CHAPTER 3

Cohesion

3.1 INTRODUCTION

With cohesion, we are concerned with the formal (but at the same time semantic) links between clauses, how an item – a pronoun, a noun or a conjunction – in one clause may refer backwards or forwards to another clause. Cohesion needs to be distinguished from coherence, which is concerned with the overall interpretation of a text as a unified piece of discourse, not just the formal links. As many linguists have argued (for example, Brown and Yule, 1983; Carrell, 1982; de Beau- grande and Dressler, 1981; Enkvist, 1978; Widdowson, 1978), it is possible (although unusual) to have coherence without cohesion. Widdowson (1978: 29) gives the often-quoted example of an exchange between two people:

A: That's the telephone.
B: I'm in the bath.
A: OK.

This piece of discourse has no formal links between the three clauses that make it up, but at the same time it can be understood as a coherent piece of discourse; one person is summoning someone to answer the telephone and the other is saying that s/he is not able to answer it because s/he is having a bath. Short, made-up examples which display no cohesion such as these are interesting, but most coherent texts will at the same time display a range of cohesive devices. We can say that cohesion contributes to coherence, although it is not a sufficient condition. We will return to this issue later in this chapter.

Halliday and Hasan (1976: 4) describe cohesion as follows:

Cohesion occurs where the INTERPRETATION of some element in the discourse is dependent on that of another. The one PRESUPPOSES the other, in the sense that it cannot be effectively decoded except by recourse to it. When this happens, a relation of cohesion is set up, and the two elements, the presupposing and the presupposed, are thereby at least potentially integrated into the text.

Halliday and Hasan (1976: 2) give the following example:

Wash and core six cooking apples. Put them into a fireproof dish.

In this example, them in the second sentence refers back to the six cooking apples of the first sentence. The cohesive relation is created both by the referring item, them, and the item it refers back to, the six cooking apples. It is the resolution of what is presupposed by them (six cooking
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apples) which creates the cohesive relation between the two sentences. Another way of putting this is to say that, in a cohesive relation such as this, one of the two elements is interpreted by reference to another (Halliday & Hasan, 1976: 11). We can only interpret what is meant by them by referring back to the six cooking apples.

The relation between the two elements in a cohesive relationship such as the one in the above example is referred to as a tie. Because there is a meaning relation such as this in cohesive ties, Halliday and Hasan describe cohesion as a semantic phenomenon.

Cohesion can occur both within the clause and across clauses and sentences, although most linguists focus their attention on the interclausal or intersentential, as opposed to the intrapraposal, variety (Christiansen, 2011: 25). A sentence is understood here in the way that Halliday and Matthiessen (2004) define it, in the sense of one or more clauses. Thus, in the following example (a), which is a single clause and at the same time a sentence, the tie is intrasentential, her referring back to Mary in this same clause/sentence.

a) Mary put the money in her purse.

In the next example (b), which is a sentence consisting of two clauses, it and her refer back to the money and Mary respectively. The links are interclausal, but not intersentential.

b) Mary took the money and put it in her purse.

In a third example (c), where we have two simple sentences, each consisting of one clause, we have two intersentential links, between she and her, on the one hand, and Mary and the money, on the other.

c) Mary took the money. Then she put it in her purse.

Halliday and Hasan classify cohesive devices into five categories: reference, substitution, ellipsis, conjunction and lexical cohesion, categories which have been taken up by most other linguists. We will deal with them below.

3.2 REFERENCE

3.2.1 Definition, forms and functions

The examples we have been discussing so far are cases of reference. A reference item is a word or phrase, the identity of which can be determined by referring to other parts of the text or the situation.

Reference items in English include personal pronouns, such as I, you, he, she, it; possessive adjectives, such as my, your, his, her; possessive pronouns, such as mine, yours, his, hers; demonstratives, such as this, that, these, those; and the definite article, the.

As well as within the text – called endophoric reference – as in our examples so far, reference may also be outside the text – called exophoric reference. An example of exophoric reference would be when someone refers to something which is part of the context of situation, but does not appear in the text, as in That picture is beautiful, referring to a picture which is hanging on the wall, or Look at them, referring to a group of people standing nearby.

Because it does not bind two elements together in a text, exophoric reference is not included as part of cohesion (Halliday & Hasan, 1976: 18). Nevertheless, exophoric reference interacts with the cohesion system and, like cohesion, is an important property of texts, contributing to their overall coherence.
Within endophoric reference, there are two categories: anaphoric (referring back) and cataphoric (referring forward). The reference system can thus be represented as shown in Figure 3.1.

We have already noted examples of anaphoric reference (a–c above). In those examples, it is easy to see the link to be made between the reference item and its antecedent and how the reference item presupposes that its antecedent has already been mentioned. Here are a few more examples:

a) Jocelyine Hampson read again the six words that had been typed with a faint ribbon: ‘The Bangkok Secret by Adam Hapson’. She breathed in slowly, flicked over the page and read the first paragraph again.

b) Prapoth struggled frantically to tear himself from my grip. His mouth was agape with fear and his eyes were rolling.

c) And the allegations concerning a member of the royal family. What about those? (examples from The Bangkok Secret, Anthony Grey)

With regard to the cataphoric type, it must be said that this pattern is much less frequent than either the anaphoric or exophoric types. An example of cataphoric reference would be the following: Remember this. Never trust a stranger. In this example, we can see how a reference item can refer to a whole sentence (or, in many cases, more), not just a single noun or noun phrase. This, in this example, refers forward to the whole following sentence, Never trust a stranger. In written text, cataphoric reference often occurs after a colon, semicolon or dash following the reference item, as in this next example: The following are the winners: Susan, Christopher and Ali. Strictly speaking, cases such as these are not interclausal at all, but they are often treated as such. In fact, a case can be made for such examples to be considered as interclausal, if what comes after the colon is taken as elliptical (that is to say, reduced – see below on ellipsis). Thus in our example, Susan, Christopher and Ali could be expanded to [they are] Susan, Christopher and Ali.

3.2.2 Definite reference

We listed the definite article, the, as an item that can be used as a referring item. This is a less transparent type of reference, as many learners of English, even very advanced ones, have learned to their peril. Here is an example:

d) In the centre of the dimly lit execution yard a cross of wood had been erected. Close to the cross stood a rectangular frame over which a blue curtain was drawn. (The Bangkok Secret, Anthony Grey)

Referential the has no content of its own. It obtains its meaning by attaching itself to another item and in doing so makes that item specific and identifiable, that is to say, that it can be recovered somewhere in the context, either textual or situational. Thus, if I say ‘the tree’ or ‘the enemy’, or ‘the cross’ (as in example d, above), I am presupposing that there is some tree or some enemy or some
cross in the context in which I am using these expressions and that this tree or this enemy or this cross can be identified.

Probably the most frequent use of definite reference is exophoric. Halliday and Hasan identify two ways in which exophoric definite reference refers. First, it may refer to something which is specific to the given situation. If I say, The water’s too cold when standing with my interlocutor by a swimming pool, I am clearly referring to the water in the pool. When London underground operators say Mind the gap! they are referring to the gap between the train and the platform, with which alighting passengers are familiar. Second, exophoric definite reference may refer to something which is specific to a community (referred to by Martin [1992] as context of culture), for example, the president, the baby, the piano. This type of reference is also sometimes called unique reference or homophora. Martin (1992: 122) provides a set of examples of this type of definite exophoric reference related to the community, or context of culture, as shown in Table 3.1.

Exophoric definite reference may also refer to a whole class of items: the newspapers, the possibilities, the differences; or an individual considered as a representative of a whole class (referred to also as generic reference): the lion, the alligator, as in The lion (Panthera leo) is one of the four big cats in the genus Panthera, or The alligator is notorious for its bone-crushing bites (both examples from Wikipedia).

Halliday and Hasan refer to two uses of the definite article which are endophoric, as opposed to the exophoric examples mentioned so far. The first is cataphoric, where the reference item refers forward to the modifier in a noun phrase, for example, The title of the book, The capital of France, The boy sitting in the corner, The man who fixed our drains for us. In examples such as these, the definite article signals forward that the modifier is to be taken as the defining feature of the item in question. It answers the question Which book? Which capital? Which boy? Which man? These uses are not cohesive, given that they only refer within the nominal group.

