Pattern Grammar

A corpus-driven approach to the lexical grammar of English

Studies in Corpus Linguistics
PATTERN GRAMMAR
Studies in Corpus Linguistics

Studies in Corpus Linguistics aims to provide insights into the way a corpus can be used, the type of findings that can be obtained, the possible applications of these findings as well as the theoretical changes that corpus work can bring into linguistics and language engineering. The main concern of SCL is to present findings based on, or related to, the cumulative effect of naturally occurring language and on the interpretation of frequency and distributional data.

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Volume 4

Susan Hunston and Gill Francis

Pattern Grammar
A corpus-driven approach to the lexical grammar of English
For Sam and Vivek

and for Elliott, Laura, Matthew and Toby
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Chapter 1

A Short History of Patterns

1.1 About this book

This book is about the patterns that are associated with particular lexical items and that are observable from investigation of an electronically-stored corpus of written and spoken texts. The concept can be illustrated by this short extract from an article written by a lecturer in Philosophy on the subject of how Philosophy should be taught:

(1) [1] Philosophy is different from many other disciplines [2] in that learning about it is as much a matter of developing skills (in reasoning and argument) as it is a matter of learning a body of information. [3] In this sense there are no definitive ‘answers’ to many philosophical problems: [4] becoming a philosopher is a matter of becoming able to reason coherently and relevantly about philosophical issues. [5] Consequently, valuable contact time with lecturers is best spent actually ‘doing philosophy’, [6] and that means actively thinking and talking about it.

There are several aspects of the grammar of this extract that a linguist may wish to draw attention to. For example, clauses 3, 5 and 6 each begin with something that summarises or ‘encapsulates’ (Sinclair 1995) the preceding clause or clauses: In this sense; Consequently; that, and that the grammar of each clause is therefore heavily dependent on the organisation of meaning in the text as a whole. Alternatively, we might make the observation that many of the processes indicated by this extract — learning about philosophy, becoming a philosopher, students interacting with lecturers — are expressed in the text as nouns (the Subjects of clauses) rather than as verbs, and that the relation of the grammar to the world is therefore metaphorical rather than congruent (Halliday 1994).

The aspect of the extract that this book focuses on, however, is the interaction between the particular lexical items in it and the grammatical patterns that they form a part of. A clear example is the noun matter, which appears three times in the extract. Each time it follows the indefinite article a and is followed
by of and a clause beginning with an ‘-ing’ form: a matter of developing skills; a matter of learning a body of information; a matter of becoming able to reason coherently and relevantly about philosophical issues. It is clear that there is little point in treating matter, in the sense in which it is used here, as a single lexical item that can be slotted into a general grammar of English. Rather, the word comes, as it were, with its attendant phraseology, which in this case consists of ‘a ___ of -ing’. This phraseology is the grammar pattern belonging to the word matter.

The noun matter is far from unusual in having particular patterns or phraseologies associated with it. All words, in fact, can be described in this way. Let us take the verbs in the extract above:

[1] is different from many other disciplines
[2] is ... a matter of...
[3] are no definitive answers...
[4] is a matter of...
[5] is spent actually doing philosophy
[6] means actively thinking and talking about it

From this we may note that the verb to be is followed by a noun group (a matter of, no definitive answers) or by an adjective group (different from...); the passive verb be spent is followed by an ‘-ing’ clause; as is the verb to mean. Investigation of a corpus will tell us whether these uses are typical or not. For example, here are ten concordance lines illustrating a typical use of be spent:

of this man whose early career was spent teaching at Harvard Business
... evening many valuable minutes were spent recounting the non-story of the
... is hard to find and empty days are spent wandering the streets or riding
much of her time at the college is spent sifting through paperwork, Carolin
job properly. ‘Much of my time is spent making copious notes on what actio
... isles of border. Most of the day is spent riding along the riverbank. This
... out, son – a third of your life is spent sleeping, a third in daily
... early ancestors’ waking lives was spent chasing or being chased by various
... Much of the next 12 months will be spent celebrating or decrying the Spanis
... nd the rest of Bradford’s life was spent restoring it. He planted well over

In each case, the verb is followed by an ‘-ing’ clause, and is preceded by a noun group indicating a period of time.

A grammatical description of the verbs in this extract, then, needs to take into account their complementation patterns, that is, the kind of group or clause that may follow them, just as a description of matter needs to take into account its phraseology. The same could be said for the adjectives in the extract (different from, able to) — in fact, all words can be described in terms of their patterns. Patterns can be observed, intuitively, in a single text. This intuition is based on our previous experience of language: we know that we say a matter of learning a body of information rather than the matter of learning a body of information and
that, therefore, the article *a* is important to the pattern associated with *matter*. Intuition is not always a reliable guide, however, and it is advantageous to have a corpus to reveal what is typical patterning and what is unusual. The corpus is a concrete replacement for the rather vague ‘previous experience of language’.

Briefly, then, a pattern is a phraseology frequently associated with (a sense of) a word, particularly in terms of the prepositions, groups, and clauses that follow the word. Patterns and lexis are mutually dependent, in that each pattern occurs with a restricted set of lexical items, and each lexical item occurs with a restricted set of patterns. In addition, patterns are closely associated with meaning, firstly because in many cases different senses of words are distinguished by their typical occurrence in different patterns; and secondly because words which share a given pattern tend also to share an aspect of meaning. The purpose of this book is to describe patterns and their association with meaning in more detail, and to discuss some of the theoretical issues arising out of this approach to grammar.

Chapter 1 sets the work in context, starting with the work by Hornby on patterns and usage and the growing interest in ‘fixed phrases’ by both lexicographers and language teachers. The immediate inspirations for corpus-driven grammar — Sinclair (1991) and Francis (1993) — are then discussed. In Chapters 2 and 3 we discuss the concept of ‘pattern’ in detail, and in Chapters 4 and 5 we give several examples of the association between pattern and meaning.

The second part of the book discusses various issues that arise in relation to a pattern-based approach to grammar. Chapter 6 takes a theoretical perspective and considers the relationship between patterns and the traditional structural analysis of clauses. Another comparison between patterns and traditional grammar is found in Chapter 7, which considers the notion of ‘word class’ in the light of our work on patterns. Chapter 8 takes the work in yet another direction by applying patterns to the analysis of running text. In Chapter 9 we consider some of the implications of this work for theories of grammar and for language teaching.

1.2 Hornby: A Guide to Patterns and Usage in English

1.2.1 Introduction

The closest forerunner (in concept, though not in time) of the work to be described in this book is Hornby’s *A Guide to Patterns and Usage in English*, published in 1954. In the preface to this book, Hornby sets out his agenda: to give practical guidance to the language learner on usage rather than to expound analysis:
Analysis is helpful, but the learner is, or should be, more concerned with sentence-building. For this he needs to know the patterns of English sentences and to be told which words enter into which patterns. (Hornby 1954: v)

He points out that analogy is not an infallible guide to sentence patterns, especially with regard to verbs:

[The learner] may suppose that because he has heard and seen ‘I intend (want, propose) to come’, he may say or write ‘I suggest to come’, that because he has heard or seen ‘Please tell me the meaning’, ‘Please show me the way’, he can say or write ‘Please explain me this sentence’. (Hornby 1954: v)

Hornby’s book is not restricted to verbs, however, and he advocates learning pattern along with meaning for nouns and adjectives as well: “When [the learner] learns the meanings of the adjective anxious, he should also learn its patterns: ‘anxious about his son’s health’, ‘anxious for news’, ‘anxious (= eager) to start’.” (Hornby 1954: vi).

Although he appears to make a sharp distinction between pattern and meaning — “A knowledge of how to put words together is as important as, perhaps more important than, a knowledge of their meanings” (Hornby 1954: v) — the description of anxious quoted above implicitly links the two.

The bulk of A Guide to Patterns and Usage in English is devoted to the description of 25 verb patterns, 4 noun patterns and 3 adjective patterns, as well as sections on adverbs, ‘time and tense’, indefinite pronouns and determinatives. A long final section details the way that various concepts can be expressed. The approach to grammar detailed in the book also informed the first three editions of the Oxford Advanced Learner’s Dictionary (1948, 1963, 1974).

### 1.2.2 Verb patterns

Hornby’s radical attention to usage rather than to analysis — to encoding rather than to decoding — leads him to describe pattern rather than structure. He does distinguish between transitive and intransitive verbs, and comments on which part(s) of the pattern constitute(s) the Object, but makes no further attempt at analysis. The headings to his tables, therefore, indicate the pattern (e.g. Subject + Verb + to-infinite) rather than the elements of structure. In some cases, however, he distinguishes between examples of a single pattern that have different structures. For example, he comments with respect to He likes his coffee strong (verb followed by noun and adjective) that “[t]he combination of (pro)noun and adjective is the object of the verb” (Hornby 1954: 33). This is contrasted with Can you push the door open, which has the comment “...
adjective denotes a state or condition that results from the action indicated by the verb”. Although an analysis of this is not given, the implication is that the noun and the adjective comprise separate elements of the clause rather than a single element. Hornby’s sparse use of functional categories occasionally leads to some curious analyses. In examples of a verb followed by two noun groups, as in They made Newton President of the Royal Society, the second noun group is termed a ‘predicative adjunct’ rather than an Object Complement. However, Hornby’s stated aim is to describe usage, not to enter into the complexities of analysis: our discussion in Chapter 6 indicates our reasons for sympathising with this aim.

Hornby’s descriptions of patterns are not entirely based on surface realisation, however. Possible transformations also play a role. For example, we have seen above how he deals with the pattern ‘verb+noun+adjective’. In that pattern, however, he considers only those examples where the alternative ‘verb+noun+to-be+adjective’ (as in Most people suppose him (to be) innocent) is not possible. Another pattern (Verb Pattern 4, Hornby 1954: 22–25) deals with examples such as They proved him wrong (verb+noun+adjective) and I have always found Smith to be friendly (verb+noun+to-be+adjective), as well as They knew the man to have been a spy (verb+noun+to-be+noun). The same pattern accounts for examples such as We all consider it wrong to cheat in examinations, which could be considered a transformation of We all consider [the act of] cheating in examinations to be wrong. Arguably, Hornby groups together these particular patterns because he identifies a common meaning in the verbs with these patterns (verbs such as believe, consider, declare, feel, find, guess, know, judge, prove, suppose and think) and wishes to deal with them together.

As noted above, Hornby advocates that learners be told “which words enter into which patterns”, and he attempts to do that by giving lists of the most common verbs used in each pattern. For example, for Verb Pattern 3 (verb followed by a noun and a to-infinitive, as in We can’t allow them to do that and They warned me not to be late) he provides the following list:

advise, allow, ask, (can’t) bear, beg, cause, challenge, choose, command, compel, dare (=challenge), decide, determine, encourage, entreat, expect, force, get, give (someone to understand…), hate, help, implore, instruct, intend, invite, lead (=cause), leave, like, love, mean (=intend), oblige, order, permit, persuade, prefer, prepare, press (=urge), promise, remind, request, teach, tell, tempt, trouble, urge, want, warn, wish (Hornby 1954: 21).

Using a corpus of course allows such a list to be made much more comprehensive (Francis et al. 1996 lists no fewer than 219 verbs and phrasal verbs with this pattern). However, it is more pertinent to note Hornby’s concern with meaning
and pattern in this list, shown by his indication that some of the verbs in it occur with this pattern only when they have a particular meaning. In some cases, this concern is made more central. Verb Pattern 5, for instance (verb followed by noun and bare infinitive) is divided into verbs of perception (*feel, hear, listen to, look at, notice, observe, perceive, see, watch*) and others indicating permission, obligation and awareness: (*bid, help, know, let, make*).

The main omission in Hornby’s work is that he does not deal with the large numbers of verbs that are associated with particular prepositions (although the item-by-item coding in the *Oxford Advanced Learner’s Dictionary* does show the prepositions used with each verb). Instead of dealing with the prepositions separately, he puts them all together in Verb Pattern 18 (*We congratulated him on his success; They accused her of taking the money; What prevented you from coming earlier; I must remind him about it; Compare the copy with the original*) and Verb Pattern 24 (*You can rely upon that man; He succeeded in solving the problem; They all longed for the holidays; He consented to the proposal; She complained of the heat.*) In some cases, he gives a prepositional phrase as a variant of another pattern. For example, in describing the pattern ‘verb followed by two noun groups’, as in *They elected Mr Grey chairman*, he notes that *choose* and *elect* often have *as* or *for* before the second noun group, as in *They elected Mr Grey as chairman*.

1.2.3 Noun and adjective patterns

Hornby identifies only a handful of noun and adjective patterns, as follows:

**Noun patterns**
- noun + to-infinitive e.g. *Anne’s desire to please her mother-in-law*
- noun + preposition + noun e.g. *a specialist in chest diseases; our anxiety for news*
- noun + that-clause e.g. *a hope that you would soon be well again*
- noun (+ preposition) + conjunctive + phrase or clause e.g. *the knowledge of how it should be done*

**Adjective patterns**
- adjective + to-infinitive e.g. *You were unwise to accept his offer*
- adjective + preposition + noun e.g. *Are you afraid of the dog?*
- adjective (+preposition) + clause or phrase e.g. *She was not aware that her husband earned £10 a week.*

Each of these patterns covers quite a range of examples. For instance, ‘adjective + to-infinitive’ includes patterns with introductory *it* and a prepositional phrase, such as *It’s kind of you to say so.*
Hornby explicitly relates these patterns to the similar or contrasting verb patterns. For example, he points out that another attempt to climb the mountain can be seen an analogous to They will attempt to climb the mountain, but that whereas the noun discussion is followed by a preposition such as on, its cognate verb discuss is followed by a noun without an intervening preposition. Thus, learners can be encouraged to link together patterns that show similarities, but need to be warned against making false analogies.

1.2.4 Conclusion

It would be difficult to overestimate Hornby’s achievement in A Guide to Patterns and Usage in English. The amount of detailed observation in the book is impressive, and the priority given to pattern over structure represents a radical reinterpretation of grammar from the point of view of the learner rather than the academic. It is perhaps an indication of the unusual quality of Hornby’s work that it could be superseded only when technology gave us electronic corpora that allow the details missing from Hornby’s classifications to be fleshed out.

1.3 Lexical phrases

Perhaps one reason for the comparative neglect of Hornby’s work in language description is that he deliberately blurred the distinction between lexis and grammar, whereas theories since the fifties have tended to prioritise either one or the other. Both structuralism and Chomsky’s work (largely) treated grammar as a system independent of lexis. On the other side of the coin, since the 1970s there has been an increasing emphasis, in both theoretical and applied linguistics, on lexis rather than grammar as the central principle of language. In this section we look at work in the area of lexis which has added to the perception of the phraseological nature of language.

It is by now a truism that a large amount of language encountered is not constructed from ‘basic’ structures and a lexicon, but occurs in sequences of morphemes that are more or less fixed in form. These sequences are called, variously, “lexical phrases” (Nattinger and DeCarrico 1989, 1992), “composites” (Cowie, following Mitchell in Cowie 1988), “gambits” (Keller in Cowie 1988), “routine formulae” (Coulmas in Cowie 1988), “phrasemes” (Melčuk 1988, 1995), “prefabricated routines and patterns” (Krashen 1981), “sentence stems” (Pawley and Syder 1983), “formulae” (Peters 1983), and “formulaic language” (Weinert 1995; Wray 1999). The research in this aspect of language comes from three
areas: lexicography, language teaching, and psycholinguistics. Common concerns are: the frequency and therefore importance of lexical phrases, the varying degrees to which lexical phrases are open to variation in wording, the functions of lexical phrases, and the importance of lexical phrases to a model of language that gives lexis and grammar equal priority.

1.3.1 The lexicographical perspective

Phrases of any kind pose a problem for the lexicographer in that they do not fit comfortably into the alphabetical headword list of the traditional dictionary. There is a time-honoured concern with ‘idioms’, that is, phrases which cannot be analysed or transformed according to normal syntactic rules (e.g. *He kicked the bucket* but not *They kicked the buckets* or *The bucket was kicked (by him)*), and whose meaning cannot be derived from their component parts (the meaning of *kick the bucket* cannot be derived from a knowledge of the meaning of *kick* and of *bucket*). However, as Melčuk (1995: 167) points out, idioms are only one small part of the total set of phrases which are, to some extent, ‘fixed’. Moon (1992), for example, distinguishes between three types of so-called ‘fixed expressions’:

a. ‘anomalous collocations’, which include examples such as *by and large* or *through thick and thin*, which cannot be analysed according to the normal rules governing English, in that a preposition (*by*) and an adjective (*large*) are not normally able to be coordinated, and adjectives such as *thick* and *thin* cannot normally occur as the completer of a preposition. Also included in this category are examples such as *kith and kin* in which one of the components ‘is fossilised within that particular collocation’: *kith*, for example, is found only in this phrase.

b. ‘formulae’ such as proverbs, slogans, quotations, gambits, and closed-set turns, as in *You’ve never had it so good* and *Shut your mouth*. These items are in no way anomalous with respect to the language as a whole.

c. ‘fossilised or frozen metaphors’: the ‘pure idioms’ such as *skate on thin ice* or *spill the beans*. These items are anomalous only in the sense that they cannot be manipulated grammatically, thus each part of the idiom (*skate, thin, ice, spill, beans*) is not treated by speakers as a separate lexical item, but as part of a phrase.

Melčuk (1988, 1995) proposes a complex set of what he calls ‘non-free phrases’ or ‘phrasemes’, each of which is ‘fixed’ in a particular way. According to Melčuk, a phrase is free “if and only if all its semantic and syntactic properties are completely determined by the respective properties of its constituent lexemes (and by the general rules of syntax)” (1988: 169). All other phrases are non-free.
He distinguishes between types of phraseme using formulae based on how transparent the meaning of the phrase is. In true idioms such as *shoot the breeze*, the meaning is not derivable from the constituents of the phrase; in collocations, or ‘semiphrasemes’ such as *crack a joke*, the meaning of one constituent (*joke*) is derivable from the general lexicon, but the meaning of the other constituent (*crack*) is determined by this particular collocation; in ‘quasi-phrasemes’ such as *start a family*, the meaning of the whole includes the meaning of both *start* and *family*, but includes also a further meaning: ‘have one’s first child’. In addition, he notes the existence of what he calls ‘pragmatemes’, that is, phrases which are transparent in meaning, but which are fixed in the sense that by convention one wording is consistently chosen over other possible alternatives in any given situation. He cites as an example the conventional phrase *Best before [date]*, used on food containers, which is consistently chosen in preference to, say, *To be consumed before...* or *Don’t use after...*, each of which would be roughly equivalent in meaning.

For lexicographers, then, there appear to be two main questions with respect to lexical phrases: how fixed are they? and what is their relation to the grammar and lexicon of the language? This presupposes what Melčuk, with his distinction between ‘free’ and ‘non-free’ phrases, makes explicit: that lexical phrases compose only a part of the language as a whole, leaving the rest of the language to be described in other ways. The oddness of this becomes apparent when we consider Melčuk’s category of ‘collocation’. Collocation is to be accounted for in terms of non-free phrases only when the meaning of one of the items is tied to its co-occurrence with the other item. Thus *crack a joke* is a non-free phrase but *tell a joke* and *make a joke*, presumably, are free phrases. Yet *crack*, *tell* and *make* all collocate with *joke*. Among the significant collocates of the noun *joke(s)* in the Bank of English, for example, are the following (figures show the t-score which indicates how significant this collocate is for the node-word *joke*; see p.231):

<table>
<thead>
<tr>
<th>Collocate</th>
<th>T-score</th>
</tr>
</thead>
<tbody>
<tr>
<td>telling</td>
<td>14.6</td>
</tr>
<tr>
<td>make</td>
<td>13.9</td>
</tr>
<tr>
<td>tell</td>
<td>13.6</td>
</tr>
<tr>
<td>making</td>
<td>13.1</td>
</tr>
<tr>
<td>told</td>
<td>12.2</td>
</tr>
<tr>
<td>made</td>
<td>12.1</td>
</tr>
<tr>
<td>cracking</td>
<td>10.5</td>
</tr>
<tr>
<td>cracked</td>
<td>7.9</td>
</tr>
<tr>
<td>crack</td>
<td>7.8</td>
</tr>
<tr>
<td>makes</td>
<td>7.2</td>
</tr>
</tbody>
</table>
For the speaker wishing to talk about jokes, there is a limited set of verbs available. Neither *crack, make* nor *tell* represents a free choice: all are constrained by collocation, and in each case the precise meaning of the verb is determined by that collocation.

### 1.3.2 Language teaching

The second perspective from which lexical phrases have been investigated is that of language teaching and learning. Writers in this field include Pawley and Syder (1983), Nattinger and DeCarrico (1989, 1992), and more recently, Lewis (1993) and Willis (1990).

Researchers who are interested in language teaching place importance upon lexical phrases because of their frequency and their importance to a ‘nativelike’ production of the language. Pawley and Syder (1983: 191) argue that “fluent and idiomatic control of a language rests to a considerable extent on knowledge of a body of ‘sentence stems’ which are ‘institutionalized’ or ‘lexicalized’”. The relative fixedness of the phrases, they suggest, allows speakers to concentrate on other aspects of discourse, and thus to achieve the fluency that we associate with native speakers. They define lexicalised sentence stems thus:

> A lexicalized sentence stem is a unit of clause length or longer whose grammatical form and lexical content is wholly or largely fixed; its fixed elements form a standard label for a culturally recognized concept, a term in the language (Pawley and Syder 1983: 191).

Nattinger and DeCarrico (1989: 118) offer a similar definition of what they call lexical phrases: “These phrases are patterned sequences, usually consisting of a syntactic frame that contains slots for various fillers, and run the gamut from completely fixed, unvarying phrases to phrases that are highly variable”. In a later work they add that lexical phrases are fixed in their functional application, as well as in their form (Nattinger and DeCarrico 1992: 11).

For researchers in the field of language teaching, then, lexical phrases are important because they should allow language learners to produce language that is phraseologically similar to that of native speakers and to produce language without undue hesitation or disfluency. (This assumes, of course, that learners *wish* to sound similar to native speakers: this will be discussed further in Chapter 9.) Cowie (1992: 10) comments that

> It is impossible to perform at a level acceptable to native users, in writing or speech, without controlling an appropriate range of multiword units. Moreover, the demands of creative expression in the foreign language rests, as it does for
native speakers and writers, on prior knowledge of a repertoire of such expressions.

Lexical phrases are typically said to occupy a position ‘between’ lexis and syntax. Nattinger and DeCarrico (1989: 118) assert:

multi-word lexical phenomena … exist somewhere between the traditional poles of lexicon and syntax. They are similar to lexicon in being treated as a unit, yet most of them consist of more than one word, and many of them can at the same time be derived from the regular rules of syntax, just like other sentences.

Pawley and Syder (1983: 217) suggest that they need to be described both as individual items (as lexical items) and as if they were created from rules of grammar:

If the native speaker knows certain linguistic forms in two ways, both as lexical units and as products of syntactic rules, then the grammarian is obliged to describe both kinds of knowledge; anything less would be incomplete.

We will return to the relationship between lexis and grammar in the discussion of the work of psycholinguists below.

1.3.3 Psycholinguistics

The concern of psycholinguists is how expert speakers of a language store and retrieve the language system, and how learners (of a first or second language) acquire the language. It is argued that lexical phrases play an important role in both processes, though there is substantial disagreement about this (see Weinert 1995; Wray 1999 for comprehensive reviews). Nattinger and DeCarrico (1989: 132) speculate that second language learners may acquire phrases which then provide the evidence for the learners’ analysis of the language:

Lexical phrases may also provide the raw material itself for language acquisition… Later, on analogy with many similar phrases, they [learners] break these chunks down into sentence frames that contain slots for various fillers…

Krashen, on the other hand, suggests that the acquisition of prefabricated routines (such as *how are you*) and prefabricated patterns (such as *down with _____* or *that’s a _____*) proceeds independently of what he calls the ‘creative construction process’, and that routines and patterns do not necessarily feed into the more important creative language. He concludes that “[t]he use of routines and patterns is certainly a part of language, but it is probably not a large part” (Krashen 1981: 98) and that “[t]he available evidence indicates that routines and patterns are essentially and fundamentally different from creative language” (Krashen 1981: 99).

Peters, from the point of view of first language development, disagrees (and
see Nattinger and DeCarrico 1992: 24–29 for a review of work in this area. Contrasting her own work with that of Krashen, she proposes “that formulaic speech … is merely a facet of creative language” (Peters 1983: 4). She argues that children begin by acquiring phrases, rather than words or structure, and that these are then analysed into a system. She points out that, for the child, phrases constitute more meaningful data than words or syntactic systems:

It is not a dictionary of morphemes that the child is exposed to, but rather an intermittent stream of speech sounds containing chunks, often longer than a single word, that recur with varying frequency. It is out of this stream of unknown meaning and structure that the child must attempt to capture some pieces in order to determine their meaning and to preserve them for future use (Peters 1983: 5).

For some writers (e.g. Langacker 1987 cited in Weinert 1995) the distinction between formula and creativity is not a dichotomy but a continuum. Weinert (1995: 198) points out that this view leads to a theory of language production as comprising several distinct components, in place of the more conventional view that a single explanation may be found for it: “The view of language as a formulaic-creative continuum suggests that the units of knowledge and production may vary, including fixed formulas, mini-grammars, and general rules”.

The issue relates to language storage as well as to language acquisition. Peters argues that adult speakers of a language store the language in phrases, as well as in the form of words and syntactic rules. Becker (1975: 72, cited in Nattinger and DeCarrico 1989: 119) concurs, in a passage that is similar in essence to Francis’ suggestion for how language is encoded (see Section 1.5):

[the frequency of lexical phrases in performed speech implies] that the process of speaking is Compositional: We start with the information we wish to express or evoke, and we haul out of our phrasal lexicon some patterns that can provide the major elements of this expression. Then the problem is to stitch these phrases together into something roughly grammatical, to fill in the blanks with the particulars of the case at hand, to modify the phrases if need be, and if all else fails to generate phrases from scratch to smooth over the transitions and fill in any remaining conceptual holes.

Nattinger (1988: 75; see also Wray and Perkins 2000) refers to this approach as a more general theory of language performance:

Many theories of language performance suggest that vocabulary is stored redundantly, not only as individual morphemes, but also as parts of phrases, or even as longer memorized chunks of speech, and that it is oftentimes retrieved from memory as these preassembled chunks (Bolinger 1975).
Peters (1983: 90) concurs that ‘dual storage’, that is, having phrases available in memory as single (lexical) items, as well as the syntactic rules that allow them to be created, leads to redundancy in language knowledge. This in turn, she suggests, implies a fluidity between lexis and syntax:

…[T]here is considerable redundancy in the storage of both lexical and syntactic information. The relation between syntax and lexicon may therefore be more fluid than is usually supposed: Under some circumstances an expression may be retrieved from the lexicon as a single unit; under others it may be constructed from partially assembled pieces in the lexicon, requiring somewhat more syntactic processing; under yet other circumstances it may be constructed de novo from morphemes. Syntax and lexicon are thus seen to be complementary in a dynamic and redundant way. The same information may be present in both, in different forms…

This argument sounds somewhat similar to Sinclair’s assertion that “[t]he evidence now becoming available casts grave doubts on the wisdom of postulating separate domains of lexis and syntax” (Sinclair 1991: 104; see Section 1.4 for full discussion). It is worth pointing out, however, that the two positions are different. Peters does not disagree with the distinction between syntactic rules, which offer an abstract, very productive, system for the production of all possible sentences in a language, and the lexicon of that language. She simply argues that the speaker’s mind may store certain items both lexically (as single items) and syntactically (as the product of the operation of rules). The ‘fluidity’ she identifies refers to how the speaker encodes on different occasions, rather than to the description of the language itself. Sinclair’s position is more radical, and relates to the description of the language rather than to how speakers might encode. He argues that syntactic rules account for only a minimal part of the grammar of a language, and that the more important part is composed of the phraseological constraints upon individual lexical items. Thus, syntax is not a system independent of lexis: lexis and syntax must, ultimately, be described together.

