of Cameroon, and are courtesy of Anders Holmberg. Examine each sentence and note as many grammatical differences as you can between English and Zina Kotoko; you should find up to six. Describe these differences using the correct terminology.

- (1) Mafu de majakwi
tree.PL the tall.PL
'The trees are tall.'
- (2) Adam majakwa b'da.
Adam tall.SG NEG
'Adam is not tall.'
- (3) Adam kwice asu de da ghika b'da.
Adam cut meat the with knife NEG
'Adam didn't cut the meat with a knife.'

5. Examine the data that follow, from Japanese, and try to figure out the function of the particle *-no*, which I have left un glossed. In (1) through (4), the particle is seen in its central usage. First, decide what this is:

- (1) Hanako-**no** musuko
Hanako-NO son
'Hanako's son'
- (2) boku-**no** haha
I-NO mother
'my mother'
- (3) kono e-**no** namae
this painting-NO name
'the name of this painting'
- (4) Yamada-**no** kaban
Yamada-NO bag
'Yamada's bag'

In (5) through (8), the use of the particle is extended somewhat. In what way do these examples differ from the first four? How is the particle used?

- (5) kaihatu-**no** keikaku
development-NO plan
'a plan for development'
- (6) kaji-**no** gen'in
fire-NO cause
'the cause of the fire'
- (7) suugaku-**no** sensei
mathematics-NO teacher
'a mathematics teacher'
- (8) nihon-**no** hata
Japan-NO flag
'Japanese flag'

The data in this exercise are taken from Tsujimura (1996) and Iwasaki (2002).

6. The data in this exercise are from two Melanesian languages, Nakanamanga (or Nguna), and Fijian, and are taken from Lynch (1998). Both data sets illustrate the fact that verbs in these languages have different morphosyntactic properties from verbs in familiar European languages.

Task: A distinctive grammatical category is represented by a marker on some of the verbs in these two data sets. What is it, under what circumstances does it occur in each data set, and under what circumstances does it not occur? Remember that a list of abbreviations is given at the start of this book. The data you have are representative, so you have enough data to answer the question. Discuss briefly any other interesting properties of the verbs in these examples.

A. Nakanamanga (Nguna)

- (1) A ga munu.
I INTENTIONAL drink
'I'll drink.'
- (2) A ga munu-gi noai naga.
I INTENTIONAL drink-TRANS water that
'I'll drink that water.'
- (3) A ga munu-gi-a.
I INTENTIONAL drink-TRANS-it
'I'll drink it.'

B. Fijian

- (4) E bulu
he bury
'He/she/it is buried.'
- (5) E bulu-t-a na benu.
he bury-TRANS-it the rubbish
'He/she buried the rubbish.'
- (6) E moce na gone.
he sleep the child
'The child slept/is sleeping.'
- (7) E gunu yaqona o Seru.
he drink kava the Seru
'Seru is drinking kava.'
- (8) E gunu-va na yaqona o Seru.
he drink-TRANS the kava the Seru
'Seru is drinking the kava.'
- (9) E na lako mai o Jone.
he FUT go here the John
'John will come.'

- (10) E rai-ci ira.
he see-TRANS them
'He saw them.'
- (11) E davo-ra-a.
he lie-TRANS-it
'He lay on it.'
- (12) Eratou sã lako vata sara yani.
they.few ASPECT go together intensive there
'They (few) went off there together.'
- (13) E loma-ni koya.
he love-TRANS her
'He loves her.'