Thomas Christiansen

Cohesion:
A Discourse Perspective

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This book represents a fresh look at cohesion, the point of departure being Halliday and Hasan's seminal *Cohesion in English,* which is examined in depth as are other notable approaches to cohesion such as Hoey's *Patterns of Lexis in Text.* It also compares different studies of relevance to cohesion from other areas of linguistics, such as: generative grammar, Functional Sentence Perspective (FSP), and corpus linguistics. In this way, this work extends discussion of cohesion beyond the realms of systemic linguistics to include a broader spectrum of approaches including research into languages other than English. The main focus, however, is on varieties of English and on general and specialised discourse types.

Rather than limiting itself to the text as product, the manifestation of a discourse, this book looks at cohesion from the wider perspective of discourse, seen as an interactive process. Consequently, different sociolinguistic and cultural factors are also taken into consideration: How far is cohesion a constitutive feature of text? What is the precise link between cohesion and coherence? What specific role does discourse have in phenomena such as anaphora? Do such things as cohesive universals exist across languages? How far do socio-cultural, or discourse-specific, conventions contribute to the type and degree of cohesion present in a text?

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Cohesion: A Discourse Perspective

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Preface

In this book we look at cohesion, a phenomenon usually associated with text, from the perspective of discourse. We will draw both on the works of such renowned scholars as Halliday and Hasan and on our own research into this field, principally two works: Christiansen (1993a, 2009a). The first is a short practical introduction; the second a more detailed work looking specifically at *co-reference* and *identity chains* in Italian, initially presented as a Ph.D. thesis (University of Salford, UK, 2001).

As in Christiansen (1993a), our approach will be partly theoretical, partly practical in that emphasis will be also on illustration and exemplification of the key concepts. Through these, it is hoped that a greater appreciation of the concepts themselves will be achieved – as much as, if not more than, a purely technical discussion of the concepts themselves – many of which are only partially understood by scholars even now.

Indeed, inevitably, some of the notions involved may lie beyond linguistic expression. The so-called ordinary-language philosopher, Wittgenstein (1922: 4.1212) draws a useful distinction between *saying* and *showing*, arguing that the two are dichotomous: "What *can* be shown, *cannot* be said." Such a position is extreme (and in Wittgenstein's later, radically different work, he himself seemed to reject many of his earlier theories) but it is certainly true that *showing* and *saying* are two very different, but equally useful means of *telling*, that is of imparting information.

An approach informed by this realisation is particularly valid for a concept like cohesion which is in reality a syndrome of different linguistic phenomena that may present themselves in different combinations and configurations. Rather than something which can be strictly defined, cohesion would appear to be a fluid concept and it is difficult to draw a line between what may and may not contribute and in what precise way. In analysing manifestations of cohesions in indi-

vidual texts and attempting to compare and categorise these, Wittgenstein's (1953) analogy of family resemblances is more appropriate than the more conventional Platonic concept of a class composed of items that each display at least one common feature with all the rest.

Most research into cohesion has been done on texts in standard English and by far the most influential work has been Halliday and Hasan's *Cohesion in English* (1976), which, though published over thirty years ago, remains to this day very much the standard text on the subject as is justifiable given its comprehensive treatment of what was then a largely unexplored subject. As is only to be expected, there have been revisions to this work both by the authors themselves, working individually (Hasan 1984, Halliday 1994, Halliday 1985a, 1994, 2004),[1] and by other linguists, especially in the area of anaphora (Reinhart 1983, Cornish 1999, Branco 2009). Prior to Halliday and Hasan (1976) little attention was paid to cohesion as such. One exception is Quirk et al. (1972) who offer a short treatment within their larger grammar of English.

Halliday and Hasan's (1976) approach is more detailed and radical than Quirk et al. (1972) but largely falls within the descriptive grammar tradition, it constituting a cataloguing of the various individual elements which contribute to cohesion. It represents a natural continuation of systemic grammar at sentence level, and, indeed for Halliday in particular, the concepts of *text* and *texture* have always been central to the vision of language, whatever the level of analysis.[2]

Halliday (1985a, 1994, 2004) offers a revised description of cohesion along with discussion of other features which are not normally considered grammatical. These are dealt with in chapters entitled revealingly: "Around the clause" (i.e. cohesion); "Beside the clause" (intonation and rhythm); and "Beyond the clause" (metaphorical modes of expression).