1.3.4 *Lexical phrases and a pattern grammar*

It may seem that this discussion of lexical phrases has strayed a long way from the central concern of a pattern approach to grammar. There are two reasons for this digression. Firstly, the work on lexical phrases, much of which took place before language corpora were commonplace, in a sense prefigures Sinclair’s work on collocation and the ‘idiom principle’ (see Section 1.4). The availability of corpora allows us to identify with some certainty the frequently-occurring sequences of items that the lexicographers, language teachers, and psycholinguists
discussed in this section could identify only through intuition (see J. Willis 1997 for a discussion of the unreliability of intuition in this respect). In addition, placing the lexical item and its patterning centre-stage, as it were, breaks down the distinction which the concern for lexical phrases maintained: the distinction between what Melčuk called free and non-free phrases. The work of Sinclair and other corpus linguists suggests that all language is patterned, that there is no such thing as a free phrase, and that ultimately, the study of lexical phrases can simply be subsumed into a more general description of language.

Secondly, and more specifically, it is important to note that the grammar patterns discussed in the rest of this book are in a sense examples of lexical phrases. Although none of the writers we have discussed here mention phrases that we would call the product of grammar patterns, phrases such as *it is hard to believe that…, be interested in…, the fact that… or apologise to ____ for ___ing* surely come within the remit of lexical phrases. Writers on lexical phrases and on grammar patterns, it might be argued, seek to account for the same evidence in different ways.

It would be wrong to suppose, however, that grammar patterns are simply a special case of lexical phrases. Collections of lexical phrases are, ultimately, fairly random lists of phrases, organised either according to their relative fixedness, or to their function (discourse organising, opinion-giving and so on), or to one of their core words (see Pawley and Syder 1983 for examples of phrases with *think*). They are an attempt to account for a portion only of the lexicon. Grammar patterns, on the other hand, constitute an attempt to describe the whole of the language (or rather, all the frequently-occurring items in the language) in a principled way, and the lists of words collected in a given pattern are not random. The two approaches are far apart theoretically and in terms of language description in general.

1.4 Sinclair: Corpus Concordance Collocation

1.4.1 Corpus-driven language description

This section reviews the work of Sinclair, largely as it appears in the book *Corpus Concordance Collocation* (1991). This book is about more than it seems; from a handful of deceptively simple examples Sinclair sets out an agenda for a radical departure in the description of English.

Sinclair’s work differs from that of other linguists in that he prioritises a method, or group of methods, and a kind of data rather than a theory. This
The approach is what has come to be known as corpus linguistics: a way of investigating language by observing large amounts of naturally-occurring, electronically-stored discourse, using software which selects, sorts, matches, counts and calculates. The data that is the basis for this differs from that used with other methods of linguistic investigation in five respects:

The data is authentic;
The data is not selected on linguistic grounds;
There is a lot of data;
The data is systematically organised;
The data is not annotated in terms of existing theories.

Each of these features may be stated as a principle, and is discussed in turn below.

The data is authentic. The observation of actually-occurring language may be contrasted with introspection and intuition as ways of obtaining information about how language works. As Sinclair points out (1991: 39): “It has been fashionable among grammarians for many years now to introspect and to trust their intuitions about structure…”. He is, however, critical of the reliability of such intuition as an accurate reflection of language in use:

…the contrast exposed between the impressions of language detail noted by people, and the evidence compiled objectively from texts is huge and systematic. It leads one to suppose that human intuition about language is highly specific, and not at all a good guide to what actually happens when the same people actually use the language (Sinclair 1991: 4).

As a result of this, Sinclair (1991: 4) argues that “Their [intuition-led grammarians] study has … been more about intuition than about language” and states what has become a commonplace: to find out about the language that people actually use, one must observe the language that people actually use.

Francis and Sinclair (1994: 197) quote the identification of ergative verbs as an example of the superiority of authentic data over intuition. They argue that it is not possible to tell whether a given verb is used ergatively or not simply by consulting intuition, and they cite the verb clarify as an instance: the authors could not determine through intuition whether this was an ergative verb or not. Consultation of a corpus of authentic English solved the problem, as clarify was found being used transitively in examples such as She clarified the situation and intransitively in examples such as The situation clarified, and could thus be classified as an ergative verb.

The data is not selected on linguistic grounds. Sinclair is by no means unique in advocating a reliance on authentic language as data. Halliday and other
proponents of Systemic-Functional Grammar, for example, typically derive their 
analytical categories from instances of actually-occurring discourse. Indeed, it 
would scarcely be possible to propose a grammar as social-semiotic (Halliday 
1978) without taking as its starting-point language in actual use.

For most grammarians and other linguists, however, data is selected because 
it illustrates a particular language point. The grammarian cites observed instances 
of language in use that have caught his/her eye or ear. Sinclair (1991:100) 
comments that: “This method is likely to highlight the unusual in English and 
perhaps miss some of the regular, humdrum patterns.”

In other words, where instances of language are selected for analysis 
precisely because they strike the linguist as interesting, they are likely to 
exemplify the unusual rather than the mundane. Of course all language data is 
selected, but the texts that go into a corpus are chosen because they play a 
particular social role, rather than because they demonstrate a peculiarity of usage 
(see, for example, Renouf 1987).

There is a lot of data. Perhaps what is most striking about the data that 
Sinclair, and other corpus linguists, uses is its quantity. Even the earliest corpora 
consisted of around 1 million words of running text (Leech 1991: 10), far more 
than most linguists use as data. The corpus that Sinclair describes in *Corpus 
Concordance Collocation* consisted of just over seven million words; the current 
(1997) Bank of English corpus consists of over 300 million words. As a corpus 
gets bigger, it is possible to describe more and more accurately items of less and 
less frequency. For this reason, no corpus is really big enough, and no corpus 
could be too big (provided that other issues, such as spread of sources, are also 
taken into account; see Leech 1991). Limitations of size are imposed by storage 
considerations, and by the problems of devising software that can search, sort 
and count very large number of items quickly, but these are problems of 
hardware and software, not problems of language description.

Sinclair’s argument that ‘bigger is always better’ relies on the assertion that in 
this case quantity is also quality. He says (1991: 4): “… the ability to examine 
large text corpora in a systematic manner allows access to a quality of evidence 
that has not been available before”, and observes dryly that “[t]he language looks 
rather different when you look at a lot of it at once” (1991: 100). But why 
should quantity be quality? The difference between looking at a lot of data and 
a little, is that when a lot of data is examined, conclusions as to frequency can 
be drawn. Sinclair (1991: 4) draws attention to two observations about language 
which cannot be made without recourse to frequency information: firstly that 
some sequences of words co-occur surprisingly often, given that every utterance 
or written sentence spontaneously produced is unique; secondly, and in contrast,
that even so-called fixed expressions demonstrate surprising amounts of variability (cf. Moon 1994; 1998).

These observations are not peripheral to the serious business of grammatical description but challenge its very heart. Sinclair contradicts the ‘received wisdom’ that a small corpus is sufficient for doing grammar (an argument later propounded by Carter and McCarthy 1995: 143) by arguing that “[t]he new evidence suggests that grammatical generalizations do not rest on a rigid foundation, but are the accumulation of the patterns of hundreds of individual words and phrases” (1991: 100).

Sinclair’s choice of the word ‘generalizations’ is significant here, in that it contrasts with those approaches to grammar that expound an abstract ‘langue’ or system that in some way underlies actual instances of language use. For Sinclair, it appears, there is no system setting the parameters of what may be said or written, only a set of generalisations capturing the essence of what has been said or written. Systemic-Functional terminology might be borrowed to rephrase this: language is not a system that is realised in actual instances, but a set of actual instances that may be regarded as construing an approximate and ever-changing system. Such a construal stems from the interpretation of hundreds of observations, made possible by the sheer amount of data available.

One of the outcomes of using large quantities of data is that some of it may be discarded, in the sense that instances of word-play or language that is strange because it is being used in strange circumstances, are deliberately ignored in terms of the general description of the language (Sinclair 1991: 99), though they may form the focus of studies of a different kind (e.g. Louw 1993, 1997). This is a different approach from that of many grammars, which concentrates on what is possible, not on what is frequent. Obviously, the view of what is of minor importance changes as the corpus gets bigger, and might differ according to the perceived audience for the description, but the point about a very large corpus is that it enables the observer to see what is ‘central and typical’ (Hanks 1987) and distinguish that from the less frequent usage. Sinclair (1987: 108) distinguishes between the typical and the possible thus:

For example, it is significant if, in several hundred instances of the base form of a verb, none signal the imperative. This is not to say that in the ethereal world of theoretical, school or traditional grammar the imperative of that verb is ‘impossible’.

The data is systematically organised. Data alone is not enough, however. The greater the amount of data, the greater the need for organisation. Faced with a corpus containing hundreds of millions of words and no systematic organisation,
a researcher would be in the same position as a person walking into a library of volumes written in English to find out how the verb ‘to be’ is used. Clearly, observations about frequency, and all that follows, can only be made if the data is organised in such a way as to allow this to happen.

Although Sinclair eschews an a priori categorisation of items (see below), some decision has to be taken about how the data is to be presented to the researcher. Essentially, in the approach suggested by Sinclair, the word-form (a series of characters separated from other series by a space) is the unit. Software is designed which will search the corpus for all instances of a given word-form, and which will present those instances together with a limited amount of the preceding and following text (concordance lines). Further software can sort these concordance lines so that they are arranged alphabetically, thereby encouraging the observation of pattern.

It would be naïve to suppose that this presentation of data has no effect upon the resulting observation and the theories built upon them. We should perhaps view phrases like “evidence compiled objectively” (Sinclair 1991: 4) with some caution. Put simply, a method that takes the word-form as the focal point in the presentation of data is bound to result in a theory of language that prioritises the word-form and its behaviour. This point in no way invalidates a theory of that kind: it merely makes the obvious caveat that no observation is ‘theory-free’.

The data is not annotated in terms of existing theories. An alternative to the approach outlined above is to annotate a corpus so that, instead of searching for a particular word-form, the software searches for a particular category: passives, or to-infinitive clauses, or complements, or adverbs of manner, for example. The development of such software reflects a position vis-à-vis corpus studies that McEnery and Wilson (1996: 56) call ‘problem-oriented’: researchers seek to find a corpus-based solution to a problem which has not arisen as an outcome of corpus research, but from language research based on other methods. Tognini-Bonelli (1996) uses the term ‘corpus-based’ to describe this kind of research, and contrasts it with the ‘corpus-driven’ research that is the focus of this book. There are numerous examples of research based on annotated corpora. For example, Biber et al. 1994 calculate the frequency of categories such as ‘that relative clause restrictive’; ‘wh relative clause restrictive’; and ‘wh relative clause non-restrictive’, work which is presumably based on an annotated corpus. By contrast, Halliday 1993b describes a way of calculating the relative frequency of positive and negative clauses in a large corpus without recourse to annotation of negativity (see also Halliday and James 1993). Kettermann (1997) uses an annotated
corpus to answer questions relating to language acquisition. Wichmann (1997) suggests a corpus annotated for prosodic features to teach aspects of prosody.

Annotation software involves several practical problems: automatic taggers and parsers have limited accuracy; if the alternative — manual annotation — is used, the size of the corpus that can be annotated is limited by the person-time available. Greenbaum et al. (1996), for example, describe a study of complement clauses which is based on the manual annotation of a 2,000 words corpus. Short et al. (1996) report on a study of speech and thought presentation based on a corpus of just under 89,000 words. One of their aims was to develop an automatic parser which would enable to processing of larger corpora, an aim which was unfulfilled at the time that their paper was written.

Conrad and Biber (2000) describe an interactive programme for labelling all the adverbials in a corpus. The software selects words and phrases which might have an adverbial function, and asks the human researcher to confirm the function and to assign a semantic label from a set of choices. McEnery and Wilson (1996: 53; see also Garside et al. 1997; Garside and Rayson 1997) describe a similar system, this time for coding anaphora, in which interactive software again assists the human analyst to make and record choices. The objective is ‘bootstrapping’, that is, the human analyst trains the computer programme to undertake more and more of the analysis itself. Whether such techniques will lead to fully automated systems remains to be seen. The important point is that for many people, corpus annotation is the basis of corpus linguistics (see, for example, Leech 1991: 20–25; Garside et al. eds. 1997).

Sinclair, however, notes the problems associated with an over-reliance on annotation. If a corpus is annotated in any way, the annotation will reflect a particular theory of grammar, and the results will naturally be cast in terms of that theory. Leech (1991: 24) comments that “…all schemes are likely to be biased in some way or another — however minor — towards a particular theoretical or descriptive position.” The main disadvantage of this bias lies in the fact that, with a detailed annotation system, the likelihood of discovering facts about the language that have not been previously hypothesised is severely curtailed. Sinclair (1987: 107) comments:

If … the objective is to observe and record behaviour and make generalisations based on the observations, a means of recording structure must be devised which depends as little as possible on a theory. The more superficial the better. Searching by word-form and sorting by the superficial similarity of one instance to another is the ‘means of recording structure’ that Sinclair advocates. The next section will examine some of the findings that emerge. First, however, it is worth
noting that the question of method — how to investigate the large amounts of data available in a corpus — is a crucial one to corpus linguistics, and one that no-one as yet is in a position to answer fully. What is more surprising, perhaps, is that the literature reveals very little in the way of methodological debate. In the sections below we will refer to dilemmas of method as and when the issue arises.

1.4.2 Sense and structure

One of the main points that is made in Corpus Concordance Collocation is that sense and what Sinclair calls ‘structure’ are associated. Sinclair uses the term ‘structure’ to indicate a lexical item and its patterns and collocations. He defines it as “any privileges of occurrence of morphemes”, whether those morphemes are lexical (as in the collocation of yield and profit), or grammatical (as in the collocation of yield and up) (1991: 104). ‘Structure’ therefore encompasses both what we refer to as ‘pattern’ and further collocational regularities.

Sinclair makes the point about sense and structure, or pattern, largely in the context of distinguishing between senses of polysemous words. If a word has several senses, and is used in several patterns, each pattern will occur more frequently with one of the senses than the others, such that the patterning of an individual example will indicate the most likely sense of the word in that example. This is demonstrated with respect to three verbs: decline, yield and set. Sinclair (1987: 109–110) summarises his argument by referring to his experience when working with compilers of the 1987 COBUILD dictionary, when compilers were asked to identify the most typical examples of a (sense of a) word and to describe their structure:

In nearly every case, a structural pattern seemed to be associated with a sense… In the vast majority of cases, the compiler, in choosing typical instances, had little doubt about the kind of syntactic pattern that would have to be featured.

and more briefly: “It seems that there is a strong tendency for sense and syntax to be associated” (Sinclair 1991: 65).

He points out, however, that the association of sense and pattern (or syntax, or structure) is not one-to-one. It is rare that a sense of a word is found only in one pattern, or that one pattern is found only with one sense of a word. Referring again to the compiling process, Sinclair (1987: 109) notes that a given pattern “was rarely if ever found in every instance [of a given sense] unless it was a marginal sense with a very few citations.” If there was a one-to-one association, ambiguity would not be possible. In fact, ambiguity is possible (many jokes, for
example, rely on it) but it is rare in normal interaction. In ordinary discourse, structure does satisfactorily distinguish sense.

Sinclair raises the inevitable question: if sense and pattern are associated, is this link a causal one, and if so, in which direction is the causality? In other words, does a pattern necessitate the selection of a particular sense of a word, or does the selection of a particular sense necessitate the use of a particular pattern? Phrasing the question in this way underlines the implausibility of either process being part of the process of composition (speaking or writing). Instead, Sinclair postulates that “the underlying unit of composition is an integrated sense-structure complex” (1991: 105) and argues that “[t]here is ultimately no distinction between form and meaning” (1991: 7). In other words, it is not patterns and words that are selected, but phrases, or phraseologies, that have both a single form and a single meaning. The outcome of this view is the idiom principle, which we discuss next.

1.4.3 The idiom principle

The observation that meanings are made in chunks of language that are more-or-less predictable, though not fixed, sequences of morphemes leads Sinclair to an articulation of the ‘idiom principle’. He states the principle thus:

The principle of idiom is that a language user has available to him or her a large number of semi-preconstructed phrases that constitute single choices, even though they might appear to be analysable into segments (Sinclair 1991: 110).

The study of fixed phrases has a fairly long tradition (see Section 1.3), but phrases are normally seen as outside the normal organising principle of language. Here, Sinclair extends the notion of phraseology to encompass a great deal more of language than it is commonly considered to encompass. At its strongest, we might say that all senses of all words exist in and are identified by the sequences of morphemes in which they typically occur. If, then, these semi-preconstructed phrases are the general rule in language rather than the exception, they are able to be incorporated into the normal organising principle of language as the idiom principle.

The idiom principle is, however, insufficient to account for all instances of language use. Sinclair (1991: 109–110) contrasts it with the ‘open-choice principle’, defined as follows:

This is a way of seeing language as the result of a very large number of complex choices. At each point where a unit is completed (a word or a phrase or a clause), a large range of choice opens up and the only restraint is grammaticalness… Virtually all grammars are constructed on the open-choice principle.
Both the idiom principle and the open-choice principle are described as ‘ways of seeing’ or of interpreting language. In other words, a language user, faced with an instance of language use, has to decide whether to interpret this as a chunk, or as a series of individual items. For example, suppose a language user hears the words *I must confess*. Using the idiom principle, the meaning of this sequence of words may be paraphrased as ‘I am going to tell you something you may find unpleasant, or something I find embarrassing’ (as in *I must confess I rather like Jeffrey Archer*). There is evidence that the sequence *I must confess* acts as a single item here, in that the various parts are not freely substituted with other words. *He must confess, or I must not confess* are not frequently found in this sense. If, on the other hand, the sequence *I must confess* is interpreted according to the open-choice principle, the meaning may be paraphrased as ‘I am under an obligation (possibly self-imposed) to admit to a wrong-doing’ (as in *The police have found my fingerprints on the gun. I must confess*). In this case, other words may be substituted (*He must confess; I must not confess; I must run away*). The point is that the hearer, on hearing *I must confess* in any circumstances, must decide which meaning is appropriate, in other words, must decide whether to take the words as constituting a phrase or not. Both interpretations are not simultaneously possible, although two hearers may activate different interpretations (Sinclair 1991: 114).

This last observation precludes what seems an attractive possibility: that any stretch of language can at any one time be interpreted according to the idiom principle and according to the open-choice principle. Such an option is not, however, open to us. Sinclair instead posits a situation in which a hearer interprets a stretch of text according to one principle and then switches to the other principle to interpret another stretch, when the first principle no longer works. He suggests that the idiom principle takes priority:

For normal texts, we can put forward the proposal that the first mode to be applied is the idiom principle, since most of the text will be interpretable by this principle. Whenever there is good reason, the interpretive process switches to the open-choice principle, and quickly back again. Lexical choices which are unexpected in their environment will presumably occasion a switch; choices which, if grammatically interpreted, would be unusual are an affirmation of the operation of the idiom principle (Sinclair 1991: 114).

It is possible to demonstrate the only-one-at-a-time relationship between the idiom and the open-choice principles with relation to the following extract from *The Hitchhiker’s Guide to the Galaxy* (Adams 1979: 92). The hero of the novel, Arthur Dent, is in a spaceship and is having difficulty following the conversation of the other characters.
Arthur blinked at the screens and felt he was missing something important. Suddenly he realized what it was.

‘Is there any tea on this spaceship?’ he asked. [emphasis added]

The verb miss has two senses that are exploited in this extract: ‘not understand’ and ‘be without’. At first reading, the phrase he was missing something important is interpreted with missing in the first of these senses, but the subsequent question Is there any tea on this spaceship? necessitates a re-interpretation of the verb missing in the second sense. An explanation of this can be offered in terms of the two principles: the reader first interprets he was missing something important according to the idiom principle, and only later re-interprets it in terms of the open-choice principle. We can see how this works if we look for instances of missing something in the Bank of English corpus.

The phrase normally means ‘not understanding’, as in Am I missing something here? or ‘not having an experience’, as in If you have never had fresh tongue, you are really missing something special. The word something is sometimes followed by an adjective, either an adjective such as obvious or important for the first of these senses or one such as wonderful or pleasant for the second. More rarely, the phrase is part of a more general phraseology, in which missing is followed by a noun group and means ‘be without’, as in these examples: your rooms are missing something extra in the way of decoration... my sister was missing a hank of hair... her jacket is missing a button... they were missing some key players... the Daimler is missing its head lamps and bumper. In these examples, the relation between the noun group realising the Subject (e.g. her jacket) and the noun group realising the Object (e.g. a button) is one of whole-part (a button is part of a jacket).

Returning to the Hitchhiker example, then, we can observe that the phrase he was missing something important is likely to be interpreted according to the idiom principle as meaning ‘there was something important he did not understand’. Only when we meet the unexpected lexical item tea do we reject that meaning and re-interpret the phrase according to the open-choice principle: ‘there was something important that he did not have’, even though Arthur and tea do not really form a whole-part relationship.

This example illustrates Sinclair’s point that the idiom principle and the open-choice principle cannot be operated simultaneously as principles of interpretation. The joke works only because, on first reading, he was missing something important has only one meaning: it is in no way ambiguous because it is interpreted only in line with the idiom principle. The subsequent re-interpretation is the linguistic equivalent of a double-take: clever grammatical punning that occurs only in comedy of this kind, and which Adams uses with particular skill.
1.4.4 Units of meaning

The idiom principle raises issues concerning units of language description. When discussing the association between sense and structure, Sinclair (1987: 110) comments that, in particular with relation to recurring phraseologies associated with common words, we find “a distribution of meaning across a number of words”. This phenomenon is particularly associated with what Sinclair (1991: 113) calls “a progressive delexicalization”. A simple example is the phrase have a bath, where the frequent verb have has lost much of its meaning, and where the meaning is spread across the whole phrase rather than being restricted to one word or another.

A more complex example discussed by Sinclair (1994) is based on the two-word combination naked eye. Below are nearly 30 randomly-selected lines from the 1997 Bank of English corpus:

dooble Cluster. Easily visible to the naked eye, these two clusters lie more mear and missing one or two with the naked eye is possible but the computer its effects cannot be seen by the naked eye. For a better understandi the base you can’t see it with the naked eye but you know it’s there anything you can see with your naked eye, probably has adequate aminoiewers that Lammtarra would win. The naked eye instantly caught the sudden arc, 30 000 times as accurate as the naked eye can see. During August, in the night sky visible to the naked eye in his book Sky Phenomena: A the star might be visible to the naked eye. The star’s true colour is and it is clearly visible to the naked eye. The next problem at the So it’s kind of a fight because the naked eye and the viewer sees things as a transformation invisible to the naked eye, and certainly unknown to it. The worms cannot be seen by the naked eye. Horses grazing the paddock the first supernova visible to the naked eye since 1604 erupted in the La Double and Multiple Stars To the naked eye, stars appear as solitary, at the top, as it appears to the naked eye and in binoculars. Through a its twisted roots visible to the naked eye as they snaked right down th they were specks too small for the naked eye. The mass that was the audie so happily and who looked to the naked eye instantly caught the sudden arc, 30 000 times as accurate as the naked eye. Vesta is the third-largest eye it is just visible to the naked eye. Vesta is the third-largest eye as they snaked right down th they were specks too small for the naked eye. The mass that was the audie so happily and who looked to the naked eye as right as rain, be about t hotoaging changes are visible to the naked eye. And even more disturbing on a level that is invisible to the naked eye. Shields. Your circle might interactions imperceptible to the naked eye. Among these interpersonal passage among them, visible to the naked eye. Time to settle down for a the new Pele’s point all the naked eye could see was a sea of accurate form of scoring than by the naked eye. It will never be possible

As Sinclair points out, and as these lines illustrate, naked eye typically appears in a context that is restricted yet not fixed. Typically, naked eye occurs at the end of a clause and is preceded by the. Furthermore, the naked eye is preceded by to, or, less frequently, with. The prepositional phrase to/with the naked eye follows a range of words related to sight, most frequently visible or a form of the verb see. Prior to that is an indication of something that might be too small to be seen. About half the instances of this typical usage are negative (as against a general
figure of 10% of all clauses being negative, see Halliday 1993b); in other words, something is described as being invisible to the naked eye. Of the positive instances, over half include modification, such as easily, actually, might be or the first.

Sinclair’s conclusion is that there is a unit of which naked eye is a part, which has a specific meaning but a range of lexical realisations. This unit does not correspond to any syntactic unit, and the variation in lexis precludes simply calling it a ‘fixed phrase’. Instead, Sinclair calls this a ‘meaning unit’. If language is to be analysed according to the idiom principle, the meaning unit would be the primary unit of analysis.

1.4.5 Frames

Many discussions of collocation, and of the idiom principle, take as their starting point lexical, as opposed to grammatical, words. Common sense suggests that phrases, or units of meaning, will be centred around items with lexical meaning. To look for collocates of of or the or be seems intuitively to be less useful, in that the information given will be too general, applicable to a word-class in general rather than to the specific lexical item (but see Sinclair 1999). Sinclair and Renouf (1991: 128), however, point out that “co-occurrences in the language most commonly occur among grammatical words”. They propose the notion of ‘collocational frameworks’; these frameworks “consist of a discontinuous sequence of two words, positioned at one word remove from each other”. They give as examples ‘a + ? + of’, ‘an + ? + of’, ‘be + ? + to’, ‘too + ? + to’, ‘for + ? + of’ ‘had + ? + of’ and ‘many + ? + of’. In each case, “the frameworks are highly selective of their collocates” (Sinclair and Renouf 1991: 130), and the framework accounts for a significant proportion of the occurrence of the collocate in the corpus used. For example, the triplet a series of is the seventh most frequent exponent of the framework ‘a + ? + of’, yet of all the words that sometimes occur in that framework, series is only the seventeenth most frequent in terms of overall frequency in the corpus. Furthermore, the triplet a series of accounts for no fewer than 57% of all the occurrences of series in the corpus. In short, series is important to the framework ‘a + ? + of’, and, conversely, that framework is important to the word.