The second type of endophoric reference is anaphoric. This is the only type of those discussed which is truly cohesive. With this category, the may attach itself to a repeated noun, a synonym or a semantically related noun. The following are examples.

a) Last year I bought a new house. The house is very well built.
   b) Last year I bought a new house. The place is very well built.
   c) I went into the house. The rooms were very dark.

Given the complexity of the system of reference, it is not surprising that learners – even advanced learners – have difficulty mastering it. As Lock (1996: 36) points out, and as we have seen here, the relationships between referring items and reference categories are not one-to-one. Choice of referring item requires a high degree of sensitivity to context. As Lock (1996: 36) points out again, generalisations or rules regarding each form illustrated with decontextualised examples are not likely to be successful. Learners need to understand and practise the various types of reference in extended contexts.

<table>
<thead>
<tr>
<th>Community (context of culture)</th>
<th>Homophoric nominal group</th>
</tr>
</thead>
<tbody>
<tr>
<td>English speakers</td>
<td>The sun, the moon</td>
</tr>
<tr>
<td>Nations</td>
<td>The president, the governor</td>
</tr>
<tr>
<td>States</td>
<td>The premier, the Department of Education</td>
</tr>
<tr>
<td>Businesses</td>
<td>The managing director, the shareholders</td>
</tr>
<tr>
<td>Offices</td>
<td>The secretary, the photocopier</td>
</tr>
<tr>
<td>Families</td>
<td>The car, the baby, the cat</td>
</tr>
</tbody>
</table>
3.3 SUBSTITUTION AND ELLIPSIS

Substitution and ellipsis are closely related to each other, as they both involve the replacement (substitution) or removal (ellipsis) of material which would otherwise be anticipated in the text. Compared to reference, both categories are relatively local phenomena in so far as they are limited to linking two adjoining clauses, whereas reference links can stretch across long stretches of text in cohesive chains (see below).

3.3.1 Substitution

With substitution, a substitute word or phrase is replaced by another, for example, Which book do you want? I’ll take the red one. In this example the word book is substituted by one. Substitution may be nominal, as in the example just given; it may be verbal, for example, I have coffee every morning and he does too, where have coffee every morning is substituted by does; or it can be at the level of the whole clause, for example, A: I am so ugly, B: Okay, if you say so, where the whole clause, I am so ugly, is replaced by so.

3.3.2 Ellipsis

Halliday and Hasan refer to ellipsis as a variation on substitution. It is described by them as ‘substitution by zero’ (p. 142), that is to say, something is omitted. Where ellipsis occurs, something is left unsaid, it is true, but, at the same time, it is nevertheless understood. As with substitution, ellipsis may be at the level of the noun group, verbal group or complete clause. The following are examples of each:

- a) He potted the pink ball and then the black. (nominal)
- b) John played tennis and Peter football. (verbal)
- c) A: Do you play tennis?
  B: No. (clausal)

In (a), ball is ellipsed at the end of the second of the two clauses; in (b), the verb played is ellipsed in the second clause; and in (c), the whole clause, I don’t play tennis is ellipsed.

The intricacies of ellipsis and substitution are quite complex, with many categories and subcategories, and they are beyond the scope of this chapter. However, see Halliday and Hasan (1976) for a full treatment.

Some of the more common patterns of substitution and ellipsis are typically treated in language courses as part of the grammar. Question and answer routines involving substitution and ellipsis are typically practiced in drills such as the following:

A. Do, you like tennis?
B. Yes, I do./No, I don’t.

A. Does she like tennis?
B. Yes, she does./No, she doesn’t.

A. Do they like tennis?
B. Yes, they do./No, they don’t.
It is certainly true that patterns such as these cause problems for learners who do not have such patterning in their first language.

### 3.4 CONJUNCTION

Christiansen (2011: 161) describes conjunction as 'perhaps the most explicit and obvious cohesive devices in a text', because, with this type of cohesion, the meaning relation is contained in the cohesive item itself. Halliday and Matthiessen (2004: 536) describe conjunction as a system for marking what they refer to as *logicosemantic relations*. Halliday and Hasan (1976) distinguish four major types of conjunction in English for marking these relations:

- **ADDITIVE** (for example, *and, in addition, besides, furthermore*)
- **ADVERSATIVE** (for example, *but, yet, though, however*)
- **CAUSAL** (for example, *so, then, therefore*)
- **TEMPORAL** (for example, *then, next, after that, finally*)

Halliday and Hasan (1976: 174) make the point that there is 'no single uniquely correct inventory' of conjunctive types and indeed Halliday and Matthiessen (2004: 541) provide a rather different classification to that of Halliday and Hasan (1976), although the one presented here has the advantage of being simple and relatively transparent.

Some conjunctions may occur at various places in the clause:

- a) Mark is an excellent teacher. **However**, David is even better.
- b) Mark is an excellent teacher. **David, however**, is even better.
- c) Mark is an excellent teacher. **David is, however**, even better.
- d) Mark is an excellent teacher. David is even better, **however**.

In contrast, others can only occur at the beginning of the second clause or sentence:

- a) Mark is an excellent teacher **and** Alice is too.
- b) Mark is an excellent teacher **but** Alice is better.
- c) Mark is an excellent teacher, **so** we are lucky to have him.

Halliday and Matthiessen (2004: 536) explain how conjuncts can link text spans of varying extent, ranging from pairs of clauses (as in the examples so far) to longer spans of text. In the following example, we can see how the contrastive conjunct, **however**, links up with a series of clauses, not just a single clause, about Bill Dobrow’s drumming career:

> These days **Bill Dobrow** is a successful drummer, having recorded and toured with a whole host of successful acts that include **The Black Crowes, Sean Lennon,** and **Martha Wainwright; however** a career in music wasn’t always his dream …

(https://www.lettersofnote.com/2011/01/however-since-you-are-twelve.html)

Halliday and Hasan (1976) list over 40 different conjunctions. However, spoken discourse, although making very frequent use of conjunctions, typically uses a much narrower range of items (most typically *oh, well, and, so, then, but, because, now and then*), as compared to written text. Schiffrin (1987) refers to such conjuncts as *discourse markers*. The following is an extract from Schiffrin’s data (p. 39), showing the pervasiveness of the discourse marker *and* in informal spoken discourse:
I believe in that. Whatever’s gonna happen is gonna happen. I believe … that … y’know it’s fate. It really is.

**Because** eh my husband has a brother, that was killed in an automobile accident. **And** at the same time there was another fellow, in there, that walked away with not even a scratch on him. **And** I really fee— I don’t feel y’can push fate. **And** I think a lot of people do. **But** I feel that you were put here for so many, years or whatever the case is, **and** that’s how it was meant to be. **Because** like when we got married. we were supposed t’get married uh: like about five months later. My husband got a notice t’go into the service **and** we moved it up. **And** my father died the week … after we got married. While we were on our honeymoon. **And** I just felt, that move was meant to be, **because** if not, he wouldn’t have been there. **So** eh y’know it just s—seems that that’s how things work.

The logico-semantic relations in spoken text such as the above example seem to be a lot less specific than those found in formal written text. Coming as they do at the beginning of clauses, they also seem to have a more topic-organising function, breaking the discourse into chunks and indicating when the speaker is continuing with a topic or shifting to a new one. Georgakopoulou and Goutsos (2004: 93) argue that the strongest meaning of discourse markers is not ideational, but interpersonal. It is true that in our example, *y’know* at the beginning of the extract does seem to indicate the speaker’s attitude to what she is saying.

One consideration in the teaching of conjunction concerns the danger of overuse. Consider the following learner text concerning the possible development of a village in Hong Kong (Shalo):

As golf playing is a popular sport in the world, **however**, we have only a few courses in the area, **therefore** in order to promote tourism and recreation, it is the time for us to construct a private golf course. The present situation of Shalo is a small village and it is only connected by a footpath. **Moreover**, most of the areas surrounding it are abandoned fields, grassland and woodland. **In view of the above**, we find that the inconvenience caused to the surrounding area is minimal. **Besides**, the resource of land will be better utilized as most of the area is abandoned land. **Moreover**, after initial contact with the villagers of Shalo, all of them accepted the proposed compensation.  

(author’s data)

This text was produced by a Hong Kong learner. In public examinations at the time of its writing, a certain number of marks were assigned for the use of conjuncts. It is quite possible, therefore, that the learner inserted so many conjuncts in the expectation of being given credit for them.

