[2.17]

a. You hit me.	(=you hit me some time in the past)
	Or
	(=you hit me habitually)
b. You cut it.	(=you cut it some time in the past)
	Or
	(=you cut it habitually)

As the paraphrases show, the word-form *hit* belonging to the lexeme *hit* can represent either the present tense or the past tense form of the verb. In other words, there is syncretism. We have two different grammatical words *hit* [+verb, +present] and *hit* [+verb, +past] but a single word-form. The same analysis also applies to *cut*. It can represent either the present or past tense of the verb *cut*.

Syncretism is not limited to verbs. It can apply to other word classes (e.g. nouns) as well:

[2.18]

(a) The wolf killed a sheep and one deer.

(b) The wolf killed two sheep and three deer.

In these two sentences, although the word-form *sheep* belongs to the same lexeme and is unchanged in form, we know that its grammatical value is not the same. In [2.18a] it realises the word with the grammatical properties of noun and singular, but in [2.18b] it represents a plural form. Likewise, the same word-form *deer* represents a singular noun in [2.18a] and a plural noun in [2.18b].

What can we say about the word as an entity that functions as grammatical unit in the syntax of a language? As mentioned already, the (grammatical) words is normally defined as the MINIMAL FREE FORM that is used in the grammar of a language. Let us now put some flesh on this terse and somewhat cryptic statement.

By free form we mean an entity that can stand on its own and act as a free agent; it is an element whose position in a sentence is not totally dictated by other items. In order to explain what ‘freedom’ means in this context, we need to take on board two ancillary ideas: POSITIONAL MOBILIY and STALIBILITY. Although words are not the smallest grammatical units used to construct sentences (see the discussion of morphemes in the next chapter), at the level of sentence organization the rules of sentence formation treat words as unanalysable units. Often it is possible to change the order in which words appear in a sentence and still produce a well-formed sentence. Words enjoy considerable positional mobility. However, the elements inside a word do not enjoy such mobility. While syntactic rules can transport words to new places in a sentence, they cannot shift in the same way elements that are found inside words. Moving words around in the following produces grammatical sentences with basically the same meaning, but with somewhat different emphasis:

[2.19]

a. This old industrialist revisited Lancaster, fortunately.

b. Fortunately, this old industrialist revisited Lancaster.

c. Lancaster, this old industrialist revisited, fortunately.

d. Fortunately. Lancaster was revisited by this old industrialist.

Evidently, the position of words in a sentence is not rigidly fixed. They can, and often do, get moved around if the communicative needs of the speaker or writer require it. However, the interior of a word is a no-go area for syntactic rules. They are strictly barred from manipulating elements found inside a word. As far as syntax is concerned, words are invisible units that cannot be split and whose internal units are inaccessible (cf. Bauer 1988, Matthews 1991, Lyons 1968, Di Sciullo and Williams 1987).

The word as a grammatical unit shows stability (or INTERNAL COHESIONS). The order of elements inside a word is rigidly fixed. If the elements of a sentence are shifted, certain meaningful units (in this case *re-visit-ed* and *fotun-ate-ly*) all move *en bloc*, and their order always remains unchanged. The internal structure of word cannot be tampered with. We are not allowed to perform operations that would yield words like **ed-visit-re*, **ate-fortune-ly* etc. we will return to this point on p.33 below.

The definition of the word includes the term 'minimal' for a good reason. This is intended to separate words from phrases like *this old industrialist*. Like words, phrases can occur in isolation, and they can be moved from one position to another (as we have seen in [2.19]). But the expression *this old industrialist* is not a minimal form since it contains smaller forms capable of occurring independently namely, *this, old* and *industrialist*. Furthermore, the sequence *this old industrialist* does not have the kind of internal cohesion found in words. It can be interrupted by other words e.g. *this wealthy old industrialist; this very wealthy, old, benevolent industrialist*.

The assumption that the grammatical word is 'a minimum free form' works well as a rule of thumb. But it encounters difficulties when confronted by COMPUND WORD like *wheelbarrow* which contains the words *wheel* and *barrow* which can stand alone. In such cases it is clear that the word is not the smallest meaningful unit that can be used on its own. It is for this reason that the definition of the words as the unit on which purely syntactic operations can be performed is preferable. In the case of compounds this definition works. The interior of a compound is a syntactic no-go area. Syntactic rules are not allowed to apply separately to words that make up a compound. Thus, for example although nouns *wheel* and *barrow* can be modified by adjective *big* ([*big barrow*], [*big wheel*]) and although we can talk of [*big wheelbarrow*], in which case *big* modifies the entire compound, there is no possibility of saying *wheel [big barrow]*, with the adjective only modifying the second element of the compound word.

