## Chapter 5

## The texture of a text

## Introduction

I began the last chapter with the claim that unity is a crucial attribute of texts, and went on to examine one source of textual unity: namely, structure. I tried to show that the structure of a text is closely related to the context of situation, so much so that the specific values of field, tenor, and mode, which together make up a contextual configuration, can be used to make certain predictions about the structure of the text, just as the unfolding structure of the text itself can be used as a pointer to the very nature of the contextual configuration. There is, thus, a twoway relationship between text structure and contextual configuration: the on-going structure of the text defines and confirms the nature of the contextual configuration, while the latter acts as a point of reference for deciding what kind of elements can appropriately appear when, where, and how often.

In this chapter we shall look at the second source of textual unity: namely, texture.

## What is texture?

Texture, like structure, can be shown to be ultimately related to the context of situation. This is a theme that I shall come back to in Chapter 6 . Here, let me begin by a brief discussion of two examples (Examples 5.1 and 5.2).

## Example 5.1

Once upon a time there was a little girl and she went out for a walk and she saw a lovely little teddybear and so she took it home and when she got home she washed it.

## Example 5.2

He got up on the buffalo I have booked a seat I have put it away in the cupboard I have not eaten it.

Faced with these two example bound to say that Example 5.1 d lacking in Example 5.2. One of the able in terms of generic structure. plete, it is a clear instance of a $f$ e in recognising it as an unfinished s ample 5.2 will be seen as represe though many of us who have taus surprised to find that the four sent ed from a foreign language teach to accept that a foreign language $t$ it appears undeniable that such a \& quite the same sense as that disci one thing, there is no discernible exercises. In fact, due to deploral the continuities in a language tea meta-textual; there is a purely forn of Example 5.2 together, which h used in everyday life.

But structural continuity is $n$ amples 5.1 and 5.2 differ in anotl of this difference in terms of textu of these examples possesses the a tribute is lacking in the second. V in mind when making such a clai examine these examples a little mo tain kinds of meaning relations bet, in the second. It is these meaning 1 ture. For example, the third pers in each of its occurrences refers to 1 nal group a little girl refers; it, or lovely little teddybear to which $a l$ concise way of saying the same th a little girl, and it is co-referential compare the two occurrences of we note an important difference: i it in either of its occurrences in 5.2 in the example. This is definitely enough has been said to draw ce

1. The texture of a text is manifest tions between its individual me and the lexico-grammatical pat in the following sections.

Example 5.2
He got up on the buffalo
I have booked a seat
I have put it away in the cupboard
I have not eaten it.
Faced with these two examples, any natural speaker of English is bound to say that Example 5.1 displays certain continuities that are lacking in Example 5.2. One of these continuities is, of course, describable in terms of generic structure. Although the first passage is incomplete, it is a clear instance of a familiar genre; we have no difficulty in recognising it as an unfinished story. It is, however, doubtful if Example 5.2 will be seen as representative of a genre quite so readily, though many of us who have taught a foreign language might not be surprised to find that the four sentences of Example 5.2 have been lifted from a foreign language teaching exercise. Now, even if we were to accept that a foreign language teaching exercise represents a genre, it appears undeniable that such a genre would not possess structure in quite the same sense as that discussed in the preceding chapter. For one thing, there is no discernible beginning, middle, and end in such exercises. In fact, due to deplorable misconceptions about language, the continuities in a language teaching exercise are normally strictly meta-textual; there is a purely formal reason for grouping the sentences of Example 5.2 together, which has very little to do with language as used in everyday life.

But structural continuity is not the only kind of continuity. Examples 5.1 and 5.2 differ in another important respect; I would talk of this difference in terms of texture. Thus I would claim that the first of these examples possesses the attribute of texture, and that this attribute is lacking in the second. What kind of continuities do I have in mind when making such a claim? To answer this question, let us examine these examples a little more closely. Note that the first has certain kinds of meaning relations between its parts that are not to be found in the second. It is these meaning relations that are constitutive of texture. For example, the third person, feminine, singular pronoun she in each of its occurrences refers to the same little girl to whom the nominal group a little girl refers; it, on the other hand, refers to the same lovely little teddybear to which a lovely little teddybear refers. A more concise way of saying the same thing is that she is co-referential with a little girl, and it is co-referential with a lovely little teddybear. If we compare the two occurrences of it in Example 5.2 with those in 5.1, we note an important difference: it would make no sense to claim that it in either of its occurrences in 5.2 is co-referential with any other item in the example. This is definitely not the whole story, but perhaps enough has been said to draw certain conclusions:

1. The texture of a text is manifested by certain kinds of semantic relations between its individual messages. The nature of these relations and the lexico-grammatical patterns that realise them are discussed in the following sections.
texture is a matter of meaning relations
2. At least in the first instance, texture and text structure must be seen as separate phenomena. We know that from the point of view of text structure, Example 5.1 is incomplete, but this does not affect the claim that it has texture. So to say that a passage possesses texture is not to make any claim about the specific structural status of that passage. The relationship appears to operate only in one direction: whatever is (part of) a text must possess texture; it may or may not be a complete (element of a) text.
3. The property of texture is related to the listener's perception of coherence. Thus in common parlance, Example 5.1 would be described as possessing coherence while Example 5.2 would be seen as lacking in coherence. A discussion of the notion of coherence is presented below.

## Texture, cohesive ties, and cohesive devices

The exaggerated difference between Examples 5.1 and 5.2 might lead one to suppose that coherence is an all-or-none phenomenon. This is decidedly not true, as a reading of Texts 5.1 and 5.2 will demonstrate.

## Text 5.1

1. once upon a time there was a little gir!
2. and she went out for a walk
3. and she saw a lovely little teddybear
4. and so she took it home
5. and when she got home she washed it
6. and when she took it to bed with her she cuddled it
7. and she fell straight to sleep
8. and when she got up and combed it with a little wirebrush the teddybear opened his eyes
9. and /started to speak to her

10: and she had the teddybear for many many weeks and years
11. and so when the teddybear got dirty she used to wash it
12. and every time she brushed it it used to say some new words from a different country
13. and that's how she used to know how to speak English, Scottish, and all the rest.

## Text 5.2

1. the sailor goes on the ship
2. and he's coming home with a dog
3. and the dog wants the boy and the girl
4. and they don't know the bear's in the chair
5. and the bear's coming to go to sleep in it
6. and they find the bear in the chair
7. they wake him up
8. and chuck him out the room
9. and take it to the zoo
10. the sailor takes his hat off
11. and the dog's chased the bear out the room
12. and the boy will sit down in their chair what the bear was sleeping in.

It would be untrue to claim th: is possesses no texture, though coherent than is Text 5.1. Th

1. How do Texts 5.1 and 5.2
2. If the two vary in the degri of language correlate with
In the sections below, 1 However, before we can exam Texts 5.1 and 5.2 , we need to grammatical patterns essential shall discuss the linguistics of 1 tions I have raised.

## Cohesive tie

In talking about texture, the cr a tie. The term itself implies a two members, and the membe: a relation between them. Let


If you think of a text as a con sages follow each other, then 1 of the tie-the A and the B-a A may be part of one messagt link between the two, depictec nature of this link is semantic: $t$ through some meaning relatior sis for cohesion between the mt of meaning relation that may instance, take the first two lin

## Example 5.3

I had a little nut tree
Nothing would it bear
But a silver nutmeg
And a golden pear.
Then thinking of little nut tre, 2 as member B you can see tha is the identity of reference. Thi but the one that has already $b$ situational referents of both a the discussion of textual continu tity of reference is known as (

Imagine now that we have
Example 5.4
I play the cello. My husband dor

It would be untrue to claim that Text 5.2 is entirely incoherent or that is possesses no texture, though it is equally obvious that the text is less coherent than is Text 5.1. This raises two questions:

1. How do Texts 5.1 and 5.2 differ in their texture, if they do?
2. If the two vary in the degree of coherence, what, if any, patterns of language correlate with this variation?

In the sections below, I attempt to answer these questions. However, before we can examine and conpare the specific texture of Texts 5.1 and 5.2 , we need to be clear about the semantic and lexicogrammatical patterns essential to the creation of texture in general. I shall discuss the linguistics of texture before I return to the two questions I have raised.