### 3.5 Lexical Cohesion

Halliday and Hasan (1976) divide cohesion into two distinct categories: grammatical and lexical. So far, we have summarised the different grammatical categories. In spite of lexical cohesion being
one of the two sides of this binary classification, however, it takes up only a few pages of Halliday and Hasan’s lengthy treatment of the general topic of cohesion. This is especially surprising when, as Tanskanen (2006: 31) points out, in the example text analysis which Halliday and Hasan provide at the back of their book, lexical cohesion makes up almost half of the cohesive ties they analyse. In spite of this, or perhaps because of it, lexical cohesion is in many ways the most interesting (and problematic) part. We will begin in this section with Halliday and Hasan’s (1976) original treatment of the topic, briefly discuss their later revisions to their model, and then, in subsequent sections, consider a number of alternative models.

Halliday and Hasan (1976) have two subcategories of lexical cohesion: reiteration and collocation.

Reiteration of a lexical item in a text may be by repetition of a word, use of a synonym, a near synonym, a superordinate or a general class word. The following are examples of each:

a) I would like to introduce Dr Johnson. Dr Johnson is our head of department. (repetition)
b) He has worked in a coal mine all his life. He first went down the pit when he was a boy. (synonym)
c) Our computer system is one of the most sophisticated in the country. The network has been running for several years now. (near synonym)
d) As part of our America week, RTHK revels in some of the most expressive music of that continent. (superordinate)

Broadly defined, collocation is the way in which words are used regularly together (Halliday and Hasan, 1976: 284). The term ‘collocation’ is also used in lexicography and Corpus Linguistics (see Chapter 9), where it tends to mean relations between adjacent items. However, Halliday and Hasan apply it to interclausal relationships. Words may be related with each other semantically without being coreferential (referring to the same thing) (which, as we have just seen, is the case with reiterations). Thus ‘there is cohesion between any pair of lexical items that stand to each other in some recognizable lexicosemantic (word meaning) relation’ (p. 285, emphasis added).

Two systems operate within collocation: hyponomy and antonymy. Hyponomy concerns the relations between groups of words all falling under one superordinate. Thus apple, orange, banana and lemon are all hyponyms of the superordinate fruit. Chair, desk, sofa and table are hyponyms of the superordinate furniture. Antonymy is concerned with opposites; thus large and small and happy and sad are pairs of antonyms.

In addition, there may be other semantic relations, such as ordered sets, as in the days of the week, part–whole relationships (for example, mouth, eyes, nose – face), and even relations which are difficult to describe systematically (for example, laugh–joke, blade–sharp, garden–dig, ill–doctor). Halliday and Hasan (1976: 286) write that these relationships depend more on their tendency to occur in adjacent contexts than on any systematic semantic relationship. Halliday and Hasan also point out that these relationships build up into chains across whole stretches of text, not just in adjacent clauses. We can see this already in the following short extract:

The muzzle of the US Army Colt .45 pistol wavered slightly, then steadied. It was fully loaded and its safety catch was in the ‘off’ position. From a distance of only a few inches, it was pointing directly at the head of King Rama VIII of Siam. 

(The Bangkok Secret, Anthony Grey)

Lexical chains

a) muzzle of the US Army Colt .45 pistol, loaded, safety catch, ‘off’ position
b) wavered, steadied, pointing
In a revised version of this model of lexical cohesion, Hasan (in Halliday & Hasan, 1985/1989) reorganised the system into two major categories: general and instancial. The general category includes all of those systems which can be described semantically, including repetition, synonymy, hyponymy, meronymy (part–whole relations) and antonymy. The instancial category deals with those relations which cannot be described semantically. Thus, it includes the sort of relations that in the earlier model were dealt with under the heading of collocation and which Hasan (in Halliday & Hasan, 1985/1989: 81) argues are specific to individual texts. Thus, in one of the children’s narratives studied by Hasan, the words sailor and daddy are related to each other by a relation of equivalence, even though these two words are not systematically related to each other outside this text.

Separately, Halliday, too, has reorganised the earlier system. In the latest version (Halliday & Matthiessen, 2004), Halliday now has three major categories: elaborating relations (which include repetition, synonymy and hyponymy), extending relations (meronymy) and collocation. Of this last category, he emphasises its probabilistic nature, how a collocation sets up expectations of what is likely to come next in a text, and how this probability can vary according to how frequently any two words typically occur together in a given corpus. It is notable that Halliday’s revised model is closer to the original one than is Hasan’s.

3.6 GENERAL NOUNS AND SIGNALLING NOUNS

There is one type of lexical cohesion discussed in Halliday and Hasan (1976) which they describe (p. 275) as being on the border of grammatical and lexical cohesion, and which, they argue, has been neglected by linguists. Halliday and Hasan (1976) refer to this type of cohesion as general nouns, which they describe as ‘a small set of nouns having generalized reference within the major noun classes, those such as “human noun”, “place noun”, “fact noun” and the like.’ (p. 274). Halliday and Hasan (1976: 274) provide the following examples and classes:

- a) people, person, man, woman, child, boy, girl – human;
- b) creature – non-human animate;
- c) thing, object – inanimate concrete count;
- d) stuff – inanimate concrete mass;
- e) business, affair, matter – inanimate abstract;
- f) move – action;
- g) place – place;
- h) question, idea – fact.

The following are some examples found on the internet:

- a) Israel wanted Blair to head up the Quartet, as did the U.S. for the simple reason that it would be yet another biased group purporting to be honest brokers in the conflict. Naturally, the Palestinians can’t stand the man. (http://deskofbrian.com/2011/01/palestinian-officials-complain-tony-blair-is-pro-israel/)

- b) The phone hacking scandal has become so complicated we wanted to create the ultimate wallchart showing what happened when in the affair. (http://www.guardian.co.uk/media/phone-hacking)

- c) He had one arm around Gerda’s waist and he was grinning up at her, and, sideways, at Forrester with a look that made them co-conspirators in what was certainly planned to be Gerda’s seduction. Forrester didn’t like the idea. (http://www.freefictionbooks.org/books/p/11144-pagan-passions-by-garrett-and-janifer?start=53)
d) Dreams come true. Without that possibility, nature would not incite us to have them.

(https://quotationsbook.com/quote/11545/)

These nouns are described as being on the border of grammatical and lexical cohesion, because, as lexical items, they are members of an open set, while, as grammatical items, they can at the same time be considered to be part of a closed set. Like other lexical items, general nouns are superordinates which refer back to members of their class which have been referred to earlier in the text. In common with other grammatical items, however, accompanied as they usually are by the definite article or demonstrative adjective, they are very similar to reference items; indeed, as Halliday and Hasan (1976: 275) point out, there is very little difference in meaning between an utterance such as it seems to have made very little impression on the man and it seems to have made very little impression on him; in both cases, in order to understand the utterance, it must be referred back to something that has preceded it.

While the human and concrete members of the general noun category are in other ways fairly unremarkable, since Halliday and Hasan (1976), quite a lot of attention has been given to the abstract ones (including animate and concrete nouns such as thing and stuff used metaphorically in abstract senses) and it is possible to view these items as a separate class. Various linguists have used different terms to describe this type, including type 3 vocabulary (Winter, 1977), anaphoric nouns (Francis, 1986), advance labels (Tadros, 1985), carrier nouns (Ivanic, 1991), metalanguage nouns (Winter, 1992), shell nouns (Schmid, 2000) and signalling nouns (Flowerdew, 2003a, b, c, 2006, 2010). The proliferation in terms is due to distinctive approaches to the nouns in question being adopted; both in terms of their discursive functions and in terms of what constitutes a member or not of the given class.

Table 3.2 lists some of the most frequent signalling nouns from my corpus of academic language, which consists of lectures, textbook chapters and research articles.

A lot can be said about these nouns (which will be referred to using my preferred term, signalling nouns [SNs]), far more than comes within the scope of this book. However, a number of features can be highlighted.