2.3

SUMMARY

In this chapter we have established that normally, the term 'word' is used ambiguously. To avoid the ambiguity, we need to distinguish between three different types of word: (i) a word-form (i.e. a particular physical manifestation of one or more lexemes in speech or writing); (ii) a vocabulary item (i.e. lexeme); and (iii) a unit of grammatical structure that has certain morphological and syntactic properties.

We will revisit the distinction between lexemes, grammatical words and word-forms mainly in Chapters 7 and 11. In Chapter 7 our main concern will be realization of words in speech and in writing. In Chapter 11 we will show that this distinction is not an artefact of the linguist's analysis. Rather, it is a distinction that is well supported by studies in the way in which we store words in the mind and retrieve them for use in communication in the real life.

In the coming chapters, in cases where the relevant sense of the term 'word' is clear from the context I will not spell out whether it is the word as a vocabulary item, grammatical word, phonological or orthographic form that is being dealt with. But where it is not clear, I will indicate the sense in which I am using this term. We are now in a position to consider in detail the internal structure of words. That is the task of the next chapter.

1. Comment on the problems you encounter determining the number of words in the following nursery rhyme. Relate your answer to the different senses in which the term ‘word’ is used.

The grand old Duke of York

He had ten thousand men.

He marched them up to the top of the hill,

Then he marched them down again.

When they were up, they were up.

And when they were down, they were down,

And when they were only half way up

They were neither up nor down.

2. Find and analysis at least three examples of advertisements that exploit the homonymy, polysemy or homophony of words.
3. Which ones of the italicized word-forms in following sentences belong to the same lexeme? What difficulties, if any, have you come across in determining whether word-forms belong to the same lexeme?
    a. She *saw* him *saw* through that plank of wood.
    b. *Bill* will pay the *bill*.
    c. I saw Farmer near your farm again this morning.
    d. Jan looked *pale* when she walked towards the *pail*.
    e. I saw Farmer near your farm again this morning.
    f. I was looking at the *book* when she *booked* the ticket.
4. Using at least two fresh examples, shows how syncretism can be used to support the distinction between word-forms and grammatical words.
5. This is the beginning of W.H.Auden’s poem ‘Musée des Beaux Arts’.

    About suffering they were never wrong.

    The Old Masters…

    These lines can be paraphrased as ‘The Old Masters were never wrong about suffering.’

    Referring to the definition of the word given in this chapter, explain why it is correct to regard *suffering* as a word but incorrect to treat *about suffering* also as a word.

Chapter 3

Close encounters of morphemic kind

3.1

THE QUEST FOR VERBAL ATOMS

We saw in the last chapter that the

We saw in the last chapter that the word is the smallest meaningful unit of language that can function independently in the grammar. A word can be used on its own, without appending it to some other unit. Thus, in the word *childish* we can isolate *child* and use it on its own because it is a word in its own right. But we cannot use *-ish* as a stand-alone unit, for *-ish* is not a word.

While recognising that words are the smallest meaningful units which function independently in the grammar, we also need to recognise that words can be decomposed into smaller units that are also meaningful. Our task in this chapter is to explore the internal structure of words in order to gain some understanding of the basic units which are used to form words.

3.2

CLOSE MORPHPLOGICAL ENCOUNTERS: ZOOMING ON MORPHEMES

Originally 'morphonology' meant the study of biological forms. But nineteenth-century students of language borrowed the term and applied it to the study of word-structure. In linguistics MORPHOLOGY is the study of the formation and internal organization of words.

Let us begin our morphological analysis by considering half a dozen words (not altogether randomly chosen):

[3.1]

Hope soon mend boil safe leaf word elephant

Obviously, all the words in [3.1] have a meaning, but lack internal structure. We cannot identify any smaller units that are themselves meaningful which occur inside them. If a Martian stopped you in a street near the local zoo and enquired what *phant* in *elephant* or *ho* in *hope* means, you would think she was asking a most bizarre question that did not merit an answer. Or you might condescendingly explain that, of course, in each case the whole word means something, but its parts cannot be said to mean anything on their own. Though somewhat puzzled, the Martian might accept your explanation.

But, being the persistent type, let us suppose she enquired further whether the words in [3.2] were also invisible into smaller meaningful units:

[3.2]

Childish hopeless sooner mended elephants re-boil unsafe ex-wife

You would have to give a different answer. You would need to tell your interrogator, who by now would be getting increasingly bewildered, that the words in [3.2] can be divided into smaller units of meaning as shown in [3.3]:

[3.3]

Child-*ish* hope-*less* soon-*er* mend-*ed* elephant-*s* *re*-boil *un*-safe *ex*-wife

The part of the word that is not italicised can function as an independent word in the grammar. Indeed, each of the nonitalisised bits, though meaningful (and their meanings can be indicated as shown in [3.4]), cannot function on their own in the grammar.