Sinclair and Renouf pick up the point made above about the association of sense and syntax by demonstrating that the words that occur in a particular framework are not a random selection but belong to particular groupings. Nouns occurring with particular frequency in the framework ‘an + ? + of’, for example, belong to the following groups:
1. Measurement and quantifiers (e.g. army, average, inch, ounce)
2. Indicating part of something (e.g. edge, end, evening, hour, part)
3. Specification of an attribute (e.g. array, index)
4. Support for the noun following of (e.g. act, example, expression, inkling, object)
5. Indicating an activity (e.g. extension, explanation, invasion, upsurge)
6. Indicating a quality or circumstance (e.g. absence, awareness)
7. Indicating a relationship (e.g. enemy, officer)
(based on Sinclair and Renouf 1991: 136–7)

Sinclair and Renouf (1991: 143) are modest about the extent to which their concept of frameworks should be used in the description of a language, in that they claim simply a consciousness-raising agenda:

Linguists are accustomed to seeing the language as divisible into coherent units such as phrase, group or clause. The simple frameworks proposed here are intended to raise consciousness of the many different and eminently sensible ways we might develop to present and explain language patterning.

The notion of there being many different ways of describing the same phenomenon in language is both intriguing and unsettling: intriguing because it suggests a description of, say, English, which the user can access from a number of perspectives, unsettling because it implies that a description can never be complete, in that there would always be another perspective that had not been considered. More radically, perhaps, it raises the question of whom a description of English is for, and how it may be used.

Consider for example the triplet an examination of, which Sinclair and Renouf cite as an example of the framework ‘an + ? + of’. The observation that examination often (significantly often) occurs in that framework clearly does not give us complete information about the word examination. Indeed, in the current (1997) Bank of English corpus, of 7327 occurrences of examination, only 408 (less than 6%) are in the triplet an examination of, even though an is the most significant item immediately to the left of examination and of is the most significant item immediately to the right. From a total of 2031 instances of examination of, there are approximately 400 instances of another determiner being used (e.g. his/its/the examination of), another 400 instances of the triplet an examination of being interrupted by an adjective, as in a detailed examination of and a total of 704 lines of ADJECTIVE examination of, with or without a determiner. From the point of view of the word examination, then, the important information is that it is often followed by a prepositional phrase beginning with of. Less important is that the noun group of which examination is head may begin with a determiner, most usually a or an, and that it may or may not include another modifier.
For a user of language descriptions, such as a learner, the information about examination seems to be more useful than that about the framework. For the learner to gain knowledge of a pattern represented by:

(a) (something) examination (of)

where brackets indicate ‘often’ as opposed to ‘always’ seems to be the useful way forward. The establishment of frameworks themselves might be of more use to the theoretical linguist. As a description, it represents a statistical working of actual language occurrences and is perhaps the strongest demonstration to date of a description of language that is independent of traditional notions of abstract language categories. It has been shown to be particularly useful when describing relatively small, specialised corpora, where the co-occurrence of high-frequency items can give larger amounts of data than information about less frequently-occurring items (e.g. Gledhill 1996).

In a description of English in general, though, it is not yet clear to us how an analysis in terms of frameworks would fit with an analysis in terms of units of meaning, or with other measurements of collocation. What is clear, however, is that a data-driven grammar of English would need to be multi-faceted, approaching the description from many perspectives. A practical consequence might be that it would also need to be unrestricted as to length, implying an electronic resource rather than a traditional book. As it would be almost impossible for such a grammar to be comprehensive — there would always be other ways of cutting the cake — we might learn a sobering lesson about the very limited range of current grammars.

An important implication of Sinclair and Renouf’s work on frameworks lies in the area of method. Going through a corpus and making generalisations about each lexical item in turn is an extremely time-consuming business, and this possibly puts a limit on the size of corpus that can usefully be used, or on the accuracy of the observations that can be made. The advantage of Sinclair and Renouf’s method is that it is wholly automatic: the computer carries out a relatively simple matching and counting exercise and arrives at a list of frequent frameworks. The disadvantage, as we have seen, is that it omits information that cannot be found by this method. Potentially, then, we have two competing (or complementary) sets of generalisations arising from a corpus, one that depends entirely on frequency of co-occurrence and is able to be generated by computer software alone, and one that is more interpretative and demands the input of a human researcher. How these sets of generalisations might differ from each other, and the implications of such difference, are topics that have yet to be explored.
1.4.6  *Towards a lexico-grammar*

Traditional descriptions of English make a clear separation between lexis and grammar. Arguments in favour of this separation include the possibility of making a judgement of grammatical well-formedness about a clause whose lexical items are clearly nonsensical, as in *Colourless green ideas sleep furiously*, and the possibility of processing nonsense poetry, such as the *Jabberwocky*. The unity of lexis and grammar has also, however, been recognised. Halliday calls his description of English ‘lexicogrammar’, involving both lexis and grammar, and Hasan (1987/1996) discusses how lexis and grammar are related, suggesting that the end-point of bundles of system choices is not a range of lexical options but a single lexical option. In this sense, lexis represents grammatical choices at their most delicate. The disadvantage of this view is that it does not explicitly take into account the kind of phraseology that Sinclair has noted. If words have their typical phraseologies, such that words are not selected in isolation but in variable phrases, then it is unsatisfactory to propose that each lexical item is the end-point of an individual bundle of system choices. The best compromise that could be reached would be to propose that each bundle of system choices should end, not in a lexical item *per se* but in a ‘unit of meaning’. As units of meaning are, by their nature, indeterminate in extent, however, such an interpretation would involve system-choices leading to fuzzy-edged and overlapping units, at best.

Sinclair insists that the evidence of corpus-linguistics points to the falsity of the distinction between lexis and grammar. He argues that these aspects of language are separate only in those cases where the open-choice principle operates (1991: 114). If they are taken to be the central organising feature of language, then all instances of idiomaticity, collocation etc must be seen as anomalous. But if it is true that the idiom principle is all-pervading, then it would follow that most English discourse is itself anomalous. If a system of description makes it necessary for most of the data it is designed to describe to be dismissed as anomaly, there is clearly something wrong with the system of description. Sinclair (1991: 103–4) puts this argument thus:

The decoupling of lexis and syntax leads to the creation of a rubbish dump that is called ‘idiom’, ‘phraseology’, ‘collocation’, and the like. If two systems are held to vary independently of each other, then any instances of one constraining the other will be consigned to a limbo for odd features, occasional observations, usage notes, etc. But if evidence accumulates to suggest that a substantial proportion of the language description is of this mixed nature, then the original decoupling must be called into question. The evidence now becoming available casts grave doubts on the wisdom of postulating separate domains of lexis and syntax.
The starting point for the observations that lead to this conclusion is the experience of doing lexicography. Describing how compilers of the 1987 Cobuild dictionary worked, Sinclair (1987: 110) notes:

There was in practice no clear distinction between grammar and lexis, and grammatical rules merged with restrictions in particular instances, and those restrictions ranged from the obviously grammatical to the obviously lexical.

In other words, the world of the lexicographer is of necessity invaded by the grammarian. Sinclair (1991: 65) suggests that the opposite must also happen: “the traditional domain of syntax will be invaded by lexical hordes.” In practical terms, this means that the learner’s reference collection will no longer be divided into ‘dictionary’, ‘grammar’ and ‘usage book’ (Sinclair 1987: 107). The theoretical implications for the description of language have only just begun to be understood.

1.5 Francis: A corpus-driven grammar

Many of Sinclair’s ideas regarding the association of meaning and pattern are taken up and further developed by Francis (1993, 1995).

1.5.1 Meaning and pattern revisited

Francis develops further Sinclair’s observation that there is a close association between meaning and pattern, or between sense and syntax. While Sinclair concentrates on the fact that different senses of polysemous words are distinguished by differences in typical pattern use, Francis concentrates on the other side of the coin, that certain patterns ‘select’ words of particular meanings.

For example, she notes (Francis 1995) that in the pattern ‘it + link verb + adjective + clause’ (e.g. It is interesting/likely/clear/important=true that or It is useful/sensible/possible to), the only adjectives that occur fall into a limited number of meaning groups, which she lists as “modality, ability, importance, predictability, obviousness, value and appropriacy, rationality, truth”. Furthermore, each adjective co-occurs with a particular kind of clause, such as a ‘that-clause’ or a ‘to-infinitive clause’ (although some adjectives, such as possible, occur with both kinds). In addition, more precise observations can be made. The phrase it is surprising that, for example, is less frequent than its negative counterpart it is not/hardly surprising that. Phrases such as it is hard to are most typically followed by mental process verbs, as in it is hard to believe.

Francis (1993) offers another example of the same kind. Nouns which are
followed by appositive that-clauses (*argument that, decision that, fact that, problem that, sorrow that*) can again be divided into a limited number of meaning groups: illocutionary processes; language activity of some kind; mental states vis-à-vis particular issues; thought processes or their results; feelings and attitudes; and general nouns. Furthermore, examination of each noun used with such a clause reveals different sub-types within that clause (Francis 1993: 150). Some nouns are used with genuinely appositive that-clauses, as in *idea that, hypothesis that*, where the that-clause indicates what the idea or the hypothesis is. In the case of nouns that refer to feelings, such as *annoyance that, fear that*, the that-clause indicates the cause of the feeling. A few nouns, such as *hint that, reminder that*, interpret what is in the that-clause as, for example, a hint or a reminder. As with the adjective example mentioned above, further phraseological restrictions can be observed. The noun *reason*, for example, is followed by an appositive that-clause only when it is both in a prepositional phrase beginning with *for* and modified by a definite article and an adjective such as *simple*. In other words, whereas it would be true to say that *reason* may be followed by an appositive that-clause, it would be more accurate to say that *reason* often occurs in the phrase *for the simple reason that*, where *that* begins an appositive that-clause. Phrases such as *for the simple reason that* and *it is hard to believe that* represent good candidates for the ‘units of meaning’ proposed by Sinclair.

1.5.2 Lexis and grammar revisited

When discussing the limitations on adjective choice in patterns with introductory *it*, Francis (1995) argues that these limitations are not a simple necessary consequence of the nature of that-clauses and to-infinitive clauses, but that it is rather “a fact about the grammar of these adjectives (or these adjective-senses)”. In other words, the observations about the adjectives fall as much into the category of lexical description as into the category of grammatical description. Francis joins with Sinclair in proposing that lexis and grammar should not be treated as separate categories, but as a single category. She argues as follows:

> Particular syntactic structures tend to co-occur with particular lexical items, and — the other side of the coin — lexical items seem to occur in a particular range of structures. In short, syntax and lexis are co-selected, and we cannot look at either of them in isolation (Francis 1995).

She also follows Sinclair in proposing a hypothesis of how language is encoded which prioritises meaning and lexis instead of grammatical choices. Sinclair (1991: 8) argues that speakers have meanings which they want to make and that
these meanings naturally attract to themselves phraseologies which incorporate lexis and grammar:

…decisions about meaning are made initially at a very abstract level, and also in very broad and general terms. At that point there is no distinction between meaning and strategy. A new-born communicative intent passes through various stages of realization, during which decisions about expression begin to be taken. These have lexical and grammatical ramifications, and are moved towards final form through a series of default options, unless a specific effect is specified in the design.

Francis (1995) echoes this in somewhat simpler terms:

…lexis is communicatively prior to syntax. As communicators we do not proceed by selecting syntactic structures and independently choosing lexical items to slot into them. Instead, we have concepts to convey and communicative choices to make which require central lexical items, and these choices find themselves syntactic structures in which they can be said comfortably and grammatically.

1.5.3 Towards a methodology

As we saw above (Section 1.4), Sinclair’s work is based on two possibly contradictory methodologies. One involves the researcher painstakingly investigating the phraseology of one lexical item after another. The other involves the use of a computer to list the most frequently-occurring word sequences. Francis faces the same problem of whether to take the lexical item as the starting point or whether to take the patterns as the starting point. She investigates the adjective possible, for example, and notes that it occurs with an unusually wide range of patterns, each of which it shares with other adjectives. On the other hand, she investigates patterns such as the appositive that-clause, exemplified above, and lists the nouns which share that pattern.

For her study, Francis advocates “moving from environment to item and back to environment again” (Francis 1993: 146). For example, her study of the pattern (environment) ‘it + link verb + adjective + that-clause’ leads to an interest in an item, possible, and then to an investigation of the other patterns (environments) in which that adjective occurs. Similarly, she suggests that the investigation of appositive that-clauses “could profitably lead to an exploration of the grammar of some of the more frequent noun-heads, of which fact and reason, for example, promise rich findings” (Francis 1993: 155).

If a study is to be limited to the most frequent words and patterns of
English, a method which, as Francis (1993: 155) suggests, “[allows] the compiler considerable freedom of movement” is probably highly satisfactory. Once the aim is to compile a comprehensive lexical grammar of English, however, greater restrictions are needed, to ensure complete coverage. In the next section we describe how the two ‘grammar pattern’ volumes (Francis et al. 1996; Francis et al. 1998) were compiled.

1.6 COBUILD: the grammar pattern series

1.6.1 Introduction

The proposal that Francis made in her 1993 paper for a comprehensive lexical grammar of English came to partial fruition in the two-volume ‘pattern grammar’ series published by COBUILD (Francis et al. 1996, 1998). In this section we describe briefly how the research that led to that series was done.

The original methodology of the research was to examine the English language lexical item by lexical item. This research was carried out by lexicographers working on the Collins COBUILD English Dictionary (1995), who as a matter of course worked through the list of items to be included in the dictionary, and who allocated grammar coding as part of the data they collected on each item. The dictionary includes the 75,000 most frequent words and phrases found in the Bank of English corpus.

As Sinclair notes (1987: 114), the compilation of a word-by-word grammar database allows exploitation along many lines. The two volumes in the grammar patterns series took the dictionary codings as the starting point, supplementing that information where necessary with further investigation of particular patterns. Using Francis’ (1993) terminology, then, the methodology was in most cases to move from the item (the lexical item being investigated for the dictionary entry) to the environment (the pattern), and where necessary to supplement this with movement from the environment to the item. The aim was to produce lists of items that have each pattern, each list being as complete as the sample of English consulted (the 300 million word Bank of English corpus) would allow.

1.6.2 Grammar in the Collins COBUILD English Dictionary

From the early days of the COBUILD project, the identification of grammar patterns was seen as an integral part of the lexicographer’s task. This was partly because of Sinclair’s (1987:106) concern that the dictionary should “give
specific help in composition”. Learners who wished to use a word, rather than simply to understand it, needed explicit instruction as to how the word is typically used (and compare Hornby’s aims, Section 1.2). In addition, however, the acknowledgement of the association of meaning and grammar, as discussed above in sections 1.4 and 1.5, meant that meaning could not in fact be explained without an indication of the patterns of use of each word sense. Hanks (1987) explains how the COBUILD definitions (or ‘explanations’) and examples themselves provide an indication of these patterns of use. The grammar codings give more explicit information.

The principles behind the design of the grammar codes have been described in Clear et al. (1996). The codes are a radical departure from those traditionally used in dictionaries, even learners’ dictionaries, in that they do not employ the usual metalanguage such as ‘transitive verb’ or ‘verb + object’. Instead a string of elements is given, each element representing an actual word (usually prepositions such as for or with, but sometimes other items such as way or the) or a type of clause or group. The element that represents the word being exemplified is shown in capital letters, other elements are in lower-case letters. Actual words are shown in italics, group and clause types are shown in roman script. No plus signs are used: the sequence of elements is shown by the sequence of the codes in the string. Thus N that means ‘noun followed by a that-clause’; V for n means ‘verb followed by for and a noun group i.e. a prepositional phrase beginning with for’; ADV adj means ‘adverb occurring before an adjective’; and v-link ADJ means ‘adjective following a link verb’. (Several examples of patterns are given in Chapter 2.)

The rationale behind this coding is that it fulfills three requirements. It is
designed to be flexible, transparent, and consistent.

The coding is flexible because, with no categories used apart from the
surface ones of clause and group type and actual words, there is no limit to the
kind of phraseology that can be represented in the coding. No pattern is too long
to be coded in detail. For example, the sense of face that is exemplified in the
unacceptable face of capitalism always occurs in this kind of phrase, with a
definite article, an adjective, and a prepositional phrase beginning with of. This
information is economically captured in the coding the adj N of n.

The coding is transparent rather than simple: it is not possible to provide
simple coding for the behaviour of words in English, because they do not behave
in simple ways. A simple coding would, then, be a partial coding. However,
because there is only a limited set of elements that make up the codes, and
because the codes relate only to surface manifestations and not to syntactic
abstractions, the metalanguage is such that, we hope, learners can quickly come
to understand it. A learner, or, more likely, a teacher, may initially object to seeing \textit{V n} (verb followed by noun group) rather than the more familiar ‘transitive verb’ or ‘verb + object’, but our codes have the advantage of representing iconically the patterns they describe. For example, a learner may have difficulty remembering the distinction between attributive and predicative adjectives, but the patterns \textit{ADJ n} and \textit{v-link ADJ} actually show in their own form how the adjectives behave. For this reason the Collins COBUILD English Dictionary does not need a comprehensive list of codes; a simple list and explanation of the code elements is sufficient.

Finally, the coding is \textit{consistent} in that it does not mix types of metalanguage. It is possible, of course, to code something such as \textit{make her happy} as ‘verb + object + adjective’. Such a coding might be quite comprehensible, but it would not be consistent, as it mixes a functional label (‘object’) and a word-class one (‘adjective’). This consideration would be of only theoretical interest, but given that the surface coding has other advantages, it is an additional benefit.

For various reasons, verbs in the dictionary were coded a little differently from other word-classes. For verbs, lexicographers were asked to list every pattern that each sense of the verb has, exemplifying the most frequent ones. The result is a complete profile of the behaviour of each sense of the verb. For example, sense 1 of the verb \textit{fantasize} has the following coding:

\textbf{VERB}
\begin{verbatim}
V about n/-ing
V that
also V -ing
\end{verbatim}

This means that most frequently this verb is followed by a prepositional phrase beginning with \textit{about} (the example given is \textit{I fantasized about writing music}) or by a that-clause (e.g. \textit{Her husband died in 1967, although she fantasised that he was still alive}). Another pattern, where the verb is followed by an ‘-ing’ clause, is less frequent and is not exemplified in the dictionary (this is indicated by \textit{also}).

For nouns and adjectives, however, only the most frequent or noticeable behaviour is coded and exemplified. For example, the noun \textit{implication}, for its first sense, is coded thus:

\textbf{N-COUNT}
\begin{verbatim}
usu pl
oft N of/for n
\end{verbatim}

This indicates a count noun, usually plural (but the singular is also found), often followed by a prepositional phrase beginning with \textit{of} or \textit{for}. The examples given
are …the political implications of his decision… serious implications for future economic growth. No information is given, however, about the behaviour of the noun when it is not followed by these prepositions.

The second sense of the noun (which indicates a specific logical consequence of something) is given no coding other than N-COUNT. One of the examples (The implication that marital infidelity enhances a leader’s credibility is preposterous) shows the noun followed by an appositive that-clause, yet this is not frequent enough to be reflected in the coding.

This difference in coding has implications for the methodology of exploiting the database for pattern information. For verbs, the database is almost complete, the only omissions being errors on the part of the dictionary compilers, which were easily rectified. For nouns and adjectives, however, the database is less complete, and further searching of ‘environments’ had to be done in order to ensure that all words with a given pattern had been found.

1.6.3 The grammar patterns series

The COBUILD grammar patterns series consists of two volumes: Collins COBUILD Grammar Patterns 1: Verbs (referred to in this book as Francis et al. 1996) and Collins COBUILD Grammar Patterns 2: Nouns and Adjectives (referred to in this book as Francis et al. 1998). A simplified version of volume 1, with exercises, was published under the title Verbs: Patterns and Practice (Francis et al. 1997).

The aim of the series was simple but ambitious: to show all the patterns of all the lexical items in the Collins COBUILD English Dictionary, and within each to show all the lexical items that have that pattern. For convenience, each of the word-classes is dealt with separately, resulting in a volume covering patterns of verbs, and another volume with two sections dealing with nouns and adjectives respectively. (At the time of writing no other volumes are planned, although it would be feasible to bring out volumes covering all word-classes.) The division into word-classes has the benefit of showing, for example, all verb patterns together, but it has the disadvantage of obscuring relations between patterns. For example, the following patterns with introductory it all perform similar functions, yet they are not grouped together in the ‘grammar patterns’ books:

**it V n to-inf** e.g. It hurts me to think of that  verb pattern

**it v-link N to-inf** e.g. It would be a shame to lose touch noun pattern

**it v-link ADJ to-inf** e.g. It was terrible to see his face adjective pattern

Each volume is arranged pattern by pattern, each pattern occupying a section. Within each section, with a few exceptions that will be described below, lists of
all the words with that pattern are given, grouped according to meaning. The
sections, then, give a complete profile of each pattern; inevitably, this means that
in each section only a partial description of the behaviour of each sense of each
word is given. This complements the information in the dictionary, where
complete information of each word is given, but the information about patterns
is not easily retrievable.

The aim in the grammar patterns volumes is to be comprehensive, to list all
the words that have a particular pattern. There are some places, however, where
this is not possible. Listing all the verbs that have the patterns V or V n, or all
the nouns with the pattern N of n, or all graded adjectives, would result in books
of an unmanageable size, although it would be possible for an electronic resource
to list all these verbs and nouns. In cases such as this, therefore, the books list
only the frequent words in each category.

A more radical problem arises, which reflects a difference between verbs
on the one hand and nouns and adjectives on the other. In the case of verbs there	
tends to be a sharp distinction between the patterns that a verb has and the
patterns that it does not. For example, suggest clearly does have the pattern V
that (He suggested that we should leave) and equally clearly does not have the
pattern V to-inf (*He suggested to leave). In the case of many nouns and
adjectives, however, there is no such sharp distinction. Chapter 3 gives some
examples of doubtful patterns, such as jealousy, which is sometimes, but rarely,
followed by an appositive that-clause, that is, has the pattern N that.

1.7 Conclusion to Chapter 1

This chapter has traced the history of an approach to the description of English,
from its early manifestation in a reference book in the 1950s to its appearance in
a series forty years later. This approach:

is based on phraseology, as observed in large corpora;

avoids a distinction between lexis and grammar;

represents a meeting-point between the concerns of pedagogy — what it is that
learners need to know — and those of theory — how the English language can
most satisfactorily be described.
2.1 A word and its patterns

In this chapter we will look in more detail at what a pattern actually is, and show how concordance lines can be used to illustrate the patterning of language.

The patterns of a word can be defined as all the words and structures which are regularly associated with the word and which contribute to its meaning. A pattern can be identified if a combination of words occurs relatively frequently, if it is dependent on a particular word choice, and if there is a clear meaning associated with it.

The procedure for investigating the patterns of a word involves selecting at random a number of concordance lines and sorting them into alphabetical order. They may be right-sorted or left-sorted according to the word one is examining. In the case of a verb, it is more revealing to sort to the right, since most verbs have complementation patterns which follow them (he decided to leave, he hated leaving). Though complementation patterns are usually the most interesting facts about verbs, there may be reasons for sorting them to the left, as this would show how often a verb occurs in the passive or infinitive, which modals it is often used with, what are its typical Subjects, whether it is frequently negative and so on.

In the case of nouns, too, sorting to the right reveals their complementation patterns (his decision to leave, the theory of evolution). Sorting to the left shows the various ways in which the noun is modified. In the case of adjectives, too, sorting to the right shows both the kind of noun they modify, and their complementation patterns, while sorting to the left will show, for example, whether or not they are often preceded by link verbs. It will also reveal the kinds of modifier that commonly collocates with the adjective.

Below are examples of words taken from each of the four major open classes (verb, noun, adjective and adverb), showing how their patterns can be revealed by concordance lines. The verb is explain. There are 54,300 occurrences of this verb in the Bank of English corpus; the following is a random selection of 50 lines whose node is a form of the verb explain (slightly edited to exclude
the more complex patterns, which will be discussed later in this chapter). These lines have been sorted alphabetically to the right, because we are mainly interested in the complementation patterns of this verb:

1. rs and mash for tea,’ he explained. A few years later it’s
2. cam said then went on to
3. attempt to categorize or
4. three centuries ago,’ she
5. explained exactly to the parents who
6. expalined: ‘He’s so consistent, for
7. s, she lied to you. She
8. rate a theory, and thus
9. explained that problem. Can you
10. task of immobilizing it
11. original price. ‘Let me
12. an interfaith marriage
13. you I would be glad to
14. knew he was there, she
15. explained it to you on the basis th
16. of view and he tried to
17. rate a theory, and thus
18. explained how it worked: ‘Any child
19. d is included but never
20. erward he was trying to explain Britain’s thinking on the is
21. se of the brain’.
22. Photographer Monte Fresco explains: ‘He’s so consistent, for
23. TEC Head of Marketing,
24. ical Journal, 23/6/90), explains that a single dose of antib
25. ve to at all. Could you
26. other. He would have to explain that to her when the time
27. t my husband can’t. She
28. es from school. When he
29. at I was doing and so I
30. headed sensei (teacher)
31. ong blacks could partly
32. ter) Jochen von Maydell
33. es from school. When he
34. erences Methods Section
35. voice said, still calm, explaining the hard facts of life to
36. The upcoming discussion explained the previewing process and
37. that’s the reason, they
38. produced a leaflet to
39. onths. Dentists have to
40. undred yards long. Alex
41. ident Lennart Johansson
42. ven their bag chance to
43. ng cover prices without explaining what they are for. The Bi
44. ouse and blue jeans, was explaining why she thought that nea
45. pective employer, which explains why the tone of media inter
46. ections. This helps to explain why a charcoal-grilled steak
47. region. All this might explain why the Thai baht was under
48. ic flavour, which might explain why he was not better known
49. for red burgundy, which explains why six of the best from
50. f clapped-out Chrysler. Explain your itinerary to the driver

This set of concordances reveals all the significant patterns of the verb. In lines 1, 3 and 5, for example, it is found with direct speech. In line 2, it is followed by a prepositional phrase introduced by about. In lines 4, 6 and 9, the verb is followed by a noun group. In lines 44–49, it is followed by a clause introduced by why, and in lines 10 and 11 by a clause introduced by how. In lines 42 and
WHAT A PATTERN IS

43 it is followed by a clause introduced by what. In lines 16 and 17, the verb is followed by a noun group (realised by the pronoun it) and a prepositional phrase introduced by to, and in line 40 by just the to prepositional phrase. Finally, in lines 21–24 and 27–29, it is followed by a that-clause. All the other lines in this sample can be accounted for by these few patterns, which will be explored in more detail in the next section.