## Cohesive tie

In talking about texture, the concept that is most important is that of a TIE. The term itself implies a relation: you cannot have a tie without two members, and the members cannot appear in a tie unless there is a relation between them. Let us draw a picture of the tie:


If you think of a text as a continuous space in which individual messages follow each other, then the items that function as the two ends of the tie-the A and the B-are spatially separated from each other; A may be part of one message and B part of another. But there is a link between the two, depicted above by the two-headed arrow. The nature of this link is semantic: the two terms of any tie are tied together through some meaning relation. Such semantic relations form the basis for cohesion between the messages of a text. There are certain kinds of meaning relation that may obtain between the two members. For instance, take the first two lines of the rhyme in Example 5.3.

## Example 5.3

## I had a little nut tree <br> Nothing would it bear <br> But a silver nutmeg <br> And a golden pear.

Then thinking of little nut tree in line 1 as member A and it in line 2 as member B you can see that the semantic relation between the two is the identity of reference. The pronoun it refers to no other nut tree but the one that has already been mentioned as a little nut tree; the situational referents of both are the same thing. In the literature on the discussion of textual continuity, this relationship of situational identity of reference is known as co-referentiality.

Imagine now that we have two other sentences (see Example 5.4).
Example 5.4
I play the cello. My husband does, too.
semantic relations are the basis of cohesion


Then following the earlier practice, we could say that play the cello is member A and does is a member B of the cohesive tie. But this time the relationship is not of referential identity. The cello playing that I do is a different situational event from the cello playing that my husband does. So the relation here is not of co-referentiality, but of the kind that could be described as co-classification. In this type of meaning relation, the things, processes, or circumstances to which A and B refer belong to an identical class, but each end of the cohesive tie refers to a distinct member of this class. Thus there is a significant difference between co-referentiality and co-classification,

A third kind of semantic relation between the two members of a tie is exemplified by silver and golden in the last two lines of Example 5.3. Here the relationship is neither of co-reference nor of coclassification; it is, rather, that both refer to something within the same general field of meaning. Thus both silver and gold refer to metal, and within metal to precious metal; their primary class affiliation is not identical-unlike two separate acts of playing the cello-but there is a general resemblance. For want of a better term, I refer to this kind of general meaning relation as Co-EXTENSION.

These three semantic relations of co-referentiality, co-classification, and co-extension are precisely what ties the two members of a tie, and the existence of such ties is essential to texture. The longer the text, the truer this statement.

## Cohesive devices-co-reference and co-classification

These semantic relations are not independent of the lexico-grammatical patterns. It is not the case that they can be established randomly between any two types of language units; instead, there are very strong tendencies for a specific relation to be realised by a clearly definable set of items. For example, the relation of co-referentiality is typically realised by the devices of reference, such as the pronominals 'he', 'she', 'it', etc. or by the use of the definite article 'the' or that of the demonstratives 'this' or 'that'. By contrast, co-classification is normally realised either by substitution or by ellipsis. I should emphasise, perhaps, that this is a statement of what is typical; it does not describe all cases. Either of the devices can realise either of the relations, but it is more typical for reference type devices to signify co-referentiality and for substitution and ellipsis to signify the relation of co-classification. I have already given an example of substitution in Example 5.4; an example of ellipsis is given in the mini-dialogue Example 5.5.

## Example 5.5

## -'Can I borrow your pen?'

-'Yes, but what happened to yours?'
Here the nominal group yours is elliptical and its non-elliptical version would be 'your pen'. Note that my pen and your pen are two distinct objects; they belong to the same class, but they are two distinct members of the class. Thus the realisation of these two semantic
relations-i.e. co two distinct type

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Figure 5.1
Example 5.3 littl
Example 5.4 play
Example 5.5 you
Member B c as an implicit enc terpretation of it that of nut tree, latter set is possit is patently not tru Their interpretati And it is this essel that endows the Device.

Such device: are constitutive of through their rel same passage. If the text, then a cc the establishmen (Halliday \& Has as Grammatical

Recall that n the semantic rela discussion of the this third kind of from the recogni

## Implicit devices

In the above disc is essentially relat to some other sol tive source is to force us to revise of the tie; at the s standing of tie $t$ g

Our earlier c ture of language, and text structure that we focus c
relations-i.e. co-referentiality and co-classification-typically involves two distinct types of lexico-grammatical patterns.

There is, however, something in common to the lexico-grammatical patterns that typically realises these two semantic relations: and this something that is in common can be pointed out by looking more closely into the nature of the member B of each tie type (see Figure 5.1).
Figure 5.1

|  | A B | tie type |
| :---: | :---: | :---: |
| Example 5.3 | little nut tree | $=$ co-referential |
| Example 5.4 | plays the cello does | $=$ co-classification |
| Example 5.5 | your pen $\quad$ yours | fication |

Member B of each of these ties is an item to which we can refer as an implicit encoding device. What this means is that the specific interpretation of it, does, and yours is not possible in the same way as that of nut tree, husband, cello, and pen is. The interpretation of this latter set is possible without referring to any other item of the text; this is patently not true with such items as it, the, my, this, do so, and yours. Their interpretation has to be found by reference to some other source. And it is this essentially relational nature of the implicit encoding devices that endows them with the possibility of functioning as a COHESIVE DEVICE.

Such devices become cohesive - have a cohesive function and so are constitutive of texture - precisely if and when they can be interpreted through their relation to some other (explicit) encoding device in the same passage. If the source for their interpretation is located within the text, then a cohesive tie of the type(s) discussed above is established; the establishment of such a tie creates cohesion. In our earlier work (Halliday \& Hasan 1976) such cohesive devices have been referred to as grammatical cohesive devices.

Recall that we have a third type of cohesive tie-the type in which the semantic relation is that of co-extension. Before embarking on a discussion of the nature of the linguistic units that can act as terms in this third kind of tie, I would like to take up a question here that arises from the recognition of implicit encoding devices.

## Implicit devices and their interpretation

In the above discussion, I pointed out that an implicit encoding device is essentially relational; its interpretation has to be found by reference to some other source. This raises the question of where the interpretative source is to be found, and an examination of that question will force us to revise some of the comments made earlier about the terms of the tie; at the same time it will add another parameter to our understanding of tie types.

Our earlier chapters have sought to demonstrate the functional nature of language, and the close relationship that exists between context and text structure. It follows, then, that any linguistic unit from a text that we focus on has two environments: (1) the extra-linguistic
cohesive device
endophoric ties
anaphoric reference
cataphoric reference
exophoric reference
environment - the context - relevant to the total text; and (2) the linguistic environment -the co-text - the language acompanying the linguistic unit under focus. So, the source for the interpretation of the implicit encoding devices could either be co-textual or purely contextual.

The interpretation is said to be endophoric (Halliday \& Hasan 1976) when the interpretative source of the implicit term lies within the co-text as, for example, with she and little girl or it and nut tree. It is really the endophoric ties that are crucial to the texture of a text: unless an endophoric interpretation of the implicit term can be sustained, cohesion would not be perceived. Note that in Example 5.2, it is impossible to sustain an endophoric interpretation of any of the implicit devices.

Given the fact that language unfolds in time, the linguistic units of a text occur in succession. This permits a further factoring of endophoric interpretation. Whatever implicit term is under focus may either follow or precede that linguistic unit by reference to which it is interpreted-i.e. its linguistic referent. When it follows its linguistic referent, the label given to such a cohesive tie is anaphoric (Halliday \& Hasan 1976). Every example of cohesive tie (except that between silver and golden) provided so far in this chapter has been anaphoric. When the implicit term precedes its linguistic referent, the cohesive tie thus established is known as cataphoric (Halliday \& Hasan 1976). An illustration is given in Example 5.6.

