1 Introduction
The purpose of this paper is to investigate the ways in which temporal and spatial adjuncts can contribute to the texture of a text. Most of these adjuncts are circumstantial, and are associated primarily with the ideational metafunction at clause level. At discourse level, however, they can form interesting textual patterns, as part of cohesive chains or of the thematic development of a text. It is thus at the level above the clause that the textual role of time and space adjuncts becomes apparent.

The present study is to a great extent a spin-off from a larger, corpus-based study of time, space, and manner adverbials (Hasselgård: in prep.). The corpus results may not be so apparent in the present paper, but it should be emphasized that the texts analysed here are representative of their respective genres, and have been chosen as illustrations of patterns that can be recognized in larger chunks of text.

2 Temporal and spatial adjuncts in text
Temporal and spatial adjuncts are by far the most common type of adjuncts, according to several previous investigations (Biber et al 1999, Tottie 1984, Matthiessen 1999), and also Hasselgård (in prep.). Specifying temporal and spatial circumstances seems to be important to speakers in most registers, cf. Table 1.

Table 1 is based on a subcorpus of 50,000 words from five selected genres from the British Component of the International Corpus of English (ICE-GB). The highest frequencies of time and space adjuncts occur in fiction and sports commentaries. Place adjuncts are more frequent than time adjuncts in fiction, sports commentaries, and conversation, while time adjuncts are somewhat more frequent than place adjuncts in letters and news.

<table>
<thead>
<tr>
<th>Genre</th>
<th>Time</th>
<th>Place</th>
<th>TOTAL</th>
<th>Frequency per 1,000 words</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Personal letters</td>
<td>298</td>
<td>54.7</td>
<td>247</td>
<td>45.3</td>
</tr>
<tr>
<td>Fiction</td>
<td>242</td>
<td>36.0</td>
<td>427</td>
<td>64.0</td>
</tr>
<tr>
<td>News</td>
<td>234</td>
<td>56.7</td>
<td>179</td>
<td>43.3</td>
</tr>
<tr>
<td>Sports commentary</td>
<td>306</td>
<td>37.3</td>
<td>514</td>
<td>62.7</td>
</tr>
<tr>
<td>Conversation</td>
<td>174</td>
<td>46.9</td>
<td>197</td>
<td>53.1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2818</td>
<td>44.5</td>
<td>2818</td>
<td>55.5</td>
</tr>
</tbody>
</table>

As mentioned above, the main function of time and space adjuncts at clause level is experiential, namely to specify temporal/spatial circumstances of the process. However, when we examine texts, particularly texts where these adjuncts are frequent, it seems that the time and space adjuncts play an important part in the creation of texture.

It is in clause-initial (thematic) position that time and space adjuncts most obviously contribute to discourse structure (e.g. Hasselgård 1996: 242 ff). As Themes, location adjuncts are topical and marked, cf. Halliday (1994: 44, 53). They give a temporal/spatial perspective...
on the clause message, and instruct the hearer to construe the appropriate ideational system for the interpretation of the following text (cf. Matthiessen 1995: 26). It is also as Themes that they most clearly contribute to the method of development of the text, as argued by Fries (1981). Example (1) shows how the thematic time adjuncts belong to a strategy to place each event in time, so as to help the hearer to construe the sequence of events in chronological order (cf. Enkvist 1987, Virtanen 1992a/b).

(1) But she wanted, needed, to see Lesley again. All night she had tossed and turned, dreaming sometimes of being at a disadvantage, afraid, and helpless to help herself. In the dawn greyness she had listened to the birds' first brave cheepings and had given way to her overpowering urge to confront Lesley once more. And now she was heading for Manchester…

Some temporal adjuncts are by nature conjunctive, such as again. But also non-conjunctive, circumstantial location adjuncts can contribute to the lexical cohesion of a text, for instance as part of an identity or a similarity chain (cf. Hasan 1994: 138). In (1), all night and in the dawn greyness belong to a similarity chain of references to times of the day. Thematic and non-thematic adjuncts alike can contribute to texture in this way. Furthermore, a circumstantial location adjunct can make comparative reference (Halliday 1994: 316) to a previously mentioned location, e.g. once more in (1) or further to the south in (2).