A similar procedure can be undertaken for a noun: decision. Again the sample of 50 lines is alphabetically sorted to the right, since it this is a noun which has clear complementation patterns:

1 ecause of the commission decision. CFMEU united mineworkers
decision. Michael Meacher, shadow
doing of the last to make this
decision. Alegría: California is one
decision and many people are in
t the reasoning behind the
decision, announced yesterday at th
in order to ensure that his
decisions are obeyed. Without a new
g not desirable that the
decision as to the right electoral
stars. It is no longer a
decision as to whether or not to cha
decision as to what was an immoral p
t following Wednesday’s
decision by the two main nationalist
decision by the administration, havi
other on the result. Most decisions by three-judge panels on
ounced. Ironically, the
decision did not imply recognition o
g. Let her make her own
decisions. Everyone has a right to d
oppley. Even small
decisions have to be passed along fr
decision. He’s always kept his integ
on the result. He always makes such a move. The
decision leaves Mr Kinnock’s options
decision making, Organisation Scienc
decisions modern publishers take, t
decision on Monday. At the same time
decision on its German business. The
decisions on Waanyi land when they’r
decision comes a year after he relea
decision settled the issue of Title
decisions such as Mabo, there is no
tly, I have come to the
decision that the earring discovery
decision that had required a committ
as a manager, your decisions will be partly based on ha
These lines differ from the lines for *explain* in one important respect. Verbs almost always have complementation patterns, except in the case of verbs used intransitively, which have no complementation. (The most frequent type of complementation is a noun group, as in line 9 of *explain* above.) The majority of nouns, however, do not have complementation patterns at all. In the case of *decision*, just over half of the lines show the word ‘on its own’, with no associated complementation patterns, for example in lines 1–6. Elsewhere, however, there are patterns: in line 7 the noun is followed by a prepositional phrase introduced by the phrasal preposition *as to*. In lines 8 and 9, *as to* is followed by clauses introduced by *whether* and *what* respectively. In lines 24 and 25 the noun is followed by a prepositional phrase introduced by *on*, and in line 26 *on* is followed by a *whether* clause. In line 31 the noun is followed by a that-clause, and in lines 34–46 by a to-infinitive clause, its most frequent pattern. All these words and clauses constitute the patterns of the noun *decision*.

The next example is an adjective: *afraid*. Some adjectives are both attributive and predicative; that is, they occur both before nouns (*a happy man*) and after link verbs (*he is happy*). Some adjectives only occur in one position, either before a noun (*there are countless reasons*), or after a link verb. *Afraid* is one of the latter: it is always predicative. A brief look at the lines will show that it never occurs before a noun, and a glance to the left of the node will show that it usually follows the verb *be*.

The following lines are again sorted to the right, showing the complementation patterns of the adjective:

1 but was still obviously afraid. A week later he was able to
2 int near Drvar. They are afraid and are panicking. Everything
3 ed between those who are afraid and do it and those who stand
4 d Westerners need not be afraid, for we are about to lift the
5 ance. If I fail ‘Are you afraid for yourself? He looked at h
6 ve overspent by .98p I’m afraid. I’ve hung your clothes upsta
7 e was turned on me. ‘I’m afraid I’ve only got three,’ I said
8 if it costs 18 quid. I’m afraid I’m not very interested in th
9 n’t know how, though I’m afraid it may have come from someone
10 n’t worry about it. I’m afraid it comes with the territory.
11 by crumb because she is afraid lest the bread will finish an
12 ionship; she is neither afraid nor ashamed. Since the ‘white
13 re popular at home? I’m afraid not. But Edward Heath has
14 ss I say something, I’m afraid nothing will be done. But
15 ership is that they are afraid of the people’s awakening.
16 hen she says. ‘They are afraid of losing their friends. They
17 guy, I was desperately afraid of being alone again and a bi
18 o wipe out. Everyone is afraid of the Khmer Rouge. Myself t
19 e who had not come were afraid of America and had no courage
20 hit me again, I wasn’t afraid of his actions but his words
21 r explain to her. She’s afraid of your detachment,’ Mrs Van
22 ready in love with, and afraid of, her. Girls seem frighteni
23 ht of her Mr Paul being afraid of anything or anyone was qu
24 arly if that someone is afraid of them. Often they hate them
25 way, both because I was afraid of seeming too needy and bec
26 ld in college – but was afraid of disappointing his father.
Again, not all the lines for afraid have complementation patterns: lines 1–4 show the adjective used ‘on its own’. In line 5 there is the pattern afraid for which occurs only once in this small sample but is quite frequent for the word overall. In lines 7–10, the adjective is followed by a that-clause without that, while in lines 35–41 the that is realised. It is possible to treat that-clauses with and without that as separate patterns. In this case I’m afraid that I just wasn’t ready would exemplify V that, while I’m afraid I’ve only got three would exemplify another pattern, say V clause. For convenience, in the Collins COBUILD English Dictionary (CCED), both types of example were treated as V that because most words that occur with a that-clause take either type of clause. This convention is followed here too; thus we consider lines 7–10 to contain that-clauses. Line 11 shows the pattern afraid lest, which is extremely rare and occurs only four times after afraid in the whole of the corpus. In lines 13 and 34 we have afraid not and afraid so respectively — these patterns are peculiar to afraid, and do not occur with other adjectives (as far as we know). In lines 15–30 afraid is followed by of; this is its most frequent pattern. Sometimes it is followed by of and a noun group, as in lines 15 and 18, and sometimes by of and an ‘-ing’ clause, as in lines 16 and 17. Finally, in lines 42–49 the adjective is followed by a to-infinitive clause; this pattern is also very frequent.

It can be seen that there are two main meanings of afraid represented in these lines: one is ‘frightened’ and the other is when you are apologising for something. The second of these is associated with only with the that pattern and the to-infinitive pattern mentioned above, while the first is found with all the
There is a strong tendency for meaning to be associated with pattern in this way, as discussed in Chapter 1 and Chapter 4.

The last word-class to be looked at in this section is an adverb: presumably. Again there are 50 lines, left-sorted alphabetically. In the case of adverbs it is often difficult to know which method of sorting will reveal their patterns most clearly.

Adverbs differ from the other three major word-classes in that they do not have complementation patterns. An examination of the concordance lines shows, however, that their behaviour is patterned in observable ways. For example,
presumably is often found at the beginning of a sentence or clause, where it serves to comment on the whole clause — see lines 11, 16 and 25. Or it appears before a phrase or group as in line 13 — presumably at the hands of the death squads, and in line 1 — presumably more wise. In other lines it modifies a verb as in line 5: Mr Assad presumably wants to clarify... On the whole though, the patterns of adverbs are hard to capture. Many adverbs are like presumably in that they can appear at different points in the sentence, while others are more restricted: frequency adverbs like often and usually, for example, generally occur directly before the head of a verb group. “Degree” adverbs like very and extremely always modify adjectives or other adverbs. But there is no parallel to complementation patterns: adverbs can be better described in positional terms.

In all the concordance lines given above, the node words can be seen as having patterns which ‘belong’ to them. There is another way of looking at patterns, however, which will be explored in the next section.

2.2 A pattern and its words

In the previous section patterns were shown which are associated with particular words. We attempted to show that a word can have a large number of patterns. In this section we will look at patterns from a different perspective. Just as a word can have several different patterns, so a pattern can be seen to be associated with a variety of different words. This is the opposite side of the coin.

Let us take, for example, a pattern in which a verb is followed by the preposition over and a noun group or wh-clause. There is a range of verbs which share this pattern, of which the following are just a few. Two lines have been chosen to illustrate the use of each verb in this pattern, and the lines have been sorted to the left so that the verbs followed by over are in alphabetical order.

heels while critics argue over the niceties of translation st
ence they managed to argue over the direction of the wind and
took at each other Bicker over the poisoning of a dog. If th
never quarrels and bicker over territory. That is a general r
be convinced to compromise over the structure of the competiti
ans refuse to compromise eek, and now they disagree over independence, everything that h
and Mr Thornberry disagree over the importance of the ruck duel
other interviewer enthuses over Piccio’s weight problems and t
welcome guest. She enthused over his gift of Fortnum and Mason’s over nude pictures of the model Hel
reek, and now they disagree over the poisoning of a dog.
and now they disagree over the direction of the wind and
look at each other Bicker over the niceties of translation st
over the direction of the wind and
over the poisoning of a dog. If th
over territory. That is a general r
over the structure of the competiti
over independence, everything that h
over the importance of the ruck duel
over Piccio’s weight problems and t
over nude pictures of the model Hel
over his gift of Fortnum and Mason’s
over whether to support a rescue pac
over Europe, and to assure Saddam
over Frenchie jokes, in New England,
over this intra-party friction. Mr
over Frenchie jokes, in New England,
over whether to support a rescue pac
over Europe, and to assure Saddam
over this intra-party friction. Mr
over Frenchie jokes, in New England,
over Frenchie jokes, in New England,
over this intra-party friction. Mr
over Frenchie jokes, in New England,
over this intra-party friction. Mr
over Frenchie jokes, in New England,
over this intra-party friction. Mr
over Frenchie jokes, in New England,
over this intra-party friction. Mr
over Frenchie jokes, in New England,
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over Frenchie jokes, in New England,
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over this intra-party friction. Mr
over Frenchie jokes, in New England,
over this intra-party friction. Mr
over Frenchie jokes, in New England,
over this intra-party friction. Mr
over Frenchie jokes, in New England,
11. he had already grieved over her once, and so it made no rea
or 23 years he had grieved over his actress-wife Helen Beck, an
1. When they do not haggle over the price of property, sales mu
over prices and engage in sharp
over a presidential run, almost cert
over the suggestion that ‘problems o
over her final placings. In a 23-str
over some of her cruising and racing
over the record book – not to see wh
over the script. At the appointed ti
over the ceremony celebrating the 80
over whether to make the announcemen
over an attack on Gibraltar, the
over the suggestion that

Gooch is planning to pore over the record book
—
not to see wh
a Polaroid taken, and pore
own from Armagh to preside
signed rather than preside
the regulator prevaricated s the Germans prevaricated
much time procrastinating
ation for procrastinating
a-terrestrials also puzzle
letters to come in, I puzzle
ts when the giants quarrel
so ill-bred as to quarrel
ain had no wish to quibble
t think they would quibble
public manager is seething
has been quietly seething
ed people openly speculating
y on the water speculating
hope continues to triumph
which Japan could triumph
over Russia and America. However, at
commanders wavered
rect result. As they waver
r this they didn’t wrangle
over this at all and once the vote
ts. And let us not wrangle
over who won it, who won the cold wa

It can be seen that this pattern is associated with a variety of verbs, often with meanings in common, like bicker, disagree, fight, quarrel, and wrangle. This point will be expanded at length in the next chapter, where we will attempt to show how the words which share a pattern can be grouped according to their meanings.

2.3 The representation of patterns

Up to now patterns have been introduced discursively: no attempt has been made to represent these patterns in any schematic form. It is convenient, however, to have a shorthand coding system to represent patterns. The need for a simple system of representing patterns arose first for us during the compilation of the second edition of the Collins COBUILD English Dictionary (CCED) (1995). A learner’s dictionary requires a way of encoding grammar that is comprehensive and yet transparent.

In the first edition of this dictionary (Collins COBUILD English Language Dictionary 1987) patterns were encoded by a mapping of the word-classes involved in a pattern on to functional labels such as Object, Complement, and Adjunct. Thus, to return to the verb explain, an example such as she explained it to me would be
coded as V + O + A (Verb + Object + Adjunct). There are two problems here. Firstly, in a sentence like *She walked four miles*, opinions differ as to whether *four miles* is an Object or an Adjunct. Thus the analysis necessary to produce this coding can be unreliable; different people will code differently. Secondly, the labels do not relate clearly to the surface realisation of the pattern. A learner seeing the coding V + O + A would not know how to use the verb *explain*.

Instead, for CCED only the simplest and most superficial word-class labels were used. The major ones used in CCED and in Francis et al. (1996; 1998) are as follows:

- **v**: verb group
- **n**: noun group
- **adj**: adjective group
- **adv**: adverb group
- **that**: clause introduced by *that* (realised or not)
- **-ing**: clause introduced by an ‘-ing’ form
- **to-inf**: clause introduced by a to-infinitive form
- **wh**: clause introduced by a wh-word (including *how*)
- **with quote**: used with direct speech

Where a preposition, adverb, or other lexical item is part of a pattern, it is given in italics to indicate that it is a lexical item rather than a code, for example V n on n.

If we return to the concordance lines for *explain*, it can be shown that all the patterns described there can be represented using this very small number of symbols.

The upper-case V indicates that this is the word-class whose patterns we are focusing on. It will be seen later in this chapter that the same pattern can be described in terms of any one of its major elements. Note too that the plus sign is not used: sequence is indicated by a space.

**V n**

4 attempt to categorize or explain all the different types. I
6 erwards he was trying to explain Britain’s thinking on the is
9 nchez: When Cavazos did explain his personal views, they usu
13 an interfaith marriage explains in part the humanitarian
14 r youI would be glad to explain in some detail my reasons f
20 d is included but never explained. Probably because it is of
30 headed sensei (teacher) explained the complex rituals of o-c
31 ong blacks could partly explain the fact that they account f
32 ter) Jochen von Maydell explained the city’s recession-beati
33 es from school. When he explains the problem to her she gene
34 erences Methods Section Explain the method you used to gathe
35 voice said, still calm, explaining the hard facts of life to
36 The upcoming discussion explains the previewing process and
25 ve to at all. Could you explain that, please? Dominguez: Sur
26 other. He would have to explain that to her when the time
38 s produced a leaflet to explain the new system. Available fr
50 f clapped-out Chrysler. Explain your itinerary to the driver
V with quote

rs and mash for tea,’ he explained. A few years later it’s
in the dark, when someone
explained: ‘After discussing what you

another therapist Paul McKenna explains: ‘After discussing what you

photographer Monte Fresco explains: ‘He’s so consistent, for

that’s the reason, they explained, the city has offered to

ident Lennart Johansson explains ‘We are disappointed that t

V wh

that problem. Can you explain how a baby boom in the Sixti

task of immobilizing it explained how it worked: ‘Any child

ven their big chance to explain what they’re about, unencumb

use and blue jeans, was explaining why she thought that near

pective employer, which explains why the tone of media inter

eactions. This helps to explain why a charcoal-grilled steak

region. All this might explain why the Thai baht was under

ic flavour, which might explain why he was not better known

for red burgundy, which explains why six of the best from Al

V about n

cam said then went on to explain about the barman at the sta

V n to n

s, she lied to you. She explained it to you on the basis th

of view and he tried to explain it to his daughter as he to

rate a theory, and thus explain it to someone, by telling a

V that

ne of them, Jon Knight, explained on arrival in London that

as, paint etc). The fax explained that Newton had the right

John, who seemed to be explaining that he had a nappy and

TEC Head of Marketing, explained that these were real

ical Journal, 23/6/90), explains that a single dose of antib

my husband can’t. She explained that she never paid

Commerce and Industry, explains that Switzerland has a spl

at I was doing and so I explained that a copy of the documen

V to n

undred yards long. Alex explained to me,’ said Barry,

V to n that

onths. Dentists have to explain to their patients that they

V

original price. ‘Let me explain,’ I offered. The label, I su

The pattern V n includes examples in which the verb is passive (such as line 20
above). The issue here is whether to treat passives as separate patterns or as
variants of one pattern. The first solution is logical, as it avoids transformational
practices, but the second is more economical. If a word occurs more frequently
in the passive than the active, however, it makes sense to indicate this by
expressing the pattern separately as the lexical word be with V-ed representing
the past participle. Thus the verb *rumour* has the pattern be **V-ed that**: *it is rumoured that*...

The patterns shown in the concordance lines for *decision* and *afraid* can both be represented by these same few symbols. The following is the analysis for *decision*. Here the symbol N is in upper case as we are focusing on a noun. Only those lines in which *decision* does have a pattern are included in the analysis.

N as to n

7 not desirable that the decision as to the right electoral

N as to wh

8 stars. It is no longer a decision as to whether or not to cha
9 ce Sachs stated that the decision as to what was an immoral p

N on n

24 ended in July pending a decision on its German business. The
25 How can they make decisions on Waanyi land when they’re

N on wh

26 ahead of the council’s decision on whether to raise key le

N that

31 tly, I have come to the decision that the earring discovery

N to-inf

34 yesterday stuck by shock decision to quit racing for a month.
35 d The Goss Government’s decision to drop the South Coast Mot
36 unsure about Saturday’s decision to abandon the scheduled f
37 has welcomed Baghdad’s decision to allow more than three-th
to get, so we took the decision to ensure that part-time em
39 e’s other controversial decision: to appoint his friend Alan
40 c. Asked to justify its decision to release the information,
41 reaffirmed its original decision to approve Halcion, but h
42 s no bed available. The decision to release him was taken by
43 galaxy. Wife scared by decision to stand; John Redwood Cons

The following is the analysis for *afraid*. Here the code ADJ is in upper case, as we are focusing here on the adjective. Again, only those lines in which *afraid* has a pattern are included in the analysis; here the lines with a pattern are in the majority:

ADJ for n

5 ance. If I fail ‘Are you afraid for yourself? He looked at h

ADJ that

7 e was turned on me. ‘I’m afraid I’ve only got three,’ I said
8 if it costs 18 quid. I’m afraid I’m not very interested in th
n’t know how, though I’m afraid it may have come from someone
I’m afraid it comes with the territory. But
as I say something, I’m afraid nothing will be done. And
at and scared me. I was afraid one of the balls might hit
iences of hers, but I’m afraid our interpretations differ
asoned players. And I’m afraid that I just wasn’t ready. And
y birthday. I had been afraid that he would be hanging about
drained because she was afraid that one of her little darlings
of food, and you may be afraid that all the food you enjoy may
Johnny shook his head, afraid that if he spoke he’d cry again
you, did they? No, I’m afraid that was stretching the truth
edalus. Serman had been afraid that even Croaker knew that he
me an example, and I am afraid you will earn a certain fame

ADJ lest

by crumb because she is afraid lest the bread will finish an

ADJ so/not

re popular at home? I’m afraid not. But Edward Heath has
other words. ‘Yes, I’m afraid so, sighs Professor Jean-Paul

ADJ of n

erish is that they are afraid of the people’s awakening.
o wipe out. Everyone is afraid of the Khmer Rouge. Myself t
who had not come were afraid of America and had no courage
hit me again, I wasn’t afraid of his actions but his words
explain to her. She’s afraid of your detachment,’ Mrs Van
ready in love with, and afraid of, her. Girls seem frightened
ht of her Mr Paul being afraid of anything or anyone was qu
arily if that someone is afraid of them. Often they hate them
y weren’t just a little afraid of him, too. So he has been g
nt of all, he was never afraid of emotional controversy, th
ered for it. He was not afraid of death and now he’s up ther

ADJ of -ing

hen she says. ‘They are afraid of losing their friends. They
guy, I was desperately afraid of being alone again and a bi
way, both because I was afraid of seeming too needy and bec
ld in college – but was afraid of disappointing his father.

ADJ to-inf

hat women should not be afraid to trumpet their achievements
complications. Don’t be afraid to listen to a new point of
had been offended but afraid to speak out. And one young
any and we are all very afraid to be swallowed. Wertheimer:
h sweat. He lay frozen, afraid to close his eyes and fall as
in his approach and not afraid to be shocking. We met in San
e, to placate them, but afraid to oppose them. Her weakness
Family on holiday. I am afraid to say that it looks as thoug

This then is the way patterns are presented in CCED.
2.4 What’s in a pattern?

It is now necessary to consider which elements are and which are not included in the concept of ‘pattern’. Certain elements are excluded on the grounds that they can occur with almost any word of the same class. These have to be distinguished from genuine pattern elements. For example, in both the following sentences the noun *decision* is followed by a clause beginning with *that*:

(1)  *I have come to the decision that the earring discovery scene does not work*

and

(2)  *…to counteract a decision that required a committee’s questioning of a witness*

The first that-clause is an appositive or defining clause qualifying *decision*, while the second is an ordinary relative clause. A defining that-clause is considered to be part of the complementation pattern of a noun; there are only a few hundred nouns that are typically followed by such a clause. The second that-clause is a relative clause. Relative clauses can qualify almost any noun, and are not considered to be part of their complementation patterns.

Also considered not to be part of a complementation pattern are prepositional phrases or adverb groups that give information about manner, place or time. Thus in the sentence *He said he’d phone at four o’clock*, the prepositional phrase *at four o’clock* is not part of the complementation pattern of *phone*.

There are a few other cases in which a word is frequently followed by a structural element which is nevertheless not considered to be part of its complementation pattern. These will be discussed in Chapter 4.

Let us turn to the question of the elements which are considered to be part of a word’s pattern. As pointed out above, these are usually things that follow the word: its complementation. These patterns are listed in the next section. In some patterns, however, elements are included which precede the word in question. For example, some verbs have to have a plural noun group as their Subject. A plural noun group may consist of one noun group which indicates two or more people or things, as in *the children were always arguing*. Alternatively it may consist of two or more co-ordinated noun groups, linked by *and*, for example *Molly and Simon were always arguing*.

The main class of verbs which have a plural Subject are reciprocal verbs. Reciprocal verbs have two basic patterns:
1. They are used with a plural Subject and it is understood that the people, groups, or things realised by the Subject are interacting with each other. For example, two people can quarrel, have a chat, or meet.

2. They are also used with a Subject which refers to one of the participants and an Object or Adjunct which refers to the second participant, as in She quarrelled with her sister, I chatted with him, and I met him at university.

Because reciprocal verbs have these two related patterns, their patterns are usually supplied in pairs: the most frequent combination is \textit{pl-n V and V with n}.

There is another major group of patterns where elements preceding the verb are included in the pattern. These involve the word \textit{it}. It is considered to be part of a pattern in two different cases. The main one is when it is ‘introductory’ or ‘anticipatory’, in sentences like \textit{It is a shame that the press ignored these events}, which has the pattern \textit{it V n that}. In this sentence \textit{it} is the Subject, but it may also be the Object, as in \textit{I find it hard to understand your motives}. In this type of sentence, \textit{it} points forward to a clause somewhere else in the sentence. This process is normally referred to as extraposition, but we prefer to avoid this term, on the grounds that it is transformational; it assumes that the non-extraposed version (\textit{That the press ignored these events is a shame}) is somehow more fundamental than the version with \textit{it}. In fact the latter is far more frequent; initial that-clauses seldom occur.

Secondly, \textit{it} may be what we call ‘general’ \textit{it}, which refers vaguely to a general situation, and does not point anywhere else in the sentence. The \textit{it} used in reporting the weather is of this type: \textit{It was drizzling steadily}, and for reporting time: \textit{It was four o’clock}. Again it may be the Subject, as in these sentences, or the Object, in sentences like \textit{I make it four o’clock}. A list of the major \textit{it} patterns is given in the next section.

Finally there are two other symbols used in the labelling of verb patterns. One is \textbf{amount} in sentences such as \textit{I owe her a lot}, or \textit{We beat them 3–2}. The other is \textbf{pron} (pronoun), which is used in the patterns of phrasal verbs to indicate that a noun group is not realised by a pronoun. Thus \textit{ring up} has the patterns \textit{V n P} (\textit{ring someone up}) and \textit{V P n} (not \textit{pron}), indicating that \textit{ring up him} does not usually occur. (\textit{P}, here, stands for the particle — adverb or preposition — which combines with a verb to make a phrasal verb.)

As for the patterns of nouns, they resemble those for verbs in that they are normally complementation patterns, encoding the elements that follow the noun. Their patterns are sometimes very similar to those of verbs; for example, both verbs and nouns have patterns in which they are followed by a that-clause or a to-infinitive clause.
Like verbs too, there are some patterns which include elements that precede the noun: these include articles, prepositions, and possessive markers, for example *the cosmos, on duty, his junior*. They will be discussed further in the next section.

In the case of adjectives, the patterns are of two main types. First one needs to specify whether an adjective is attributive only (occurs before a noun), predicative only (occurs after a link verb), or both. In CCED the first two of these are coded as ADJ n and v-link ADJ, respectively. This code may be preceded by usu, which indicates that this is usually but not always the pattern. Second, complementation patterns must be identified; again, some of them are the similar to those for verbs and nouns, notably those with a that-clause or a to-infinitive clause.

### 2.5 What kinds of pattern are there?

In general then, the pattern of a word consists of the elements that follow it, but it may also include elements which precede it. Let us look now at the major patterns which we consider to ‘belong’ to a word. A full list is available in Francis et al. (1996; 1998). In the pattern codes, the part-of-speech that is being focused on is in upper-case.

#### 2.5.1 The patterns of verbs

In this section we will list and explain the main verb patterns as used in CCED and in Francis et al. (1996).

1. The verb is followed by a single noun group, adjective group, or clause, yielding the following patterns:

   **V n**
   
   (3) *I broke my left leg.*

   **V pl-n**
   
   (4) *The research compares two drugs.*

   **V pron-refl** (reflexive pronoun)
   
   (5) *I enjoyed myself.*

   **V amount**
   
   (6) *Two and two make four.*
V adj
(7) *He escaped* unhurt.

V -ing
(8) *She started* walking.

V to-inf
(9) *John began* to laugh.

V inf (bare infinitive)
(10) *I helped* save these animals.

V that
(11) *We agreed* that she was not to be told.

V wh
(12) *A passer-by inquired* why the television cameras were there.

V wh-to-inf (to-infinitive clause introduced by a wh-word)
(13) *I have forgotten* what to say.

V with quote
(14) ‘Hello’, he *said.*

V so/not
(15) *I think* so.

V as if/as though
(16) *You look* as if you’ve seen a ghost.

V and v
(17) *I’ll go* and see him.

2. The verb is followed by a prepositional phrase or adverb group. In some cases, there is a wide range of adverbs and prepositions following the verb, and these cannot be specified. This pattern is

V prep/adv
(18) *He ran* across the road.

Sometimes only an adverb can be used. This pattern is
WHAT A PATTERN IS

V adv

(19) Sarah has fair skin that burns easily.

Sometimes only a prepositional phrase can be used. This pattern is

V prep

(20) She chewed on her pencil.

In other cases, the verb is followed by a noun group, adjective group, ‘-ing’ clause or wh-clause introduced by a specific preposition. This pattern is V about n, V at n, V as adj, V by -ing etc., depending on the preposition. Examples include

(21) He was grumbling about the weather.
(22) The rivals shouted at each other.

The prepositions which are used in patterns like this are as follows: about, across, after, against, around/round, as, as to, at, between, by, for, from, in, in favour of, into, like, of, off, on, onto, out of, over, through, to, towards, under, with.

Sometimes the adverb together is used in the pattern pl-n V together

(23) The whole team must pull together.

3. The verb is followed by a noun group and another element such as another noun group, an adjective group, a that-clause, a wh-clause or an ‘-ing’ clause, yielding the following patterns:

V n n

(24) I wrote him a letter.

V n adj

(25) The darkness could drive a man mad.

V n -ing

(26) I kept her waiting.

V n to-inf

(27) My advisers counselled me to do nothing.

V n inf

(28) She heard the man laugh.
V n wh
(29)  He showed me where I should go.

V n wh-to-inf
(30)  I’ll show you how to do it.

V n with quote
(31)  ‘We’ll do it’, she promised him.

V n -ed (the past participle form of another verb)
(32)  I had three wisdom teeth extracted.

4. The verb is followed by a noun group and a prepositional phrase or adverb group. In some cases there is a wide range of adverbs and prepositions following the verb, and again these cannot be specified. This pattern is

V n prep/adv
(33)  Andrew chained the boat to the bridge
(34)  Stir the sugar in.

Sometimes only an adverb can be used. This pattern is

V n with adv, where the adverb comes either before or after the noun group. Examples include:
(35)  He switched the television on.
(36)  He switched on the television.