[3.4]

-ish	'having the (objectionable) qualities of'	childish= 'having the qualities of a child'
-less	'without X'	hopeless= 'without hope'
-er	'more X'	sooner= 'more soon'
-ed	'past'	mended= 'mend in the past'
-s	'plural'	elephants= 'more than one elephant'
re	'again'	reboil= 'boil again'
un	'not X'	unsafe= 'not safe'
ex	'former'	exwife= 'former wife'

What we have done to the words in [3.4] can be done to thousands of other words in English. They can be decomposed into smaller units meaning (e.g. *re-* 'again') or grammatical function (e.g. *ed-* 'past').

The term MORPHEME is used to refer to the smallest that has meaning or serves a grammatical function in a language. Morphemes are the atoms with which words are built. It is not possible to find sub-morphemic units that are themselves meaningful or have a grammatical function. Thus, given *-less* or *un-*, it would make no sense to try to assign some identifiable meaning to any part of these forms. Of course, it is possible to isolate the individual sounds /l-I-s/ or / -n/ but those sounds in themselves do not mean anything.

We have now established that words are made up of morphemes. But how do we recognise a morpheme when we see one? Our definition of the morpheme as the smallest unit of meaning (or grammatical function) will be the guiding principle. Any chunk of a word with a particular meaning will be said to represent a morpheme. That is how we proceeded in [3.3] and [3.4] above.

Morphemes tend to have a fairly stable meaning which they bring to any word in which they appear. If we take *re-* and *un-*, for example, they mean 'again' and 'not' respectively – not just in the words we have listed above, but also in thousands of other words. Usually morphemes are used again and again to form different words. Thus *re-* meaning 're-do whatever the verb means' can be attached before most verbs to yield a new word with a predictable meaning (e.g. *re-run*, *re-take*, *re-build* etc). In like manner, *un-* meaning 'not X' (where X stands for whatever the adjective means) can be attached to various adjectives (e.g. *un-real*, *un-clean*, *un-happy* etc) to yield a new word with a predictable negative meaning.

The segmentations of words into morphemes is not a trivial and arcane pastime indulged in by linguists to while away the time on a wet Bank Holiday afternoon. It is something that is important for all users of language. During your lifetime, you will probably encounter hundreds of thousands of different words. Many of these words will be new to you. For no matter how extensive your vocabulary is, you will inevitably come across words that are unfamiliar. It is impossible for anyone to know all the words that are found in English.

So, what do you do when faced with an unfamiliar word? Reach for a good dictionary? Perhaps. But this is not always feasible. Nor it is always necessary. Very often you just figure out what the strange word means during the context, together with your knowledge of the meaning of the morphemes which the word contains. You normally do this subconsciously. What we are doing here is making explicit your tacit knowledge of word-structure.

Imagine this scenario. 1992, a newspaper report on the war in Bosnian republic states that what we are witnessing is the *Lebanonisation* of Bosnia. Suppose you have not encountered the word *Lebanonisation* before. Would you understand what the writer is saying? Probably you would – without looking it up in any dictionary. How would you do it? The answer is simple. By using your knowledge of the world – in particular history (Balkanisation) – and your knowledge of current affairs (the civil war in Lebanon) plus your knowledge of the principles of word-formation you are able to work out the meaning of *Lebanonisation*.

Let us focus on principles of word-formation. You know that *-ize/-ise* is used when talking about nations to mean 'to make X', e.g. from *America* we get *Americanise*, from *Korea* we get *Koreanise*, from *Kenya* get *Kenyanise* etc. By attaching *–(an)ise* we turn a noun into a verb. So, given the noun *Lebanon* we can form the verb *Lebanonise*. Next, from the verb *Lebanonise*, we can create a new noun by adding *-ation* (which forms nouns of action).

If you know that various warlords created warring fiefdoms that destroyed Lebanese state during the civil war that raged in Lebanon in the 1970s and 1980s, you will know that Croats, Muslims and Serbs engaged in the Bosnian conflict risk doing the same to the Bosnian state in the 1990s. *Lebabonisation* is the act of 'turning a country into another Lebanon'. Thus, our knowledge of word-structure contributes to our understanding of the meaning of unfamiliar words.

We have demonstrated that words can be decomposed into morphemes. Now we are going to see that words have INTERNAL STRUCTURE. A simple way of showing this is to analyse words like *uncanny* and *unhappy*. From these words we can derive *uncannier* and *unhappier*. If you analyse *unhappier*, you will see that extracting the correct meaning 'more [not happy]' (i.e. sadder) rather than the incorrect one 'not [more happy]' (i.e. not happier) depends on the way we group together the morphemes. In the first analysis where *unhappier* is interpreted as *sadder*, the meaning 'not' conveyed by *un-* is bracketed together with *happy* [unhappy] as one unit and this is intensified by the *-er* suffix. In the alternative second analysis, *happy* and *-er* are bracketed together as a unit [happier] (i.e. more happy) which then is negated by [un-] to give 'not more happy', which is incorrect. When someone is *unhappier*, it does not mean they are simply less happy, it means rather that they are not happy at all. They are sad. This shows that morphemes in a word with several morphemes may be grouped together in different ways for semantic purposes. The way in which this is done has semantic consequences. Conceivably, morphemes could be thrown together higgledy-piggledy to form a word. So long as you had the right morphemes, a well-formed word would pop out. But that is definitely not the case. Words have internal structural groupings, as we have seen.