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1   The latter revised by Matthiessen.
2   In contrast, generative linguists after Chomsky (1957) have tended to view language from the perspective of the sentence and of syntactic structures, largely ignoring text, let alone discourse.

Later studies of cohesion by other scholars undertake less general itemisation than Halliday and Hasan (1976), focusing on specific aspects or types of cohesion which, although sometimes constituting profound revisions of Halliday and Hasan (1976), still use it as a foundation on which to build their own descriptions.[3] Other research concentrates on larger functions or patterns[4] of cohesion in text rather than on individual types of cohesive tie. Such studies, though not dealing with cohesion *per se*, are still of interest as they afford a better understanding of the nature of text and the concept of *texture*, and the contribution made to it not just by cohesion but also other related processes, notably coherence and inference (see 1.4.).

Chapter 1 of this book deals with the theoretical issues associated with the concept of cohesion and its relationship to text / texture and coherence and discusses the way it operates at both the discourse and textual levels. Following the general scheme of Christiansen (1993a), Chapters 2 to 6 are mainly descriptive, and exemplify the various manifestations of cohesion in English. In this, we will follow in broad terms the system of categorisation of Halliday and Hasan but will elaborate various points where our discourse perspective offers alternative interpretations of the data or new insights. We will draw on examples explored in Christiansen (1993a), but add considerably more. In the latter work, a literary non-electronic corpus was used, reflecting the resources available to us at the time,[5] now we have at our disposal easily accessible corpora of millions of words.

Chapters 7 and 8 look at two separate applications of analysis based on cohesion. The first is based on Hoey's (1991) concept of lexical patterns and how these can be used to identify key sections of texts and by juxtaposing these, produce summaries of texts. The second looks at the way concerns of cohesion affect the type of noun

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3   See, for example, Francis (1994), Tadros (1994).
4   E.g, Winter's studies of the so-called *information structure* of text (1979, 1994).
5   It should be noted that Halliday and Hasan (1976) use examples mainly from one work, Lewis Carroll's *Alice's Adventures in Wonderland*, and some non-sourced examples, many of which evidently invented.

phrase chosen to refer to a referent in a text from the perspective of one of the four factors identified by Christiansen (2009a) as influencing selection of noun phrase, in particular the so-called informative function (the use of a descriptive noun phrase not only as a means of referring but also to give information about the referent).

There are various factors which make this present work different from other treatments of cohesion. The first is that it is partly expository in nature and draws together various theoretical approaches (e.g. on cohesion itself Halliday and Hasan 1976, Hoey 1991, on anaphora, other diverse scholars such as Cornish 1999 including some working within Chomskyean generative linguistics, for example Lasnik 1991). Taken together these represent a broad spectrum of the various stances adopted by linguists. By collecting together such diverse perspectives on cohesion, we have, if nothing else, hopefully reframed discussion of cohesion in such terms that linguists from diverse backgrounds may participate. This is necessary we believe because compartmentalism has regrettably come about in many areas of linguistics, as in many other academic fields, with the result that scholars from different traditions often work in parallel on similar problems unaware of the contributions that they can make to each others' works. Such a thing is particularly evident with cohesion, mainly, one suspects, not because of animosity or vanity, but because Halliday in particular, a giant among scholars by any measure, is uncompromising in his terminology, which is rigidly drawn from his own field (systemic linguistics) and largely coined by him. While this lends consistency and thus cohesion (in the very same sense that we use the term in this book) to his own oeuvre, it renders it largely inaccessible to scholars from outside his particular circle. This is a shame in our opinion because the risk is that such otherwise admirable intellectual independence will lead to marginalisation. That such a danger is real is shown by the fact that since the publishing of *Cohesion in English* in 1976 there have been relatively few treatments of the subject and very few outside the field of systemic linguistics. As we hope this present work will make clear, the subject is still ripe for discussion and of inestimable relevance to linguistic studies of all kinds which means that it merits further attention by linguists in general, not just those following in the Hallidayean tradition.

The second area where this work sets itself apart is that we have drawn a distinction between the allied concepts of text and discourse (see 1.4.) in such a manner that allows us to better account for some aspects of cohesion (e.g. anaphoric co-reference) which Halliday and Hasan (1976), Hasan (1984), and Halliday (1985a, 1994, 2004) leave undeveloped. We do not claim to be the first scholars to establish and adhere to a clear distinction between text and discourse (see Widdowson 1975, Cornish 1999): but we are among the few to make it a key element in a study of cohesion.