Sometimes the pattern is formed with the word way and an adverb group or prepositional phrase. This pattern is

V way prep/adv
(37)  She ate her way through a pound of chocolate.

In other cases, the verb is followed by a noun group and another noun group, adjective group or wh-clause introduced by a specific preposition. This pattern is

V n about n, V n at n, V n as adj etc. depending on the preposition. Examples include:
(38)  I warned him about the danger.
(39)  I saw the question as crucial.
The prepositions which are used in patterns like this are almost but not quite the same as those in 2 above:

about, against, as, as to, at, between/among, by, for, from, in, into, of, off, on, onto, out of, over, to, towards, with.

Sometimes the adverb together is used in the pattern pl-n V with together

(40)  We stuck the pieces together.

5. The verb pattern contains the word it. The main patterns are as follows.

Introductory it:

it V clause

(41)  It doesn’t matter what you think.

it V to n clause

(42)  It sounds to me as if you don’t want to help her.

it V prep clause

(43)  It came to light that the plane had not been insured.

it be V-ed clause

(44)  It is thought that the temple was used in the third century.

it V n clause

(45)  It struck me that the story would make a good film.

it V adj clause

(46)  It feels good to have finished a piece of work.

V it clause

(47)  I hate it when she’s away.

V it to n clause

(48)  I owe it to my parents to work hard.

V it as n/adj clause

(49)  He would take it as an insult if I left.

(50)  He regards it as significant that the Government is suggesting cuts.

V it n clause

(51)  They felt it their duty to visit her in hospital.
V it adj clause
(52)  *I think* it best if you tell him the truth.

‘General’ it:
it V
(53)  *It snowed* all afternoon.
it V adj
(54)  *It was* very windy.
it V adj prep/adv
(55)  *It’s* nice here.
it V n
(56)  *It’s* blowing a gale.
it V to n
(57)  *It got* to the point where we couldn’t bear to be in the same room as each other.

it V prep/adv that
(58)  *It says* here that they have live music.

V it
(59)  *They didn’t make* it.

V it prep/adv
(60)  *My family hated* it in Southampton.

2.5.2 The patterns of nouns

The following are the main noun patterns as used in CCED and in Francis et al. (1998).

1. Patterns with elements preceding the noun

*a N; the N* The noun is preceded by an indefinite or definite article:

(61)  *a cinch, a standstill; the blues, the bourgeoisie.*

*poss N* The noun is typically preceded by a possessive determiner like *my* or *your*, or a possessive formed from a noun group:

(62)  *She had tidied away her possessions.*
I give you my word
My husband’s sister came to stay.

adj N The noun is preceded by an adjective:
He was a tough customer.
She’s a smart dresser.

n N The noun is preceded by another noun:
A window cleaner was arrested.

from N, on N, to N etc. The noun is preceded by a specific preposition:
I’ve been blind in my right eye from birth.
The film was shot on location in Washington.
They went to school together every day.

The prepositions most frequently used in patterns like this are as follows:
at, by, from, in, into, on, out of, under, with.

supp N The noun is preceded by a range of the elements given above: determiner, possessive determiner or possessive noun group, adjective or noun.

2. Patterns with elements following the noun
N to-inf
All four teams have shown a desire to win.

N that
There was a suggestion that the whole thing was a joke.

N n The noun frequently modifies another noun.
They have been exercising mob rule.
The federation is the umbrella body for seventy state organizations.

N prep The noun is followed by a prepositional phrase introduced by a wide range of prepositions.
N of n, N for n, N from n etc. The noun is followed by a prepositional phrase introduced by a specific preposition.
It was the latest in a series of acts of violence.
Their hatred for one another is legendary.
The threat from terrorists is at its highest for two years.
The prepositions most frequently used in patterns like this are as follows:

*about, against, among, as, at, behind, between, for, from, in favour of, in, into, of, on, over, to, towards, with.*

In addition there is the pattern **N with supp**, which means that the noun is both preceded by a range of the elements mentioned above, and followed by them.

2.5.3  *The patterns of adjectives*

The following are the main adjective patterns as used in CCED and in Francis et al. (1998).

**ADJ -ing**

(78)  *I felt uncomfortable watching him.*

**ADJ to-inf**

(79)  *The print was easy to read.*

**ADJ that**

(80)  *I am absolutely horrified that this has happened.*

**ADJ prep** The adjective is followed by a prepositional phrase introduced by a wide range of prepositions.

**ADJ as n, ADJ of n, ADJ on n** etc. The adjective is followed by a prepositional phrase introduced by a specific preposition.

(81)  *We felt inadequate as parents.*

(82)  *I think he’s fully aware of those dangers.*

(83)  *He’s always been very dependent on me.*

The prepositions most frequently used in patterns like this are as follows:

*about, against, as, as to, at, between, by, for, from, in, into, of, off, on, with.*

It must be stressed that the patterns listed above are only the major ones. There are many more; full lists can be found in Francis et al. (1996; 1998).

2.6  *Looking at patterns from all sides*

So far we have treated patterns as though they are the discrete properties of words; patterns ‘belong’ to specific words. But this is to oversimplify: it is
possible to look at patterns from different angles. Any sentence or utterance can be seen in terms of the pattern of any one of its lexical items. Consider the following sentence:

(84) A fire safety officer said it was important that residents in high-rises were aware of fire safety procedures and equipment in their particular buildings.

1. The whole of the sentence after the Subject is a V that pattern belonging to the verb say: A fire safety officer said...
2. There is the pattern it V adj that, it was important that... where the pattern belongs to the verb be.
3. The same pattern can be seen as belonging to the adjective important, in which case it would be coded as it v ADJ that.
4. There is a pattern V adj belonging to the verb be: ...residents in high-rises were aware of...
5. The same pattern can be seen as belonging to the adjective aware, in which case it would be coded as v-link ADJ of n.

The ways in which all these patterns flow into each other will be explored in Chapter 8.

2.7 Different forms of a pattern

Patterns, especially those of verbs, are not always straightforward: their elements do not always occur in the order given in the explanations above. What follows is a list of the different forms a basic verb pattern can have. (This information and some of the examples below are taken from Francis et al. 1996: 611–615.)

1. Subject not before verb
In straightforward utterances the Subject comes before the verb, but this is not always the case. Sometimes the Subject comes earlier in the clause, or is not mentioned explicitly in the clause. For example, the verb exemplified may itself be part of the pattern of another verb and be in the to-infinitive form or ‘-ing’ form.

(85) We want to ensure that there is care and comfort available for them. (pattern is V that)

(86) I enjoy telling people I was born in Brixton. (pattern is V n that)

In other cases there is no Subject as such: the agent can be inferred from the context.
The idea is to use conflicts as opportunities to show youngsters how to observe siblings’ feelings.
(pattern is V n as n)

There is usually no Subject when the verb is in the imperative.

2. Passive voice
When a verb is in the passive, the order of the elements is different, with the Object of the active sentence functioning as the Subject of the passive sentence. As mentioned above, a strict adherence to the surface description would perhaps involve the treatment of the passive as a separate pattern. However, for the sake of convenience and simplicity, it is considered here as a variant of the active pattern.

(88) King Conrad was elected German king in 911.
(active pattern is V n n)

3. Questions and reported questions
In a ‘yes/no’ question, the order of the elements are the same as in an ordinary clause, except that the Subject comes after the auxiliary.

(89) Have you found it yet?
(pattern is V n)

In a wh-question, the order of the elements is normal when the question relates to the Subject, but if it relates to the Object or Complement then the order changes, with the Subject coming between the auxiliary and the main part of the verb. When there is a preposition following the verb, this remains in its position after the verb.

(90) Who said that?
(91) What did you say?
(pattern is V n)
(92) What are you looking for?
(pattern is V for n)
(93) What did he train as?
(pattern is V as n)

With reported questions, the wh-word comes first but the order is normal after that: the Subject comes before the whole verb group.

(94) They asked me who I could trust.
(pattern is V n)
Perhaps in the back of my mind I knew what I was looking for.
(pattern is \( V for n \))

4. Relative clauses
When the relative pronoun is the Subject of the verb in the relative clause, there is no change in the order of the elements.

\( (96) \) The man who shot him was immediately overpowered.
(pattern is \( V n \))

However, when the relative pronoun is the Object or Complement of the verb in the relative clause, the normal order is changed. The relative pronoun comes before the Subject.

\( (97) \) Most of the people that I met were academics.
(pattern is \( V n \))

\( (98) \) Inside the ticket hall he dialled the number that Mr Furniss had given him.
(pattern is \( V n n \))

\( (99) \) He tapped the file on Baum which Fox had brought in.
(pattern is \( V n adv \))

When a verb is followed by a prepositional phrase, one of two things can happen. In formal English, the whole prepositional phrase is often used to begin the relative clause (except when the relative pronoun is \( that \)).

\( (100) \) The feeling of timelessness was just as strong at the farmhouse in which we stayed.
(pattern is \( V prep/adv \))

In other contexts, the preposition remains at the end while the relative pronoun comes first.

\( (101) \) We have put together several lists of plants that you may be looking for.
(pattern is \( V for n \))

Often no relative pronoun is used as the Object or Complement of the verb in the relative clause.

\( (102) \) The people I met at Fairbanks appeared very capable.
(pattern is \( V n \))
(103)  *It sounded exactly like the small town I was looking for.*  
(pattern is \( V \text{ for } n \))

In the case of the pattern \( V \text{ that} \), the Subject may be preceded by a relative pronoun which is part of the that-clause. The *that* of the that-clause is not realized.

(104)  *I shall invite both written and oral observations from any person who I think can help me.*  
(pattern is \( V \text{ that} \))

5. ‘-ing’ form or to-infinitive as part of a Complement

If a non-finite verb form is used after an adjective or noun as part of a Complement, that verb ‘loses’ a noun group from its pattern. In the following example, *ready for printing* is the Complement of the verb *be*. The verb *print* has the pattern \( V \text{ n} \) (as in *They printed the book*) but in this example the noun group which the verb relates to occurs as the Subject of the clause.

(105)  *The book is ready for printing.*

Here are some more examples:

(106)  *Strawberries are easy to propagate.*
(107)  *Gina seemed very likeable and looked easy to talk to.*
(108)  *The battle will be fun to watch.*

6. To-infinitive as qualifier of a noun group

If the to-infinitive form of a verb is used after a noun group, that verb ‘loses’ a noun group from its pattern. In the following example, *to play* is qualifying the noun group *a rotten trick*. The verb *play* has the pattern \( V \text{ n} \) (as in *He played a trick*) but in this example the noun group which the verb relates to occurs before the verb.

(109)  *It was a rotten trick to play.*

Here are some more examples:

(110)  *I had a rather special problem to solve.*
(111)  *That was a silly thing to say.*

7. Fronted elements

Normally the first element in the clause is the Subject: there is a strong tendency for the Subject to be thematised. However, other elements can be fronted for emphasis.

These examples show a fronted Object or prepositional Object:
(112) *This I could never have anticipated.*
(pattern is $V \, n$)

(113) *I became known among my friends as the boy who took drugs. This I really bragged of.*
(pattern is $V \, of \, n$)

(114) *He put the hat into his holdall. The gun he put in the pocket of his raincoat.*
(pattern is $V \, n \, prep$)

These examples show a fronted Complement or Object Complement:

(115) *Terrible he was. Horrible man.*
(pattern is $V \, adj$)

(116) *The Butcher, they called him.*

(117) *Lucky Alexander, he was called.*
(pattern is $V \, n \, n$)

These examples show a fronted Adjunct:

(118) *In the middle of all this, in walked Maggie.*
(pattern is $V \, prep/adv$)

(119) *Taking a deep breath, in he went.*
(pattern is $V \, prep/adv$)

Note that there is verb-Subject inversion except where the Subject is a pronoun.

These examples show a fronted wh-clause:

(120) *Why I did this I cannot say.*
(pattern is $V \, wh$)

(121) *How he got in I do not know.*
(pattern is $V \, wh$)

8. Cleft structures

If you want to focus on a noun group, you can use a cleft structure instead of using that group as the Subject or Object of a sentence. In a cleft structure the Subject is *it*, the verb is *be*, and the noun group you are focusing on is the Complement. The noun group is followed by a relative clause giving the rest of the information.

(122) *He found a telephone and dialled the Kent number. It was Bird who answered.*
In this example, the cleft structure represents an alternative to Bird answered. As with ordinary relative clauses, when the noun group you are focusing on is the Object of the verb, the normal word order is changed. The Subject comes after the relative pronoun if there is one, or after the Object.

(123) If it’s gossip you want, you’ve come to the right place.

(124) It was you I came to see.
(pattern is V n)

9. Pseudo-cleft structures
In a pseudo-cleft structure, a clause beginning with what is the Subject of the verb be, focusing on new information following the verb. The word what can be the Subject or Object of the clause, but always comes first. If what is the Subject, the word order is normal. If what is the Object, it comes before the Subject.

(125) What worries me is that there has been a huge influx of drivers with very little experience.

(126) What we need is democracy.
(pattern is V n)

A clause beginning with all can be used in a similar way.

(127) All they want is a quiet life.
(pattern is V n)

10. Comparisons
When a comparative noun group is followed by a clause beginning with than, there is no noun group after the auxiliary, verb, or preposition in the clause.

(128) They knew much more than we did about the problems ahead.

(129) I have much more money than I need.

(130) It may be a better job than it looks.
(pattern is V n)

(131) We got far more than we had bargained for.
(pattern is V for n)

When a noun group beginning with as is followed by a clause beginning with as, there is no noun group after the auxiliary, verb, or preposition in the clause.

(132) Please give as much notice as you can before you vacate the premises.
(133) *Fit a Venetian blind which can be angled to let in as little or as much light as you like.*
(pattern is V n)

(134) *We have as much support as we ask for.*
(pattern is V for n)

A similar thing happens when an adjective group or adverb group is followed by a clause beginning with *than* or *as*. There is no adjective or adverb after the verb or auxiliary in the clause.

(135) *He’s smarter than I am.*

(136) *This is not as simple as it sounds.*
(pattern is V adj)

(137) *They did better than we did.*
(pattern is V adv)

Similarly there is no that-clause following the verb.

(138) *Obtaining access to Wu took a little longer than she had promised.*

(139) *I’m not as disheartened as people think.*
(pattern is V that)

The patterns of nouns and adjectives, too, may be superficially different in similar ways as those described above. (See Francis et al. 1998: 547–550.) Firstly, the pattern of a noun may be affected by a verb pattern. In the following example a noun with the pattern N to-inf, *duty*, is used with a verb, *impose*, which has the pattern V n on n. The prepositional phrase beginning with on comes before the to-infinitive clause:

(140) *Section 221 of the Companies Act 1985 imposed a duty on a company to keep accounting records.*

Secondly, the noun pattern may be interrupted by a verb group, as shown by the following example, where the pattern is N that:

(141) *Rumours quickly spread that Mr Yeltsin had been the victim of an assassination attempt.*

Thirdly, the noun may be separated from the other elements in the pattern by a verb group and an adjective group. The following example has the pattern N that:

(142) *Rumours are rife that the Prime Minister may be about to resign.*
In the same way, adjective patterns may occur in a different form when interrupted by another pattern. The following example shows the pattern ADJ at n/-ing:

(143) *Sam Rosen was a good man at explaining things, and Kelly a good questioner.*

These, then, are the basic ways in which patterns operate. The next chapter will explore some issues which complicate the notion of pattern.
CHAPTER 3

Problems in identifying patterns

One of the appealing aspects of corpus linguistics is that it appears to open many doors in terms of the automatic processing of texts. One possible application of automatic text processing would be to identify the patterns that a given word has. This might appear to be a relatively easy task: the computer would simply have to recognise that a word is often followed by a particular preposition, by a to-infinitive or an ‘-ing’ form, for example, and a pattern would have been identified. Manual work with patterns, however, suggests that the situation might not be so simple. There are several obvious complications. One is that the computer would have to recognise the different forms that a pattern can take (see Chapter 2). Secondly, it would need to distinguish between sequences which in formal terms are the same but which in pattern terms are not. Here are some examples:

a. The computer would need to distinguish between that introducing a relative clause, as in Daniel didn’t miss the look of annoyance that flickered on Brenda Goldstein’s face and that introducing an appositive that-clause, as in If anything, my mood is more one of annoyance that we haven’t been winning when we have played so well in so many matches.

b. It would need to distinguish between a to-infinitive that is part of a pattern, as in But then things started to go wrong and a to-infinitive that simply means ‘in order to’, as in A group of young children passing by stopped to watch us.

c. It would need to distinguish between the preposition as, as in I went along dressed as a Japanese lady and the conjunction as, as in Rock queen Tina Turner didn’t feel quite dressed as she stepped aboard Concorde yesterday.

In this chapter we identify three further phenomena that can confuse the human being and would almost certainly mislead the computer. In doing so we raise further issues around the question ‘what is a pattern?’ This question has been answered by exemplification in Chapter 2. In this chapter we turn to problem cases and ask ‘what is not a pattern?’ Our main argument in this chapter is that frequency and pattern are not necessarily the same thing.
3.1 Which word does the pattern belong to?

The first point to make is that a pattern does not always directly accompany the word that it ‘belongs to’. Consider as an example the nouns *annoyance* and *satisfaction*, both sometimes followed by *that*. In the following sample concordance lines, the clause following *that* is an appositive that-clause belonging to *annoyance* and *satisfaction* (the pattern N that).

uld be ‘not guilty’. He expressed annoyance that the judge was obviously ho was the pilot, did express his annoyance that he could not start it, ’ M lightly, clearly concealing his annoyance that Voloshin knew this, as his in the Tonga. It started with my annoyance that the newsmen who were makin I can now see it stemmed from my annoyance that she should have implied, n his over-riding emotion is one of annoyance that he wasn’t warned about the British Embassy in Rome expressed satisfaction that the Italian authorities and for the voters.’ He expressed satisfaction that people are increasingly I felt an incredible amount of satisfaction that the perpetrators of thi the full variety of wares, a smug satisfaction that yet another client has

In other cases, however, the that-clause belongs to a verb that precedes the noun. This happens particularly when the noun is part of a phrase such as to one’s annoyance/satisfaction or with annoyance/satisfaction. In the following examples, the verb with the pattern V that is underlined.

Times, but Yul decided to his own satisfaction that the sickness was the fa broad-rimmed hats and notes with the airport itself. She saw with the same time he remembered with viewing head, Brunner noted with out. Ruth found, to her ossroads, he found to his intense cab home and find, to my intense for they had found to their annoyance that, thanks to Peierls’s shred didn’t reply. Hart noted with annoyance that his brother hadn’t respond

Too cursory a glance at the concordance lines would overestimate the number of occurrences of *annoyance* and *satisfaction* with an appositive that-clause.

Another example where the careless observer might be tempted into making an error is the adjective *rife*. This occurs 1114 times in the 300 million word Bank of English. It is followed by *that* introducing a that-clause no fewer than 113 times, and the t-score for *rife* followed by *that* is 9.5, which clearly indicates a significant collocation (see p. 231). A sample of the concordance lines, however, shows that these figures may be misleading.

Rumours were rife that Knin had been taken
Suspicion was rife that there were Mid-east connections
Speculation has been rife that the glamour forward could leave
Rumour had been rife that Mr Andrew’s return to the
rumours were rife that he’d suffered a recurrence of
With rumours rife that ringleaders of both sets of
Speculation is rife that Grant’s handlers have scripted Rumours had been rife that if war came the ground would Suspicion is rife that the bond-arbitrage profits were concern is now rife that citizens with burnt fingers Speculation is rife that the shake-out could trigger the fears were rife that bankruptcy moves on Britain’s Speculation is rife that he will become life president Speculation is rife that there could be a flood of new speculation was rife that Offiah would be on his way rumour is rife that Dorothy’s job is still in Speculation is rife that it will tumble back through the

The that-clause in each of these lines belongs to the noun, mainly rumour/s, suspicion and speculation. Clearly it is significant that rife comes between the noun and its that-clause in a large number of cases, but the adjective rife does not have the pattern ADJ that.

A similar issue arises if we consider the word enough following an adjective and followed by a to-infinitive clause. If the adjective is big, for example, the to-infinitive clause ‘belongs to’ enough:

troughs of flowers scarcely big enough to decorate a gnome’s summerhouse
The back seat is even big enough to hold the occasional adult if another room. The laundry is big enough to take a standing ironing board
Do it when the seedlings are big enough to handle.
also eminently practical – it’s big enough to take four adults and their
in addition to designing a stage big enough to take large-scale opera
to the more apprehensive eye, big enough to drown a suburban church
grow up to 15 cm tall and are big enough to catch small fishes.
Just a little girl, not even big enough to drive a car or go out
no one else has an indoor space big enough to throw this kind of party

This pattern is unique to enough. It might be expressed as adj enough to-inf.

If the adjective is easy, however, the same pattern does not occur. If enough is followed by a to-infinitive clause, that clause belongs to easy, not to enough. The following examples all begin with it.

It is easy enough to find two who wish that his
It is easy enough to make if you buy the pastry
and it was easy enough to follow
It was easy enough to understand why their
but it is easy enough to speculate on their
But it was easy enough to tell then that there was
It is easy enough to explain the preponderance
it was easy enough to persuade him that the
It was easy enough to hear the clatterings of
It was easy enough to seed a mine, bringing in
It was easy enough to tell Alice was fresh
It is easy enough to look at your course
With hindsight it is easy enough to see the two main errors

In most cases, the pattern is it v-link ADJ to-inf. In lines 2 and 3, however, the it is anaphoric reference, not introductory it and the pattern is ADJ to-inf. In either case, the presence of enough does not affect the pattern. Enough here is a post-positional grading adverb, similar to fairly, but following the adjective.
The adjective *bad* is, for the most part, similar to *big* above. If it is followed by *enough* and a to-infinite, the to-infinite belongs to *enough*:

so bad that I couldn’t get up but bad enough to prevent my doing anything
I don’t think it’s bad tuition in Indian Kashmir appears bad enough to give it up
enough to persuade thousands to make disaster – this is bad enough to put us out of business
thought ‘bout whether I wanted it bad enough to smoke it anyways
ond-degree burns on his tail were bad enough to force him to stop
The result was not bad enough to force him to call an early
The fog was just bad enough to make overtaking dangerous
even with back and sinus problems bad enough to bring the trainer on

This pattern is, again, **adj enough to-inf**. However, if the adjective is preceded by an introductory *it*, we find a pattern that needs a different kind of explanation. Here are a few concordance lines:

<table>
<thead>
<tr>
<th>Concordance Lines</th>
<th>Other Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is bad enough to lose a length casting, let alone</td>
<td></td>
</tr>
<tr>
<td>It is bad enough to suffer the control of our minds by the modern media; we don’t want to be completely programmed by the scientists.</td>
<td></td>
</tr>
<tr>
<td>It was bad enough to realise it – she could not</td>
<td></td>
</tr>
<tr>
<td>it was bad enough to know that their father had</td>
<td></td>
</tr>
<tr>
<td>It was bad enough to lose, Admiral, worse to be</td>
<td></td>
</tr>
<tr>
<td>He said it was bad enough to break a precedent by</td>
<td></td>
</tr>
</tbody>
</table>

and some expanded examples:

1. *It is bad enough to suffer the control of our minds by the modern media; we don’t want to be completely programmed by the scientists.*
2. *It was bad enough to lose, Admiral, worse to be unable to accept it.*
3. *It is bad enough to lose your prisoners, but injuring your customers through ignorance of procedures will be a criminal responsibility.*

Here the to-infinite belongs to *bad*, in the pattern **it v-link ADJ to-inf**, but there is also an association between *bad enough* and the clause that follows. The clause *bad enough* indicates a bad situation, and this is followed by the second clause which indicates a still worse scenario. This is an example of ‘clause collocation’, which will be discussed in more detail in Chapter 8.

The sequence ‘adjective *enough* to-infinite’, then, is ambiguous in terms of pattern, and the adjective must be specified for the pattern to be correctly identified. A computer programme would have difficulty, then, in recognising the correct pattern for an adjective it had not been taught to deal with.

Pattern ambiguity may also occur with a single word. The following two sets of concordance lines have the same sequence of words but exemplify, first, the pattern **v it ADJ to-inf** and, second, the pattern **ADJ to-inf**. In other words, the first set of lines comprise a pattern with introductory *it* as Object, whilst in the second set the *it* is anaphoric reference.

*The protruding perches will make it awkward to position the cages within...*
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on your social life (making it awkward to eat out) and the lack of adding bulk and making it awkward to write comments in the margins intervention. That makes it awkward to look too hard at the pre-nders that the usual stubs make it awkward to write.

Alongside the halyards makes it awkward to operate if another control li oll after printing, which makes it awkward to read and file. Also, the small but heavy enough to make it awkward to carry. I rested it on the radioactive. That makes it awkward to store and handle, but it make on the bottom of the tube made it awkward to use. It’s expensive too.

We do not know exactly how the human reader decides which pattern interpretation is the correct one. Possibly he or she asks, on encountering it ‘is there something that this might refer to?’ and asks, on encountering the to-infinitive ‘is this clause complete or does it refer back to it?’ Both retrospective operations are beyond the capacity of current computer programmes. If a computer were given the task of assessing how many lines of the pattern *it v-link ADJ to-inf*, with the adjective awkward, occurred in a particular corpus, it would be highly likely to give an inaccurate answer.

Our point in this section is that the raw data of concordance lines needs to be interpreted for patterns to be identified correctly. We have focused here on points of difficulty, where interpretation is particularly important and where automatic processing is likely to fail. For the human researcher, however, all the problems raised in this section are highly solvable. In the next section we turn to problems that are open to debate even by the human corpus-user, and which challenge us to define more precisely what we mean by pattern.

3.2 When is a pattern not a pattern?

Our argument in this chapter is that frequent co-occurrences of words do not necessarily indicate the presence of a pattern, and that interpretation of concordance lines is necessary to the identification of patterns. In the previous section we suggested cases where a computer (or an inattentive human researcher) might mistake frequent occurrence for pattern. In this section we look at cases where the identification of pattern is open to interpretation.