Furthermore, the sequencing of morphemes in a word may be subject to restrictions. Take a word like *ungovernability* which contains four morphemes, namely *un-*, *govern*, *abil*, *ity*. Everyone who knows this word knows that these four morphemes must appear in the order in [3.5a]. any other order is strictly forbidden:

[3.5]

a. un-govern-abil-ity

b. *govern-abil-un-ity

c. *ity-un-abil-govern

d. *abil-un-ity-govern

e. *un-govern-ity-abil etc.

Clearly, knowing a word means not just knowing the morphemes it contains, but also the rigid order in which they are allowed to appear. We will return to this point in section (4.4).

To sum up the discussion so far, words are build using morphemes. If we know how morphemes are used for form words, we do not need to be unduly flustered when we come across a strange word. Usually it is possible to work out the meaning of a strange word if it contains familiar morphemes.

3.3

MORPHEMES AND THEIR DISGUISES

The identification of morphemes is not altogether straightforward. This is because there is no simple one-to-one correspondence between morphemes and the speech sounds that represent them. In this section we will attempt to unravel the complexities of the relationship between morphemes and the actual forms (sounds of groups of sounds) by which they are manifested in speech.

3.3.1

Allomorphs: morph families

Any physical form that represents a morpheme is called a MORPH. The forms *-ish*, *-less*, *-er*, *-ed*, -s, *re-*, *un-* and *ex-* in [3.4] on p.31 are all morphs. Morphological analysis begins with the identification of morphs, i.e. forms that carry some meaning or are associated with some grammatical function. In *asparagus* there is just one morph but in all the words in [3.4] there are two.

It is important not to confuse morphs with SYLLABLES. When we talk of morphs we have in mind sounds that can be related to a particular meaning or grammatical function (e.g. plural or past tense). However, when we talk of syllables all we have in mind are chunks into which words can be divided for the purpose of pronunciation.

This is not an abstruse distinction. We are not being pedantic. It is a distinction that matters ordinary people because human languages are organised in such a way that the construction of units that are meaningful is normally in principle separate from the construction of strings that are pronounceable. Thus, for rhythmical effect, nursery rhymes often use nonsense syllables like '*Deedle, deedle*' in '*Deedle, deedle dumpling my son John*' which do not represent anything meaningful.

Alternatively, a sound representing a morpheme may not be a syllable in its own right, e.g. by itself, the *-s* which represents the plural morpheme is not syllable. The word *cats* has two morphemes, *cat* and *-s*, but it is all just one single syllable. The single syllable *cats* realises two morphemes. The converse situation, where several syllables

realise a single morpheme, is equally possible. Thus, the trisyllabic and quadrisyllabic word-forms elephant and asparagus both realise just a single morpheme.

The relationship between sounds and morphemes is intriguing. At first sight, it might look reasonable to assume that that morphemes are made up of PHONEMES. We might be tempted to think that car, the English morpheme with the meaning is made up of the phonemes /kset/. But we have several kinds of evidence showing that this is not the case.

First, if morphemes were *made up* of phonemes, a given morpheme would be uniquely associated with a given phonological representation. In reality, the same morpheme can be realised by different morphs (i.e. sounds or written forms), Morphs which realise the same morpheme are referred to as ALLOMORPHS of that morpheme.

The INDEFINITE ARTICLE is a good example of a morpheme with more than one allomorph. It is realised by the two forms *a* and *an*, The sound at the beginning of the following word determines the allomorph that is selected. If the word following the indefinite article begins with a consonant, the allomorph *a* is selected, but if it begins with a vowel the allomorph *an* is used instead:

[3.6]

a.	a dictionary	b.	an island
	a boat		an evening
	a pineapple		an opinion
	a leg		an eye
	a big (mat)		an old (mat)
	a dull (song)		an exciting (finish)

Hence the incorrectness of the sentence marked with an asterisk in [3.7]:

[3.7]

a.	I spend *an* evening with them.
	*I spent *a* evening with them.
b.	I spent *the* evening with them.

Allomorphs of the same morpheme are said to be in COMPLIMENTARY DISTRIBUTION. This means that they do not occur in identical contexts and therefore they cannot be used to distinguish meanings. In other words, it is impossible to have two otherwise identical utterances that differ in their meanings depending on the allomorph of a morpheme that is selected. So because *a* and *an* both realise the same indefinite article morpheme, it is impossible to have two sentences like those in [3.7a] above which are identical in all ways, except in the choice of *a* or *an*, but mean different things.