## Example 5.6

I shall be telling this with a sigh Somewhere ages and ages hence:
Two roads diverged in a wood, and I-
I took the one less travelled by,
and that has made all the difference.
This is the last stanza from Robert Frost's 'The road not taken'. Here the demonstrative this of the first line will be interpreted by reference to lines 3-5 of the stanza. So there exists a cataphoric co-referential cohesive tie between this and lines 3-5

The interpretation of an implicit device is said to be Exophoric when the source for its interpretation lies outside the co-text and can only be found through an examination of the context. Imagine a situation in which a small child is hammering away at some toy, making a good deal of noise while the mother is trying to concentrate on writing a conference paper. It is highly probable that she might say to the child:

## Example 5.7

Stop doing that here. I'm trying to work.
The first message of Example 5.7 is highly implicit; and none of the items doing, that, and here can be interpreted except by reference to the immediate context of situation. Exophorically interpreted implicit devices create an opaque link between the text and its context so
far as speakers ty is obviously in a passage co sider, the passa ceived as posse the semantic re

## Cohesive inter

One last point r this is as follow as an issue that $i$ lation between tl of semantic link tended specific m Examples 5.8 an

Example 5.8
They asked the sa and he gave them

## Example 5.9

I don't want this on I want that one.

Most of us w second message as no idea whether th whatever. Thus we between they and $t$ they and them in I

## Example 5.10

They asked the sailc and he found them i

The reason wh referential with they ing of English langu in the second messa treatment would no as Example 5.11

## Example 5.11

I don't want this one so you can have it.

I have laboured

1. it throws a new ligh sections 'Cohesive interpretation';
far as speakers outside the context are concerned. The degree of opacity is obviously variable (Hasan 1984c), but if all the implicit devices in a passage could only be interpreted exophorically, then to an outsider, the passage would appear either to lack all texture, or if it is perceived as possessing texture, it would be because of cohesive ties with the semantic relation of co-extension.

## Cohesive interpretation and cohesive tie

One last point needs to be made before turning to co-extension, and this is as follows: the interpretation of the implicit term must be seen as an issue that is, in principle, separate from the kind of semantic relation between the terms of the tie. It is possible to determine the kind of semantic links between the two terms of a tie, even though the intended specific meaning of the terms might not be available. Consider Examples 5.8 and 5.9.

Example 5.8
They asked the sailor for some food and he gave them a loaf of bread.

Example 5.9
I don't want this one
I want that one.
Most of us when faced with Example 5.8 will treat them in the second message as co-referential with they even though we would have no idea whether the two refer to 'two children' or 'some beggars' or whatever. Thus we would say that there is a cohesive co-referential tie between they and them, which is not a claim that could be made about they and them in Example 5.10.

Example 5.10
They asked the sailor for some food and he found them in the bottom of the bag.

The reason why most speakers would not think of them as coreferential with they in Example 5.10 is furnished by their understanding of English language. Turning to Example 5.9, we would treat one in the second message as co-classificational with one in the first. This treatment would not be possible if Example 5.9 were to be rewritten as Example 5.11.

## Example 5.11

I don't want this one
so you can have it.
I have laboured this point because

1. it throws a new light on some of the statements made in the previous sections 'Cohesive devices' and 'Implicit devices and their interpretation';
2. it raises the question of the basis of perceiving the semantic relations of co-reference and co-classification; and
3. it is relevant to the role of exophoric devices in creating texture.

To take the first point first, I said earlier that cohesion is established when an implicit device is interpreted by reference to some item of the text. This is true so far as it goes, but Examples 5.8 and 5.9 clearly demonstrate that a cohesive link can be established even when the specific meaning remains unknown. This demonstrates that what is more important to texture is the identity and/or the similarity of the semantic content rather than the content itself. The interpretation of a term it by reference to another term nut tree creates texture not because the interpretation has become available, but because the interpretation clinches the fact that a particular kind of semantic relation obtains.

So how about exophora? Are exophorically interpreted items an embarrassment to this approach to texture? Whenever scholars have attempted to prove that it is possible to have texts without cohesion, in order to demonstrate their point they have normally created what I would describe as 'minimal texts' consisting of either a single message by one participant, or one message per participant. Now, since the status of text as text is functionally defined, in principle, it is irrelevant what number of messages a text contains. However, in describing the attributes of a class of phenomena we need to start with typical members; and it cannot be denied that discourse whether spoken or written is typically productive of much larger - non-minimal - texts, which display the full range of possibilities open to texts in general. By contrast, taking the minimal text as typical, we would be forced to concede many points that it would be absurd to have to concede. For example, we might have to say that texts do not have generic structure; and to concede this is quite absurd. So in order to support our statements about texts in general, we must take non-minimal texts into account, since this will permit generalisations about minimal texts as well, while the reverse is not true.

A case in point are those implicit devices - 'he', 'she', 'it', etc. which have no specific linguistic referent within the text. When the text is minimal as in Example 5.7, it appears impossible to arrive at the interpretation of such devices except by reference to the context of situation. Moreover, the devices seem to enter into no cohesive relation with any other linguistic items in the text. However, if we examine longer texts, we find that both these conditions are an artefact of the size of the text. Implicit encoding devices can be intepreted without recourse to situational clues even in the absence of a specific linguistic referent in the text. In fact, sometimes, this is the only possibility open to us in poetic texts. Consider an extract from Tomlinson's lyric, whose title is just 'Poem' (see Example 5.12).

## Example 5.12

Upended, it crouches on broken limbs
About to run forward. No longer threatened
But surprised into this vigilance
It gapes enmity from its hollowed core.

Moist woodflesh, softened to a F
Of marl and white splinter, dang
Where overhead the torn root
Casts up its wounds in a ragged
Throughout this poem, the wo reader is bound to interpret it in the case of literary texts, ap tently impossible, it follows tha due to some feature(s) of 'Poem pressions as hollowed core, wot be denied. Note also that the rea of co-referentiality between it ( claim that these items are, after is determined text-internally; $h$ referent of it present in the entire nals are exophoric does not forc to texture. In the following poe Wordsworth, she is definitely ex three instances of she are still c

## Example 5.13

A slumber did my spirit seal; I had no human fears:
She seemed a thing that could nc The touch of earthly years.
No motion has she now, no force; She neither hears nor sees;
Rolled round in earth's diurnal cot With rocks, and stones, and trees

As in the case of Tomlinson nied that the perception of conti a relation of co-reference betweer ward the hypothesis that the inte a linguistic referent and/or any si tion of semantic relation between $t$ possible because of the third typ extension. Where such ties do nc and co-classification are at least tablish. This brings us to the discl units that can act as the terms o

## Cohesive devices - co-extensiol

Let us go back to Example 5.3. Figure 5.2
Example 5.3 silver golden
Compare the tie in Figure 5.2 with You will immediately note an impo

Moist woodflesh, softened to a paste
Of marl and white splinter, dangles
Where overhead the torn root
Casts up its wounds in a ragged orchis.
Throughout this poem, the word 'tree' never appears, yet a practised reader is bound to interpret it (line 1) and its (line 4) as tree. Since, in the case of literary texts, appeal to the immediate situation is patently impossible, it follows that the interpretation has been arrived at due to some feature(s) of 'Poem'. And here the importance of such expressions as hollowed core, woodflesh, splinter, and torn root cannot be denied. Note also that the reader will perceive the semantic relation of co-referentiality between it (line 1), it, and its (line 4). One might claim that these items are, after all, not exophoric, since their referent is determined text-internally; however, there is no specific linguistic referent of it present in the entire text. Even conceding that the pronominals are exophoric does not force us to accept that they are irrelevant to texture. In the following poem, 'A slumber did my spirit seal', by Wordsworth, she is definitely exophoric, but the relations between the three instances of she are still cohesive (see Example 5.13).

## Example 5.13

A slumber did my spirit seal;
had no human fears:
She seemed a thing that could not feel
The touch of earthly years.
No motion has she now, no force;
She neither hears nor sees;
Rolled round in earth's diurnal course,
With rocks, and stones, and trees.
As in the case of Tomlinson's stanza, so here it can hardly be denied that the perception of continuity presupposes the perception of a relation of co-reference between the pronominals. I want to put forward the hypothesis that the interpretation of items in the absence of a linguistic referent and/or any situational clues as well as the perception of semantic relation between un-interpreted implicit devices is made possible because of the third type of tie - that which is based on coextension. Where such ties do not exist, the relation of co-reference and co-classification are at least problematic if not impossible to establish. This brings us to the discussion of the nature of the linguistic units that can act as the terms of a co-extensional tie.