1. SNs can be both anaphoric and cataphoric, as indicated by the following two examples (examples from here on in this section are from my academic corpus):

| 1. example | 21. condition | 41. assumption | 61. hypothesis |
| 2. case | 22. right | 42. step | 62. implication |
| 3. result | 23. solution | 43. period | 63. advantage |
| 4. way | 24. function | 44. stage | 64. definition |
| 5. problem | 25. change | 45. purpose | 65. observation |
| 6. theory | 26. value | 46. discussion | 66. notion |
| 7. idea | 27. argument | 47. failure | 67. characteristic |
| 8. point | 28. possibility | 48. attempt | 68. phenomenon |
| 9. thing | 29. ability | 49. feature | 69. target |
| 10. question | 30. difference | 50. potential | 70. difficulty |
| 11. reason | 31. concept | 51. technique | 71. indication |
| 12. effect | 32. analysis | 52. topic | 72. suggestion |
| 13. method | 33. conclusion | 53. instance | 73. opinion |
| 14. process | 34. situation | 54. evidence | 74. belief |
| 15. factor | 35. policy | 55. role | 75. effort |
| 16. fact | 36. view | 56. objective | 76. need |
| 17. principle | 37. response | 57. decision | 77. chance |
| 18. issue | 38. relationship | 58. behaviour | 78. response |
| 19. approach | 39. strategy | 59. intention | 79. emphasis |
| 20. procedure | 40. consequence | 60. prediction | 80. innovation |
... after the earth was formed, it was subjected to a period of heavy bombardment with large (100 km diameter) comets and meteorites. During this time ... (anaphoric)

Resources are not unlimited. Shortages, temporary or permanent, can result from several causes. Brisk demand may bring in orders that exceed manufacturing capacity or outpace the response time required to gear up a production line. ... (cataphoric)

SN is a functional category, rather than a formal one. This means that a given abstract noun may potentially function as an SN, but that in a given context such a noun may or not function as such. Indeed, many uses of abstract nouns are exophoric and do not refer back or forward in the text, depending on the interlocutor's background knowledge for explication.

2. As well as across clauses, as in the previous examples, SNs may be realised within the clause:

The aim of this paper is to elucidate the interaction of metabolic effects of the foraminer and the chemical environment.

The major premise of the theory is that an action is strengthened or weakened by its own consequence.

3. Where they are realised across clauses, SNs may relate anaphorically or cataphorically to large stretches of text, not just single clauses. In the following example, which discusses how one researcher has approached the issue of women and work, several sentences of exposition are labelled anaphorically as a perspective:

Catherine Hakim’s work draws on evidence to show that: Women are on average less committed to paid work and careers than are men. There is a clear division between women who want to develop a career and those who see marriage and child-rearing as their priority. Lack of affordable and good-quality childcare does not explain women’s lower rates of labour force participation because most part-time women workers have no childcare commitments. Women have higher rates of job turnover and higher rates of absenteeism than men. This perspective on women and work suggests that it is not true that women are forced, through lack of choice, to take time out to raise children or to accept part-time work while their children are growing up.

And in the next example, which is a cataphoric one, in a discussion of Marxist theory, the SN assumptions introduces a whole list of such assumptions which are assumed by Marxists:

Several very crucial assumptions about the nature of politics are contained in this theory:

1. Politics is less important than economics.
2. All societies are divided into classes, with the RULING class always dominant.
3. The state or political system exists merely to help the dominant class retain its control (to Marx, it was self-evident that in a capitalist society, the state would represent the interests of capitalists).
4. Ideologies, religions, culture, and all other value systems exist to rationalize the power of the ruling class. (This is why Marx labelled ideologies ‘false consciousness’ and religion ‘the opiate of the people’.)

3.7 COHESIVE CHAINS

So far in our discussion of cohesion we have focused on individual ties. It is important to bear in mind, however, that (as briefly illustrated earlier) cohesive ties do not operate in isolation, but combine together in cohesive chains. Here is an extract from Women in Love by D.H. Lawrence:
One day at this time Birkin was called to London. He was not very fixed in his abode. He had rooms in Nottingham, because his work lay chiefly in that town. But often he was in London, or in Oxford. He moved about a great deal, his life seemed uncertain, without any definite rhythm, any organic meaning.

In this extract we can see two major chains in operation, as follows:

a) Birkin – he – his – he – his – he – he – his

Following Hasan (in Halliday & Hasan, 1985/1989), we can make a number of points about cohesive chains. First of all, the links in a chain can be either grammatical or lexical. In our example above, all of the links in chain (a) are grammatical, while those in chain (b) are all lexical. Chains may also be made up of combinations of lexical and grammatical links. Hasan (in Halliday & Hasan, 1985/1989: 83) states that ‘[i]n a typical text, grammatical and lexical cohesion move hand in hand, the one supporting the other.’

Second, in any text, it is likely that different chains are operating simultaneously. This is the case, of course, in our example above, with the two chains overlapping with each other.

Third, with Hasan again (in Halliday & Hasan, 1985/1989), we can distinguish two types of chain: identity chains and similarity chains. Chain (a) in our example is an identity chain. In identity chains, all of the links in the chain refer to the same entity, they are co-referential. Chain (a) is in many ways a paradigm example for identity chains, in so far as it clearly identifies the participant at the outset (Birkin) and then continuously refers back to this person (as he/his) throughout the text. This is a typical feature of third-person narratives.

With similarity chains, the links in the chain are not related by identity of reference, but by similarity; they all belong to the same class of entities. Similarity relations may be cases of co-classification (belonging to the same class) or co-extension (belonging to the same general field of meaning). In our example text extract, chain (b) is a good example of a similarity chain. Each of the items refers to a city/town (co-classification).

### 3.8 COHESIVE HARMONY

Starting with the notion of cohesive tie and then moving on to cohesive chains, Hasan (1985, in Halliday & Hasan, 1985/1989) goes a stage further in the analysis of cohesion in texts, arguing that for there to be what she refers to as cohesive harmony – what it is that makes a text coherent, according to Hasan – there must be interaction between chains; the presence of multiple chains does not mean on its own that a text will be coherent. Hasan refers to this as chain interaction. She argues that, for chains to interact, there must be at least two members of a given chain which are in the same relation to two members of another chain. This can be represented as in Figure 3.2, which is a simplified version of the original one in Halliday and Hasan (1985/1989), as created by Hoey (1991a) (the chains here read from top to bottom and the interactions are horizontal):

Hasan divides the tokens in a text into two types: relevant tokens and peripheral tokens. Relevant tokens are those that are part of chains. Peripheral tokens are those which do not belong to chains. Relevant tokens are sub-divided into central tokens, which are those that interact with tokens in other chains, and non-central tokens, which are those which do not interact. A hierarchy of tokens is thereby established, in terms of their contribution to cohesive harmony. Using these categories, Hasan is able to define cohesive harmony as: (1) a low relation of peripheral tokens to relevant ones; (2) a high relation of central tokens to non-central ones; and (3) few ruptures in the chains.
3.9 COHESION, COHERENCE AND TEXTURE

Hasan grounds her discussion of cohesive harmony in the context of what she refers to as texture (see also Halliday & Hasan, 1976), which she equates with textual unity (Hasan, 1985: 70). Texture and textual unity are in turn identified with coherence (Hasan, 1985: 72). From this, it seems, therefore, that, for Hasan, the greater the cohesive harmony of a text, the greater will be its coherence. Indeed, she explicitly states that ‘variation in coherence is the function of variation in the cohesive harmony of a text’ (Hasan, 1985: 94).

At the same time, however, in an earlier publication (Hasan, 1984a), she stressed that coherence is ‘a relative, not an absolute property’ (1984a: 184). And in Halliday and Hasan (1976: 296) she also emphasised the relative nature of texture, writing with Halliday that:

Textuality is not a matter of all or nothing, of dense clusters of cohesive ties or else none at all. Characteristically we find variation in texture which serves to signal that the meanings of the parts are strongly interdependent and that the whole forms a single unity. In other instances, however, the texture will be much looser.

So there is some confusion here. It may be that, for the children’s story narratives which were the focus of Hasan’s research, greater cohesive harmony did correlate with coherence. However, for other text types, this seems to be counterintuitive. Surely, one might argue, some spoken texts, while quite coherent, are less cohesive, making use of other semiotic resources than cohesion, such as exophoric reference, intonation and body language. Other written texts may display a greater degree of cohesive harmony than Hasan’s children’s stories, but does that make them any less coherent than cohesively harmonious children’s stories? Surely, each is coherent in its own right.