Complimentary distribution presupposes the more basic notion of DISTRIBUTION. Distribution is to do with establishing facts about the occurrence of allomorphs of a particular morpheme. It is concerned with establishing the contexts in which the morpheme which we are investigating occurs and the allomorphs by which it is realised in those different contexts. In other words, by distribution we mean total set of distinct linguistic contexts in which a given form appears, perhaps in different guises. For instance, the indefinite article has the distribution: *a* before consonants 9e.g. *a tree*) and *an* before vowels (e.g. *an eagle*).

As mentioned already, such functionally related forms which all represent the same morpheme in different environments are called allomorphs of that morpheme. Another way of putting it is that allomorphs are forms that are

phonologically distinguishable which, nonetheless, are not functionally distinct. In other words, although they are physically distinct morphs with different pronunciations, allomorphs do share the same function in the language.

An analogy might help to clarify this point. Let us compare allomorphs to workers who share the same job. Imagine a jobshare situation where Mrs Jones teaches maths to form 2DY on Monday afternoons, Mr Kato on Thursday mornings and Ms Smith on Tuesdays and Fridays. Obviously, these teachers are different individuals. But they all share the role of 'maths teacher' for the class and each teacher only performs that role on particular days. Likewise, all allomorphs share the same function but one allomorph cannot occupy a position that is already occupied by another allomorph of the same morpheme. To summarise, we say that allomorphs of a morpheme are in complimentary distribution. This means that they cannot substitute for each other. Hence, we cannot replace one allomorph of a morpheme by another allomorph of that morpheme and change meaning.

For our next example of allomorphs we will turn to the plural morpheme. The idea of 'more than one' is expressed by the plural morpheme using a variety of allomorphs including the following:

[3.8]

	Singular	Plural
a.	rad-ius	rad-i
	cactus	cact-i
b.	dat-um	dat-a
	strat-um	strat-a
c.	analys-is	analys-es
	ax-is	ax-es
d.	skirt	skirt's
	road	roads
	branch	branches

Going by the orthography, we can identify the allomorphs *-I*, *-a* and *-es*. The last is by far the commonest: see section (7.3).

Try and say the batch of words in [3.8d] aloud. You will observe that the pronunciation of the plural allomorph in these words is variable. It is [s] in *skirts*, [z] in *roads* and [Iz] (or for some speakers [ez]) in *branches*. What is interesting about these words is that the selection of the allomorph that represents the plural is determined by the last sound in the noun to which the plural morpheme is appended. We will return to this in more depth in section (5.2).

We have already seen that because allomorphs cannot substitute for each other, we never have two sentences with different meanings which solely differ in that one sentence allomorphs X in a slot where another sentence has allomorph Y.

Compare the two sentences in [3.9]:

[3.9]

a.	They have two cats.	b.	They have two dogs.
	[el hæv tu: kæt-s]		[el hæv tu: dg-z]
	*[el hæv tu: kæt-z]		*[el hæv tu: dg-s]

We cannot find two otherwise identical sentences which differ in meaning simply because two words *cats* is pronounced as [kæt-s] and *[kæt-z] respectively. Likewise, it is not possible to have two otherwise identical sentences with different meanings where the word *dogs* is pronounced as [dg-z] and *[dg-s]. In other words, the difference between the allomorphs [s] and [z] of the plural morpheme cannot be used to distinguish meanings.

3.3.2

Contrast

Different morphemes CONTRAST meanings but different allomorphs do not. If a different in meaning is attribute to the fact that one minimal meaningful unit has been replaced by another, we identify the morphs involved as manifestations of distinct morphemes. So, in [3.7] on p.36 the indefinite article realised by *a* or *an* is a distinct morpheme from the definite article realised by *the* since a semantic difference is detectable when *a* or *an* is replaced with the.

A further example of contrast is given in [3.10]:

[3.10]

a.	I unlocked the door. I re-locked the door.	b.	She is untidy.

The two sentences in [3.10a] mean very different things. Since they are identical expect for the fact that where one has *un-* the other has *re-*, the difference in meaning between these two sentences is due to the difference in meaning between the morphemes realised by *re-* (meaning ‘do again’) and *un-* (meaning ‘reverse the action’)

Now, contrast the *un-* of unlocked with the *un-* of *untidy*. In both cases we have the same morph *un-* (which is spelt and pronounced in exactly the same way). But it is obvious that *un-* represents different morphemes in these two word-forms. In *I unlocked the door* the morph un- found *unlocked* realises reversive morpheme which is attached to verbs – it reverses the action of locking. But in *untidy* it realises a negative morpheme attached to adjectives – untidy means ‘not tidy’. (if a person is untidy, it does not mean that at some point they were tidy and someone has reversed or undone their tidiness.)