## Cohesive devices-co-extension

Let us go back to Example 5.3.
Figure 5.2
Example $5.3 \begin{array}{ccc}\mathbf{~} & \mathbf{A} & \text { B }\end{array}$
Compare the tie in Figure 5.2 with the three ties laid out in Figure 5.1. You will immediately note an important difference: neither of the terms
three sense relations
synonymy
antonymy
hyponymy
in this tie is implicit; we do not need to refer to anything else in order to interpret the terms silver and golden - we only need to know the language. The two terms of a co-extensional tie are typically linguistic units that we refer to as 'content words' or 'lexical items'. The relation of co-extension, described earlier, naturally does not exist between any two randomly co-occurring lexical items. So we need to state under what conditions such a relation comes about. 'The same general field of meaning' is a vague expression. And if we leave the expression unelaborated, then any kind of meaning association could be taken as constituting a relation. We could end up with a chain in which the members of the tie were as follows: flower, petal, stem, stalk, twig, branch, trunk, tree, wood, log, faggot, tinder, fire, flame. In this list we have ended up grouping items such as 'flower' and 'flame', between which it is not very easy to say what kind of general meaning relation obtains. But if we examine the list, we would find that in this collection there is no point at which we could stop on the ground that the members of the pair are not related meaning-wise. The members of each consecutive pair such as, say, 'flower' and 'petal', 'petal' and 'stem', and 'stem' and 'stalk' show a close meaning relation, but the further apart the items are the more difficult it is to relate them to each other semantically; for instance, consider 'flower' and 'faggot'. So obviously what we have to do is to delimit the notion 'general field of meaning'.

To achieve this end, I have used the traditional concept of sense relation with certain additions. The three sense relations generally recognised in the literature on semantics are those of SYNONYMY, ANTONYMY, and hyponymy. Whenever two lexical expressions stand in any of these relations, a cohesive tie is established.

In synonymy, the experiential meaning of the two lexical items is identical; this does not mean that there is a total overlap of meanings, simply that so far as one kind of meaning goes, they 'mean the same'. The standard literature in semantics, for example, mentions such pairs as 'woman' and 'lady', 'buy' and 'purchase', and 'smile' and 'grin', etc.
antonymy can be described as the oppositeness of experiential meaning; the members of our co-extensional tie silver and golden are an example of this kind of meaning relation.

HYPONYMY is a relation that holds between a general class and its sub-classes. The item referring to the general class is called superordinate; those referring to its sub-classes are known as its hyponyms. If we take animal as an example of super-ordinate then its hyponyms are cat, dog, bear, etc. Note that cat, dog, and bear are also semantically related as the co-hyponyms of the superordinate animal.

The lexicon of a language is organised into a hyponymic hierarchy, so that we have differing degrees of generality. For example, in English, the most general and therefore the super-ordinate par excellence is the item 'thing', which can be used to refer to almost anything. Consider also the gradation of generality in food, fruit, berry, blueberry. At this point let me draw attention to the fact that when we have a relation of co-hyponymy, as for example, between cat and dog, we can also think of the relation as that of weak antonymy. The distinction between a certain kind of antonymy and co-hyponymy is not easy
to draw. On th poses, since wl hyponyms, the

To these g MERONYMY: ths tree, limb, and parts of the su ] sense relation, utes to texture $\mathbf{t}$ relation. I have repetition of th largely similar e rence of the les

Example 5.14
There were chilc There were child the merry-go-rou

It is also po tinct forms of tl suggested and st of the same lexi

Example 5.15
The committee su lations. If this sug

This discuss and does not covi or in Hasan (19:

1. All lexical col For example, is a general fa tirely specific t blance as in , The contir tioned, for exa organisation o
2. All devices disc of a tie form p i nents. The linki But there is a 1 tives (Halliday ture. These de message(s) rath lowing, where o I'm going to be ple question-an 1975), are a va
to draw. On the other hand, this matters little for our immediate purposes, since whether the two items are related as antonyms or as cohyponyms, the relation will contribute to cohesion in either case.

To these generally recognised sense relations, I would add that of MERONYMY: the term refers to a part-whole relation as in the case of tree, limb, and root, where limb and root are co-meronyms, naming parts of the superordinate tree. While meronymy is very much like a sense relation, there is another kind of lexical patterning that contributes to texture but, strictly speaking, is not recognised as a kind of sense relation. I have in mind the repetition of the same lexical unit. The repetition of the same lexical unit creates a relation simply because a largely similar experiential meaning is encoded in each repeated occurrence of the lexical unit as in Example 5.14.

## Example 5.14

There were children everywhere.
There were children on the swings, children on the slides, and children on the merry-go-round.

It is also possible to have repetition where the morphologically distinct forms of the same lexical unit occur. In Example 5.15 the items suggested and suggestion are really two distinct morphological forms of the same lexical unit and can be treated as a case of repetition.

## Example 5.15

The committee suggested that all sexist language be removed from the regulations. If this suggestion is adopted, we shall have to avoid 'he', 'his', etc.

This discussion of the cohesive devices has been necessarily brief and does not cover all the devices recognised in Halliday \& Hasan (1976) or in Hasan (1979, 1984b). So I shall add two comments:

1. All lexical cohesive devices discussed above are general in nature. For example, the relation of synonymy between lady and woman is a general fact of English. There are cohesive devices that are entirely specific to a single text, for example, those of INSTANTIAL SEMblance as in all my pleasures are like yesterdays. (Hasan 1984b).

The continuities created by structural devices have not been mentioned, for example parallelism (Halliday \& Hasan 1976), and the organisation of Theme-Rheme and Given-New (Fries 1983).
2. All devices discussed are componential. The items that serve as terms of a tie form part of some message(s), i.e. they are message components. The linking of components creates cohesion between messages. But there is a large number of devices known as cohesive conjunctives (Halliday \& Hasan 1976; Martin 1983) that contribute to texture. These devices are organic; the terms in the tie are whole message(s) rather than message components, for example, in the following, where one whole message is consequence and the other cause: I'm going to bed 'cause I'm very sleepy. Adjacency pairs, for example question-answer, request-compliance (Schegloff 1968; Goffman 1975), are a variety of organic cohesive device.

Table 5.1 summarises the devices discussed.
Table 5.1 Summary of cohesive devices
NON-STRUCTURAL COHESION

|  | COMPONENTIAL RELATIONS |  | ORGANIC RELATIONS |
| :---: | :---: | :---: | :---: |
|  | Device | Typical tie relation |  |
|  | A: Reference <br> 1. Pronominals <br> 2. Demonstratives <br> 3. Definite article <br> 4. Comparatives <br> B: Substitution <br> \& Ellipsis <br> 1. Nominal <br> 2. Verbal <br> 3. Clausal | co-reference co-classification | e.g. causal tie concession tie ... <br> B: Adjacency pairs <br> e.g. Question (followed by) answer; offer (followed by) acceptance; order (followed by) compliance . . . |
|  | A: General <br> 1. Repetition <br> 2. Synonymy <br> 3. Antonymy <br> 4. Meronymy <br> B: Instantial <br> 1. Equivalence <br> 2. Naming <br> 3. Semblance | co-classification or co-extension <br> co-reference or co-classification | Continuatives (e.g. still, already...) |

STRUCTURAL COHESION
A: Parallelism
B: Theme-Rheme Development
C: Given-New Organisation

## The interdependence of grammatical and lexical cohesion

I suggested before that even if two implicit terms remain un-interpreted, as in Examples 5.8 and 5.9, it is still possible to perceive relations of co-reference and co-classification between them. With Example 5.12 I drew attention to the fact that even in the absence of both a specific linguistic referent and any situational clues, there are occasions when it is possible to provide an interpretation of the implicit device. I went on to suggest that both these things happen largely because of the semantic relations maintained through lexical ties. In a text of non-minimal size, there normally occur many such threads of semantic relation, and their simultaneous operation is important in the resolution of both the above problems. The moral from this is easy to draw: to be effective, grammatical cohesion requires the support of lexical cohesion.

However, the relationship is not so one-sided: to be effective, lexical cohesion, in its turn, requires the support of grammatical cohesion. The reciprocity of these two kinds of cohesion is essential, as can be seen from Examples 5.16 and 5.17.

## Example 5.16

John gets up early. We bought him a tie. He loves peaches. My house is next to his.

## Example 5.17

A cat is sitting on a fence. A fence is often made of wood. Carpenters work with wood. Wood planks can be bought from a lumber store.