The first example is the verb *train* (in the sense of ‘study’ or ‘teach’), which is commonly followed by a variety of prepositions, notably *as, at, for, in* and *with*. The verb *train* can be interpreted as having two sets of patterns: *V as n* and *V n as n* (or the passive *be V-ed as n*); *V in n* and *V n in n* (or the passive *be V-ed in n*). These are illustrated briefly by the following concordance lines:

> dog trainer, Gary Jackson, has trained Yandi as a narcotics-detect
> ventually the Chinese Government trained her as a librarian and she f
> t in Africa, Asia and Europe. He trained as a teacher, and at present works
> Feb 15), interesting. I trained as a nurse in Brisbane where both
by the Americans and were being trained as an opposition commando force. said that she had a son who was trained as an engineer but that he was an the Celtic races, women warriors trained boys in the arts of combat. mprehensive religious education, trained the boarders in the use of for the last eight years. I have trained in counselling, hypnotherapy and cheek and passion. Ningali has trained in dance but never as an actor Armani was never formally trained in design, though he says he must raggerman and they are specially trained in underground rescue. Each of Saying that these lines illustrate patterns belonging to the verb train essentially means that the use of the preposition as or in is constrained by the choice of verb, and, conversely, that the choice of verb is constrained by the preposition. In other words, and in accordance with the idiom principle, train(ed) as and train(ed) in are selected by the speaker as single units. The same is not true when the verb is used with other prepositions. At is usually used to indicate a place, for to indicate a time, and with to indicate equipment or companions. The verb often means ‘prepare for a sport’ as well as ‘learn or be taught a skill’. The preposition in is sometimes also used to indicate place: in this case, it is not an instance of the pattern V in n. The concordance lines below illustrate the use of train with a preposition where this does not constitute a pattern.

om practice in that England will train at Wembley on the Saturday before go. Stone said it was a bonus to train at the Finland Institute for two me offering her a scholarship to train at a college in Idaho. America sandbagged roads outside, troops trained at great expense to defend Western of whole problems than those trained at first-rate schools (and) worked friend William Hewlett, who had trained at MIT before returning to was. After all the best way. She trained for a year, perfected what speech powerfully controlled as if he’d trained for years. Altering his gait e fact that his goal ace has not trained for three weeks because of shin rtley said yesterday he had been training for a couple of weeks and thought easant army that Marcos has been training for 10 years move out from the Damien Marsh left Brisbane to t of ordering the players not to train with the Super League clubs but an drive into Belfast where they train in the gymnasium run by their n the USA and Britain, the group trained in New York and have performed in from his father Francis, who was trained in Paris at the famous Larue

The case of train is relatively straightforward, in that there is a clear difference between train as a teacher and train at a college. In some cases, however, the interpretation of a frequent sequence as a pattern or not is much more difficult and open to debate. As a first example, consider the concordance lines below, which show the adjective available followed by a variety of prepositions. Although here only a few lines are shown, they are representative of large number of occurrences (in the Bank of English) of each preposition following available.
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slips into a pocket or handbag. Available at chemists, supermarkets and first quality tile prices are available at The Tile Bin, next door to of a ribbon and these were made available at all venues. A 10p donation in is artistic, and most of it is available at reasonable prices. But even There are very few rooms available at any Forte hotel in the except for Jakovich should be available for our first practice match, he with McCaw Cellular, was not available for comment. A public statement ange of commodities and services available for cash, the commercialization isfied that the child is legally available for adoption and that the natura not have to be filed but must be available for inspection.
of the trails. Full details are available from the Park Authority. Both onies. Explanatory leaflets are available from most GP’s surgeries and Norwich. Full details available from World Development Movement Chesterfield, the sofa is available from Robert’s shop, Carless one of the lowest everyday rates available from any major credit card blaming a lack of hotel beds available in Glasgow for the 8 May ly 17 of 125 toothpaste formulas available in Australia. The toothpaste made. Further places may become available in the coming weeks. If parent not be new as long as it’s still available in the shops. Write to: Lena French and Czech lagers (widely available in supermarkets and off-licences d design projects. The product is available in ten strong colours in rolls The new Nubrollis are available in 45 and 50 inch diameters at Kit costs £2.19 and is available in 15 different colours. The creamer, sugar bowl and vases. Available in Gold, Purple, Blue, Ruby Red is scratch resistant. Frames are available in traditional tortoise or ebon Allotments. But none of these is available on the open market. Goods can or allegedly misusing information available on a shared computer network, b All the allowance to be made available to more women, paid at a higher said there were four alternatives available to Homestake shareholders: acce Users and street cops agree it is available to virtually all who want it, med local telephone calls will be available to all consumers from 1997 as basic married couple’s allowance available to those aged under 65.

In the case of most of these prepositions, we would not consider the preposition-al phrase to be part of a pattern with available. This is certainly true of the prepositions at, from and on. The information given in the prepositional phrase is relatively trivial (the phrase indicates place or time in most cases), the prepositional phrase can (arguably) be moved to a different part of the clause, and in each case the association of the prepositional phrase with available is not important. Admittedly, none of these criteria is at all watertight. Triviality is a subjective quality, and it is one of the principles of corpus work that a potential transformation (or movement) is not particularly valid evidence (for an alternative view see Rudanko 1996). The final criterion — that it matters what the adjective is — is perhaps the most telling but also somewhat subjective. Let us take an example from the above lines:

(4)  There are very few rooms available at any Forte hotel…

We would argue that this information can be phrased in many ways, not using available or another adjective that might belong to the same meaning group: You can’t stay at any Forte hotel; At any Forte hotel rooms are in short supply; There
are very few rooms at any Forte hotel and so on. Thus the adjective available is not significant to the prepositional phrase at any Forte hotel.

There are three types of example in the concordance lines above where it is possible to argue for a closer association between adjective and preposition. These are: the second group of for examples, such as the child is legally available for adoption..., the second group of in examples, as in The product is available in ten strong colours, and the to examples, such as it is available to virtually all who want it. Attempts at rephrasing would give us:

(5) The child has been brought to us for adoption; The child is to be considered for adoption; You can take the child for adoption.

(6) The product can be bought in ten strong colours; The shop stocks the product in ten strong colours; The product is manufactured in ten strong colours.

(7) The product can be sold to virtually all who want it.

The first two sets of rephrasings suggest that for adoption and in ten strong colours are phrases in their own right that are used with a range of other lexical items. The presence of available is not significant to the use of those prepositional phrases. Thus, available does not have the patterns ADJ for n or ADJ in n. The phrase to virtually all who want it, on the other hand, is not so flexible. It can be used with the verb sell, but only because that verb has the pattern V n to n. It is therefore important for the prepositional phrase that the adjective is available, or we might say that the pattern ‘selects’ this adjective and not other words. Therefore the adjective has the pattern ADJ to n.

On the whole, the question of whether something is or is not a pattern is especially difficult to answer in the case of nouns and adjectives. The preposition in is particularly problematic. Here are some concordance lines for the sequence ‘possessive + aim/purpose + in + -ing form’. The question they raise is: Do the nouns aim and purpose have a pattern poss N in -ing?

1 Renewed – and this should be your aim in applying similar methods at home
2 pposition claims the government’s aim in expanding the Supreme Court is t
3 mselves has repeatedly insisted his aim in going was purely humanitarian, t
4 it has stayed the same brain. Her aim in pursuing these courses was to
5 before he achieved his principal aim in retaking Jerusalem. That the
6 peror’s wedding, her more serious aim in travelling to China was to meet
7 disease. Vogel’s express aim in writing Vital Circuits is to
8 ater the therapy discipline. My aim in writing this book was to give
9 yone can be bought. Franco’s real purpose in arranging the meeting finall
10 has told me himself – that his purpose in coming here was to hold
11 and among lesbians. This was my purpose in creating the book. A Lesbian
12 s got to be in charge. Part of my purpose in going is to see how we appro
13 roaches (Box 21.1). Part of their purpose in protesting, in fact, is not
14 act as parliamentary adviser. My purpose in putting the amendments down
15 at home, the taxpayer’s primary purpose in sending her to a public high
16 edition, Seafield explained his purpose in writing the book: The great
The answer to this question is not easy. On the one hand, there is clearly a frequently-occurring, variable sequence of words that comprises ‘someone’s aim or purpose in doing something’. This is the kind of sequence that a teacher may well find it useful to teach a learner of English. Furthermore, there is clearly a group of nouns with similar meanings (aim, purpose, intention, motivation, target) that occur in this sequence. On the other hand, the prepositional phrase beginning with in is very mobile. Rephrases of some example lines, such as In pursuing these courses her aim was to... (line 4); In writing this book my aim was to give... (line 8); In coming here his purpose was to hold... (line 10); In creating the book, this was my purpose... (line 11) are very acceptable, although of course they alter the weight of information given. In addition, the preposition in seems to have a meaning that is expressible in other ways. For example, line 1 is rephrasable as This should be your aim when you are applying similar methods at home, and line 5 might be rephrased as He achieved his principle aim which was to take Jerusalem. Furthermore, the examples might be rephrased with the prepositional phrase but without the key words aim or purpose. Line 6, for example, might be rephrased What she wanted to do in travelling to China was to meet... or She expressed the wish that in travelling to China she might meet... On balance, it seems that we do not here have a pattern possess N in -ing, but the question does remain open to debate.

In our study of adjectives with the pattern ADJ in n (Francis et al. 1998), we have distinguished between adjectives where the occurrence of in is dependent on the adjective, making a genuine adjective pattern, and those adjectives where the occurrence of in is less dependent on the adjective, so that the sequence is not a genuine adjective pattern, although the adjective and preposition occur together so frequently that it is unreasonable simply to omit them from consideration. In those cases where the preposition is not dependent on the adjective, the prepositional phrase indicates an aspect of the situation to which the adjective is relevant.

The genuine pattern groups include the following:

1. absorbed, bogged down, concerned, disinterested, embroiled, engaged, engrossed, enmeshed, entangled, immersed, implicated, interested, involved, locked, mixed up, tied up, uninterested, wrapped up

(8) Universities need to be more involved in student life.

2. deficient, lacking, wanting

(9) There’s a need for people to teach literacy and numeracy to kids who are deficient in those skills.
3. implicit, inherent, present  
   (10) All the mistakes point up the limitations inherent in the technology.
4. awash, high, low, poor, rich  
   (11) Keep your meals low in fat and sugar.
5. long, quick, slow, tardy  
   (12) Success was not long in coming.

The groups for which the pattern is not genuine (that is, where the preposition is not dependent on the adjective) include the following:

6. adamant, forthright, firm, frank, loud, resolute, steadfast, unequivocal, vehement, vocal, vociferous  
   (13) She is adamant in her refusal to make any statement.
7. assiduous, relentless, rigorous, ruthless, vigorous  
   (14) His ancestors were much more ruthless in their exploitation of the workers than he was.
8. attired, clad, clothed, dressed, garbed, shod  
   (15) She was clothed in a red top, grey slacks and shoes.
9. banded, bathed, bedecked, coated, cocooned, dappled, edged, plastered, shrouded, smothered, upholstered  
   (16) As I recovered my senses I realised I was bathed in a cold sweat.
10. beneficial, helpful, invaluable, unparalleled, useful, useless, valuable  
    (17) I understand celery seed extracts are helpful in the treatment of arthritis.

Thus the question of what is and is not a pattern is one that is not always easy to answer. The existence of a particular pattern with a particular verb, noun or adjective is a factor not only of the frequency of a given sequence of items but of the dependency of the potential pattern on the key word. To a certain extent, that dependency can be tested by attempts at rephrasing, but, at the present time at least, intuition seems also to play a part.

In the next section we look at cases where patterns as we have described them up to now seem insufficiently specific for the description of the behaviour of some words.
3.3 Do patterns over-generalise?

3.3.1 Introduction

In the previous section we referred to a possible pattern **poss N in -ing**, and discussed whether the nouns *aim* and *purpose* might be said to have this pattern. This pattern would be different from most mentioned in this book in that it specifies, not only what comes after the key word but also what comes before it.

In general, our topic in this book is complementation patterns, that is, the specification of items that follow the key word. Some patterns do involve other elements (see Chapter 2). For example, patterns involving the ‘dummy Subjects’ *there* and *it* specify what comes at the beginning of a clause. Similarly, some of the patterns associated with reciprocal verbs specify that the Subject must be plural. An example of a pattern of this kind is **pl-n V**, exemplified by *They argued*, where the plural Subject indicates reciprocity (‘A argued with B and B argued with A’) as well as simple plurality. Mostly, however, information is restricted to what follows the verb, noun or adjective.

In addition, our patterns involve a fairly high degree of generalisation. For example, our coding **n**, as in the pattern **V n**, usually means either a noun or a pronoun. When an adjective pattern involves a verb, we distinguish between link verbs and others, but we do not make any finer distinctions. In this respect, our work is not entirely in step with that of Sinclair, who stresses the idiosyncratic behaviour of individual word forms and the phraseological patterning of particular lexical items. Where Sinclair seeks to differentiate, we seek to draw parallels and make generalisations. Our generalisations are not as broad as those of traditional grammar, but the principle of generalisation is there.

In this section we look at a number of cases where it might be argued that our patterns need to be specified in greater detail. We also point out the problems inherent in trying to adopt this greater specificity.

3.3.2 ‘It’s been a privilege to know you’

The first example involves the nouns *privilege* and *honour*. For both these nouns, a frequent pattern is **N of -ing**, as in ‘the privilege/honour of knowing you’. In the Bank of English corpus, there are 557 examples of this pattern with *privilege* and 338 examples with *honour*. A less frequent pattern is **N to-inf**, as in ‘the privilege/honour to know you’ (177 and 149 examples respectively). However, this second pattern typically occurs only as part of three longer patterns. These are:
it be a/poss N to-inf, as in It was my privilege to watch the game or It was an honour to meet him and talk to him;

have the N to-inf, as in ..all those who had the privilege to know him or I have the honour to remain your obedient servant;

what a/an N to-inf, as in What a privilege to drive a car of this calibre or What an honour to share Christ’s name! This pattern might be said to be a variant of the first: an ellipted version of ‘what a privilege/honour it is to do something’.

Strictly speaking, then, it is incorrect to say that these nouns have the pattern N to-inf. On the other hand, it would be incorrect to say that privilege and honour cannot be followed by a to-infinitive. Rather, the to-infinitive forms part of a set of longer, more specific patterns.

3.3.3 ‘Adamant in her refusal’

Our next example comes from the adjective pattern ADJ in n. One group of adjectives with this pattern comprises words such as adamant, forthright, firm, frank, loud, resolute, steadfast, unequivocal, vehement, vigorous, vocal and vociferous, which indicate that someone believes something strongly or talks about something as if they believe it strongly. Examples of these adjectives with this pattern, taken from Francis et al. (1998), include:

(18) She is adamant in her refusal to make any statement.
(19) Both men are military officers and firm in their belief that the nation’s interests and their own are one and the same.
(20) Last week the fans were loud in their support for their manager, his players and his tactics.
(21) Even Greenpeace UK, so vocal in its opposition to Sellafield, said that their independent scientific advice was that low-level radiation posed no threat.

The noun groups in this pattern share two features: Firstly, the noun itself realises a way of thinking, such as belief, a way of talking, such as support or opposition, or an absence of the same, such as refusal. Secondly, the noun group begins with a possessive determiner (her, their, its) that refers to the Subject of the clause (She...her; Both men...their; the fans...their; Greenpeace UK...its). If we adopt Halliday’s distinction between congruent and metaphorical representations, then She is adamant in her refusal to make any statement might be said to
be a metaphoric realisation of the congruent *She adamantly refused to make any statement*, and the other examples can be interpreted in the same way.

None of this information is captured by the pattern representation ADJ in n. We might change this to ADJ in poss n (which would in turn change the meaning of n from ‘noun group’ to ‘noun’), but this would still not capture the fact that particular kinds of noun are used here.

3.3.4 ‘Her success as a designer’

The next example concerns a noun pattern: N as n. Two nouns that are used with this pattern are *success* and *failure*. These nouns are used with this pattern, however, only under certain circumstances, that is, when the pattern N as n occurs as part of a more specific pattern. There are three such specific patterns, exemplified by the following (taken from Francis et al. 1998):

(22) *I knew I could be a success as a fighter and a human being.* (v-link N as n)

(23) *Bella is modest about her success as Young Designer of the Year.* (poss N as n)

(24) *We need more research and reports on the failure of men as fathers and housekeepers and on the growing burdens imposed on working mothers.* (N of n as n)

Note that the second of these patterns is unsatisfactory from the point of view of consistency, as the first N means ‘noun’ but the second n means ‘noun group’.

Apart from that problem, these examples highlight a dilemma of doing grammar as pattern: how much phraseological information on individual words can be included. The nouns *success* and *failure* behave idiosyncratically, and differently from the other nouns (*performance*, *potential* and *record*) in their meaning group. The details of their phraseology perhaps belongs in a dictionary rather than a grammar book (though it would be a rare dictionary that could spare the space for so much detail), but the generalised pattern N as n is clearly missing some vital information.

3.3.5 ‘It’s illogical to believe’

This example is from the pattern it v-link ADJ to-inf. One meaning group associated with this pattern (in Francis et al. 1998) consists of the following adjectives:
accurate illusory obvious
fair inaccurate plain
fallacious inconceivable plausible
false incorrect true
fanciful incredible untrue
illogical logical valid

All these adjectives indicate a judgement about an idea, that it is accurate, obvious, true, untrue and so on. We can give three further pieces of information about this meaning group and this pattern.

Firstly, the verb in the to-infinitive clause is typically one which indicates a mental process, as in these examples:

(25) It is illogical to believe that old age or a love of privacy should entitle her to expect special treatment.

(26) It is at least plausible to conclude that rainfall patterns shift and a drought will occur.

A second type of verb which frequently occurs in the to-infinitive clause is the verbal process type, such as say, state and so on. However, when these verbs are used, the link verb typically includes a modal. The adjectives accurate, fair, obvious, true and untrue are most often used in this way, as in these examples:

(27) Anita did not take much notice of the types of people present. It would be more accurate to say that she did not see them.

(28) It may seem obvious to state this, but I am constantly amazed at the small percentage of patients who, given that they feel better avoiding a food, still can’t wait to go back to eating it.

The third observation concerns only one of the adjectives, plain, which is typically used with the verb see in the to-infinitive clause:

(29) Why did she make those awful chewing movements with her mouth when it was plain to see she hadn’t anything to chew?

Again, an accurate portrait of how these adjectives are used requires more than can be captured by the simple pattern representation.

3.3.6 ‘She qualified as a doctor’

Our final example concerns the pattern V as n. In our coding, n stands for ‘noun group’, which in principle includes both nouns, and their associated modification,
and pronouns. With some verbs that have the pattern \( V \text{ as } n \), however, the pronoun option does not apply. (This was pointed out to us by Mike Scott.) For example, for the verbs \textit{volunteer} and \textit{moonlight} there are no occurrences in the Bank of English where they are used with \textit{as} followed by a pronoun. The verb \textit{work} has just one example (out of a total of 6714 occurrences of \textit{work|works|working|worked as}) where \textit{as} is followed by a pronoun:

\begin{equation}
(30) \quad \text{Enrico would rather act as a tough guy than work as one.}
\end{equation}

Notice here that the pronoun is \textit{one}, and could not be replaced by a personal pronoun such as \textit{it} or \textit{him}. Similarly \textit{qualify}, with 1016 lines of the verb followed by \textit{as}, has only four lines where \textit{as} is followed by a pronoun, the pronouns being \textit{both}, \textit{either}, \textit{one} and \textit{that} (e.g. ‘They were really creating this extraordinary new information medium.‘ ‘When you call it a medium, how does it qualify as that?’). In all four lines, the meaning of \textit{qualify} is ‘be interpreted in that way’ rather than ‘be fitted for a career’.

One possible solution to this would be to adopt the coding used in CCED for phrasal verbs. For example, the verb \textit{hand in} (as in ‘hand in your notice’) has one pattern \( V \text{ n P} \) where the \( n \) indicates either a noun group or a pronoun (e.g.\( He \text{ handed his notice in or } He \text{ handed it in} \)), and another pattern \( V \text{ P n (not pron)} \) where the \( n \text{ (not pron)} \) indicates a noun group but not a pronoun (e.g.\( He \text{ handed in his notice but not } *He \text{ handed in it} \)). We could, then, adopt a coding \( V \text{ as n (not pron)} \) for examples such as \textit{She qualified as a doctor}. That would be only partially accurate, however, because \textit{qualify} can be used with a pronoun, but only a pronoun of a particular kind, and such uses occur only rarely, as we have described above. A coding such as \( V \text{ as n (not pers pron)} \) seems perversely clumsy. Of the many possible almost-truths, we have so far settled for \( V \text{ as n} \), but it might be argued that the alternatives are preferable.

In all these examples, then, we have suggested that patterns may be made far more specific than they currently are. Such specificity would not allow simple grammar codes of the type we have used here, however. An increase in information, therefore, would be paid for by a loss of transparency. Groupings would become much more complex. As work at the interface of lexis and grammar progresses, it is possible that other compromises will be reached between specificity and generalisation, between what is accurate and what is simple to represent.
CHAPTER 4

Patterns and Meaning

4.1 Meaning groups: some examples

One of the most important observations in a corpus-driven description of English is that patterns and meaning are connected. Following his description of the senses and uses of the word *yield*, in which he finds that each sense of the word is strongly associated with a single pattern of use, Sinclair (1991: 65) concludes: “It seems that there is a strong tendency for sense and syntax to be associated.” Francis (1993) adds more evidence from a different perspective, by noting that in a pattern such as *v it adj*, the range of lexical items that appear frequently in either the verb or the adjective position is limited, suggesting that the meanings that the pattern can make are also limited. Taking these two pieces of evidence together we can hypothesise, firstly, that the different senses of words will tend to be distinguished by different patterns, and secondly, that particular patterns will tend to be associated with lexical items that have particular meanings. It is the second of these hypotheses that we explore here.

The question of how far we may take this observation that meaning and pattern, or sense and syntax, are associated, and what the theoretical implications are, will be taken up later in this chapter. Meanwhile it is enough to say that more extensive work with a larger corpus has tended to confirm the initial observations. One outcome of this is the Collins COBUILD Grammar Patterns series (Francis et al. 1996; 1998), in which the words that occur with each pattern are listed in meaning groups. We will now look at some of these patterns to explain this in more detail.

Example 1: V of n

Here is a list, in alphabetical order, of the 32 verbs from the Collins COBUILD English Dictionary (CCED) that have the pattern *V of n*:

- approve
- beware (infinitive and imperative)
- boast
- come
- complain
- conceive
- consist
- daydream
- despair
- die
- disapprove
With some of the items in this list, the sense or senses of the verb that has/have this pattern is/are not the most obvious. For example, two, fairly infrequent, senses of the verb come have this pattern: ‘result from something’, as in Some good may come of all this, and ‘belong to a family’, as in She comes of a family of painters. The verb speak occurs with this pattern in the obvious sense of ‘talking’ but also in the sense of ‘being evidence of’, as in His behaviour spoke of an early maturity. The verb conceive with this pattern means both ‘plan something’, as in They conceived of a plan to rob the Kremlin, and, in the negative, ‘disbelieve’, as in She couldn’t conceive of a worse plan. The sense of drain in this pattern is as in Her face drained of colour.

Another, perhaps obvious, point is that putting a word in this list does not account for all the behaviours of that word, nor does it imply that any word in the list behaves the same as the other word in the list, except that they all occur reasonably frequently with the pattern \textbf{V of n}. For example, talk and warn share some patterns (e.g.,‘talk/warn of something’) but not others (e.g.,‘warn/*talk someone about something’). The list tells us about an area of shared behaviour, but by itself it does not give us anything like complete information about any of the verbs in it.

To return to our main point concerning meaning: the list is a varied one, and includes many words that share nothing with each other in terms of meaning. It would be difficult to find a connection, for example, between partake and complain, or between reek and repent. On the other hand, there are sets of words in this list that do share something in the way of meaning. Here are some examples:

\textbf{approve} and \textbf{disapprove} both mean ‘like’ or its opposite;
\textbf{despair} and \textbf{repent} both indicate a (mental) reaction to a situation;
\textbf{boast} and \textbf{complain} both indicate a (spoken) reaction to a situation;
\textbf{speak} (in its usual meaning), \textbf{talk} and \textbf{tell} all mean ‘talk about’;
\textbf{reek}, \textbf{smell}, and \textbf{stink} all mean ‘smell’;
\textbf{smack} and \textbf{taste} both mean ‘taste’;
\textbf{dream} and \textbf{daydream} have similar meanings that are related to \textbf{think};
tire and weary both mean ‘become tired or bored’; know and learn are clearly connected in meaning, and hear is similar in meaning to learn; dispose and drain both mean that something goes from a place, although with dispose the Subject causes the removal (We disposed of the garbage) and with drain the cause is not mentioned in this pattern (Her face drained of colour).

It is not difficult to find larger groupings that will account for all of the original thirty-two verbs:

a. verbs that mean ‘talking’ include boast, complain, speak, talk, and tell. To these we can add warn, making a total of six verbs;
b. verbs connected with mental activity include approve, disapprove, despair, repent, dream, daydream, and think. To these we can add the two senses of conceive. Some people might want to include tire and weary in this group, others would keep them separate. This gives us a total of eight or ten verbs;
c. verbs connected with the senses include reek, smell, stink, smack, and taste. If we take a broader view of this meaning, and take it to mean ‘give evidence of’ we might include the less frequent sense of speak as well, giving a total of six verbs.

We are left with two small groups:

d. verbs meaning to know or come to know: know, learn, hear, a total of three verbs;
e. a possible very small group of two verbs: dispose, drain;

and five further verbs that do not fit into any of these groups: beware, come (both senses), die, partake and permit.

From the evidence of this pattern, some conclusions may be drawn about the association of pattern and meaning. First, we must point out what it does not mean. There is no one-to-one correspondence — it is not the case that a single pattern occurs with verbs of a single meaning. It does not even mean that all the instances of a particular pattern can be covered by a set of meaning groups — we are left with a ‘ragbag’ of five verbs that do not fit in any group.

We must also say that the association of pattern and meaning is not entirely predictive, in the sense that not every verb with a meaning similar to those given above will share the pattern V of n. For example, although warn has this pattern, threaten does not. Complain has this pattern, but gripe does not. Boast has this pattern, but gloat and swank do not. (But see the discussion of language change in Section 4.2.2 below. For approaches that argue for a more deterministic relationship between semantics and syntax see Levin 1995 and Rudanko 1996.)
Second, it must be conceded that the division into meaning groups, such as that given above for \( V \text{ of } n \), is not achieved through anything other than the intuition of the person looking at the list. Different researchers or teachers may well come up with a different set of meaning groups, and even the same observer may on different occasions and for different purposes wish to propose different groups. In Francis et al. (1996), for example, the meaning groups given in the section ‘\( V \text{ of } n' \) (p211–214) are similar to but not the same as the groups suggested above. This is largely because the verbs in the groups are not synonyms of each other, but simply share an aspect of meaning, and different observers would prioritise different aspects. On the other hand, any observer could identify some meaning groups, and it is probable that most observers would arrive at meaning groups that were very similar to each other.

Thus a weak statement of the association between pattern and meaning would be that a list of verbs frequently having a particular pattern is not totally random with respect to meaning. A strong statement would be that a word has a particular pattern because it has a particular meaning. A medium view would be that, given a list of words occurring with a particular pattern, the majority will be divisible by most observers into reasonably coherent meaning groups. We have found no counter-examples to this latter view. It is important to recognise, however, that the weak and the medium statement alike make no theoretical claims and do not ascribe causality. They merely give a shape to a set of observations. The strong statement is a theoretical claim, but is as yet insufficiently substantiated, in our view.