(2) There is a mountainous area further to the south near the town of Santa Cruz

3 Text analysis
3.1 Preliminaries

In this section I shall look at thematic structure and lexical cohesion in three sample texts from ICE-GB, and link these elements of texture to the concept of text strategy, as developed by Enkvist (e.g. 1987) and explored further by Virtanen (1992a and b). The samples represent genres in which time and space adverbials are frequent (cf. Table 1).2 The assumption is that there may be a link between the high frequency of such adverbials and their importance in text structure.

A text strategy can be defined as a macro-structural principle of text organization (Enkvist 1987: 211), or a framework within which the speaker makes decisions about the shape of the text. A strategy is by nature goal-oriented; text-strategic choices are made in order to make the text well suited to its communicative purpose. Some such choices concern text-strategic continuities which can be defined as a "text-structuring orientation chosen to attain a maximally profitable text organisation, for the benefit of the reader" (Virtanen 1992b: 85). Examples of text-strategic continuities are temporal (events are ordered along a time axis – as is typically the case in narratives), spatial (events are ordered along a spatial dimension, according to where they occur – as is typically the case in guidebooks), and participant (bringing about a 'unity of hero' – also typical of narratives and e.g. biographies).

It should be noted that text strategy is something other than the 'method of development' associated with thematic progression (cf. Fries 1995: 320), although there are points of overlap between the two. In fact, thematic choice could be a result of a text strategy, where the speaker has decided that a certain thematic pattern will serve his/her communicative purpose. A text strategy is more comprehensive and includes, in addition to thematic choices, choice of genre and style as well as choices on the micro-level of text. However, when we restrict our focus to the use of time and space adjuncts, we will see clear

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2 Text 3 is not part of the core material for Hasselgård (in prep.). The genre 'popular science' is thus not included in Table 1 because it has not been subjected to the same kind of quantitative analysis as the other genres.
similarities between method of development and text strategy, particularly the part of text strategy that concerns text-strategic continuity.

According to Virtanen (1992a: 96), texts with a dominant temporal text strategy are likely to have a high number of clause-initial time adjuncts. Such strategic adjuncts are claimed to mark shifts in the text, or boundaries between textual units. An extreme example would be chronicles, but simple narratives are also often structured in this way. Similarly, texts with a spatial text strategy are likely to have a high number of spatial adjuncts in initial position. Good examples of this are guidebooks and place descriptions. Examples (3) and (4) show passages of text that are temporally and spatially structured, respectively. The textual strategies are clearly visible in the thematic structure. In both texts there are also adjuncts that do not mark "boundaries between textual units, or textual shifts. When no textual shift takes place, such adverbials tend to appear clause-finally" (Virtanen 1992b: 186). An example of this is the adjunct on Monday in (3), which merely states the time of the already mentioned events. By contrast, the clause-initial adjuncts in the following sentences tell the reader to adjust the temporal frame of reference.

(3)  
One evening the woman found that there was a bit of milk left over after supper. "I may as well give it to those skinny, scraggly, scrawny cats," she decided. She poured it into a pan and put it in the garden. That was on Monday.
   On Tuesday, she ordered a whole extra quart of milk from the milkman. By mistake, of course.
   Do you know what she did with it?
   On Wednesday, she bought too much chopped meat at the butcher's shop – another mistake?
   On Thursday, she came upon an extra dozen eggs in her shopping bag. But they did not go to waste, for eggs are fine for cats.
   On Friday, the mackerel in the market looked so firm and fresh that the woman completely forgot that they were having supper with friends that evening. She bought some mackerel and brought it home.

(Example taken from Virtanen 1992a/b – children's fiction)

Similarly, in (4) all the thematic place adjuncts occur where it is necessary to adjust the spatial perspective on what follows, or 'move the camera'. Thus, by means of the spatial continuity, the reader is led to take in the view in the same manner as the men mentioned in the initial sentence. The clause-final adjuncts do not have the same kind of implications. It is for example interesting that the sentence beginning with behind the storm moves the camera from 'the far horizon' given in the previous thematic adjunct, rather than from the location of the movement of the storm in the immediately preceding sentence.