In Example 5.16 there is no grammatical reason that would prevent he, him, and his from referring back to John. But if I say that him in the second sentence of this example should be interpreted as John, you just have to take it on faith; there is nothing in the text that points you in the direction of that particular interpretation. Why? Because grammatical cohesion is not supported here by lexical cohesion; the relations discussed under 'Co-extension' do not tie any two lexical items of Example 5.16. By itself, grammatical cohesion does not work. On the other hand, lexical cohesion does not work by itself either. In Example 5.17, we find only lexical cohesive relations: of reiteration, synonymy, and hyponymy. Thus we have fence and wood reiterated, and we have lumber and wood planks. None the less, it is an odd kind of text, if text it is. In comparison with Example 5.16, we may perhaps be willing to think of it as more of a text, but by no stretch of the imagination could we think of it as a typical one.

In a typical text, grammatical and lexical cohesion move hand in hand, the one supporting the other. The many differing kinds of semantic relations operate at one and the same time through sizeable portions of a text. To demonstrate this point, let me examine in some detail the first five clauses of Text 5.1. In Figure 5.3 each rectangle stands for one clause. Within each of these clauses there are components that enter into a grammatical or lexical cohesive relation. There are four such threads of continuity:

1. the first, with the first element girl in clause 1 ;
2. the second, with went in clause 2 ;
3. the third, with teddy bear in clause 3; and
4. the fourth, with home in clause 4.

Figure 5.3
c1. 1 cl. 2
c1. 3
c1. 4
c1. 5


Each of these form part of a chain in which the members are related to each other in specific ways. To indicate the movement of the chain, I will connect the members of the first chain with a solid line; those of the second with dots; those of the third with dots and dashes, while the links in the fourth chain will be indicated with a wavy line. Each rectangle contains only those components of the clause that function as elements or links in the chain. Figure 5.3 demonstrates the appropri-

teresting conclusion that the notion 'the same extra-linguistic thing' must be modified by the expression 'within the context of this specific text', rather than being taken as a text-independent entity.

The members of a similarity chain are related by co-classification and/or co-extension. In Figure 5.3, a similarity chain occurs with members went, walk, and got (i.e. reached); the relationship between these items is not identity of reference but similarity of reference, so that the referents lie within the same general field of meaning. For example, walking is a kind of going, and going is an important part of getting anywhere.

There is one rather significant difference between similarity and identity chains. If two texts embedded in the same contextual configuration are compared, we are highly likely to find a considerable degree of overlap in at least some of the similarity chains found in them. This is not an accident. The items in a similarity chain belong to the same general field of meaning, referring to (related/similar) actions, events, and objects and their attributes. The lexical items in a general field of meaning form a semantic grouping that represents the potential for the formation of similarity chains. This semantic grouping is genre-specific and to the extent that similarity chains are really a part of the total semantic grouping, they too are genre-specific. The implication is that if we know the specific social process - the field of discourse - relevant to an interaction, it will be possible to predict that some selection from this or that semantic grouping will appear in the shape of similarity chains in the text generated; equally, selections from given semantic groupings are constitutive of the field of discourse. So semantic groupings are logically related to specific contextual configurations, though how much of such a grouping will appear in the shape of similarity chains in a particular text of a given genre is open to variation.

By contrast, identity chains, particularly when their terms refer to some specific individual-person(s) or object(s) - rather than to a whole class as such, are essentially accidental from the point of view of the contextual configuration. So far as appointment making is concerned, it matters little whether the patient is Smith or Wilson, whether the receptionist is Glen or Anderson. This does not imply that identity chains are unimportant; in fact, in certain genres, they appear to be rather closely related to the overall structural shape of a text (Hasan 1984b).

The above sections were concerned with the presentation of some of the major cohesive devices that contribute to texture. In the following section, I address the first question raised earlier regarding Texts 5.1 and 5.2: how do they differ, if they do, in respect of their texture? To answer this question, I shall restrict myself to such notions as have been presented above in some detail. I shall ignore instantial lexical cohesion, all organic relations, and all forms of structural cohesion (see Table 5.3). This is not because they are less important, but because time and space are limited.
difference between similarity and identity chains
this question is raised in the section titled 'Texture, cohesive ties, and cohesive devices', p. 73

## The texture of Texts 5.1 and 5.2

see $\mathrm{p} .70,71$

SE $=$ subject ellipsis
Look again at Texts 5.1 and 5.2.
Whenever I have presented these two texts to informants, they have unanimously agreed that Text 5.2 is less coherent than 5.1 (which is not to say that 5.2 is a non-text). An explanation of what this judgment correlates with in patterns of texture is difficult to find, so long as grammatical and lexical cohesion are examined separately. You will probably be surprised to learn that the number of grammatical cohesive devices in the two texts is identical as shown in Tables 5.2 and 5.3.
Table 5.2 Grammatical cohesive devices in Text $\mathbf{5 . 1}$

| 2. | she | 3. | she |
| :---: | :---: | :---: | :---: |
| 4. | she it | 5. | she she it |
| 6. | she it her she it | 7. | she |
| 8. | she SE it the his | 9. | SE her |
| 10. | she the | 11. | the she it |
| 12. | she it it | 13. | she ${ }^{+}$the*** |

Table 5.3 Grammatical cohesive devices in Text 5.2

| 1. ${ }^{+}$the ${ }^{+}$the | 2. ${ }^{+}$he |
| :--- | :--- |
| 3. the ${ }^{+}$the ${ }^{+}$the | 4. they? ${ }^{+}$the ${ }^{+}$the |
| 5. the it | 6. they? the the |
| 7. they? him | 8. SE? him the |
| 9. SE? it ${ }^{+}$the | 10. the his |
| 11. the the the | 12. the their? the |

As is obvious from Tables 5.2 and 5.3, the texts do not differ crucially in the frequency of grammatical cohesive devices; nor do they differ greatly in the patterns of lexical selection, or even in the proportion of devices that are subsumed in chains. Table 5.4 presents some facts regarding grammatical and lexical cohesion in the two texts.
Table 5.4 Grammatical and lexical cohesive devices in Texts 5.1 and 5.2

|  | Text 5.1 | Text 5.2 |
| :--- | :--- | :---: | :---: |
| 1. $\quad$ grammatical cohesive devices | 30 | 30 |
| 2. frequency of 1 per clause | 2.3 | 2.5 |
| 3. percentage of 1 entering in chains | $97^{\prime}$ | 93 |
| 4. explicit lexical tokens | 47 | 37 |
| 5. cohesively interpreted lexical tokens | 27 | 30 |
| 6. total lexical tokens |  |  |
| 7. 5 as percentage of 6 |  |  |

Let ḿne first gloss the unfamiliar terms. SE in Tables 5.2 and 5.3
stands for subject ellipsis; the first example occurs in message 8 of Text 5.1:
when she got up and [SE] combed it
where SE will be In message 13 of this is to sensitis ression all the re an interrogative indicate that the interpreted in mo is exophoric. Tab hesive devices en in Halliday \& Ha tity and/or simila the content word the start; by con that are arrived : 5.2 and 5.3) are

Tables 5.5 a those lexical item grammatical coh girl is underlined; sage 2 of Text 5. items are underli dified by the. Fo the ship. Given 1 1984c), the modif The cross (+) m
Table 5.5 Lexic
little girl wa: girl went wa girl saw love girl took ted girl got hom girl took-togirl fell-to-sl
girl got-up gi teddybear
teddybear st girl had ted teddybear $\mathbf{g}$ girl brushed
girl know sp
Table 5.6 Lexis ${ }^{+}$sailor go ${ }^{+}$ sailor come dog want ${ }^{+}$I sailor boy gi bear come $\frac{g_{1}}{}$ sailor dog bi sailor $\frac{\operatorname{dog}}{b i}$ sailor $\frac{\operatorname{dog}}{\text { br }}$ sailor $\frac{d o g}{\operatorname{dog}}$ sailor take-o dog chased $t$ boby sit sailo
where SE will be interpreted as she, i.e. (aforementioned) little girl. In message 13 of Text 5.1, the has several asterisks $\left(^{*}\right)$ attached to it; this is to sensitise you to the fact that it occurs in a semi-fixed expression all the rest. In Table 5.3, several grammatical devices have an interrogative (?) or a cross ( + ) attached to them; the former is to indicate that the interpretation of these is problematic - they could be interpreted in more than one way; the cross is to indicate that the device is exophoric. Table 5.4 (line 3) presents percentages of grammatical cohesive devices entering in chains; these chains are formal as described in Halliday \& Hasan (1976) and do not necessarily correspond to identity and/or similarity chains. The term 'explicit lexical token' refers to the content words in the texts, which appear as content words from the start; by contrast 'cohesively interpreted lexical tokens' are those that are arrived at when the grammatical cohesive devices (of Tables 5.2 and 5.3) are interpreted.