If morphemes were made up of phonemes a simple correlation of morphs is what we would find. But, in fact, it is quite common for the same phonological form (i.e. morph) to represent more than one morpheme. It is from the context that we can tell which morpheme it represents. This is the second piece of evidence against the assumption that morphemes are composed of phonemes.

The complex relationship between morphemes and the allomorphs that represent them gives us a window through which we can glimpse one of the most fascinating aspects of language: the relationship between FORM an FUNCTION. In linguistics we explore the form of various elements of language structure, e.g. words and sentences, because it is important to know how they are constructed. However, form is not everything. We are also interested in knowing what linguistic elements are used for, what function they serve.

Just consider for a moment this non-linguistic analogy. Imagine a friend returns from a foreign vacation with two beautiful ornamental glass containers with globular shape and give one to you as a present and keeps the other for herself. She does not tell you what your present is used for. She uses hers as a vessel for containing wine at the table – she got the idea of buying these containers when she was serves wine in a similar container in a fancy restaurant. You do not know this. You look at your present and decide to put it on the table as a container for cut fresh flowers.

She calls hers a flagon, for that is what she is using it as. You call yours a vase.

Here are the questions now: are these objects ‘flagons’ or ‘vases’? which one of you is right? I am not being evasive if I say that both of you are right. For, although the two objects are identical as far as their form, their physical properties, is concerned, they are very different with regard to functions that they serve in your two households.

There are numerous linguistic parallels. What is physically the same linguistic form can be used to represent distinct morphemes. In order for forms to be regarded as allomorphs belonging to the same morpheme, it is not sufficient for them to have the same form – to be pronounced or written in the same way. They must also have the same grammatical or semantic function. The significance of this point was hinted at in the discussion of *un-* in *unlocked* and *untidy* when we showed that the same morph can represent different morphemes. It should become even more obvious when you consider the form *-er* in the following:

[3.11]

a.	think – thinker	drive – driver
	write – writer	sing – singer
	sweep – sweeper	sell – seller
b.	cook – cooker	strain – strainer
	receive – receiver	compute – computer
	propel – propeller	erase – eraser
c.	London – Londoner	north – northerner
	Iceland – Icelander	east – easterner
	New York – New Yorker	Highlands – Highlander

The same form, *-er*, represents three different and hence has to be assigned to three distinct morphemes. In [3.11a]it forms an agentive noun from a verb, with the meaning ‘someone who does X” (i.e. whatever the verb means). In [3.11b] the same *-er* forms an instrumental noun from a verb, with the meaning ‘someone used to X’ (i.e. do whatever the verb means). Finally, in [3.11c] the same *-er* form is attached to a noun referring to a place to mean ‘an inhabitant of’.

Clearly, the same form does serve different functions here. So, it realises different morphemes. This is further evidence that should quickly disabuse us of the assumption that morphemes are made up of morphs. Not only can a single morpheme have several allomorphs (as in the case of plural morpheme), the same morph (e.g. *-er*) can represent different morphemes. There is no simple one-to-one matching of morphemes with morphs.

3.4

FREEDOM AND BONDAGE

When we classify morphemes in terms of where they are allowed to appear, we find that they fall into two major groupings. Some morphemes are capable of occurring on their own as words, while other morphemes are only allowed to occur in combination with some other morpheme(s) but they cannot be used by themselves as independent words.

The morphemes that are allowed to occur on their own in sentences as words are called FREE MORPHEMES while those that must occur in the company of some other morphemes are called BOUND MORPHEMES.in [3.12] the bound morphemes are italicised.

[3.12]

Pest	pes(i)-*cide*
Modern	*post*-modern-*ist*
Child	child-*ish*
Pack	*pre*-pack-*ed*
Laugh	laugh-*ing*

The free morphemes in [3.12] can all be manipulated by syntactic rules; they can stand on their own as words. By contrast, it is impossible to use the forms *-cide*, *post-*, *-ist*, *-ish*, *pre-*, *-ed* or *-ing*, independently.

So far, all the examples of free morphemes that function as roots that we have encountered have been content words (see p.14). however, not all free morphemes are content words. Some are employed to indicate grammatical functions and logical relationship rather than to convey lexical or cognitive meaning in a sentence. Hence such words are called FUNCTION WORDS. They include words such as the following:

[3.13]

Articles:	*a/an, the*
Demonstratives:	e.g. *this, that, these* and *those*
Pronouns:	e.g. *I, you, we, they, my, your, his, hers, who* etc.
Prepositions:	e.g. *in, into, on, to, at, on* etc.
Conjunctions:	e.g. *and, or, but, because, if* etc.

In ordinary language use such words are extremely common. But on their own they would not convey a lot of information. If you received a telegram like *But it my on to the in* you might suspect that the sender either had a strange sense of humor or was not mentally sound.