Not only this, we recognise that discourse, and not text, is the fundamental level at which cohesion originates. It is the only level at which many relationships between cohesively-linked items (such as the more problematic cases of anaphors) can be explained. As a reflection of this, we follow Cornish (1999) and others in redefining the terms *anaphora*, *endophora, exophora* etc. used by Halliday and Hasan (1976). We are the first, to our knowledge, to apply them to Halliday and Hasan's original description (Chapters 2-6), in this way bringing that work up-to-date with current, discourse-oriented (as opposed to text-oriented) terminology.

The distinction between text and discourse is mirrored also in the distinction between the principal means of communicating: encoding and inference. Encoding, we argue, is a necessary feature of a collection of words if they are to be considered, linguistically, as a text. Semiotically, a text, like say an image, may communicate by means of inference alone (see 1.4.). A linguistic text can be seen as an encoding of a set of inferences comprising a discourse (perhaps at an intermediate stage encoded by a posited so-called language of thought in the mind).

Arising out of this recognition that discourse, not text, is the seed bed of cohesion, is our solution to the problem of distinguishing cohesion from coherence and of establishing which takes precedence (see 1.4.). What we offer to discussion of this point is the insight that different scholars who have hitherto disagreed can be seen to have been speaking about two distinct types of coherence that oriented towards the addressor and that oriented towards addressee.

Further innovations that we offer in this work relate to our own research into this field (Christiansen 2009a) regarding in particular

reference (as it relates specifically to link between concept and linguistic representation of the same), co-reference and the composition of identity chains (see Sections 8.2.-8.3.). Apart from being an approach that focuses directly on reference (in the broadly philosophical sense of the term) and language seen as a representation of a state of affairs (whether true or real being irrelevant at this level – see 2.2.), this introduces a wealth of new concepts into the study of reference, coreference and cohesion and consequently of terminology.

1. The Concept of Cohesion

1.1.Introduction: a new approach to cohesion

In this chapter we will examine the concept itself of cohesion, outlining the different ways that certain features of texts can be considered 'cohesive' and the different general categories of cohesive features that are found in texts. In this discussion, we will lay the basis for the new approach that we propose, focusing on discourse rather than on text, as studies have hitherto done. Such a perspective entails a re-evaluation also of the term *coherence*, which has been widely recognised by scholars as inherent to cohesion, but which has not in itself been examined in depth from the perspective of cohesion.

Section 1.2. discusses the different definitions that exist for the terms *cohesion* and *cohesive tie*. In Section 1.3, we look at how cohesion is not just a relationship found between items in different sentences but can be identified in relations between items even within the same word phrase or clause. In Section 1.4, we examine how the concept of cohesion relates to the dual concepts of text and discourse: a complex area that involves consideration of how far one can view cohesion as a constituent feature of text necessary for its manifestation and for its coherence, or as a by-product, more or less inevitable, of the fact that texts are communicative acts that convey a coherent message. Finally, Section 1.5. will provide a brief overview of Halliday and Hasan's classification of the different types of cohesion in English (1976), providing an introduction to the more detailed analysis of the individual types in Chapters 2 to 6.

1.2. Cohesive ties

Cohesion is an important characteristic of texts – according to some, even a defining one. It is however a difficult concept to pin down and beyond detailed description of the many ways in which it can be manifested; one has to be content with rather vague general definitions such as:

> […] how the sentences of a text hang together. (Crystal 1987: 119)

The ontological problems presented by cohesion are explained by the fact that, as Halliday and Hasan (1976:12) point out:

> […] cohesion is a relative concept; it is not the presence of a particular class of item that is cohesive, but the relation between one item and another.

The fact that it is difficult to provide a clear definition for cohesion does not indicate that the existence or validity of the concept is itself in doubt; rather that it falls into that category of entity that is familiar yet still defies description.[6] The existence of cohesion can be seen in the fact that some parts of texts cannot be interpreted on their own, and only make sense in relation to the specific context in which they are used or to some other part of the same text. The need to interpret different components of texts in relation to each other is the essence of the concept of cohesion. For example, imagine turning on the television while the opening lines of a film are being uttered and only catching the sentence reproduced as Example 1:

(1)   The other one says, "Yeah, I know, and such ... small portions." Well, that's essentially how I feel about life.[7]

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6   Other examples of such central yet elusive concepts include humour (in psychology), force (in physics), meaning (in semantics), and value (in economics).
7   'Annie Hall', Woody Allen (source: <www.scriptorama.com>).