Tables 5.5 and 5.6 present the total picture. In these two tables, those lexical items are underlined that are the interpretation of some grammatical cohesive device. For example, in Table 5.5, message 2, girl is underlined; this lexical item is the interpretation of she from message 2 of Text 5.1: she went out for a walk. You will note that some items are underlined with broken lines; each of these is a noun modified by the. For example, Text 5.2, line 1, reads: the sailor goes on the ship. Given the meaning of the (Halliday \& Hasan 1976; Hasan 1984c), the modified noun refers to a uniquely identified (set of) thing(s). The cross ( + ) marks exophorically interpreted the.

## Table 5.5 Lexical rendering-Text 5.1

1. little girl was
2. girl went walk
3. girl saw lovely little teddybear
4. girl took teddybear home
5. girl got home girl washed teddybear
6. $\frac{\text { girl }}{\text { girl }}$ took-to-bed teddybear girl girl cuddled teddybear
7. girl fell-to-sleep straight
8. girl got-up girl combed teddybear little wirebrush teddybear opened-eyes teddybear
9. $\overline{\text { ted }} \overline{d y} \bar{b}$ ear started speak girl
10. girl had teddybear many many years weeks
11. teddybear got dirty girl washed teddybear
12. girl brushed teddybear teddybear say some new words different country
13. girl know speak English Scottish all- ${ }^{+}$the-rest***

## Table 5.6 Lexical rendering-Text 5.2

${ }^{+}$sailor go ${ }^{+}$ship
sailor come home dog
dog want + boy + girl
sailor boy girl dog know + bear was +chair
bear come go-to-sleep chair
6. $\frac{\text { sailor }}{\text { sailor }} \frac{\text { dog }}{\text { dog }} \frac{\text { boy }}{\text { boy }} \frac{\text { girl find bear }}{\text { girl wake-up }}$ bear
8. $\frac{\text { sailor }}{\text { sailor }} \frac{\frac{d o g}{d o g}}{\text { dog }} \frac{\text { boy }}{\text { boy }} \frac{\text { girl }}{\text { girl }}$ chuck-out
9. sailor dog boy girl take bear ${ }^{+}$zoo
10. sailor take-off sailor hat
11. dog chased bear room
12. $\bar{b} o y$ sit sailor dog boy girl chair bear sleep

Text 5.1 is highly self-sufficient

Question 2, p. 73
'If the two vary in the degree of coherence, what if any patterns of language correlate with this variation?'
see 'Cohesive interpretation and cohesive tie', p. 77
the origins of Texts 5.1 and 5.2

Returning now to Table 5.4 , line 7 shows what percentage of the total lexical tokens is arrived at through the interpretation of the grammatical cohesive devices. So far the differences between Text 5.1 and 5.2 have been statistically insignificant, but the last three entries appear different. Of the grammatical cohesive devices of Text 5.1, 97 per cent are anaphorically interpretable. This means that the text is highly self-sufficient; to understand the speaker's meanings, one needs simply to know the English language. Not so with Text 5.2, where 40 per cent of the devices cannot be interpreted by reference to the text; 27 per cent are exophorically interpretable while 13 per cent are ambiguous.

We are now in a position to revive question 2 raised at the beginning of this chapter, rephrasing it, in the light of our findings, as follows: can the listener's perception of varying degrees of coherence between Texts 5.1 and 5.2 be correlated with the differences in texture indicated in the last three entries of Table 5.4?

## Texture and textual coherence

## Exophora

There can be no unequivocal answer to the question raised above. I have argued above that although exophora reduces the possibility of interpretation, it does not necessarily prevent the formation of cohesive ties; and to this extent it does not militate against texture, particularly if we find that relations of co-reference and/or co-classification are not being adversely affected by the presence of exophora. What is the position with regard to Text 5.2?

Here the history of the data is relevant. These stories were collected in Bernstein's Sociological Research Unit (University of London) in the mid-1960s from children who were asked to tell a bedtime story to a teddybear about a sailor, a dog, a boy, and a girl. All five characters were presented in toy form to the children. Thus the meaning of the in the sailor type of phrase was clear to both participants. Moreover, in all cases the exophoric device is the. In a group such as the sailor, someone who does not know the history of the data is likely to ask: which sailor? However, it is doubtful that the absence of an answer to this question will make the reader perceive Text 5.2 as less coherent, especially since the co-referential link between the sailor of line 1 and the sailor of line 10 does not appear to be in question. There are altogether eight occurrences of exophoric the: in Tables 5.3 and 5.6, items with cross mark ( + ) where a new referent is introduced exophorically, for example the sailor, the ship (line 1), the boy, the girl (line 3). Of these only the ship (line 1), the room (line 8), and the zoo (line 9) did not appear in the instruction given to the child. The exophora of the zoo is a formal exophora (Hasan 1984c) which is the least opaque of the exophorics; the ship and the room become less problematic because of the semantic relation between sailor and ship and home and room. If Text 5.2 is perceived as less coherent than Text 5.1 , the reason cannot lie in the variation of exophorically interpreted grammatical devices.

## Ambiguity

What is the posit be more relevant that could be int particular text. I lines $4,6,7,8,9$ ambiguity is the lines 1-3 of Text and the girl. One with the boy ane four on the grou is that they is cothe last possibility the world is like. and second altern nals being co-reff simplex or compl they as the boy ،

Nothing in t think about the f of they, sailor an 10 and 11. Line 1 those who chuck out are, after all, may be said to bi he takes his hat c cise. This interpr hanging around $c$ these grounds, it 4 as co-referentia

Neither of th the last one, as I benefit of the dou one must not forg ing question is: ul der discussion aris lack of coherence is no direct logica coherence. If this that are lacking is my work with chi can exist indepenc a certain degree c

## Cohesive chains

I argued that lexis the interpretation guistic referent, a sive relations are i

## Ambiguity

What is the position with regard to ambiguity? Ambiguity appears to be more relevant. An ambiguous grammatical cohesive device is one that could be interpreted in more than one way given the frame of the particular text. In Text 5.2, there are six such devices; they occur in lines $4,6,7,8,9$, and 12 (see Tables 5.3 and 5.6). The source of their ambiguity is the same, so we need discuss only they from line 4 . In lines 1-3 of Text 5.2, we are introduced to the sailor, a dog, the boy, and the girl. One possible reading of they is that it is co-referential only with the boy and the girl; another is that it is co-referential with all four on the ground that $d o g$ is quasi human; and a third possibility is that they is co-referential only with the humans. I would disregard the last possibility because its motivation is a non-textual notion of what the world is like. But even so, it is not easy to decide between the first and second alternative. On the principle that the probability of pronominals being co-referential with the nearest appropriate nominal groupsimplex or complex - is the highest, it would be reasonable to interpret they as the boy and the girl.

Nothing in the text disturbs this interpretation, until we come to think about the fact of the sailor and the dog. On this interpretation of they, sailor and dog have no role in the story until we get to lines 10 and 11. Line 11 shows that dog could very well be included amongst those who chuck the bear out of the room; chasing out and chucking out are, after all, part of the same general activity. In line 10 , sailor may be said to be, metaphorically, mopping his brow; you could say he takes his hat off after the completion of a rather demanding exercise. This interpretation has the merit of saving the sailor from just hanging around doing nothing between lines 1 and 10 of the text. On these grounds, it seems far more reasonable to interpret they of line 4 as co-referential with sailor, dog, boy, and girl.

Neither of the interpretations is without its problems; if we adopt the last one, as I have done, this is only because I wish to give maximal benefit of the doubt to the child-author of this story. But in doing this, one must not forget the problems that remain unresolved. An interesting question is: under what conditions does ambiguity of the type under discussion arise? It is quite possible that such ambiguity and relative lack of coherence are the product of the same factors, and that there is no direct logical relationship between ambiguity and relative lack of coherence. If this is the case, then it should be possible to find texts that are lacking in coherence without also displaying ambiguities. In my work with children's stories, I have found that lack of coherence can exist independently of ambiguity, and that if the text is coherent, a certain degree of ambiguity can be tolerated (Hasan 1984b).