3.5

SOUND SYMBOLISM: PHONAESTHEMES AND ONOMATOEIA

In the vast majority of words, the relationship between sound and meaning in arbitrary (see p.2). There is no reason why a particular sound, or group of sounds, should be used to represent a particular word, with a particular meaning. If someone asked you what [b] in *bed* or [str] in *strange* meant, you would think they were asking a very odd question. As a rule, *qua* sounds do not mean anything.

However, the general principle that says that the link between sound and meaning in words is arbitrary is occasionally dented. This happens in two sets of circumstances. First, certain individual sounds, or groups of sounds, which do not represent a specific enough meaning to be called morphs nevertheless appear to be vaguely associated with some kind of meaning. Such sounds are called PHONAESTHEMES.

As our first example of a phonaestheme, let us take the RP vowel [ ] (which is historically descended from [U], the vowel that is still used in words like *dull* and *hut* in the north of England). This phonaestheme is found in words associated with various kinds of dullness or indistinctness, e.g. *dull, thud, thunder, dusk, blunt, mud, slush, sludge,*

slump etc. Obviously, the vowel [ ] per se does not mean ‘dull’ If did, dim which contains the vowel [I] would not be virtual synonym for dull.

Many words which mean 'to talk indistinctly' contain one or more occurrences of the labial consonant [m], which is made with the lips firmly closed, preventing clear articulation. That way, the very act of pronouncing the word iconically mimics a key aspect of its meaning. You can see this if you watch yourself in a mirror saying words like *mumble, murmur, mutter, muted, grumble* etc. It is probably not an accident that these words also contain the phonaestheme | J. Similarly, the sound [mp] (spelled -ump) as in *clump, dump, bump, lump and hump* is often found at the end of words which are associated with heaviness and clumsiness although no one would wish to suggest that -ump in itself represents the ideas of heaviness and clumsiness. Interestingly, here again we have the vowel (followed by the labial consonants [mp].

Observe also that whereas [tends to have associations of heaviness or dullness, the high front vowels [i:] and [I] frequently occur as phonaesthemes in words associated with smallness, as in *wee, teeny-weeny, lean, meagre, mini, thin and little.* (The fact that big has the opposite meaning just goes to show that phonaesthemes only represent a tendency.)

Second, and more importantly, in addition to phonaesthemes, there are onomatopoeic words in which a direct association is made between the sounds of a word-form and the meaning that it represents. In cases of ONOMATOPOEIA, the sounds (*qua* sounds and not as morphs) symbolise or reflect some aspect of the meaning of the word that they represent. So, if speakers of any language want an onomatopoeic word for the noise cat makes, they will not choose a noise like bimbobam – except, perhaps, in the land of the Ning Nang Nong.

The words for sounds made by various animals e.g. *neigh. miaow, moo* etc. are the most obvious examples of onomatopoeia. But there are others such *as roar. crack, clang, bang, splash, swish, whoosh, buzz, hiss, cheep, bleep, gurgle, plop* and *plod.* In the case of onomatopoeic words, the relationship between sound and meaning is to some extent ICONIC. The sounds mimic an aspect of the meaning of the linguistic sign much in the same way that this iconic sign for a restaurant represents, more or less directly, the meaning ‘restaurant’. This is symbol is still conventional to some degree. To people who eat with chopsticks, meaning ‘restaurant’. This is symbol is still conventional to some degree. To people who eat with chopsticks, it might not be immediately obvious why this sign represents a restaurant (rather than a cutlery shop), but once it is pointed out the link can be seen quite easily.