Indeed, other studies have demonstrated it to be the case that there is a gradation in the degree to which cohesion and cohesive harmony contribute towards coherence. Hoey (1991b), for example, whose model we will deal with in the next section, has demonstrated how expository text exhibits a much higher level of cohesive harmony than do Hasan’s children’s narratives. Hoey states that ‘in non-narratives the number of chains proliferate vigorously’ (p. 386). He also found in his own study that the cohesive links in his data did not follow a linear chain pattern, one clause linking up with the preceding one, but formed a pattern more like a web, with overlapping and nesting of related sets. On the other hand, Taboada (2004) has shown how, in conversation, there is very low interaction in cohesive chains and that major chains in such texts do not interact with each other. Taboada states that ‘[t]he dialogues [in the texts in her study], although perfectly functional, seem to contain very low
cohesive harmony’ and suggests that ‘different measures of cohesive harmony are necessary for different genres’. Similarly, Thompson (1994), in her investigation of university lecture monologue, found that, in addition to lexicogrammatical cohesive devices, intonation and clause relations (which may or may not be signalled linguistically) contributed to the coherence of her data.

3.10 PATTERNS OF LEXIS IN TEXT: HOEY’S MODEL OF (LEXICAL) COHESION

Hoey’s (1991b) study, *Patterns of Lexis in Text*, is concerned with non-narrative text. In non-narrative text, Hoey (1991b: 10) claims, it is the lexical cohesive links which dominate the cohesion. For Hoey, lexical cohesion is:

the dominant mode of creating texture. In other words, the study of the greater part of cohesion is the study of lexis, and the study of cohesion in text is to a considerable degree the study of patterns of lexis in text.

In addition to being more pervasive than grammatical links in non-narrative texts, Hoey argues, lexical links differ from grammatical links because they do not depend on each other for their meaning; a grammatical link, such as a pronoun, depends on its referent for its meaning, but a lexical link is a meaningful semantic unit in its own right. For this reason, Hoey assigns greater salience to lexical cohesion as compared to grammatical cohesion, even though he does include grammatical links in his model.

For Hoey, lexical cohesion involves multiple relationships; a given lexical item has the potential to link with more than one other item. As he states, ‘lexical cohesion is the only type of cohesion that regularly forms multiple relationships.’ Non-narrative text, unlike narrative text, which is built up from a series of links from one clause to the next, is built on repeated links. An example of such links is shown in Figure 3.3, which is taken from Hoey (1991b: 37).

Drawing on Winter (1974, 1979), Hoey argues that the basic cohesive relationship is one of repetition. ‘It is the common repeating function of much cohesion that is important, not the classificatory differences between types of cohesion’, he states (Hoey, 1991a: 20). It is for this reason that

1 A *drug* known to *produce* violent reactions in *humans* has been *used* for *sedating* *grizzly bears* *Ursus arctos* in Montana, USA, according to a report in the *New York Times*.

2 After one *bear*, known to be a peaceable animal, killed and ate a camper in an unprovoked attack, scientists discovered it had been *tranquilized* 11 times with *phencyclidine*, or ‘angel dust’, which *causes* hallucinations and sometimes gives the *user* an irrational feeling of destructive power.

3 Many wild *bears* have become ‘garbage junkies’, feeding from dumps around *human* developments.

4 To avoid potentially dangerous clashes between *them* and *humans*, scientists are trying to rehabilitate the *animals* by *drugging* them and releasing them in uninhabited areas.

5 Although some biologists deny that the mind–altering *drug* was *responsible for* uncharacteristic behaviour of this particular bear, no research has been done into the effects of giving *grizzly bears* or other mammals repeated doses of phencyclidine.

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1 A **drug** known to **produce** violent reactions in **humans** has been **used** for **sedating** **grizzly bears** *Ursus arctos* in Montana, USA, according to a report in the *New York Times*.

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Figure 3.3 Lexical links in a non-narrative text (Hoey, 1991b: 37).
he includes some grammatical items in his model; they have the capacity to repeat, just as do lexical
items, although, for Hoey, as already stated, these links are weaker.

Hoey’s (1991b) model of cohesion has the following categories.

a) simple lexical repetition (a bear – bears);
b) complex lexical repetition (a drug – drugging);
c) simple paraphrase (to sedate – to drug);
d) complex paraphrase (heat – cold);
e) substitution (a drug – it);
f) co-reference (Mrs Thatcher – the Prime Minister);
g) ellipsis (a work of art – the work);
h) deixis (Plato and Aristotle – these writers).

Hoey is primarily interested in those items in a text which have above-average numbers of links,
these items establishing what he refers to as bonds. As already stated, the weight of links varies,
with a higher weighting given to lexical over grammatical links. In fact, the order of strength follows
the ordering of the list of categories given above. In this way, Hoey is able to differentiate between
central and marginal sentences, based upon the number and strength of the bonds.

Following on from this, lexical cohesive bonds combine together and relate to other items in
networks (referred to as nets). These nets, in bringing together central sentences and omitting mar-
ginal sentences, have the capacity to produce a meaningful paraphrase of the whole text.

3.11 TANSKANEN’S APPROACH TO LEXICAL COHESION

A further development of the original Halliday and Hasan model is that of Tanskanen (2006). Tan-
skanen views cohesion as a resource which communicators use to contribute towards coherence,
 hence the title of her monograph, Collaborating towards Coherence. Tanskanen’s work is particu-
larly interesting from a discourse point of view, because her model is developed in order to analyse
cohesion in different text types. This comparative empirical purpose leads to a number of innova-
tions into her model. The elements of the model are as follows (p. 49):

Reiteration
1. simple repetition
2. complex repetition
3. substitution
4. equivalence
5. generalisation
6. specification
7. co-specification
8. contrast

Collocation
1. ordered set
2. activity-related collocation
3. elaborative collocation

Some of these categories look familiar and are based on those used by others, as described
thus far in this review of lexical cohesion. Some of their particular features are singled out below.
First, simple and complex repetition: simple repetition applies to items of an identical form or
with a difference in grammatical form; complex repetition concerns items which are identical but
serve different grammatical functions or are not identical but share a lexical morpheme. Importantly, pronouns are also included, as Tanskanen notes that, following Hoey (1991b), although pronouns are normally treated as part of grammatical cohesion, their function is very similar to full repetitions.

The third category, substitution, like repetition, also includes pronouns, for the same reason given above. Tanskanen cites Halliday and Hasan in support of this decision. Halliday and Hasan (1976: 212) argue that it is possible to shift the perspective on reference ‘from the grammatical to the lexical and look at reference from the lexical angle, interpreting it as a means of avoiding the repetition of lexical items’. Tanskanen also cites Hasan (1984b) in support of this decision. Hasan argues that leaving out grammatical cohesion in analysis of cohesive chains in her study was at the expense of a consideration of the text’s fundamental semantic unity.

The fourth category, equivalence, basically corresponds to synonymy. The use of the different term is to acknowledge the textual basis for the classification of items, as opposed to applying a ready-made system. A particular text may treat items as synonymous, but they may not correspond to an abstract systematic class. This is Hasan’s distinction between general and instanital relations.

Generalisation, the fifth category, corresponds to what other linguists refer to as superordinates, while specification, the sixth category is the counterpart of generalisation, usually referred to as meronymy, the parts of a whole.

Co-specification refers to what are elsewhere referred to as co-meronyms or co-hyponyms. Finally, contrast corresponds to what in other systems is referred to as antonymy.

Turning now to collocation, like Halliday and Hasan (1976), Tanskanen defines this in terms of relationships established through habitual co-occurrence. In spite of this, she nevertheless has three different classes. Ordered sets, as in Halliday and Hasan, refer to sets such as months of the year, days of the week and colours. Activity-related collocations are items which relate to each other in terms of an activity: meals – eat, ciphers – decode and car – drive are examples of these. Finally, elaborative collocation is a catch-all category for those items which are part of neither ordered sets nor activity relations. Tanskanen tries to capture relationships under this category in terms of frame theory (see, for example, Fillmore, 1985). Frames are knowledge structures which are evoked by lexical items. Tanskanen gives the example in her data of Cambridge and Mill Lane lecture theatre. Cambridge invokes a university frame, which thereby sets up the link with Mill Lane lecture theatre.

One interesting point about Tanskanen’s contribution is that, because she is developing an empirical study, as opposed to developing a theory per se, she adopts the lexical unit rather than the individual word as the unit of analysis. What this means in practice is that some of the items she identifies as cohesive units may be multiword as well as single-word. These multiword units include items like phrasal verbs and idioms, but also lexical items such as cultural determinism, social services, Standard English, the working people and out of fashion. The justification for including multiword units such as these is that items are defined by the words with which they co-occur, not in the abstract. Thus, a phrase like cultural determinism achieves its meaning in relation to other social theories with which it is related in the text. To take cultural or determinism as separate units would allow for much larger numbers of possible relations than taking the two words together as one item. Once one begins to deal with actual text, it soon becomes clear that this is the right way to go.