So far we have talked about ‘pattern’ and ‘meaning’ as though these were separate, as though the pattern were a framework into which words with particular meanings could be slotted. This is essentially a matter of convenience: it allows us to talk about a word ‘having’ a pattern and to compile a dictionary entry for a word which lists the patterns it ‘has’ (this is done in CCED). Moreover, it allows us to generalise about patterns, and to list them as if they existed as an entity apart from the words that occur at their core. This approach, however, runs counter to the work of Sinclair, for example, whose investigations into the behaviour of particular lexical items (e.g.1991, 1994 and see the discussion in Section 1.4) stress the uniqueness of each ‘meaning unit’. We would come closer to the spirit of Sinclair’s work if we defined a pattern as a sequence of elements including the core. For example, \( \text{approve of something} \) would be one pattern, \( \text{disapprove of something} \) would be another, \( \text{complain of something} \) another, \( \text{boast of something} \) another, and so on. Instead of grouping words that had a common pattern, we would group patterns that shared a common feature (the preposition \( of \) in this case). In both cases, the words or patterns would be
subdivided in terms of meaning. In the second case, however, the ‘meaning’
would belong to the whole pattern rather than to a single lexical item.

In the example given above (V of n), it makes little practical difference
whether we say that reek, smack, smell, stink and taste share a meaning, or
whether we say that something reeks of something, something smacks of some-
thing, something smells of something, and so on, share a meaning. Sometimes,
however, the word and its pattern means a lot more than the word on its own.
For example, one group of adjectives that occur with the pattern v-link ADJ
about n comprises the following words (Francis et al. 1998):

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>adult</td>
<td>funny</td>
<td>nice</td>
</tr>
<tr>
<td>beastly</td>
<td>good</td>
<td>odd</td>
</tr>
<tr>
<td>brave</td>
<td>gracious</td>
<td>ok/ okay</td>
</tr>
<tr>
<td>brilliant</td>
<td>great</td>
<td>reasonable</td>
</tr>
<tr>
<td>cool (= reasonable)</td>
<td>heavy (= unreasonable)</td>
<td>sweet (= kind)</td>
</tr>
<tr>
<td>excellent</td>
<td>lovely</td>
<td>marvellous</td>
</tr>
<tr>
<td>fine</td>
<td>mature</td>
<td></td>
</tr>
</tbody>
</table>

At first glance, this is a strange list, containing many words that appear to be
unrelated to each other. In this case, however, it is not the words themselves that
belong together but the way they are used with the pattern ‘v-link ADJ about n’.
With this pattern, they all indicate that someone reacts to a situation in a
particular way. It is not the words in the list that have this precise meaning, but
the whole phrase of which they are a part.

Having discussed some of the issues involved in the construction of
meaning groups in some detail, we will now give briefer examples of a verb
pattern, a noun pattern, and an adjective pattern.

**Example 2: V n n**

The pattern V n n is familiar to language teachers and linguists in two guises.
Firstly, the traditional ditransitive verbs have this pattern, as in I gave him some
bread and He made me a sandwich. Secondly, verbs followed by an Object and
an Object Complement have the same pattern, as in She called them all idiots.
There is a third possible structure: verbs occuring in clauses such as They beat
us three-nil also have the pattern V n n, with the restriction that the second noun
group is an amount. More properly speaking, then, the pattern is V n amount,
the first noun group being an Object and the second noun group (the amount)
being an Adjunct. Following these traditional distinctions we can identify the
following meaning groups (taken from Francis et al. 1996: 272–280):
Verbs with two Objects

*Meaning group 1: verbs and phrasal verbs concerned with giving someone something, or refusing to do so*

accord  
deny  
offer  
set  
advance  
feed  
pass  
show  
afford  
give  
pay  
slip  
allocate  
give back  
pay back  
sneak  
allot  
grant  
permit  
spoon-feed  
allow  
hand  
proffer  
stand (someone a drink)  
assign  
hand back  
promise  
drink  
aware  
lease  
refund  
throw  
bequeath  
leave  
refuse  
tip  
chuck  
lend  
render  
toss  
concede  
loan  
sell  
vouchsafe  
deal (someone some cards)  
make  
sell  
some cards  
serve

Many smaller groups could be made from this large group, such as giving, selling, lending, offering, not giving, allocating money, resources, or tasks.

*Meaning group 2: verbs concerned with doing something for someone*

assure  
cut  
knit  
pour  
bear (someone a child)  
do  
land  
prescribe  
book (someone a room)  
doctor  
leave  
secure  
bring  
find  
make  
sing  
buy  
fix  
mix  
wangle  
carve  
get  
order  
flash (someone a smile)  
cook

*Meaning group 3: verbs concerned with talking, writing, or otherwise communicating something to someone*

ask  
cast (someone a look)  
flash (someone a smile)  
bid (someone-farewell)  
concede  
kiss (someone good-bye)  
cable  
fax
### Meaning group 4: verbs and phrasal verbs concerned with giving someone a benefit or a disadvantage

<table>
<thead>
<tr>
<th>Verb</th>
<th>Verb</th>
<th>Verb</th>
<th>Verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>cause (someone harm)</td>
<td>dock (someone money)</td>
<td>lose (someone)</td>
<td>spare (someone)</td>
</tr>
<tr>
<td>charge</td>
<td>earn</td>
<td>set back (someone)</td>
<td>take (someone time)</td>
</tr>
<tr>
<td>cost</td>
<td>intend (someone harm)</td>
<td>do (someone a favour)</td>
<td></td>
</tr>
</tbody>
</table>

### Meaning group 5: verbs concerned with feeling and attitudes

<table>
<thead>
<tr>
<th>Verb</th>
<th>Verb</th>
<th>Verb</th>
<th>Verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>(not) begrudge</td>
<td>envy</td>
<td>excuse</td>
<td>forgive</td>
</tr>
</tbody>
</table>

### Other verbs and phrasal verbs

<table>
<thead>
<tr>
<th>Verb</th>
<th>Verb</th>
<th>Verb</th>
<th>Verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>bear</td>
<td>let off</td>
<td>set</td>
<td></td>
</tr>
<tr>
<td>bet</td>
<td>owe</td>
<td>turn off</td>
<td></td>
</tr>
<tr>
<td>give</td>
<td>put off</td>
<td>wish</td>
<td></td>
</tr>
</tbody>
</table>

### Verbs with Object and Object Complement

There is only one meaning group here: verbs and phrasal verbs concerned with putting something into a category, either by naming or labelling (e.g. acclaim), or by putting someone or something into a particular position (e.g. anoint), or by thinking (e.g. adjudge), or by causing (e.g. make).

<table>
<thead>
<tr>
<th>Verb</th>
<th>Verb</th>
<th>Verb</th>
<th>Verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>acclaim</td>
<td>bring up</td>
<td>declare</td>
<td>find</td>
</tr>
<tr>
<td>account</td>
<td>call</td>
<td>declare</td>
<td>hail</td>
</tr>
<tr>
<td>adjudge</td>
<td>christen</td>
<td>designate</td>
<td>label</td>
</tr>
<tr>
<td>anoint</td>
<td>code-name</td>
<td>dub</td>
<td>make</td>
</tr>
<tr>
<td>appoint</td>
<td>consider</td>
<td>elect</td>
<td>be misnamed</td>
</tr>
<tr>
<td>be born</td>
<td>count</td>
<td>fancy</td>
<td>name</td>
</tr>
<tr>
<td>brand</td>
<td>crown</td>
<td>fell</td>
<td>nickname</td>
</tr>
</tbody>
</table>
nominate  prove  rule  vote
ordain  rate  tag
proclaim  re-elect  term
pronounce  rename  title

There is one other verb with this pattern and structure:

*hold* (someone prisoner)

**Verbs with Object and Adjunct**

Again there is only one meaning group here: these verbs are all concerned with winning or losing in a game or sport.

*beat* (a team 2–1)  *lose* (a game 2–1)  *win* (a game 2–1)  *defeat* (a team 2–1)  *thrash* (a team 2–1)

One additional point needs to be made before we leave this pattern. In most cases, the lists are exhaustive in that in the Collins COBUILD English Dictionary there are no other verbs with this pattern. For example, the list given under the heading **Verbs with Object and Object Complement** (including *hold*) gives all the verbs common enough to be in the dictionary which have this pattern and this structure. We can be reasonably confident that none are omitted. There is one exception, however. The list given under the heading **Meaning group 2: verbs concerned with doing something for someone** is not complete, and it is probably not possible to give a complete list of the verbs that are used in this way. As Francis et al. (1996: 274) point out, any verb that indicates an activity that you can do on behalf of someone else, or to benefit someone else, may be used in this pattern. The verbs given in the list are only the most frequent. We will return to this point in Section 4.2.3 below.

**Example 3: N in n**

In this pattern, the noun is followed by a prepositional phrase beginning with *in*. The meaning groups below are based on Francis et al. (1998: 166–172).

**Meaning group 1: increase, decrease, or change**

*acceleration*  *change*  *dent*  *explosion*  *adjustment*  *collapse*  *deterioration*  *fall*  *advance*  *cut*  *diminution*  *falling-off*  *alternation*  *cutback*  *dip*  *flare-up*  *boom*  *decline*  *downturn*  *fluctuation*  *bulge*  *decrease*  *drop*  *gain*
<table>
<thead>
<tr>
<th>Growth</th>
<th>Improvement</th>
<th>Increase</th>
<th>Increment</th>
<th>Innovation</th>
<th>Jump</th>
<th>Leap</th>
<th>Lessening</th>
</tr>
</thead>
<tbody>
<tr>
<td>moderation (making less)</td>
<td>shake-up</td>
<td>shift</td>
<td>slowdown</td>
<td>slumber</td>
<td>reversal</td>
<td>reduction</td>
<td>rise</td>
</tr>
<tr>
<td>turn</td>
<td>turnabout</td>
<td>turnover</td>
<td>resurgence</td>
<td>upsurge</td>
<td>upswing</td>
<td>transformation</td>
<td>trend</td>
</tr>
</tbody>
</table>

**Meaning group 2a: involvement in something**

- absorption
- immersion
- lead
- toehold
- acquiescence
- interest
- part
- vested interest
- assistance
- interference
- participation
- voice
- complicity
- intervention
- role

**Meaning group 2b: someone who is involved in something**

- contender
- partner
- prime mover
- force
- pawn
- shareholder
- participant
- player
- stakeholder

**Meaning group 3: something that is involved in or is part of something else**

- component
- factor
- ingredient
- element
- fixture
- keystone

**Meaning group 4: an event in history or in someone’s life**

- breakthrough
- development
- landmark
- watershed
- chapter
- high point
- turning point

**Meaning group 5: part of a period of time or of an event**

- age
- era
- period
- stage
- epoch
- moment
- point
- time

**Meaning group 6: problem affecting the course of something**

- hiccup
- setback
- stumbling block
Meaning group 7: (temporary) stop
breach hiatus lapse pause
break interlude let-up
breakdown interruption lull

Meaning group 8: hole, groove, or dent
chink gap hollow rut
crack groove incision slit
dent hole leak

Meaning group 9: fault in something
defect flaw irregularity weakness
error gap (metaphorical) loophole
fault hole (metaphorical) mistake

Meaning group 10: pain
ache numbness tingling
cramp pain

Meaning group 11: difference or similarity
contrast discrepancy imbalance similarity
difference disparity inconsistency variation

Meaning group 12: belief
belief confidence faith trust

Meaning group 13: feelings
delight interest pride
disinterest pleasure

Meaning group 14a: skill, experience, or advantage
ability expertise prowess superiority
edge proficiency skill track record

Meaning group 14b: person who is skilled or knowledgeable
expert past master specialist
master pioneer
Meaning group 15a: education

chair (= professorship)  
degree  
lectureship  
qualification

class  
diploma  
lesson  
training

course  
first  
pass  
tuition

crash course  
grounding  
professorship

Meaning group 15b: people connected with education

graduate  
lecturer

Meaning group 15c: metaphors of education and research

essay  
experiment  
object lesson

exercise  
lesson

Meaning group 16: employment

career  
employment  
job

Meaning group 17: commercial transactions

market  
traffic  
trade

Meaning group 18: success, delay, and failure

blockage  
difficulty  
success

delay  
progress  
tardiness

Meaning group 19: other nouns

entry  
kink  
split

immersion  
presence  
taste

irony  
rarity  
use

Example 4: ADJ that

In this pattern, the adjective is followed by a that-clause. The meaning groups below are based on Francis et al. (1998: 400–403).

Meaning group 1: having a reaction to a situation

This group can be subdivided according to the nature of the reaction.

amazed  
bemused  
puzzled

astonished  
curious  
shocked

astounded  
incredulous  
surprised
<table>
<thead>
<tr>
<th>Mood</th>
<th>Adj</th>
<th>Mood</th>
<th>Adj</th>
<th>Mood</th>
<th>Adj</th>
</tr>
</thead>
<tbody>
<tr>
<td>angry</td>
<td>furious</td>
<td>irate</td>
<td>livid</td>
<td>mad</td>
<td></td>
</tr>
<tr>
<td>annoyed</td>
<td>incensed</td>
<td>indignant</td>
<td>livid</td>
<td>mad</td>
<td></td>
</tr>
<tr>
<td>cross</td>
<td>gratified</td>
<td>pleased</td>
<td>proud</td>
<td></td>
<td></td>
</tr>
<tr>
<td>contributed</td>
<td>flattered</td>
<td>happy</td>
<td>heartened</td>
<td>thankful</td>
<td></td>
</tr>
<tr>
<td>ecstatic</td>
<td>grateful</td>
<td>jubilant</td>
<td>thrilled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>envious</td>
<td>jealous</td>
<td>resentful</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>disappointed</td>
<td>regretful</td>
<td>sad</td>
<td>sorry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>concerned</td>
<td>disturbed</td>
<td>perturbed</td>
<td>worried</td>
<td></td>
<td></td>
</tr>
<tr>
<td>aghast</td>
<td>disgusted</td>
<td>frustrated</td>
<td>outraged</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ashamed</td>
<td>dismayed</td>
<td>heartbroken</td>
<td>unhappy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>bitter</td>
<td>distraught</td>
<td>horrified</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(feel) bad</td>
<td>(feel) good</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>awestruck</td>
<td>critical</td>
<td>impatient</td>
<td>impressed</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Meaning group 2: being certain or uncertain**

<table>
<thead>
<tr>
<th>Certain</th>
<th>Content</th>
<th>Persuaded</th>
<th>Sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comfortable</td>
<td>convinced</td>
<td>positive</td>
<td>uncertain</td>
</tr>
<tr>
<td>Complacent</td>
<td>doubtful</td>
<td>satisfied</td>
<td>unconvinced</td>
</tr>
<tr>
<td>Confident</td>
<td>dubious</td>
<td>sceptical</td>
<td></td>
</tr>
</tbody>
</table>

**Meaning group 3: knowing or being ignorant of something**

<table>
<thead>
<tr>
<th>Aware</th>
<th>Conscious</th>
<th>Mindful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognizant</td>
<td>ignorant</td>
<td>Unaware</td>
</tr>
</tbody>
</table>

**Meaning group 4: having a reaction to something that may happen**

This group can be subdivided according to the nature of the reaction.

<table>
<thead>
<tr>
<th>Afraid</th>
<th>Desperate</th>
<th>Petrified</th>
<th>Terrified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxious</td>
<td>Fearful</td>
<td>Scared</td>
<td>Wary</td>
</tr>
<tr>
<td>Apprehensive</td>
<td>Nervous</td>
<td>Suspicious</td>
<td>Worried</td>
</tr>
<tr>
<td>Confident</td>
<td>Eager</td>
<td>Keen</td>
<td></td>
</tr>
<tr>
<td>Determined</td>
<td>Hopeful</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optimistic</td>
<td>Pessimistic</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Meaning group 5: two or more people agreeing with each other
agreed    unanimous

Meaning group 6: saying something in a forceful way
adamant    definite    firm
categoric   emphatic    insistent
categorical explicit    resolute

Meaning group 7: being careful
careful    sure    vigilant

Meaning group 8: being lucky or unlucky
fortunate    lucky    unlucky

Meaning group 9: having the correct information
correct    right

In this section we have given some fairly straightforward examples of patterns and meaning groups, and we have begun a discussion about the relationship between pattern and meaning. This discussion will continue in the next section, in which we look at creativity in pattern use.

4.2 Creativity in pattern use

4.2.1 Introduction

In this section we take up some further issues which relate to the question of what it means precisely to say that there is an association between pattern and meaning. So far we have taken the medium view of this association, stating simply that of a list of words which have a given pattern, the majority will be assignable into meaning groups. In addition we have said that the meaning belongs to either the words in the list, or to the phrases consisting of each word and the given pattern. The topics discussed in this section suggest, by contrast, that in some cases at least it may be the pattern itself which might be said to have meaning.

Owen (1993) has questioned the validity of lists of words with particular patterns, on the grounds that they do not successfully distinguish between words which can be used in a certain way, however rarely they are actually used, and
those which cannot be used in that way. If one subscribes to the view that to know a language means to be able, potentially, to generate all and only the sentences in that language, then such an omission is serious indeed. The previous section (4.1) was based on the premise that complete lists of words with a given pattern are indeed possible. In this section we look at some examples which suggest that complete lists are not always possible.

4.2.2 Pattern and analogy

The crucial observation that lies behind the notion of a lexical grammar is that patterns occur with restricted lexis. What this means is that in the case of most patterns:

most of the words that occur with that pattern do so very frequently;
there may be a small number of words that occur with the pattern very infrequently;
the native or expert user of the language can in most cases make a judgement about whether a particular word is ‘likely’ or ‘unlikely’ to occur with a particular pattern, that is, he or she can made a judgement of acceptability;
the distinction between the list of words that have the pattern and other words that do not have it is very clear.

We argued above (Section 4.1) that the association between pattern and lexis cannot be used to predict that a word has a particular pattern just because it shares a meaning with other words that do. Now we take the other side of the coin: it does seem to be the case that speakers of a language sometimes use a word with a pattern it does not typically have. We might speculate that, when a pattern is used with words with a particular meaning, speakers begin to use other words with a similar meaning with the same pattern, by a process of analogy, so that at any point in time, what words belong to a list is in a state of flux.

Numerous examples of this apparent use of analogy can be found with relation to individual words. Here are some brief examples:

a. In Section 4.1 we discussed the pattern V of n. The verbs listed as having that pattern do so relatively frequently. There are other verbs, however, that have the pattern very occasionally, apparently by analogy with some of the verbs in the list. For example, expire, which has a meaning similar to die, occurs with the pattern V of n six times in the Bank of English, out of a total of 3519 occurrences of all forms of expire. Similarly, foretell, which has a meaning similar to warn, occurs five times with the pattern V of n, out a total of 330 occurrences.
Such limited occurrences are not sufficient to warrant saying that the verb concerned ‘has’ the pattern; on the other hand, it would not be correct to say that the verb does not have the pattern at all.

b. As Owen (1996) has noted, the verb require is less often found followed by a passive to-infinitive clause, than the similar verb need is, but there are nonetheless numerous instances of require to be followed by a past participle in the Bank of English corpus. (With require, however, the past participle is nearly always of a specific verb, such as prune or examine, rather than a verb with a general meaning such as do. Owen’s hypothetical teacher, who objects to a learner’s use of requires to be done, is correct to do so, but not on the grounds that ‘require is not followed by a passive to-infinitive’.)

c. Although provide is typically used with the pattern V n with n (‘provide someone with something’), there are a handful of occurrences in the Bank of English of ‘provide something to someone’ (the pattern V n to n), presumably by analogy with give.

It is possible that the use of analogy the mechanisms of language change. For example, examination of the instances of the verb impact in the Bank of English shows a large number with the pattern V on n (...this has impacted on its profits), and a much smaller number with the pattern V n (...factors which directly impacted the dealer’s income) and its passive equivalent be V-ed (margins were impacted). The sources of the pattern V n are for the most part American English, but this is not absolute: there are a number of British examples too. It seems that the word impact has changed from a noun (have an impact on) to a verb followed by the preposition on (to impact on) and finally to an ordinary transitive verb (to impact something). The analogy might be with the verb affect, which has a similar meaning and which also has a cognate noun with the pattern N on n (have an effect on). It also seems likely that the change in this word has been led by American speakers of English, with their British counterparts following suit.

Unfortunately, it is not possible to verify this hypothesis regarding language change in general, as we do not have corpora of the size of today’s corpora for the language fifty, thirty, or even ten years ago. (The equivalent of the Bank of English that was used to compile the Collins COBUILD English Language Dictionary in the 1980s, for example, was much smaller than the current corpus.) For this reason, it is not possible to say for certain that a particular, infrequent usage is new just because it occurs in a later (and larger) corpus but not in an earlier (and smaller) one.

For another example, consider verbs which occur in the patterns V -ing and
**V to-inf.** As is commonly known, there are a number of verbs which are used in both these patterns, and some which are used in only one. For example, *omit* occurs both as in ‘omit doing something’ and as in ‘omit to do something’; *postpone* occurs as in ‘postpone doing something’ but not as in ‘postpone to do something’; and *fail* occurs as in ‘fail to do something’ but not as in ‘fail doing something’.

There is, however, a certain amount of ‘leakage’ across the two patterns, and some verbs which are normally thought to have the pattern **V to-inf** only do actually sometimes occur with the other pattern, **V -ing**. Table 4.1 gives some examples. We speculate that the process of analogy is at work here, and that a word commonly used with the pattern **V -ing** is acting like a magnet for the less frequently-used word.

**Table 4.1**

<table>
<thead>
<tr>
<th>Verb</th>
<th>Number of occurrences in ‘V -ing’</th>
<th>Total occurrences of verb in 300 million words</th>
<th>Possible analogy with</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>attempt</td>
<td>18</td>
<td>24061</td>
<td>try</td>
<td><em>Paul did not attempt qualifying for Wimbledon.</em></td>
</tr>
<tr>
<td>confess</td>
<td>8</td>
<td>6871</td>
<td>admit</td>
<td><em>…any officer who confesses being corrupt.</em></td>
</tr>
<tr>
<td>deprecate</td>
<td>4</td>
<td>399</td>
<td>dislike</td>
<td><em>The French deprecated mining the Rhine.</em></td>
</tr>
<tr>
<td>neglect</td>
<td>8</td>
<td>4536</td>
<td>omit</td>
<td><em>Many of us neglect drinking enough water.</em></td>
</tr>
<tr>
<td>repent</td>
<td>3</td>
<td>432</td>
<td>regret</td>
<td><em>He might repent sitting up so late.</em></td>
</tr>
</tbody>
</table>

We might speculate that a process of language change is in progress here, though, as discussed above, there is insufficient evidence to be certain of this.

4.2.3 **Patterns with less restricted lexis: N that and it v-link ADJ of n to-inf**

In the pattern **N that**, a noun is followed by an appositive that-clause (see Francis 1993 for a detailed discussion of nouns of this kind; also Francis et al. 1998). Some of the nouns that are found in this pattern indicate an reaction to a situation. These include: *amazement, anger, annoyance, anxiety, astonishment,*
concern, delight, disappointment, expectation, fear, guilt, outrage, satisfaction, sorrow and surprise. As well as some nouns that frequently occur with the pattern there are some that only occasionally do so. Here are some examples of nouns sometimes or often found with the pattern, with the number of occurrences in the 300 million word Bank of English corpus given for comparison.

<table>
<thead>
<tr>
<th>Noun</th>
<th>Occurrences in 300 million word Bank of English corpus</th>
</tr>
</thead>
<tbody>
<tr>
<td>concern</td>
<td>about 2000</td>
</tr>
<tr>
<td>fear</td>
<td>about 2000</td>
</tr>
<tr>
<td>expectation</td>
<td>669</td>
</tr>
<tr>
<td>disappointment</td>
<td>223</td>
</tr>
<tr>
<td>surprise</td>
<td>200</td>
</tr>
<tr>
<td>anxiety</td>
<td>129</td>
</tr>
<tr>
<td>satisfaction</td>
<td>111</td>
</tr>
<tr>
<td>anger</td>
<td>107</td>
</tr>
<tr>
<td>guilt</td>
<td>88</td>
</tr>
<tr>
<td>delight</td>
<td>67</td>
</tr>
<tr>
<td>outrage</td>
<td>65</td>
</tr>
<tr>
<td>amazement</td>
<td>50</td>
</tr>
<tr>
<td>astonishment</td>
<td>35</td>
</tr>
<tr>
<td>annoyance</td>
<td>33</td>
</tr>
<tr>
<td>sorrow</td>
<td>24</td>
</tr>
<tr>
<td>bitterness</td>
<td>11</td>
</tr>
<tr>
<td>fury</td>
<td>11</td>
</tr>
<tr>
<td>despair</td>
<td>11</td>
</tr>
<tr>
<td>jealousy</td>
<td>9</td>
</tr>
<tr>
<td>happiness</td>
<td>8</td>
</tr>
<tr>
<td>horror</td>
<td>7</td>
</tr>
<tr>
<td>embarrassment</td>
<td>6</td>
</tr>
<tr>
<td>joy</td>
<td>6</td>
</tr>
<tr>
<td>envy</td>
<td>5</td>
</tr>
<tr>
<td>anguish</td>
<td>3</td>
</tr>
<tr>
<td>admiration</td>
<td>2</td>
</tr>
</tbody>
</table>

It is possible, of course, to give a list of the nouns with this general meaning that are reasonably frequently used with this pattern, as is done in Francis et al. (1998: 111). The list cannot, however, be complete, in that it cannot include all the nouns with this general meaning that are sometimes used with this pattern or which might be used with this pattern. Instead, it gives what we might call the ‘core’ words. Beyond that, however, there is an area of flux, comprising nouns that are occasionally used with the pattern and of which no complete list can be given. From the list given above, the following nouns might be said to be ‘core’ for the pattern $N$ that: amazement, anger, annoyance, anxiety, astonishment, concern, delight, disappointment, expectation, fear, guilt, outrage, satisfaction, sorrow and surprise, while the following are ‘non-core’: admiration, anguish, bitterness, despair, embarrassment, envy, fury, happiness, horror, jealousy and joy.

In the pattern it v-link ADJ of n to-inf, the adjective is followed by a prepositional phrase beginning with of and by a to-infinitive clause (see Francis et al. 1998: 501–502). The Subject of the clause is an introductory it. The function of utterances with this pattern is to evaluate the action indicated by the to-infinitive clause. For example, in it was courageous of him to speak out, ‘that he spoke out’ is evaluated as courageous, and in it was nice of you to come, ‘that you came’ is evaluated as nice. The adjectives used with this patterns belong to three very general meaning groups: those meaning ‘good in some way’ (e.g. big,
brave, clever, courageous, decent, fair, generous...); those meaning ‘bad in some way’ (e.g. absurd, arrogant, cheeky, childish, churlish, clumsy, cruel...); and those meaning ‘typical or not typical’ (characteristic, typical, and uncharacteristic).