One would of course be able to understand the utterance but not follow the thread of the discourse, so to speak. By itself, the utterance "The other one says, 'Yeah, I know, and such … small portions'" communicates little, seeing that it contains elements (namely 'other', 'one'[8]) whose referents cannot be retrieved without recourse to another part of the text.[9] The significance of the conclusion, "Well, that's essentially how I feel about life." would also be difficult to perceive.

How much is missing can only be illustrated by reinstating the beginning of the extract, allowing one to retrieve the missing links and thus to understand the full import of the message (Example 2):

(2)   There's an old joke. Uh, two elderly women are at a Catskills mountain resort, and one of 'em says: "Boy, the food at this place is really terrible." The other one says, "Yeah, I know, and such ... small portions." Well, that's essentially how I feel about life.

It is these links which exist between different items in different parts of the text that create cohesion. A simple analogy would be to view text as a wall with sentences as the bricks and cohesion as the mortar. The problem with this analogy is that bricks and mortar are separate entities and it is, as we shall see in Section 1.4, not so easy to distinguish between the concepts of text or discourse in particular and cohesion. A better yet more complicated comparison is then with a tapestry. Here a picture or design is created by the intertwining and different coloured threads running the length of the tapestry which constitute at once the material and the design.

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8   In this work, certain typographical conventions will be necessary. Broadly following J. Lyons (1977): italics will be used for highlighting, citation forms, and for key terminology; single quotation marks are used for lexemes and for citation of individual words from examples; and double quotation marks are used for other kinds of quotation, including citation of a expression, and phrases from examples.
9   A similar thing is true of 'I', but this refers not to another part of the text but to the producer of the quoted extract, who is designated as the albeit unidentified "other one".

Of course, elements within a text can be bound together in many ways. For instance, often a mere formal similarity between items or a clear overall pattern can serve to provide uniformity to a text and thus create a kind of link, based on association, between its different parts.

For example, Roman Jakobson (1960) uses the term *cohesion* to talk about the way that the repetition of features of language – such as syllables and stress (which constitute meter in poetry) or the use of similar grammatical structures – creates discernable patterns within a work. It is these which give a work its unique form and mark it aesthetically from other possible ways of saying the same thing.

The example cited by Jakobson is the famous quote attributed to Julius Caesar: "Veni, vidi, vici".[10] There is a formal parallelism here based on the similarity of the words on five distinct levels: the same word class (verb), same inflection (first person singular past tense), same number of syllables (two), the same stress pattern (first syllable stressed), and presence of the same phonemes in the same position (initial /v./, final /I/).

Similarly, in rhetoric, the term *anaphora* – which is also used with a different sense in studies of cohesion (see 1.4.) – describes the repetition of words at the beginning of successive clauses. For instance, the climax to Winston Churchill's famous speech of 1940: "we shall fight on the beaches, we shall fight on the landing grounds, we shall fight in the fields and in the streets, we shall fight in the hills. We shall never surrender."

What is lacking in either parallelism or rhetorical anaphora, however, is any element of semantic or lexicogrammatical linking. What bonding there is rests on the similarity in the form of the elements which make up the text, not on their meanings or on any structural relationship between them. Parallelism and rhetorical anaphora relate to the substance of a text, its form as an artefact (not message).

Cohesion in the more precise sense we will examine in this book is based on the concept which Halliday and Hasan call *presup-*

10   For a further discussion of this whole point and particular example, see Traugott and Pratt (1980: 21-24).

position, that is, the fact that the interpretation of one linguistic item in a text often depends on the interpretation of another.[11] In Example 2, 'other' and 'one' presupposes 'two elderly women' and 'one of 'em' in the preceding text. In technical terms, a presupposition is something which is assumed to be known to the person to whom the message is addressed. When two items are linked in this manner, a *cohesive tie* is created between them. It is these individual ties which together produce cohesion in the whole text.

Presupposition, and therefore cohesion, is by no means an easily-definable process which can be summarised in a few words. Items in texts can presuppose each other in a variety of ways and according to different criteria. Some presuppositions exist on the semantic level – that of the meaning of the message behind the text; others on the grammatical level (the relationships that hold between words as regards their structural functions); or still others on the lexical level (the denotational meaning of individual words).