(3)  
From where the men stood, high Bodmin Moor fell away to the Marke valley. Beyond the valley the land unfolded in a breathtakingly spectacular fashion to the wide plains extending on either side of the Tamar river. On the far horizon the western heights of Dartmoor rose, an irregular mass, from the plain. A brief, early-summer storm seemed to be following the course of the river that separated Cornwall from the rest of England. Behind the storm a soft-hued rainbow promised a crock of gold on either side of Kit Hill. The mine-embellished landmark reared a thousand feet from the valley floor to form a giant stepping-stone between the two moors.

(ICE-GB-W2F-007 #18-23:1 – general fiction)

It has been shown, particularly in studying guidebook texts and history book texts (chronicles) that spatial or temporal adjuncts tend to show up frequently as Themes, and thus strongly colour the method of development of the text (cf. Fries 1995: 325, Matthiessen 1995:
With regard to text-strategic continuity as well as thematic development, the passages in (3) and (4) show rather uniform patterns. It cannot be expected, however, that all texts will be equally uniform. Nor is a particular type of text-strategic continuity necessarily linked to a particular genre. For example, both (3) and (4) represent fiction, albeit with different target audiences. Rather, most texts will be expected to show a mixed pattern of text-strategic continuities as well as of thematic progression. However, it is also to be expected that a text will have a dominant pattern, although there may be local departures from it.

3.2 Text 1 – spoken play-by-play football commentary

Text 1 is an extract from a radio football commentary, and it contains a high number of spatial adjuncts, italicized in the text. The sheer frequency of these adjuncts gives an impression of space being an important structuring principle in the text. Somewhat surprisingly, then, very few of the T-units have spatial adjuncts as their Theme. Instead, spatial adjuncts turn up as (part of the) Rheme in 23 of the 31 T-units.


1. The referee from Cornwall blows his whistle
2. and we're off and running with Arsenal kicking from left to right and trailing by a goal to nil on a mild clear night in the West Midlands
3. And the ball is chipped forward by Arsenal inside right position towards the edge of the Coventry box
4. In comes David Rocastle as the chip was headed down by Lee Hurst and it's back in the hands of goalkeeper Steve Ogrizovitch
5. Hurst's hair as as he comes across towards this near side
6. and we get a a clearer look at it
7. I thought actually when he came on he was very very blond
8. but in fact he's more ginger-haired than blond-haired on this near side
9. That's Steve Ogrizovitch who clears the way then right footing towards that Arsenal half
10. And Colin Pates a little bit lucky to get it
11. As Paul Furlong missed it in the air
12. Pates away towards the left-hand touch line
13. Behind them there's Limpar though
14. * Trickles out of play with Limpar closely watched by the right fullback once more Martin Beatty
15. Beatty will steady himself and take the throw-in
16. * Five foot eight inches tall stocky lad about twelve and a half stone
17. * Throws in towards the edge of the penalty on the right hand side
18. Here is Kevin Callagher laying it off now
19. Kevin Callagher square across the penalty area
20. and Dave Seaman again goes down
21. * Knocks down on it
22. and David Seaman can throw away towards this near touchline
23. and Arsenal can bring it away through Lee Dixon
24. Dixon now down the right-hand touch line
25. * Looks for Paul Merson
26. Merson holds it up well under close attendance again by the left fullback Lee Hurst
27. * Plays it back up the line ten yards away
28. ten yards inside the Coventry half is Lee Dixon

In Texts 1, 2 and 3, the Themes have been underlined, and the spatial and temporal adjuncts have been italicized. The star preceding some of the T-units marks ellipsis of the Theme, usually corresponding to subject ellipsis. Admittedly, the division of a spoken text such as Text 1 into T-units is difficult, and some readers may disagree with my analysis, which relies partly on the tone unit boundaries marked in the corpus transcription, and partly on boundaries between independent clauses.
29. Dixon threads it through two pairs of legs towards Ian Wright
30. and Wright's first touch who had too much weight on it
31. and he knocks it out of play with this near touch line in front of a crowd around about fifteen thousand here at Ifield Road <ICE-GB:S2A-017 #1-28:1:A>

The topical Themes of the 31 T-units in the football commentary are distributed as shown in Table 2. The great majority of Themes are unmarked and refer to players. The other types of unmarked Theme refer to the speaker and the football. Interestingly, all the marked Themes are spatial adjuncts. In the cases where the spatial adjuncts function as topical and marked Themes, they prepare the introduction of a player in clauses that denote existence or appearance (cf. Firbas: 1986: 48); see units 4, 13, 18, and 28. In each case the adjunct gives either new or more specific information on the spatial frame of reference. However, their number is not high enough to mark a clear spatial text strategy.