As well as adjectives which occur reasonably frequently in the Bank of English with this pattern, there are many, with similar meanings, which occur only once or twice. Table 4.2 gives some examples:

Table 4.2

<table>
<thead>
<tr>
<th>Adjectives which occur fairly frequently</th>
<th>Adjectives which occur only once or twice</th>
</tr>
</thead>
<tbody>
<tr>
<td>good; great; lovely; nice</td>
<td>brilliant; magnificent; terrific</td>
</tr>
<tr>
<td>clever; prudent; sensible; smart</td>
<td>diplomatic; rational; subtle</td>
</tr>
<tr>
<td>disgraceful; immoral; shameful; unkind;</td>
<td>beastly; disgusting; horrible; horrid; lousy</td>
</tr>
<tr>
<td>unworthy</td>
<td></td>
</tr>
<tr>
<td>absurd; foolish; silly</td>
<td>ludicrous</td>
</tr>
<tr>
<td>hypocritical; rude; selfish; thoughtless</td>
<td>inhuman; insensitive; tacky</td>
</tr>
</tbody>
</table>

However big a corpus was consulted, it would not be possible to give a definitive and exclusive list of adjectives which occur with this pattern. For example, here are a selection of adjectives which do not occur in the Bank of English with this pattern, but which intuition suggest are perfectly possible: appalling (‘it was appalling of him to…’); sensitive (‘it was very sensitive of you to…’); devious (‘it was devious of them to…’); obtuse (‘it was obtuse of me to…’); careful (‘it was very careful of you to…’).

The solution to the problem posed by these patterns might be to say that in these cases the pattern is not restricted as to lexis, but is restricted as to meaning. That is, any noun may occur with the pattern N that if it indicates a feeling towards a situation, and any adjective may occur with the pattern it v-link ADJ of n to-inf if it indicates judgement of an action in term of ‘good’, ‘bad’, or ‘typical’.

4.2.4 Patterns with a meaning: V way prep/adv

In some cases, it is possible to go further and say that it is the pattern itself, not the words with which it occurs, that has the meaning. For example, one of the meaning groups associated with the pattern V way prep/adv comprises verbs which are concerned with talking. When the verb is used in this pattern, the meaning of the whole phrase is that someone uses clever, devious, or forceful language to achieve a goal, usually extricating themselves from a difficult situation, or getting into a desirable situation. Examples include:
(1) Armed with a sheaf of sketches and photographs, he talked his way into the post of chief costume designer.

(2) Make sure your child is not afraid to own up, so she does not try to lie her way out of trouble.

(3) He was more able than anyone else to argue his way out of tough situations.

The verbs from this meaning group used most frequently in this pattern are as follows (numbers indicate the frequency in the 300 million word Bank of English corpus):

- talk 162
- negotiate 81
- bluff 72
- charm 40
- lie 26
- argue 12
- wheedle 10

But there are, in addition, many verbs which occur fewer than ten times in this pattern:

- reason 08
- bluster 06
- blag 05
- bullshit 04
- cajole 04
- joke 04
- sweet talk 04

In addition there are verbs that occur only once or twice each. It is almost impossible to obtain a complete list of these verbs, but here are some examples of these rare uses:

- apologise 02
- blather 01
- communicate 01
- discuss 01
- flatter 02
- haggle 02
- persuade 01
plead 02  
rationalise 01  
verbalise 01  
whinge 02  
wrangle 01

This set of verbs does not meet any of the criteria set out in Section 4.2.2 above. The apparent lack of restriction on lexis here suggests that the pattern itself carries meaning.

4.2.5 Are there restrictions in a pattern?: V n into -ing

The pattern V n into -ing is exemplified by utterances such as *He talked her into going out with him*. Some of the verbs associated with this pattern are concerned with making someone feel something, usually fear. These verbs are: frighten, intimidate, panic, scare, terrify, and, extending the range of emotions, embarrass, shock and shame. These verbs are all concerned with negative emotions and it is perhaps not surprising that other verbs indicating negative emotions are also used with this pattern occasionally. Here are some examples, with number indicating the frequency in the Bank of English:

<table>
<thead>
<tr>
<th>Verb</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>annoy</td>
<td>03</td>
</tr>
<tr>
<td>awe</td>
<td>01</td>
</tr>
<tr>
<td>baffle</td>
<td>01</td>
</tr>
<tr>
<td>bore</td>
<td>02</td>
</tr>
<tr>
<td>frustrate</td>
<td>02</td>
</tr>
<tr>
<td>irritate</td>
<td>04</td>
</tr>
</tbody>
</table>

Perhaps more surprising is the extension of this list to include verbs associated with positive emotions:

<table>
<thead>
<tr>
<th>Verb</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>embolden</td>
<td>01</td>
</tr>
<tr>
<td>excite</td>
<td>06</td>
</tr>
<tr>
<td>relax</td>
<td>02</td>
</tr>
</tbody>
</table>

Again, it must be stressed that this list is far from exhaustive. If we can say that someone annoys or irritates someone into doing something, then presumably we could also say that someone angers or infuriates someone into doing something. The lack of corpus evidence does not indicate that the missing occurrences are ‘incorrect English’. If we can say that someone relaxes someone into doing something, can we also say that someone calms or soothes someone into doing
something? This seems, intuitively, less likely, but only, perhaps, because the process of analogy has not yet progressed so far.

This raises the question of whether there are any limits to the creativity of speakers: can we state categorically that something ‘cannot’ be said? This issue, raised for example by Owen (1993; 1996) is important if we regard the purpose of a grammatical description to be to delimit the boundaries of a language: to draw the line between what ‘is English’ and what ‘is not English’. It may be discussed with respect to another group of verbs from the pattern V_n into -ing. These verbs are all concerned with speaking, and with this particular pattern they indicate that someone uses language cleverly, deviously, or forcefully, in order to make someone else do something, as in She talked them into agreeing to her plan. Verbs used frequently with this meaning and this pattern are:

<table>
<thead>
<tr>
<th>Verb</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>talk</td>
<td>317</td>
</tr>
<tr>
<td>coax</td>
<td>67</td>
</tr>
<tr>
<td>cajole</td>
<td>56</td>
</tr>
<tr>
<td>charm</td>
<td>28</td>
</tr>
<tr>
<td>browbeat</td>
<td>26</td>
</tr>
<tr>
<td>persuade</td>
<td>22</td>
</tr>
<tr>
<td>badger</td>
<td>19</td>
</tr>
<tr>
<td>sweet-talk</td>
<td>14</td>
</tr>
<tr>
<td>nag</td>
<td>10</td>
</tr>
</tbody>
</table>

These verbs occur fewer than ten times:

<table>
<thead>
<tr>
<th>Verb</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>bluff</td>
<td>07</td>
</tr>
<tr>
<td>flatter</td>
<td>07</td>
</tr>
<tr>
<td>tease</td>
<td>06</td>
</tr>
<tr>
<td>wheedle</td>
<td>04</td>
</tr>
</tbody>
</table>

There are also some verbs that occur a handful of times. Here are some examples:

<table>
<thead>
<tr>
<th>Verb</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>argue</td>
<td>03</td>
</tr>
<tr>
<td>boss</td>
<td>03</td>
</tr>
<tr>
<td>chivvy</td>
<td>03</td>
</tr>
<tr>
<td>needle</td>
<td>03</td>
</tr>
<tr>
<td>counsel</td>
<td>02</td>
</tr>
<tr>
<td>pester</td>
<td>02</td>
</tr>
<tr>
<td>debate</td>
<td>01</td>
</tr>
<tr>
<td>scold</td>
<td>01</td>
</tr>
</tbody>
</table>
Some verbs that are not found with this pattern in the current Bank of English include: advise, recommend, suggest and warn (predicted by analogy with persuade) and discuss and dispute (predicted by analogy with argue and debate). Intuition suggests that these verbs could not be used with this pattern, but intuition is a poor guide here. (Our intuitions reject ‘persuade someone into doing something’, yet there are no fewer than 22 examples in the Bank of English.) Instead we might propose two hypotheses:

a verb that is to be used with the pattern \( V_n \text{ into } -ing \) does not mean ‘talk reasonably, gently and without force’;
a verb that is to be used with the pattern \( V_n \text{ into } -ing \) is also used with the pattern \( V_n \).

Most of the verbs in the lists above fit the first hypothesis. The exception is debate, which will be discussed further in Section 4.2.6 below. Most fit the second hypothesis, but there are a few that do not, namely talk, argue and debate. Rather than converting our hypotheses into rules, then, we might need to convert them into probabilities:

a verb is most likely to be used in the pattern if it meets the two conditions named above;
a verb is less likely to be used in the pattern if it meets only the first of the two conditions named above;
a verb is still less likely to be used in the pattern if it meets only the second of the two conditions;
a verb is unlikely to be used in the pattern if it meets neither of the two conditions.

It would seem the formulations of this ‘more or less’ type must be made if we are to specify conditions for the use of a pattern.

4.2.6 Exploiting the prosody of patterns: \( V_n \text{ into } -ing \) and \( V_n \text{ as } n \)

The term ‘semantic prosody’ was coined by Sinclair (1991) and further developed by Louw (1993) and more recently by Stubbs (1995; 1996). Hunston (1995: 137) summarises the notion of semantic prosody thus: “Briefly, a word may be said to have a particular semantic prosody if it can be shown to co-occur typically with other words that belong to a particular semantic set.”

Examples include set in (‘something bad sets in’); utterly (‘something is utterly bad’); cause (‘something causes something bad’); brook (‘someone brooks no disagreement’) (see Sinclair 1991; Louw 1993; Stubbs 1995; Sinclair 1994). One of the important observations concerning semantic prosody is that it can be
exploited. If a collocation is chosen which is at odds with the usual semantic set, an ‘extra’ meaning will be implied which may convey irony or even insincerity (see Louw 1993; 1997). For example, if someone is described by the phrase [He] brooked little discussion (discussion does not belong to the semantic set exemplified by disagreement), this may be interpreted as implying that the person concerned sees all discussion as opposition, and that this in turn indicates arrogance or unreasonableness (Hunston 1995: 138). One way of interpreting this is to say that there is a pattern (‘V no/little n’) which occurs with the verb brook and which assigns to any noun occurring in that pattern the meaning ‘opposition or disagreement’. This in turn leads to the ironic interpretation of he brooked little discussion as ‘He was arrogant and unreasonable’.

We have spoken above of patterns themselves having meanings, and we can now consider some cases where that meaning can be thought of as a kind of semantic prosody which can be exploited for ironic effect. First, however, we may note a less dramatic, but related, phenomenon, where the sense of a word appears to be determined by the pattern in which that word appears. Above we discussed the pattern it v-link ADJ of n to-inf, noting that the function of the pattern is to evaluate the action indicated in the to-infinitive clause. Now consider the example

(4)  It was big of you to take the risk.

In this example, big does not have its usual meaning of ‘large in size’ but instead takes on the evaluative meaning of ‘courageous’ or ‘generous’, in keeping with the meaning of the pattern. Another example is the pattern there v-link something ADJ about n, which has the function of evaluating the person or thing indicated in the noun group following about. Even when potentially neutral words such as nationality words, or words such as masculine and feminine, are used in this pattern, they take on an evaluative meaning, as in these examples:

(5)  Kouchner has that rare thing among prominent Frenchmen: the common touch. There is something almost American about the minister’s informality.

(6)  Whether you’re swanning about at Glyndebourne or sitting in a poppy field, there’s something very British about picnics, especially if you use a traditional wicker basket.

(7)  Richard was starting to enjoy the atmosphere. There was something masculine about the dark wood dining room. In a difficult situation, it gave him a certain comfort.
In all these examples, the meaning of an adjective is affected by the pattern it occurs with, but there is no actual conflict between the meaning of the pattern and the usual meaning of the adjective. Returning to the notion of semantic prosody, however, let us consider two examples where there is such a conflict, with a resulting ‘extra’ meaning.

The first example is one that has been met above, but which is shown here with a larger co-text. The writer is describing her childhood with a father who had wanted a son rather than a daughter:

(8) *I studied night and day, in an effort to please him… I learned eight languages, but none spoke to his granite heart. I rode like a centaur; I fenced, I learned marksmanship. I honed my intellect as if by doing so I could debate him into loving me, force him to logic or ethic or morality.*

As was noted in the discussion of the pattern $V \text{n into } -\text{ing}$, the verbs that occur with this pattern usually indicate some kind of forcefulness or even coercion. Verbs which mean ‘talk reasonably’ are not normally found with this pattern. What, then, of *debate him into loving me*? A look at the co-text shows that the writer is describing something which is, firstly, unsuccessful — a futile attempt to use reason to achieve something not amenable to reason, and which is, secondly, a misuse of a mode of discourse — debate — for an ulterior motive. The essence of that evaluation is carried by the mismatch of verb and pattern.

The second example makes use of the pattern $V \text{n as n}$, which is typically used with verbs such as *consider, describe, interpret, label, perceive, portray, regard, represent, see* and *view*. These verbs all indicate that the description, interpretation etc is a matter of opinion, not of fact. An example is:

(9) *His father had regarded him as a wastrel and playboy.*

We might say, then, that the pattern in itself indicates an opinion being held. In the following example, there is a tension between the meaning of the pattern and the meaning of the verb used with it. The writer has asserted that politicians and the media tend to create ‘moral panics’ about crime, which make ordinary citizens unreasonably afraid that there is more crime in the society than there actually is. He goes on to assert that this ‘moral panic’ cannot come from politicians and the media alone: society has to be ready to believe it. He says:

(10) *Society must be predisposed to panic about crimes. There has already to be a tendency to discover crime as the cause behind worrisome social ills.*
In the second sentence, the writer uses the verb *discover* in the pattern \( V \text{n as n} \). Not only is this verb itself uncommon with this pattern (there are 6 examples in the Bank of English corpus), but the meaning of ‘finding out something that is a fact’ is at odds with the ‘opinion’ meaning of the pattern. The implication of the sentence might be paraphrased as ‘People think it is a fact that crime is the cause of social ills, but actually it is only an opinion’.

### 4.3 Summary of Chapter 4

In this chapter we first explored the connection between pattern and groups of words based on meaning. We then considered in some detail exceptions to the generalisation that patterns occur with restricted lexis. These exceptions throw doubt on the observation that it is possible to give complete lists of all the words that occur with a particular pattern.

Some of the explanation for these exceptions can be found in the notion of analogy and language change. It is argued that speakers sometimes use an unusual word with a pattern by analogy with a word that more typically occurs with that pattern, and that because of this the full complement of words that occur with a given pattern is constantly open to change. Whereas it is possible, therefore, to give a list of ‘core’ words, there will always be a more fuzzy set of words around the periphery of a pattern, as it were, that is, words that are occasionally used with that pattern and which cannot be said *not* to occur with the pattern. It is extremely difficult to give a complete list of these words.

In the case of nouns and adjectives in particular, it was argued that some patterns are relatively unrestricted in terms of actual lexis, though they are restricted in terms of the kind of word that can occur with them. Looking at the concordance lines for words of this kind, the observer sees, not a few words with many lines each, but many words with a few lines each. Speaker creativity is particularly common here.

We also considered two cases of verb patterns which had an extremely wide range of lexis, and where the meaning might be said to belong to the pattern itself rather than to the lexis that typically occurs with it.

Finally, we considered cases of semantic prosody, where a tension between the meaning of the pattern and the meaning of the word used with the pattern was exploited by a skillful writer or speaker to imply meaning not explicitly stated.
CHAPTER 5

More on pattern and meaning

5.1 From meaning to pattern: lexis and function

5.1.1 Using a ‘meaning finder’

One of the outcomes of the process of assigning words that share a common pattern to meaning groups is that it is possible to collect together meaning groups from different patterns which have something in common. In Francis et al. (1996: 616–622) this is done in an index with the title ‘Meaning Finder’. Entries in the Meaning Finder have titles such as ‘Attacking and doing harm’, ‘Beginning, continuing and ending’, ‘Bodily functions and movements’, ‘Changing’, ‘Talking, writing and gesturing’, ‘Fighting and competing’, ‘Giving, getting and paying for things’ and ‘Learning and finding out’. Each of the groups under these titles will be termed a ‘notional group’ in the discussion below.

For example, one meaning that appears more than once in Francis et al. (1996) is that of ‘eating, drinking or smoking’, that is, the notion of consuming something. Meaning groups in this general notional group appear under the patterns shown in Table 5.1 (verbs and most examples from Francis et al. 1996).

Two very obvious points need to be made about this table. First, the verbs and patterns by no means ‘mean the same thing’. Examples using different verbs, or the same verb with a different pattern, are not paraphrases of each other. Rather, the table suggests the range of meanings that can be made in the general semantic area of ‘eating, drinking and smoking’.

Second, not all the verbs in the table in fact belong to this specific notional group. The additional verbs given in small print in the table are those which in Francis et al. (1996) are in the same meaning groups as those meaning ‘eating, drinking and smoking’. A thesaurus of verbs in the notional group in question would have to exclude those verbs. This is particularly the case with the pattern \textit{V into n}, where verbs concerned with biting something (\textit{bite, crunch, eat} and \textit{sink}) have been placed into the same meaning group as verbs that indicate other ways of making a hole or indentation (\textit{bore, dig} and \textit{drill}).

To appreciate the significance of this is it important to realise that the
Table 5.1

<table>
<thead>
<tr>
<th>Pattern</th>
<th>Verbs</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>V</td>
<td>e.g. (most frequent verbs only): drink, eat, feed, smoke</td>
<td>Most of the people I know don’t smoke.</td>
</tr>
<tr>
<td>V n</td>
<td>e.g. (most frequent verbs only): drink, eat, have, leave, take, (not) touch, use; drink up, eat up, finish off, finish up, get down, get through, keep down, shoot up, take in, use up Other verbs in the same meaning group: burn, burn off, burn up</td>
<td>The children went in, and ate the biscuits.</td>
</tr>
<tr>
<td>V at n</td>
<td>chew, gnaw, nibble, nip, peck, pick, puff, sip, snap, suck; munch away, nibble away</td>
<td>He chewed at the end of his pencil, thinking out the next problem.</td>
</tr>
<tr>
<td>V from n</td>
<td>drink, eat, sip</td>
<td>The mechanic drank from the bottle with enthusiasm.</td>
</tr>
<tr>
<td>V into n</td>
<td>bite, crunch, eat, sink</td>
<td>Weatherby bit into a digestive biscuit.</td>
</tr>
<tr>
<td>V on n</td>
<td>binge, browse, chew, choke, crunch, dine, draw, feast, feed, gnaw, gorge, live, munch, nibble, overdose, puff, pull, snack, suck; fill up, munch away, nibble away</td>
<td>He chewed on his toast, taking his time.</td>
</tr>
<tr>
<td>V way prep/adv</td>
<td>booze, chain-smoke, chew, chomp, drink, eat, feast, gasp, gnaw, graze, guzzle, lick, munch, nibble, nosh, peck, puff, slice, slurp, smoke, taste, work</td>
<td>‘So what are the options?’ Mr Clarke asks, puffing on his small cigar.</td>
</tr>
<tr>
<td>V n/pron-refl on n</td>
<td>feed, gorge</td>
<td>Mrs Lorimer chewed her way through a large helping of apple tart.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fiona amazed onlookers by puffing her way through three cigarettes and swigging red wine and schnapps.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sometimes she fed the baby on milk and water.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The whole point about chocolate cake is that you gorge yourself on it.</td>
</tr>
</tbody>
</table>

meaning groups in Francis et al. (1996) were compiled for each pattern independently, and reflect what appeared to be a sensible grouping for each pattern. The
grouping together of meaning groups in the Meaning Finder was a subsequent stage. The lack of straightforward ‘fit’ or uniformity between meaning groups under different patterns may be seen as a drawback and as the result of a fault in methodology. On the other hand, it does confirm the suspicion that notional groups, and the semantic areas they reflect, are extremely fuzzy entities. In this case, for example, the notional group ‘consuming something’ shades into the notional group ‘making a hole or indentation’. The two areas are not entirely separate, but neither are they part of a superordinate grouping. To begin with the idea of certain notional groups, and to require meaning groups under individual patterns to conform to these, would be misleadingly artificial. We shall return to this discussion in Section 5.3.1 below.

5.1.2 Further examples of notional groups

Before returning to our discussion of notional groups, let us give two more examples of these groups, both based on the Meaning Finder in Francis et al. (1996). The examples that have been selected are: ‘Logical relations’ and ‘Making someone do something’. These examples have been chosen because the semantic areas they represent are likely to be found in a functional/notional teaching syllabus. In these examples, only those verbs which belong to the notional group concerned are listed; other verbs which may be found in the same meaning group under the relevant pattern are omitted.

Logical relations. This notional group comprises verbs which, in Halliday’s terms, realise relational processes. Halliday (1994: 119) comments that these processes do more than indicate existence; rather, ‘a relation is being set up between two separate entities’. These entities may be simple ones realised by ordinary concrete nouns; often, however, they are themselves processes and are realised by nominalisations or by other nouns that realise complex ideas and processes. Halliday (1994: 343ff) refers to this type of complexity as ‘ideational metaphor’ and notes that it is more typical of academic, written language than of casual, spoken language. Familiarity with the verbs indicating logical relations and the patterns they occur with is, therefore, an essential component of training in academic writing.

The term ‘logical relations’ of course covers a variety of meanings. Three are particularly common, and these may be glossed as: (i) be evidence for; (ii) make (im)possible or (un)necessary; (iii) be a result of.
Logical relations (i) ‘be evidence for’

V *n* (most frequent verbs only): confirm, indicate, mark, mean, prove, reflect, reveal, show, suggest, support, tell; bear out

(1) The latest experiments have also confirmed earlier results.

(2) The test scores tell a different story.

V *that*: confirm, demonstrate, denote, illustrate, imply, indicate, mean, prove, reveal, show, signal, signify, underline, underscore

(3) The large size implies that the gaps were created by a star rather than a planet.

V *wh*: confirm, demonstrate, illustrate, indicate, prove, reveal, show, signal, underneat, underscore

(4) The incident underlines how easily things can go wrong on holiday.

V *to n*: attest, point, testify

(5) …all the evidence points to her guilt.

V *amount about n-ing*: reveal, say

(6) The way you present information says a lot about the way you do business.

Logical relations (ii): ‘make (im)possible or (un)necessary’

V *n* (most frequent verbs only): afford, allow, carry, decide, demand, determine, encourage, ensure, invite, involve, mean, need, require, take; rule out, set off, set up, touch off; call for, count towards, cry out for, enter into, go with, lead on to, lead up to, lie behind, make for

(7) The interaction of the teaching and research interests of staff ensures a stimulating intellectual atmosphere.

(8) The maximum number of wolves … is too small to rule out a high degree of inbreeding.

V *-ing*: allow, entail, involve, justify, mean, necessitate, permit, preclude, prevent, save

(9) Taking the engine out necessitates removing the front panel.

V *that*: dictate, ensure, guarantee, mean

(10) Survival needs dictate that infants have to be self-orientated.
V wh: decide, define, determine, dictate, influence

(11) The final exam determines whether you can sit for university entrance or not.

V in n-ing: result

(12) The operation resulted in the arrest of one alleged kidnapper.

V of n-ing: permit

(13) His nerves had been steady enough to permit of his returning to the office.

V n-ing: entail, involve, justify, mean, necessitate

(14) A move there would involve him taking a cut in salary.

V n-ed: get

(15) Anything at all that can get you noticed is good news in this business.

it V that: follow; come about

(16) Since sound is actually the motion of molecules, it follows that the fastest speed with which the air molecules can get out of the way is the speed of sound.

Logical meaning (iii): ‘be a result of’

V from n-ing: arise, come, develop, flow, follow, result, spring, stem

(17) Alzheimer’s … is unlikely to result from a defect in a single human gene.

V on n-ing: depend, hang, hinge, pivot, rely, rest, ride, turn

(18) A great deal hangs on the answer to these questions.

V out of n-ing: arise, develop, grow

(19) The trouble appears to have arisen out of demands that several senior police officers should be forced to stand down.

V n on n-ing: base, build, ground (usu passive), predicate (usu passive), be premised

(20) The whole thing is premised on whipping up demand for the tournament hotline.
(Talking about) making someone do something. This notional group comprises ways of reporting utterances which perform the speech act of ‘directive’ (Searle 1979; Leech 1983), and of describing non-verbal ways of influencing what someone does. Just as there are several ways in English of performing a directive, so there are many patterns and verbs that can be used to report a directive. In those patterns that include a clause, the action that is influenced is indicated by that clause. For example, in

(21)  *I recommend all readers to follow the manufacturer’s instructions*,

where the pattern is *V n to-inf*, the advised action is indicated by the non-finite clause: *to follow the manufacturer’s instructions*. In those patterns which do not include a clause, the action is indicated by a noun, or may not be explicitly indicated at all. In the first pattern given below (*V n*), for example, the action itself remains implicit, and some considerable ‘unpacking’ is necessary to retrieve it. In

(22)  *I attempted to talk them down*,

the desired action may be made more explicit as follows: ‘I attempted to persuade them to reduce their asking price’. Similarly, the passive example

(23)  *The spokesman refused to be drawn*

may be rephrased as ‘People tried to persuade the spokesman to talk about the issue but he refused’. An example such as

(24)  *He motioned Arnold to a chair*

with the pattern *V n prep/adv* may be unpacked as ‘He invited Arnold to sit down’.

The patterns and verbs belonging to this notional group are as follows:

**V n** (most frequent verbs only): attract (*people or animals*), bind (*Laws...people*), call (*a doctor or witness*), draw (*a crowd*), draw (*a speaker*), force, push, use, work; beat down (*a seller*), buy off, call out (*a doctor*), draw out, head off (*a person or vehicle*), hold back, move along, move on, order around/about, pick up, pull back (*troops*), pull in (*crowds*), pull out (*troops*), pull over (*a driver*), pull up, push around, set off, start off, talk down (*a pilot or a seller*), talk up (*a buyer*), throw out, turn back, turn out

(25)  *Family doctors are fed up with being called out on home visits late at night.*
The spokesman refused to be drawn. ‘We do not comment on the reasons for people either joining or leaving the company,’ he said.

**V n (Ergative Verbs)** (see Section 7.2.2): assemble, demobilize, disband, disperse, mass, mobilize, muster, organize (workers), reassemble, redeploy, regroup, relocate, reorganize, resettle, reunite, rotate, scatter, settle, unite, withdraw; bunch up, hold together, line up, pull back, pull out, split up, turn back

Washington had to disband part of his army for lack of clothing.

assimilate, feed, graze, hush, integrate, nurse, overwork, quiet, quieten, rearm, reform, retrain, run (a horse), stampede, train; dry out, hold back, liven up, move along, pull up, quiet down, quieten down, shut up, slow down, sober up, trip up

He blamed his heart attack on his employer for overworking him.

**V to-inf:** apply, ask, beg, bid, campaign, clamour, demand, petition, plead, pray

The police asked to use Keith’s video as evidence.

**V at n to-inf:** bark, bawl, bellow, hiss, holler, scream, screech, shout, snap, yell; go on, keep on

I shouted at her to run.

**V for n to-inf:** agitate, appeal, ask, call, campaign, gesture, holler, motion, petition, plead, pray, press, push, shout

She got up from her desk and motioned for Wade to follow her.

**V on/upon n to-inf:** call, prevail

So we call on everyone to seize this opportunity and to look at it positively.

**V with n to-inf:** collaborate, connive, conspire, contract, plead, vie

I pleaded with her to stop but she wouldn’t. ...she conspired with others to perform illegal campaign services.

(Note: collaborate, connive, conspire and vie are reciprocal verbs (see Section 2.5))

**V n -ing:** have, keep, leave, send, set

The show generated an electric atmosphere that lit up the audience and had them cheering till they were hoarse.

(Note: The Subject often indicates something inanimate.)