As an abstract concept, cohesion is perhaps best shown, rather than merely defined. This can be done by using a sample text. Example 3 below is a way of describing the sketch above it (Figure 1).[12] Example 3 thus constitutes a linguistic encoding of Figure 1, which can be seen as a different semiotic means of representing the same underlying message or discourse (see 1.4.).[13]

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11 One item presupposes another when "it cannot be effectively decoded except by recourse to it." (Halliday and Hasan 1976: 4). This use of *presupposition* differs from that to which it is put in semantics and pragmatics, namely a relation between propositions in which one entails the other. E.g. to use Russell's (1905) famous example "The present King of France is bald" which presupposes both that there is at present a King of France and that there is only one of him.

12 Adapted from Christiansen (1993a: 20).

13 It could be argued that the picture / diagram constitutes the referent itself and is thus not merely a representation. For this reason, we deliberately use a rough sketch, as this makes it clear that the lines are only approximations representing the cited geometrical shapes and do not in themselves constitute the said shapes.
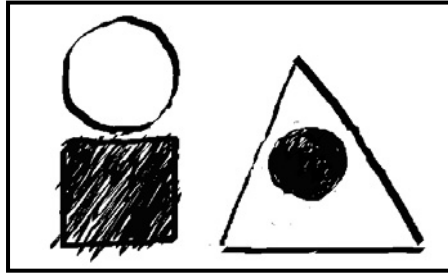
Figure 1. Sketch represented linguistically by Example 3.

(3)   In this sketch, there are four shapes. One is a square, one a triangle and there are two circles. The square and one circle are black, while the triangle and other circle are white. The black circle is small but the white one is big. The white circle is on top of the square. On their right is the triangle, in the centre of which is the black circle.

The way Figure 1 is described in Example 3 involves a great deal of presupposition. This can be seen best by labelling the text. Below, Example 3 is split up into its constituent sentences and items which presuppose other items in the text are highlighted in italics and numbered. In the key below the text, the individual ties are classified and briefly commented upon.

1.   In this sketch, there are four (1) *shapes*.

2.   One (2) Ø is a (1) *square*, one (2) Ø (3) Ø a (1) *triangle* (4) *and* there are two (1) *circles*.

3.   (5) *The* (1/6) *square* and one (1/7) *circle* are black, (8) *while* (9) *the* (1/10) *triangle* and (11) *other* (1/7) *circle* are white.

4.   (12) *The* black (1/7) *circle* is small (13) *but* (14) *the* white (15) *one* is big.

5.   (14) *The* white (1/7) *circle* is on top of (5) *the* (1/6) *square*.

6.   On (16) *their* right is (9) *the* (1/10) *triangle*, in the centre of (17) *which* is (12) *the* black (1/7) *circle*.

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Key:

1.	All the various nouns in this text – 'square', 'triangle', 'circle' – are all types of shape, and 'shape' is therefore a superordinate of them. Because of this, the occurrences of 'square', 'triangle', 'circle' can be said to presuppose 'shape' because they are all in various ways repetitions of it (see Section 6.2.3.). This can be illustrated better by looking at the text again, highlighting these repetitions in italics:

> In this sketch, there are four *shapes*. One is a *square*, one a *triangle* and there are two *circles*. The *square* and one *circle* are black, while the *triangle* and other *circle* are white. The black *circle* is small but the white one is big. The white *circle* is on top of the *square*. On their right is the *triangle*, in the centre of which is the black *circle*.

2.	In the second sentence there are two *one*s: "One is a square, one a triangle [...]" These are both numeratives, which should obviously qualify some noun, which are missing here. To know exactly what there is *one* of, it is necessary to look back to the previous sentence and the plural noun that it contains: 'shapes'. The absence of nouns after the two numeratives therefore presupposes 'shapes'. (See Section 4.2.)

> In this sketch, there are four *shapes*.

> One Ø *[shape]* is a square, one Ø *[shape]* a triangle and there are two circles.

3.	After the second occurrence of 'one' in Sentence 2, there are actually two omissions. The second of these involves there being nothing between the subject ("one Ø *[shape]*") and the object ("a triangle") where syntax dictates a verb should be. This omission is only possible because the verb which should be in this space is the same as in the first clause of the same sentence: "One *is* a square". In this way, the non-manifestation of the verb in "one Ø a triangle" presupposes 'is' in "One *is* a square". (See Section 4.3.)

> One *is* a square, one Ø *[is]* a triangle and there are two circles.