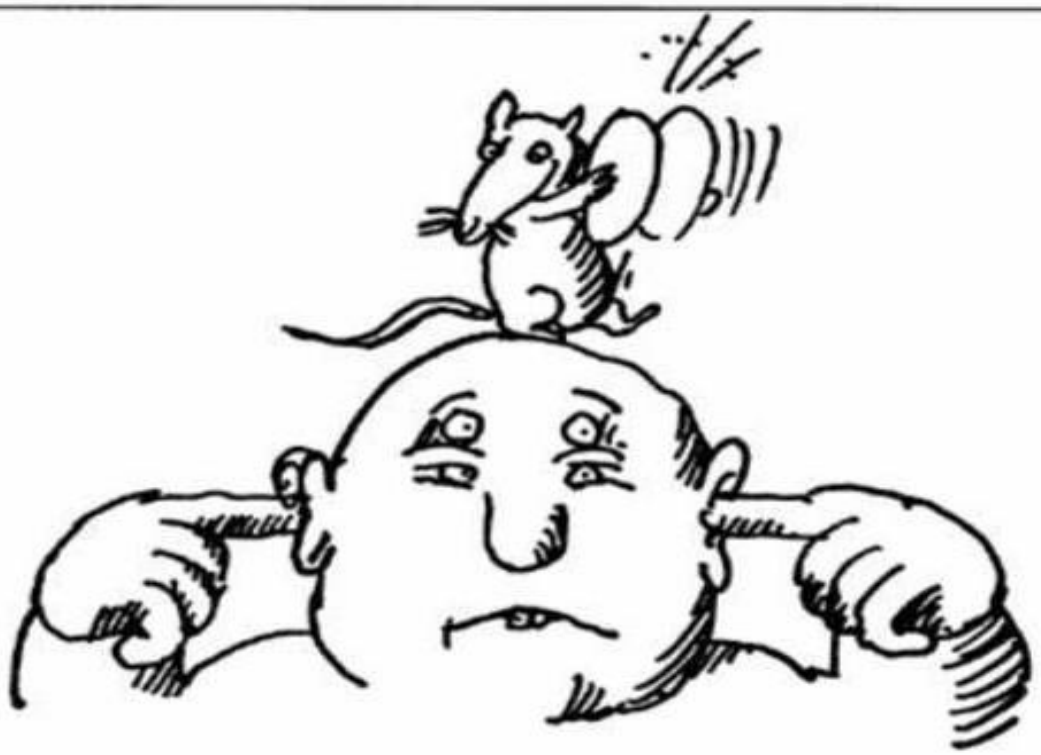
Onomatopoeic words are iconic in so far as they directly reflect some aspect of the meaning of what they stand for. So, conventionally in English cows go ‘moo’ and horses go ‘neigh’ and bees go ‘buzz’. That is why Spike Milligan's nonsense poem ‘On the Ning Nang Nong’ is bizarre.

To be onomatopoeic, the sound must imitate to some degree an aspect of the noise made by the bird or animal. But exactly what is imitated will vary from language to language. An English cock will say *cockadoodledoo*, a Russian cock *kukuriku* and in Uganda it may say *kookolilookoo*. (These differences are not attributable to dialectical variation among the males of the *Gallus domesticus* species.) Onomatopoeic words are not purely and simply formed by mimicking precisely the meanings that they convey. To some extent onomatopoeic words are also moulded by linguistic convention. That is why in different places in the world different onomatopoeic words may be used for the same animal or bird noise.

3.6

VERBAL BLUEPRINTS

Linguistic theory incorporates the hypothesis that there are universal principles of grammar that regulate the amount of variation in linguistic structure across languages. In the last section we saw the marginal role played by sound symbolism in word-formation. This does not obscure the fact that normally form words by using sounds in a



On the Ning Nang Nong

On the Ning Nang Nong
Where the cows go Bong!
And the Monkeys all say Boo!
There's a Nong Nang Ning
Where the trees go Ping!
And the tea pots Jibber Jabber Joo.
On the Nong Ning Nang
All the mice go Clang!
And you just can't catch 'em when they do!
So it's Ning Nang Nong!
Cows go Bong!
Nong Nang Ning!
Trees go Ping!
Nong Ning Nang!
The mice go Clang!
What a noisy place to belong,
Is the Ning Nang Ning Nang Nong!

SPIKE MILLIGAN

non-imaginative way. There is an overriding tendency for the relationship between sounds and meanings to be arbitrary. Normally there is no reason why a particular morpheme is realised by any particular sounds. The choice of the allomorph or allomorphs that represent a particular morpheme is arbitrary.

Obviously, as everyone knows, all languages do not have the same words. Since virtually any arbitrary match of sound and meaning can produce a word, it is not surprising that words vary greatly in their structure across languages. But this does not mean that chaos reigns. The ways in which morphs are used to form words is regulated by general principles. It is as if there is a menu of blueprints for word-formation from which all languages make their selections:

[3.14]

(i) ISOLATING (or analytic) languages

(ii) AGGLUTINATING languages

(iii) INFLECTING (or synthetic) languages

(iv) POLYSYNTHETIC languages

No language makes all its choices from just one part of the menu. To varying degrees all languages make mixed choices. The idea of this menu is to indicate the predominant word-formation tendencies, if they exist. In the subsections below we shall consider in turn examples of the different morphological types.

3.6.1

Tiny words (isolating languages)

In an archetypical isolating language the words is virtually indistinguishable from the morpheme, for every word contains just one morpheme. Every morpheme is a free morpheme. There are no bound morphemes. Vietnamese comes close to this ideal:

[3.15]

Vietnamese

a.	Tôi	á	ā	qua’	bóng	vã	hn	ã	dã	tôi
	I	kick	past	class	ball	and	he	punch	past	me

‘I kicked the ball and he punched me.’

b.	Chúng	tôi	mua	ā	g o
	Pl.	I	buy	past	rice

‘we bought the rice.’

Typically, the words are short and contain just one morpheme each, almost every concept is expressed by a separate word. Look again, for example, at the treatment of past tense in verbs (e.g. *punched, bought*) and the plurality of *we* (plural plus first person).