Turning now to the results of Tanskanen’s study, interesting qualitative conclusions were that, in all texts, reiteration and collocation take part in the formation of cohesive chains and that all texts show both longer and shorter chains. Furthermore, cohesive chains are capable of marking topical segments. The beginning or end of a cohesive change corresponds with the beginning or end of a topic. Again, all texts exhibited this phenomenon.

I noted that Tanskanen compared different text types. Here the quantitative findings of her study are interesting. One finding was in the density of cohesive ties in each text type used in the study. The frequency of ties (per thousand words) in each of the text types was as follows:
Particularly striking in these findings is the positioning of two-party conversation as the highest density and academic writing as the lowest. Based on our knowledge of lexical density, which tells us that, of the common text types, academic writing is the most dense lexically, while conversation is the least dense (see Chapter 1), one might have anticipated exactly the opposite. Further studies are needed, of course, to corroborate this finding.

Another interesting quantitative finding in Tanskanen’s study was the relatively low frequency of collocation, as compared to reiteration. Frequency of ties per thousand words for the different text types ranged from 10 to 16.5 for collocation, while for reiteration the numbers ranged from 90 to 146. One conclusion from the study, therefore, is that collocation is relatively rare as a cohesive feature.

### 3.12 PROPOSITIONAL RELATIONS

In their discussion of conjunction, Halliday and Hasan (1976: 229) make the point that it is often the case that a conjunctive relation may often be identified without it being overtly expressed by means of a conjunction at all. They provide the following set of examples to illustrate this point (p. 228):

a) A snowstorm followed the battle.

b) After the battle, there was a snowstorm.

c) After they had fought a battle, it snowed.

d) They fought a battle. Afterwards, it snowed.

In each of these examples, two events, or propositions, are referred to in a sequential relationship, but only in (d) is there a conjunction overtly relating the two. In another set of examples, Halliday and Hasan illustrate some of the different ways that an adversative propositional relationship may be established:

a) He fell asleep, in spite of his great discomfort.

b) Although he was very uncomfortable, he fell asleep.

c) He was very uncomfortable. Nevertheless he fell asleep.

Propositional relations such as these, whether overtly signalled or not, have been the focus of the work of a considerable number of linguists. Here is another example, this time from Crombie (1985: 6), where a propositional relation, that of reason–result, in this case, is established, without the use of an overt signal:

I missed the train. I’m going to be late for work.

A variety of approaches has been adopted to researching propositional relations, with a range of different terms being used. Thus, Winter (1974, 1977) and Hoey (1983, 1991b) use the term clause relations, Beekman and Callow (1974) discuss relations between propositions, Grimes (1975) discusses rhetorical predicates, Longacre (1976) discusses combinations of predications, Hobs (1978, 1979) has coherence relations, van Dijk (1977a, 1980) has semantic relations between propositions, Martin (1984) has conjunctive relations, Crombie (1985) has binary discourse
values, Mann and Thompson (1988) have rhetorical structures and Renkema (2009) has discourse relations.

Here, we will focus on Crombie’s approach, because her work was developed with the aim of direct application to language syllabus design. Binary discourse values, Crombie’s preferred term, are defined by Crombie (1985: 2) as “the significance that attaches to utterances by virtue of the specific type of relationship which they bear to one another.” Binary discourse values are divided into two groups: functional components of conversation (which will not concern us here, although see Chapter 7 on Conversation Analysis) and general semantic relations, which are concerned with relations between the propositional content of utterances.

Crombie (1985) develops a taxonomy of nine general semantic relations, as follows:

1. temporal;
2. matching;
3. cause–effect;
4. truth and validity;
5. alternation;
6. bonding;
7. paraphrase;
8. amplification;
9. setting/conduct.

These nine basic categories are further subclassified into between one and four subcategories. Thus category 1, temporal relations, is divided into chronological sequence and temporal overlap; category 4, truth and validity, is broken down into statement–affirmation, statement–denial, denial–correction and concession–contra-expectation; while category 7, paraphrase, on the other hand, is not subdivided.

The following are some examples of possible realisation forms for the subcategories for temporal relations and truth and validity:

1. Paris seized Helen and left Greece.
   (temporal relations – chronological sequence)
2. As he left, Paris looked over his shoulder.
   (temporal relations – temporal overlap)
3. A: Achilles should resume the fight.
   B: Absolutely/I agree.
   (truth and validity – statement–affirmation)
4. A: Achilles was right.
   B: No, he wasn’t / I deny that.
   (truth and validity – statement–denial)
5. He wasn’t a soldier, he was a priest.
   (truth and validity – denial–correction)
6. Although the seeds were sown and nurtured, the plants failed to appear.
   (truth and validity – concession–contra-expectation)

Types of relation can be identified by the application of a simple question test. The following are some example questions:

a. For simple contrast:
   - Is A said to differ from B in a particular respect?
b. For simple comparison:
   • Is A said to be similar to B in a particular respect?

c. For paraphrase (where P and Q are statements):
   • Does Q have the same conceptual context as P?

d. For denial–correction:
   • Does Q provide a corrective substitute for a negated term in P?

This is a very neat means of identification, requiring, as it does, only one question for each category.

The linguistic realisation of discourse values, or propositional relations, as already suggested, can be either explicit or implicit. Where they are explicit, some signalling items are more explicit than others. Thus subordinators, such as if, because and although, and connectives, such as similarly, however and nevertheless, are more explicit than coordinators such as and and but. Propositional relations are not only signalled by conjuncts such as these, however. The presence of certain lexical items such as different, difference and result can also indicate particular relations. Where propositional relations are implicit, a number of factors may contribute to their interpretation. These include juxtaposition, sequencing, lexical selection and general background, or situational, knowledge. In addition, interpretation may be by guided by Gricean cooperative maxims (see Chapter 6) and, in spoken discourse, by intonation.

An aspect of Crombie’s approach of particular significance for the language syllabus is the fairly detailed specification she is able to provide of linguistic forms capable of realising the various relations. Thus, for the chronological sequence relations, for example, she is able to specify the following signalling devices:

1. subordinators (once, until, when, etc.);
2. prepositions (after, before, since, etc.);
3. conjuncts (first, second, finally, etc.);
4. time adjuncts (today, last night, etc.);
5. syntactic constructions (which Crombie lists).

In developing a pedagogical approach to propositional relations, there are, in theory, two possible approaches. The first is to start with the linguistic items and then work out their possible semantic functions; the second is to start with a set of semantic categories and work from there to their possible linguistic realisations, or signals. In actual practice, as is the case with Crombie, most researchers adopt a combination of the two approaches.

Among those emphasising the more formal approach is Hoey (1983: 20), who states that ‘discussion of types of relation cannot be sensibly carried on apart from the means whereby those relations are identified’. Another is Martin (1983), who bases his relational classification on ‘conjunctive relations’, the syntactic devices used to connect clauses. A third is Winter (1977: 2), who states that the finite number of ‘clause relations’ that he specifies can be named by a special vocabulary of words such as affirm, cause, compare, deny, different, effect, example, follow and mean, referred to by him as vocabulary 3. A danger of this formal approach is that, as Crombie points out in discussion of Winter, it confuses what she refers to as relations with relational encoding, or, put another way, cohesion is confused with underlying coherence. It may be that the linguistic system does not have overt signals for realising all and every relation; it may be that in English, or in other languages, there may exist relations which are not identifiable by specific lexical means.

It is on this point that the other approach to propositional relations comes in, the semantics-first one. The best-known model using this approach is that of Mann and Thompson (Taboada & Mann,
The original set of propositional relations put forward by Mann and Thompson consisted of 24 types and the current version of the model is working with 30 (Taboada & Mann, 2006a). These categories are put forward using the semantics-first approach and hence are not dependent on any linguistic realisation for their identification. Indeed, this approach insists that certain relations are ‘rarely or never signalled’ (Taboada & Mann, 2006a: 436). A problem with this approach, however, is that any textual analysis is likely to be rather subjective, because the categories cannot be formally recognised in text.

3.13 PARALLELISM

A cohesive feature not included by Halliday and Hasan (1976), but which can, for the sake of completeness, be dealt with briefly here is parallelism. Parallelism is where elements – be they syntactic, lexical or phonological – of one clause are repeated, often for stylistic effect, in a following clause or clauses. Halliday and Hasan (1976: 10) exclude this category, which they refer to as ‘syntactic parallelism’, from their study of cohesion on the grounds that it is a purely formal device, not a meaningful relation. Nevertheless parallelism is cohesive in so far as it is a means of relating one clause to another.