Table 2: Topical Themes in Text 1 (football commentary)

<table>
<thead>
<tr>
<th>Reference of topical Theme</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Players (+ referee/team)</td>
<td>17</td>
</tr>
<tr>
<td>Ellipted Theme = player</td>
<td>6</td>
</tr>
<tr>
<td>Speaker (+ audience – we/I)</td>
<td>3</td>
</tr>
<tr>
<td>Ball</td>
<td>1</td>
</tr>
<tr>
<td>Marked Theme = spatial adjunct</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total no. of T-units</strong></td>
<td><strong>31</strong></td>
</tr>
</tbody>
</table>

There is thus no clear match in Text 1 between thematic choice and the spatio-temporal text strategy. The next step of the analysis was thus to find out how spatial and temporal adjuncts contribute to texture even if they are not dominant in the thematic structure.

The temporal and spatial adjuncts in Text 1 are typically (part of) Rhemes. The space adjuncts, by far outnumbering time adjuncts, are of two kinds: geographical location and location and extent inside the football field. The latter all refer to the location or movements of a player or the ball. All parts of the football field are in one sense given information, evidenced by the use of definite nominals. The references to (parts of) the football field clearly constitute a lexical cohesive chain. In a different sense, these adjuncts are of course not given information, because the way the ball moves is unpredictable and, moreover, decisive for the outcome of the game. The spatial adjuncts in rhematic position thus constitute focal points in the discourse.

The lexical chain provided by the 'within-the-field' references is pervasive throughout the main body of the commentary, i.e. the play-by-play commentary on the game, and thus contributes significantly to the cohesion of the text. At the same time it marks the play-by-play section off from the rest of the commentary.4

The references to geographical location occur at the beginning and the end of this extract, and provide a nice symmetry in the text. In units 1 and 2 they give the general setting for the match, while in unit 31 the adverbial here at Ifield Road rounds off a section of the commentary and the speakers then proceed to report results from other matches being played elsewhere. The geographical references thus seem to function as boundary markers or transition points in this text, while the more local, 'within-the-field', references are part of the main body of the text, where they constitute focal points as Rhemes and provide a slight change in spatial orientation as Themes.

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4 In Hasan's (1999: 251) terms, the play-by-play section can be regarded as the primary text in this passage, while the introductory remarks form a subtext. The primary text has a unity of texture, provided by the 'within-the-field' chain, which is not shared by the subtext (cf. also Hasan 1999: 253).
We have noted that spatial adjuncts are the only kind of marked Themes in this extract. The spatial adjuncts fit in naturally as Themes because they belong to one of the dominant cohesive strategies. Text 1 thus seems to have two text-strategic continuities: the primary one is participant-oriented, while the spatial continuity is secondary. Both continuities are visible in the thematic structure and as lexical chains throughout the text.

The temporal location adjuncts in this text are mostly exophoric, i.e. they either refer to or relate to the 'now' of the commentary. Some of the time adjuncts are conjunctive (then, once more, again). None of them are thematic, and they do not seem to be particularly important on the ideational or the textual level, i.e. they do not carry new or important information, and they do not structure the text. They may, however, serve a function on the interpersonal level, in reminding the hearer that the 'now' is shared.

The thematic pattern in Text 1 agrees fairly well with the findings of Ghadessy (1995: 135) in a study of written sports commentaries in newspapers. There is, however, an important exception: In the written sports commentaries, most of the marked Themes were time adjuncts. This can probably be connected to the fact that the 'now' is not shared in the written commentaries, and temporal adjuncts are thus handy tools for construing the appropriate sequence of events, rather as in a narrative text.

3.3 Text 2 – fiction

Text 2 is an extract from a novel; a narrative section where a time line seems to constitute an important structuring principle. This is highlighted by the chapter headline giving the text an air of chronicle. Most of the Themes are unmarked and refer to the main character. Three of the marked Themes are temporal adjuncts, and one is a spatial adjunct. As Fries (1981: 9) notes: "the point of departure of the message of each clause or sentence in the narration of the event line will tend to be either: one of the characters, sequence in time, or (when a change occurs) setting in time or place." The passage thus seems typical of narrative text.