## Cohesive chains

I argued that lexical cohesive relations are instrumental in permitting the interpretation of those implicit items that lack both a specific linguistic referent, and a situational clue. This implies that lexical cohesive relations are relevant to any discussion of the sources of the kind
see 'Cohesive interpretation and cohesive tie', p. 77
see p. 82
see 'The interdependence of grammatical and lexical cohesion', p. 82
of ambiguity under focus. The discussion regarding 'The interdependence of grammatical and lexical cohesion' also carries the same implication. It might therefore be illuminating to look into the identity and would at once prormed in the two texts. Perhaps this examination and reduced coherence. Table 5.7 that for occurrence of ambiguity Table 5.7 Cohesive chains in 7 presents the chains from Text 5.1. Identity chains
(a) girl (17)
(b) teddybear (14)

Similarity chains (c) home (2)
(d) was got (= became)
(e) went walk got ( = reached)
(f) lovely dirty
(g) wash (2) comb brush
(h) took had $(=$ owned $)$
(i) weeks years
(j) many (2) some
(k) new different
(I) speak (2) say
(m) took-to-bed fell-to-sleep got-up opened-eyes
(n) words English Scottish all-the-rest
(o) little (3)

The numbers in brackets show how many tokens of the lexical unit occurred in the text. Of the total tokens, 90.5 per cent ( 67 out of 74 ) are subsumed in cohesive chains. How do, 9.5 per cent ( 67 out of 74)

Here we face a problem. It is difficult to dempare with Text 5.2? identity chains and what the total set of to decide what goes into the without resolving the ambiguity. One solutical tokens for Text 5.2 is, tity chains relating to sailor, boy, girl solution is to ignore those idenof the text. In that case, our findings will be dog, and examine the rest Table 5.8 Cohesive chains in Text 5.2 be as displayed in Table 5.8. Identity chains: (a) chains in Text 5.2
(a) bear (8)
(b) chair (4)
(c) come (2) go take
(d) go-to-sleep wake-up sleep
(e) find chase-out chuck-out
(f) home room (2)

When sailor, dog, boy, and girl
lexical tokens in Text 5 boy, and girl are ignored, the total number of into chains. By comparison reduced to 33; of these 25 are subsumed are in cohesive chains. In respect Text 5.1, only 76 per cent of the tokens to be a significant difference betw of cohesive chains then there seems the interpretation of this difference? Texts 5.1 and 5.2. But what is One obvious interpretationce? not divide themselves intation is that lexical selections in Text 5.2 do The fairly large percentag a homogeneous set of semantic groupings. PERIPHERAL - prevent a consistent rens that fall outside chains -i.e. are This can then be seen as part of reconstitution of the field of the text. well than Text 5.1.

## Chain in

Convincin no doubt, percentage Example 5 it contains text. But relevant There is no

Example 5.1
girls banana: apples own buy fifty sell girls fruit

No one could per cent of its any linguistic in coherence.

It is imp concerned wil revolved aroun the other hand bility; and it i grammatical u above-that al the chains go a ence, they are $n$ characteristic o the relation tha

By chain in of two (or more matical. For exa got from Table 5 ical relation with and got. We can A minimum requ bers of one chair of another chain. 1. The relations $t$ exist between $t$ ple, doer, doing etc. If a singles teraction, then teract with soms anything that is ence. Moreover chain formation

## Chain interaction

Convincing as this explanation seems, it just will not work; though, no doubt, there is a good deal of truth in it. In the first place the high percentage of peripheral tokens does not necessarily entail ambiguity; Example 5.17 has only 64 per cent of its lexical tokens in chains, yet it contains no ambiguity. True, it could not be described as a coherent
text. But the fact that a high percentage of lexical tokens are Relevant - i.e. enter into a high percentage of lexical tokens are There is no better proof of this than a list such as follows.

## Example 5.18

girls bananas two spend shopkeeper apples own girls dollars grapes buy fifty sell cents shopkeeper girls fruit

No one could possibly describe this list as a coherent text, though 100 per cent of its tokens are subsumed in chains. So we are still far from any linguistic fact that can be unequivocally correlated with variation in coherence.

It is important to recall here that in constructing chains, we are concerned with components of messages. Our entire analysis has revolved around components rather than whole messages as such. On the other hand, it is only message as message that has any textual viability; and it is only at the rank of clause or above that a lexicogrammatical unit is contextually viable: it is only at this rank-or the chains go a long way can encode a complete message. Although ence, they are not suffay towards building the foundation for cohercharacteristic of those bent; we need to include some relations that are the relation that I refer to as the components of a message. This is

By chain interactior to as CHAIN INTERACTION.
of two (or more) distinct mean relations that bring together members matical. For example, if whains. These relations are essentially gramgot from Table 5.7, we would chain (a) girl and chain (e) went, walk, ical relation with and got. We can say then got-girl is the ACTOR of the ACTION went A minimum requiren, that in Text 5.1, chains (a) and (e) interact. bers of one chain should or chain interaction is that at least two memof another chain. This requirement is same relation to two members

1. The relations that lead exist between the lead to chain interaction are the very ones that ple, doer, doing; sayer, saying . a clause or of a group, for exametc. If a single such relationg; doing, done-to; or quality, qualified, teraction, then by definition were considered sufficient for chain interact with some member. This would be tane chains would inanything that is a clauser. This would be tantamount to saying that ence. Moreover, there would be is, per se, responsible for coherchain formation and chain interaction; since the former by itself
would be a measure of chain interaction. But this is surely wrong since a random list of clauses or groups would not necessarily be coherent; nor does chaining entail coherence (see discussion of Example 5.18 above).
2. The second reason is deeper still. The recurrence of a relation between two chains is indicative of two vectors of unity. The first vector of unity is indicated by the semantic similarity that permits members to be part of the same chain; the second vector of unity indicates the semantic similarity that unites at least pairs of members from two chains. The rationale for this is simple to find: in a coherent text one says similar kinds of things about similar phenomena. For example, the girl in Text 5.1 does not simply go home, she also gets home; she does not simply fall asleep, she also wakes up, and so on.

When the text is not too long, the chain interaction within it can be visually displayed. This visual display highlights the continuities and the discontinuities in the text. Figures 5.4 and 5.5 display the chain interaction in Texts 5.1 and 5.2 respectively.
Figure 5.4 Chain interaction in Text 5.1


Each rectangle in these figures represents a (part of a) chain; the chain labels used here are the same as in Tables 5.7 and 5.8. If Figure 5.4 is compared with Table 5.7, you will see that (a) girl contains 17 members, though the rectangle (a) in.Figure 5.4 contains only 11 of these: this is because only 11 of the 17 members of chain (a) qualify as interacting with some other chain(s). Thus although the rectangles bear chain labels, they need not represent complete chains. When there

Figure 5.5

is chain inter: of at least on more member ier to follow. interact with ( with (c) home; had, and so o Each arro ence. They cal Any two chain i are in 'actc ii are in 'actis iii are in 'actio home)
iv are in 'sayi v are in 'attrib Those members appear in displa as central tok central. We thi tokens of a text:

1. Relevant toke chains; these (a) Central to (b) Non-centr: 2. Peripheral tok of chain, for $\mathbf{i}$
Having established state fairly definits herence will be:
2. The lower the $p$ ones, the more 5.1 , relevant tol 5.2, they make ।

Figure 5.5 Chain interaction in Text 5.2

is chain interaction, two items of each chain interact with two items of at least one other; each interacting segment of the chain-two or more members - is boxed together to make the interaction display easier to follow. Thus in Figure 5.4, the first and second entries of girl interact with (e) went and got; the second and third girl entries interact with (c) home; the third and fourth girl entries interact with (h) took, had, and so on.