Many examples of parallelism can be found in oratory, as the following examples show:

a. One small step for man.
   One giant step for mankind.  
   (statement made by the first man on the moon)

b. And so my fellow Americans: Ask not what your country can do for you. Ask what you can do for your country.
   My fellow citizens of the world: Ask not what America will do for you, but what together we can do for the freedom of man.  
   (from US President J.F. Kennedy’s inaugural speech)

However, parallelism operates in many types of text, both written and spoken (advertisements are another type of text where it is pervasive).

Parallelism can operate at the level of syntax, lexis and phonology. In the following extract from a cookery book, syntactic parallelism is particularly noticeable, with the repeated use of imperative verb forms at the beginning of each clause.

Cheese and Onion Dip
Put the yoghurt and soup mix into the bowl and process until well blended. Allow to stand for 30 minutes. Add the cheese and seasoning and process until smoothly blended. Transfer to a serving bowl and chill. Serve garnished with chopped chives.  
(Paige, 1984)

In the following extract, we can observe the three types of parallelism together, this time in casual conversation:

Marge: Can I have one of these Tabs?
Do you want to split it?
   Do you want to split a Tab
Kate: Do you want to split MY Tab [laughter]
Vivian: No.
Marge: Kate, do you want to split my Tab? 
Kate: No, I don’t want to split your Tab.  
(Tannen, 1989: 57)
In this extract, on the syntactic level, parallelism is found in the repeated use of the interrogative form. Lexical parallelism is established by repetition of the phrase ‘Do you want (or ‘I don’t want’) to split my (or ‘a’ or ‘your’) tab?’ and of the lexical item ‘Tab’ (occurring in every clause except one). Phonological parallelism is created by the parallel rhythm and sounds of each of the clauses (except for Vivian’s ‘No’, which creates a contrastive effect).

3.14 CRITIQUE

In evaluating various approaches to cohesion, especially that of Halliday and Hasan (1976), some have critiqued the place assigned to it within overall coherence. It is true that, as already suggested earlier in this chapter, at times, Halliday and Hasan (1976, 1985/1989) seem to be inconsistent in writing about the relationship between cohesion, texture and coherence. In places, they identify cohesion with texture and texture with coherence. In other places, they claim that texture is more than just cohesion, involving also features such as register, propositional relations and thematic development.

At the beginning of Halliday and Hasan (1976: 2), for example, they state:

The concept of TEXTURE is entirely appropriate to express the property of ‘being a text.’ A text has texture, and that is what distinguishes it from being something that is not a text. It derives the texture from the fact that it functions as a unity with respect to its environment.

Then a little later (p. 9.), they state that ‘cohesive ties between sentences stand out more clearly because they are the ONLY source of texture (original emphasis).’ But then, on page 23, they claim that texture is more than just cohesion, also including register, and that neither is sufficient without the other. Again, in the concluding sections of the book, they claim that, in addition to cohesion, texture involves both how the sentences of a text are structured in such a way as to relate to the context (thematic development: see Chapter 4) and ‘macrostructure’, what establishes a text as one of a particular kind, such as conversation or narrative. The following is the quotation:

Texture involves much more than merely cohesion. In the construction of text the establishment of cohesive relations is a necessary component; but it is not the whole story.

In the most general terms there are two other components of texture. One is the textual structure that is internal to the sentence: the organization of the sentence and its parts in a way which relates it to its environment. The other is the ‘macrostructure’ of the text, that establishes it as a text of a particular kind – conversation, narrative, lyric, commercial correspondence and so on (Halliday and Hasan, 1976: 324).

Those linguists who have strongly critiqued Halliday and Hasan (for example, Brown & Yule, 1983; Carrell, 1982) may thus have overlooked the ambiguity we have just noted in their target, preferring to find in Halliday and Hasan a stronger claim for cohesion than was perhaps intended. Nevertheless, there is certainly ambiguity.

3.15 APPLICATION TO PEDAGOGY

3.15.1 The case for cohesion

Cohesion is fundamental to text construction, but is neglected in many learning materials, preference being given to grammar and lexis (although not lexical cohesion).

So what is the case for a focus on cohesion? Most obviously, there are formal differences
between how cohesion is signalled, or realised, in different languages. Reference, substitution, ellipsis, conjunction and lexical cohesion differ in this respect and therefore, obviously, need to be the focus of teaching and learning.

On another level, though, the functional one, there is another reason for there to be a need for cohesion to be in the language syllabus. If we take as an example a language which is typologically distant from English, say Chinese, we can see how this operates in terms of function.

Chinese is often referred to as a 'high-context' language. That is, it relies greatly on context in the interpretation of meaning. English, on the other hand, can be described as a relatively 'low-context' language. It tends to signal meaning explicitly through the linguistic system rather than relying so much on the context (although context is still vital). What this means with regard to cohesion is that certain cohesive features which are signalled in the linguistic system in English are left to be determined by the context in Chinese.

In English, for example, after a participant has been introduced into the discourse, it will be typically reiterated in subsequent clauses by means of cohesive devices such as pronouns. In Chinese, however, in contrast to English, after the introduction of a participant into the discourse, this participant is generally understood from the context and does not need to be reiterated by means of cohesive devices. Similar differences in cohesion between English and Chinese are to be found in other areas of discourse.

Although, because of its typological distance from English, Chinese is a good example to talk about functional differences in cohesion, differences in cohesive functions also occur in languages which are typologically closer. If we take Spanish, which is much closer to English, as another example, that language, in common with Chinese, also does not need to reiterate participants in a text in the way that English does. However, there is less reliance on context in Spanish than in Chinese, because the verb itself will be marked to indicate who or what is being referred to, that is to say, cohesion will be signalled through the form of the verb. But nevertheless, in Spanish, as in Chinese, there is no need to use pronouns to signal continuity in the text.

### 3.15.2 Ties, chains and bonds

Some aspects of cohesion have traditionally been featured in language teaching, for example, substitution and ellipsis, even if they have not been dealt with under that rubric, but treated as aspects of grammar. A lot of those teaching and learning materials which do deal with cohesion focus on connecting pairs of sentences, using a slot and filler or ‘fill in the blanks’ approach. Reference items can be practised in this way and this can be a useful exercise in raising learners’ awareness of the forms and functions of reference in English (which will both likely differ from their L1).

However, although the cohesive tie linking two clauses is the fundamental unit in cohesion, attention needs also to be focused on the role of chains and bonds. Cohesion varies from register to register (Hoey, 1991b; Tanskanen, 2006). An understanding of such variation is not likely to be developed through practice in linking pairs of clauses.

Hatch (1983: 115) uses the following text to highlight the subtleties needed to deal with what might seem even quite simple identity chains (although Hatch does not use this term):

> Our speaker today is Dr. Sheryl M. Strick. _____ is a professor in the Department of Vegetarian Diet at the College of Agriculture and Environment at UCLA. _____ graduated from Florida State University, and after a summer as an assistant seed breeder for the Burpee Company in Texts, _____ went on to do graduate work in plant genetics at UC San Diego. After receiving _____’s Ph.D., _____ jointed the Pennsylvania State University faculty where _____ remained except for trips to the Himalayas and Outer Mongolia to collect potato varieties and do research on potatoes. _____ wrote that _____ was bitten by the potato bug in _____’s grade school
days and never completely recovered. _____ remembers all the excitement _____ felt when _____ placed _____’s first mail order for seed and how _____ did everything wrong in sowing the seeds. Later, while still at home, _____ spent every available hour working on the farm that _____’s mother managed. It was clear even then in _____’s life _____ would deal with plants. It is a pleasure to introduce to you _____ who will speak to us on ‘The Potato.’ _____ Sherry.

Is it the case that each of the blanks in this text should be replaced by a simple she or her? At some points, it would seem appropriate to reintroduce either the full or partial name. Such reintroductions might be because the name has not been mentioned for a while and the listener needs to be reminded of it; or because other characters have been mentioned since the name was last used and there may hence be possible confusion? Is there a need to put the emphasis on the person being introduced rather than her accomplishments? Hatch raises all of these possibilities and they all might feed into a consciousness-raising discussion of the structure and functions of reference chains in discourse. Similar intricacies are likely to be at stake with similarity chains.