**Text 2: Remember the Moment**

*by Denise Robertson.*

Monday 14 August

Emma left the hotel car-park at seven-fifteen, two hours after she had left her bed, glad to be up and about in the early morning light. She had paid her bill and booked a room for the next day. Behind her, in the car, her bags were packed, soiled linen neatly on one side, the plastic wallet sandwiched between her toilet bag and her hairdrier.

She was going home to collect decent mourning clothes for the funeral and to see if the brooch did tally with the receipt, as she suspected. But she wanted, needed, to see Lesley again. All night she had tossed and turned, dreaming sometimes of being at a disadvantage, afraid, and helpless to help herself. In the dawn greyness she had listened to the birds' first brave cheepings and had given way to her overpowering urge to confront Lesley once more.

And now she was heading for Manchester... She switched on the radio, hoping for diversion, but the news was of the runner Steve Ovett and his tearful outburst of yesterday. P. W. Botha, the South African premier, was to resign. She tried to welcome the good news but it seemed not to matter on this dull, suffocating English day.

Emma checked the dashboard clock. If she wanted to catch Lesley en déshabille she would have to be early, but not so early that she arrived before Keith left for SyStems. She eased her foot on the accelerator and settled in her seat for a leisurely 120 miles to Manchester.

<ICE-GB:W2F-003 #1-16>

In terms of text strategy (cf. Enkvist 1987, Virtanen 1992a), Text 2 exhibits a mixture of participant and temporal continuity (references to Emma and to points of time relative to 'Monday 14 August'). A good number of temporal adjuncts belong to the Rheme of their respective clauses. Since all can be related to the time given in the headline, they clearly
belong to the same lexical chain as those time adjuncts that are thematic. Other, non-adjunct expressions also contribute to reinforcing the importance of time in the text; viz. the headline, adjectives (*first, early*), and nominal groups (*the dashboard clock, his tearful outburst of yesterday*). Thus, a temporal strategy is clearly visible in the structuring of this passage.

It is interesting that a clause-final/rhematic time adjunct referring to the day (*'on this dull, suffocating English day'*) serves to conclude a digression and bring the reader back to the main line of events. Thus, like the global geographical references in Text 1, this reference to the global temporal frame of the passage functions as a textual boundary marker.

The time adjuncts that function as (marked) Themes all imply a change of temporal setting in relation to the preceding clause. The adverbials *all night, in the dawn greyness, and now* steer the reader through the chronology of the narrative and thus instruct him/her to construe the appropriate ideational frame of reference. As Virtanen claims, such changes of setting tend to be signposted early on in the clause to facilitate text processing (1992b: 195).

Most of the spatial adjuncts in Text 2 are related either to the interior of the car or to the journey. Only one of them is thematic. We recognise the effect of moving the camera in that the spatial adjunct marks a transition from an account of Emma's actions to a description of the interior of her car. The thematic space adjunct is not part of a global text-strategy, since it is the only one. Further, since the adjunct PP contains a reference to Emma, it does not really interfere with the participant-oriented continuity in this text.

The non-thematic space adjuncts contribute to cohesion in the sense that they all presuppose the car and/or the journey as given information (after the first sentence). On the other hand, they do not seem to be as important for the structure of the text as the temporal adjuncts are; i.e. they constitute a lexical chain, but are not prominent in either thematic structure or text strategy.

### 3.4 Text 3 – non-specialist non-fiction

Text 3 comes from a third genre: popular science. It has two main cohesive chains, of which the most obvious one is given in the headline as a hypertheme for the whole passage, namely 'dolphins and whales'. The large majority of Themes are derived from this hypertheme: they refer to (species of) dolphins and whales, and are all unmarked Themes.

**Text 3: Dolphins and whales** (From *BBC Wildlife* – written by a marine biologist: Frances Dipper. From an article about the Persian Gulf, entitled "Earth, air, fire, water, oil and war").