Each arrow in these figures has a roman number to allow easy reference. They can be glossed as follows:
Any two chains linked by an arrow marked
i are in 'actor action' relation (for example, girl went);
ii are in 'action acted-upon' relation (for example, took teddybear) ii are in 'action and/or actor location' relation (for example, girl got
home)
iv are in 'saying text' relation (for example, said words)
v are in 'attribute attribuand' relation (for example, lovely teddybear)
Those members of the chain that enter into interaction (and would thus appear in displays of the type shown in Figures 5.4 and 5.5) are known as Central tokens; the remaining members of the chain are NONcentral. We thus have the following classification of the total lexical tokens of a text:

1. Relevant tokens: All tokens that enter into identity or similarity chains; these divide into:
(a) Central tokens: those relevant tokens that interact;
(b) Non-central tokens: those relevant tokens that do not interact; 2. Peripheral tokens: All those tokens that do not enter into any kind of chain, for instance cuddled in Text 5.1 and hat in Text 5.2.
Having established the framework throughout this section, we can now state fairly definitely what the linguistic correlates of variation in coherence will be:
2. The lower the proportion of the peripheral tokens to the relevant ones, the more coherent the text is likely to be. Note that in Text 5.1, relevant tokens form 90.5 per cent of the total while in Text 5.2 , they make up only 76 per cent.
relevant tokens central tokens non-central tokens
peripheral tokens
linguistic correlates of variation in coherence
3. The higher the proportion of the central tokens to the non-central ones, the more coherent the text is likely to be. The central tokens of Text 5.1 (see Figure 5.4) constitute 65 per cent of the relevant tokens while for Text 5.2 , this figure is only 36 per cent.
4. The fewer the breaks in the picture of interaction, the more coherent the text. In Figure 5.4, the entire set of interacting chains is relat-
focal chains
cohesive harmony
ed, with chains (a) and (b) functioning as focal chains, each of which interacts with a large number of other chains. In Figure 5.5, there is a clear break.
The three features mentioned above are ordered. The first amounts to saying that the semantic grouping in the text should be such as to establish unequivocally certain definite referential domains. If and when this happens, the majority of the lexical tokens of a text will fall within chains, leaving out but an insignificant few. This is a necessary condition for the second attribute. Texture is thus essential to textual unity, and cohesion is the foundation on which the edifice of coherence is built. Like all foundations, it is necessary but not sufficient by itself.

The second statement amounts to the claim that simply the establishment of the definite referential domains is not enough. Identity and similarity should not be limited to message components alone-such identity and similarity underlie chain formation; the notions of identity and similarity should also be extended to the content of the message as message. In common parlance, when speakers are engaged in the process of creating a coherent text, they stay with the same and similar things long enough to show how similar the states of affairs are in which these same and similar things are implicated.

The third statement claims that the process of creating coherent texts involves an indication of relationships between the things one is 'on about'. The outcome is that a complete break in chain interaction does not take place-transition from one topic to the next is a merging rather than a clear boundary.

I have referred to the sum of these three phenomena as cohesive harmony; and a briefer claim about coherence could be formulated thus:
variation in coherence is the function of variation in the cohesive harmony of a text.
It is harmony in more than one respect: it brings together lexical and grammatical cohesive devices, subjecting them to semantic considerations of identity and similarity. This is as it should be; a text, after all, is not a unit of form but of meaning. Secondly, it is harmony because it harmonises the output of two macrofunctions: the textual and the experiential. The output of the textual function are the chains and the interactions; the output of the experiential function at the rank of clause and group is what the interaction is built upon. Thus cohesive harmony is an account of how the two functions find their expression in one significant whole. No doubt, the concept of cohesive harmony can be further refined by bringing in the logical and interpersonal functions into the picture. If this can be done, it will show that even where text is concerned, multifunctionality is a fruitful concept.

## Texture, c

In recent year: example, it is is ultimately t say things tha sumption. Bu sumption itsel an assumptior abandon such ple, that of $T$ issues of textu suggested; inst the very basis significant diff

One very herent discour that the studer herent and con universities no field is relativel the semantic r teacher can de non-coherence let's say she -1 merit. And in work as the stu at the meaning only do this by ings are constr

What I ha dis in the case tact, and postu but in the dom causes of the $\mathbf{S \epsilon}$ history, or the meanings relev: the appropriate implies by crea understanding field. And that i concepts - teacl herent discours is made up of $t$ assume. We ne be successful. I chapter.

It would be sage of this cha coherent text by

## Texture, coherence, and the teacher

In recent years, some objections have been raised to this approach. For example, it is said (Morgan 1978; de Beaugrande 1980) that coherence is ultimately based on the assumption that when speakers speak they sumption. But this does noth each other. Ture, we do make such an assumption itself based upot absolve us from asking: what is this asan assumption cannopon? What are the conditions under which such abandon such an assum sustained by a listener? Why do we have to ple, that of Text 5.2? Questin the case of some speakers, for examissues of texture and coherence are this kind can be answered if the suggested; instead of taking the basis for granted in the manner I have the very basis of the basis. And in all practical applications, this is a significant difference.

One very important aspect of education is the production of coherent discourse. A teacher aims to educate and train in such a way that the students are able to 'talk about' their selected topics in a coherent and connected way. It is the experience of teachers at all levels universities not excepted - that the early discourse of students in a new field is relatively less coherent than their later discourse. This is because the semantic relations between the key concepts are not yet clear. A teacher can definitely not start with the assumption of coherence or non-coherence when picking up an exercise by a student. He or shemerit. And in to take the discourse as it comes, solely on its own work as the student no doubt wisherself why the discourse does not at the meaning relations - including gaps in meaning relations. She can only do this by concentrating on the language of that exercise, as meanings are constructed by language.

What I have said about written exercises, applies mutatis mutandis in the case of spoken discourse in the classroom. Gestures, eye contact, and posture are indeed important means of negotiating meanings, but in the domain of education-particularly in explaining, say, the causes of the Second World War, or the relation between ideology and history, or the hidden assumptions of the cult of individuality - the meanings relevant to the matter of the topic must be created through the appropriate, communally interpretable use of language. And that unplies by creating a coherent discourse. That, in its turn, implies by field. And the meaning relations between the concepts of the chosen concepts - teachers and demands that those who broach these specialist herent discourse. The world, alike - must in their turn produce cois made up of talk. The sucand particularly the world of education, assume. We need to know what of talk is not something we can just be successful. It is one part of this problem that is have in order to chapter.

It would be a gross misunderstanding and misuse of the main message of this chapter to act as if a person can be taught to produce a coherent text by such simplistic methods as, for example, exhorting them
some educational implications
to put in 60 per cent of pronominals, 20 per cent of definite articles, 3 causal relations, and by making the lexis hang together in chains. The cohesive devices create texture because they establish relations of meaning. The incoherence of discourse is often a pointer to an inability to organise the relevant meanings in relation to each other. A teacher can assist by pointing out what semantic consequence the choice of a particular pattern of wording has; for example, what difference of meaning there is between the following: select a tube and put it in the bottle and select a tube and put one in the bottle. It is these kinds of deep semantic differences that the mere assumption of coherence will not and does not handle. The infra-structure of all assumptions about cooperative acts of doing and saying is, in the last resort, social. The assumption of coherence can be sustained so well because human language has the resource for indicating coherence, while the nature of language as a resource has developed in a particular way because it has had to serve the needs of the community. Our task is to understand the specific nature of these resources - not simply to hide behind the mind and the intention of particular speakers and listeners.

## Chapter 6

## The identity of the $t$

## Introduction

The last two chapters were concerned w characterise texts. In Chapter 4, I attemp unity is relatable to the notion of context the motivation for the elements of the tex the values of the CC. This position raise of this chapter will be concerned with ex

In Chapter 5, I examined the unity of relating it to the question of structure or will be concerned with examining whethe so, what might be said about them. It ma stating the problems explicitly.

## The identity of a CC

If one claims, as I have done, that the v occurrence of an element of text structure a certain element gives rise to the inferer CC -then the notion of contextual confị the entire discussion. And the following qi how is the identity of a contextual configu point, and with what rationale, do we say from that one'? For example, if in CC 1 in 'personal clothing' instead of 'perishable 1 have a different CC, or is it still to be regar Whatever our answer, how do we justify i later in this chapter.

## The identity of a genre

In Chapter 4, the claim was made that $\mathrm{T}_{1}$ longed to the same genre and that the fra also appear within texts of the same gen question: how far does the identity of a would we use for establishing generic id