To exemplify this issue with regard to second-language usage, the following text was written by a Hong Kong secondary school student.1

1. Playing computer games has become such a popular hobby that many teenagers spend a lot of time and effort in the virtual world. Some people think that playing computer games is a harmful hobby which wastes time and money, while others believe that it can be a serious activity that requires practice and may turn into a career. So I strongly believe that playing computer games is a harmful hobby.

2. It is easy to get addicted to computer games. As we know that, computer games are attractive and it takes quite a long period of time to win the games. After you have won the first round, you may want to continue playing because you are attracted by the game. As the result, it is easy to get addicted.

3. It (1) may lead to eye strain and other health problems. We all know that playing computer games for too many hours will make our eyes feel tired or dry and it (2) would lead to eye strain. It (3) also will cause mental problems as it may affect their feeling or attitudes. It (4) may make them feel angry or sad or carry away and may occur accidents. It (5) is quite dangerous for the people who cannot control him or her emotion because you don’t know when she or he loss the game, what will happen next.

If we look at the third paragraph of this text, we see that there is an identity chain involving five uses of it (bolded and numbered). With the first example of it at the beginning of the first sentence in paragraph 3, the referent of it is already unclear, although, with careful analysis of the text, this referent may be traced back to the previous sentence ‘it is easy to get addicted’ (which itself is a repetition of the first sentence of the paragraph). Getting addicted (worded as to get addicted) is, therefore, the beginning of this chain. The student might have done better by writing ‘Such addiction’ rather than just it, to establish clearly this first link in the chain. As the identity chain develops, however, by repetitions of it and with no use or repetition of the full nominal (addiction), the meaning becomes increasingly difficult to unravel. There is a place, here, therefore, for pedagogic intervention, in terms of cohesion.

3.15.3 Lexis

This brings us to the role of lexis. Students need be made aware of lexical fields and lexical sets to build up the various semantic relations involved in lexical cohesion. As Hoey (1991b) argues, students need to learn how to repeat, but not just by repeating with the same word or phrase.
Cohesion (although in some registers, such as scientific ones, this may be more preferred), but to master the full range of words from the relevant semantic field. As McCarthy (1991: 71) argues with regard to conversation:

The way in which we can observe speakers moving from superordinates to hyponyms and from synonyms to antonyms and back again is a common feature of conversation and learners can be equipped to use this skill by regular practice.

McCarthy is concerned with conversation, but the same applies whatever the register.

### 3.15.4 Propositional relations

Crombie (1985) proposes using propositional relations as an organising principle for syllabus design. She argues that propositional relations are a universal phenomenon, common to all languages (p. 33, p. 83) (see also Hatim & Mason, 1990 on this). She argues that propositional relations can provide a framework for introducing the signalling items of the target language and also how the relations may be expressed by other means (referred to as 'unsignalled value assignments'):

For the language teacher and syllabus designer, the introduction into teaching programmes of the value signalling systems of the target language provides a framework for the introduction of the learner to language as a communicative dynamic and for a movement towards unsignalled value assignments. The ultimate aim is that the learner should reach a degree of competence at which he can not only recognize and use value signals, but also recognize where and when they need not be introduced and where and when they must not be (p. 36).

The following exercise from McCarthy et al. (1997: 8), where students are asked to match what are referred to as text organisers with chunks of text, illustrates how students might work with the way relations are signalled.

| Text organisers |
|-----------------|--------------------------------------------------|
| Background      | Railways declining because of growth in car ownership. Government investment in railways now very low |
| Problem Issue   | Should we go on building more roads or revive our railways? |
| Question Move   | The government has set up a committee to decide on transport policy |
| Decision Features Aspects | Cost per mile. Staffing costs. Pollution. Social service. Freedom of choice |
| View            | Whatever committee decides, railways declining so fast that it's too late to stop decline |
| Conclusion      | |

### 3.16 CONCLUSION

In this chapter, we have seen the vital role that cohesion plays in the creation of text. Cohesion thus demands our attention in second-language course design. Thornbury (2005a: 34) summarises some of the general teaching implications arising from a consideration of cohesion:
1. Expose learners to texts rather than to isolated sentences only.
2. Draw attention to, and categorise, the features that bind text together.
3. Encourage learners to reproduce these features, where appropriate, in their own texts.
4. Provide feedback not only on sentence-level features of learners’ texts, but on the overall cohesiveness as well.

Although cohesion is a vital property of texts, we need to bear in mind that cohesion does not correspond to coherence. As Halliday and Hasan put it (1976: 298–299):

Cohesion is a necessary, though not a sufficient condition for the creation of text. What creates text is the TEXTUAL, or text-forming component of the linguistic system, of which cohesion is one part.

In subsequent chapters, we will consider some of the other phenomena contributing towards coherence, beginning with the next chapter, which will deal with thematic development.

3.17 QUESTIONS FOR DISCUSSION

1. Identify the reference ties in the following examples by saying what relates to what and whether the ties are anaphoric, cataphoric or exophoric.
   1. The skeleton of a young child has been found on the roof of a building in Mong Kok. It was found inside a water tank by a man.
   2. Two years ago, this property cost 1 million pounds. Today, it costs 5 million.
   3. He bought some red wine and some white wine. The white wine he put in the fridge. (two links)
   4. Do you prefer these or those?
   5. The sun rises in the east.

2. Examine the following pieces of discourse and say what is wrong with the cohesion in each case:
   a) From an interview with the British Foreign Secretary, Douglas Hurd, on the radio programme Desert Island Discs:
      Douglas Hurd: My father said: ‘Don’t go straight into politics from Cambridge, you won’t have anything to say.
      Programme Hostess: And indeed you didn’t.
   b) From a staff association notice board:
      For those who have children and don’t know it, we have a nursery.
   c) From a leaflet about migraine:
      Migraines strike twice as many women as do men.

3. Examine the following text extract from A Study in Scarlet by Arthur Conan Doyle about his famous fictional detective, Sherlock Holmes. Indicate the similarity chain in this text, starting with the first word of the paragraph, Holmes.

Holmes was certainly not a difficult man to live with. He was quiet in his ways, and his habits were regular. It was rare for him to be up after ten at night, and he had invariably breakfasted and gone out before I rose in the morning. Sometimes he spent his day at the chemical laboratory, sometimes in the dissecting-rooms, and occasionally in long walks, which appeared to take him into the lowest portions of the City. Nothing could exceed his energy when the
working fit was upon him; but now and again a reaction would seize him, and for days on end he would lie upon the sofa in the sitting-room, hardly uttering a word or moving a muscle from morning to night. On these occasions I have noticed such a dreamy, vacant expression in his eyes, that I might have suspected him of being addicted to the use of some narcotic, had not the temperance and cleanliness of his whole life forbidden such a notion.

(Project Gutenberg: http://www.gutenberg.org/files/244/244-h/244-h.htm#2HCH0001)

4. Now indicate the similarity chain following the word rooms in the first sentence and the word things in the fourth sentence of the following paragraph (which is from the same Sherlock Holmes story as the one in the previous question).

We met next day as he had arranged, and inspected the rooms at No. 221B, Baker Street, of which he had spoken at our meeting. They consisted of a couple of comfortable bed-rooms and a single large airy sitting-room, cheerfully furnished, and illuminated by two broad windows. So desirable in every way were the apartments, and so moderate did the terms seem when divided between us, that the bargain was concluded upon the spot, and we at once entered into possession. That very evening I moved my things round from the hotel, and on the following morning Sherlock Holmes followed me with several boxes and portmanteaus. For a day or two we were busily employed in unpacking and laying out our property to the best advantage. That done, we gradually began to settle down and to accommodate ourselves to our new surroundings.

(Project Gutenberg: http://www.gutenberg.org/files/244/244-h/244-h.htm#2HCH0001)

5. Take any text that comes to hand and analyse it for: (a) its reference; (b) its conjunction; and (c) its lexical cohesion. Is the lexical cohesion better described with a ‘chain’ or a ‘net’ metaphor?

6. Rank the following types of cohesion according to the difficulty they are likely to cause learners: reference, substitution/ellipsis, conjunction, lexical cohesion, structural parallelism. Give reasons why each type is more or less problematic.

7. To what extent do you think (a) a consciousness raising approach and (b) an overt treatment of conjunction can be useful to first- or second-language learners in the teaching of writing?

3.18 FURTHER READING