Dolphins are still a common sight in the Gulf, and one of my most memorable experiences was watching them from the prow of an Arabian fishing boat, or dhow. Two sleek, grey bodies were effortlessly riding our bow-wave just a foot or so beneath the surface. Every couple of minutes, they sheered off to one side and exhibited their prowess with short leaps and fast surges. These were Indo-Pacific humpback dolphins *Sousa chinensis*, their name deriving from the hump which sometimes supports the dorsal fin. Unlike the bottlenosed dolphin *Tursiops truncatus*, which is the commonest Gulf species, the humpback has a long, thin snout, often tipped white. The common dolphin *Delphinus delphis* and the finless porpoise *Neophocaena phocaenoides* also occur in the Gulf, but in very much smaller numbers. Large cetaceans such as humpback whales, orcas and blue whales are occasionally seen (there have been unconfirmed reports of at least three collisions between humpback whales and warships in the south of the Gulf).

In the past few years many dolphins have drowned in fishing nets, but the effect this may be having on numbers is unknown. The 1983 Nowruz spill resulted in unspecified but significant numbers of dolphins being washed up dead on the Saudi Arabian coast. Though dolphins can sense an oil-slick and will move away from it, the size of the current spill guarantees that it will catch some animals. Possibly the most vulnerable will be the humpback dolphins, which have less of a tendency to roam and which are more often encountered feeding in shallower, inshore water. <ICE-GB:W2B-029 #105-118:1>
The text contains a good number of spatial adjuncts, but notably none in thematic position. Nevertheless, spatial adjuncts are important in the text as part of lexical chains. One chain starts with *in the Gulf* (line 1) and contains various references to this area. Another set has to do with the viewer's (senser's) perspective: *from the prow of an Arabian fishing boat*. This chain occurs in a passage recounting the writer's own experience of seeing dolphins. However, none of the spatial adjuncts belonging to a chain occur as Theme in this text.

Most of the temporal adjuncts in Text 3 are adjuncts of frequency/usuality (marked in the text with *SMALL CAPITALS*). They may be said to constitute a chain of modalizing expressions, usually being in fact the dominant type of modalization in this text. Two time adjuncts occur as marked Themes. The first of these (*every couple of minutes*) thematizes the frequency of the event following it, but it does not seem to mark any major shift in the narrative passage to which it belongs. The other thematic time adjunct, however, is paragraph-initial (*in the past few years*) and signals a slightly changed frame of reference, going from a general outline to more specific events. This marked Theme also links up with the next (unmarked) Theme, which contains a time reference as a modifier in the subject nominal group. These two thematized time references appear to be the result of a local text strategy, marking a temporary departure from the overall expository style with derived Themes and descriptions of dolphins and whales.

In Text 3, then, in contrast to Texts 1 and 2, the most frequent type of adjunct does not show up in the thematic structure. While the spatial adjuncts clearly contribute to cohesion, by marking a kind of ‘unity of place’, they are not given thematic prominence. On the other hand, we see the ability of time location adjuncts to mark shifts and breaks, even if they are not a particularly prominent feature of the text.

4 Summary of findings and concluding remarks

The present paper has examined texts where spatial and temporal adjuncts have been found to be frequent. These sample texts have been chosen relatively randomly from the part of the ICE-GB that forms the material for a larger study of temporal and spatial adjuncts (Hasselgård, in prep.). Based on preliminary findings in this larger study, Texts 1-3 are believed to be relatively representative of their respective genres.

The main findings as regards thematic, text-strategic, and cohesive patterns in the three texts are summarized in Table 3 below. In all three texts, participant continuity dominates in the thematic structure. The most significant contribution of temporal and spatial adjuncts to texture is as markers of lexical cohesion; i.e. as part of lexical chains. But the lexical chains may interact with thematic structure. On the basis of the texts studied, it seems that an adjunct that belongs to a lexical chain is a relatively likely candidate for thematic status. Thematic adjuncts are in turn likely to signal a text-strategic continuity, provided that the same type of adjunct occurs relatively frequently in (a section of) the text.

Spatial adjuncts in thematic position may serve as signals to the hearer to revise his/her spatial frame of reference, or to 'move the camera'. They seem to provide (slightly) new information rather than old. In thematic position they typically introduce a new stage in the discourse, Alternatively (or additionally), as in the football commentary, they can pave the way for rhematic focus on a new participant, much like the existential *there*.

In Text 3 there is a chain of non-thematic spatial adjuncts which, rather than changing the setting, signals a 'unity of place'. They are not strategic in terms of marking a textual shift, and thus, as Virtanen (1992b: 186) points out, unlikely to occur in initial/thematic position. On the other hand, if the author had wanted to add something about whales or dolphins in

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5 There are also some spatial adjuncts that do not belong to any chain; they are clause-internal (e.g. *in fishing nets, away from it*); i.e. they do not obviously contribute to cohesion beyond the sentence.
different waters, we might have expected a spatial adjunct to be thematized in order to activate a new frame of reference for the following information. Adjuncts in thematic position thus typically function as markers of textual shifts, at a global level, as in Text 2, or at a local level, as in Text 3. The shift can be relatively minor, i.e. a slight expansion/revision of the frame of reference, or it can involve a change of topic.

It is clear from the larger corpus study (Hasselgård: in prep.) that temporal adjuncts are more likely than spatial adjuncts to gain thematic status, even, as in Text 3, when spatial adjuncts are more numerous in the text and contribute more significantly to cohesion. Enkvist explains the 'pervasiveness of time and temporality' as follows: "Discourse is linear and the dimension of its linearity is time. Therefore all text strategies are in a sense temporal." (1987: 207). This may at least partly explain why a thematic time adjunct in a text such as Text 3 can mark a textual shift even if time has been little referred to elsewhere in the text. Since a hearer (in a Western culture) presumably always has some idea of temporality or sequentiality underlying the discourse, a temporal adjunct can always be understood in relation to a perceived reference point.

This study has shown that there is no automatic connection between the frequency of a type of adjunct in the text and the likelihood of seeing these adjuncts as marked Themes. Nevertheless, only adjuncts of a type that is relatively frequent in the text can be part of a global text strategy. Non-thematic adjuncts do not have this strategic function, but they can still point beyond the clause as parts of a cohesive chain. They can also, as in Text 1, form a pattern of related Rhemes.

We may conclude that temporal and spatial adjuncts play various roles as elements of texture. They can contribute to lexical cohesion as part of lexical chains, creating a unity of place and/or time. Somewhat less frequently, they occur as marked Themes. When thematic, they can be part of a global text strategy that prevails throughout a text. Alternatively, they can serve as an instruction to the hearer at a local level to adjust his/her spatial or temporal frame of reference or to prepare for a change of topic.

Finally, the present study has not considered the textual role of other types of adjuncts. In Hasselgård (in prep.) it appears that adjuncts of manner and degree are far less important in the creation of texture than spatial and temporal adjuncts. It is likely, however, that other types of adjuncts may contribute to texture in other genres, e.g. adjuncts of cause and contingency in argumentative texts. Another topic which has only been touched on here is the interplay between participant continuity and temporal/spatial continuity. In Texts 1-3 we have found temporal and spatial circumstances to be secondary to participants as regards both thematic development and text-strategic continuities. Future studies may shed more light on the nature of this interplay.

<table>
<thead>
<tr>
<th>Table 3</th>
<th>Summary of thematic and cohesive patterns in the sample texts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thematic structure</td>
<td>Text 1 (football commentary)</td>
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<tr>
<td></td>
<td>Text 2 (narrative fiction)</td>
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<td>Text 3 (popular science)</td>
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<td>Thematic structure</td>
<td>unmarked: participant</td>
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<tr>
<td></td>
<td>marked: spatial</td>
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<tr>
<td>Cohesive chain(s)</td>
<td>participant(s) (players)</td>
</tr>
<tr>
<td></td>
<td>spatial</td>
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<tr>
<td></td>
<td>temporal</td>
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<tr>
<td>Text-strategic continuities</td>
<td>1. participant</td>
</tr>
<tr>
<td></td>
<td>2. spatial</td>
</tr>
<tr>
<td>Main type of thematic</td>
<td>derived Themes</td>
</tr>
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<td></td>
<td>[explicit hypertheme = constant Theme [main character]</td>
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References


Material for the study: Selections from the British component of the International Corpus of English (ICE-GB); see http://www.ucl.ac.uk/english-usage/ice-gb/index.htm