4. 'And' in Sentence 2 is a conjunction connecting the clause: "One is a square, one a triangle" to "there are two circles". The relating of what follows to what has been said, naturally entails presupposition. Here 'and' presupposes "One is a square, one a triangle" as well as "there are two circles", which it introduces.[14] (See Section 5.2.)

5. 'The' in "the square" in Sentence 3 and 'the' in "the square" (Sentence 5) both presuppose "a square" (Sentence 2) because they indicate that a specific square is intended, namely the one already mentioned. (See Section 2.4.2.3.)

   One is *a square*, one a triangle and there are two circles.

   The square and one circle are black, while the triangle and other circle are white.

   The white circle is on top of *the* square.

6. The two occurrences of *square* in Sentences 3 and 5 presuppose 'square' in Sentence 2 as they are exact repetitions of this term. In this way, they both presuppose two separate items: "a square" in Sentence 2 and *'shapes'* in Sentence 1, this latter being shown in Point 1 above. Repetition or *reiteration* (see Section 6.2.) constitutes presupposition because, where two items are the same or similar in denotation or meaning, they will be interpreted in relation to each other.

   One is *a square*, one a triangle and there are two circles.

   The *square* and one circle are black, while the triangle and other circle are white.

   The white circle is on top of the *square*.

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14 It should be noted that other cases of 'and' in this text (Sentence 3 – twice) only link nouns and not clauses, and although there is an element of presupposition, this is restricted to within the noun phrase itself and as such does not affect the rest of the clause or the sentence (see Section 5.1.).

7.   That which is said in Point 6 above is true of the cases of *circle* in Sentences 3 (twice), 4, 5 and 6. These all presuppose both occurrences of *circle* in Sentence 2. (See Section 6.2.)

One is a square, one a triangle and there are two *circles*. The square and one *circle* are black, while the triangle and other *circle* are white. The black *circle* is small but the white one is big. The white *circle* is on top of the square. On their right is the triangle, in the centre of which is the black *circle*.

8.   As with 'and' in Point 4 above, 'while' in Sentence 3 is a conjunction and acts as a link between "The square and one circle are black" and "the triangle and other circle are white", presupposing both of them. (See Section 5.5.)

9.   As was the case with Point 5 above, 'the' in "the triangle" (Sentences 3 and 6) presupposed "a triangle" (Sentence 2). (See Section 2.4.2.3.)

One is a square, one *a triangle* and there are two circles.

The square and one circle are black, while *the* triangle and other circle are white.

On their right is *the* triangle, in the centre of which is the black circle.

10.   Like Points 6 and 7, 'triangle' (Sentences 3 and 6), apart from presupposing 'shape' (Point 1 above), also presupposes 'triangle' (Sentence 2). (See Section 6.2.)

One is a square, one a *triangle* and there are two circles.

The square and one circle are black, while the *triangle* and other circle are white.

On their right is the *triangle*, in the centre of which is the black circle.

11.   'Other' in "other circle" (Sentence 3) indicates that there is more than one circle in the discourse. Because of this, it presupposes "one circle" in "The square and one circle are black" (also in Sentence 3). (See Section 2.4.3.)

The square and *one circle* are black, while the triangle and *other* circle are white.

12. Similarly to 5 and 9 above, 'the' in "the black circle" (Sentence 4) indicates that the circle has already been mentioned: "there are two circles" (Sentence 2) and "The square and one circle are black" (Sentence 3). It has therefore already been established that there are circles and that one of them is black. It is this fact that is presupposed by 'the' in "the black circle". (See Section 2.4.2.3.)

One is a square, one a triangle and *there are two circles*.

The square and *one circle are black*, while the triangle and other circle are white.

The black circle is small but the white one is big.

13. As with 4 and 8, 'but' (Sentence 4) is a conjunction which pre-supposes what precedes it: "The black circle is small". (See Section 5.3.)

14. Similarly to 5, 9, and 12, 'the' in "the white one" (Sentence 4) and 'The' in "The white circle" (Sentence 5) presuppose: "[...] and other circle are white." (Sentence 3). (See Section 2.4.2.3.)

The square and one circle are black, while the triangle and *other circle are white*.

The black circle is small but *the* white one is big.

The white circle is on top of the square.

15. In the same way as the two cases of *one* in Sentence 2 presup-pose "four shapes" in Sentence 1, 'one' in "the white one is big." (Sentence 4) presupposes *'circle'* in the "The black circle is small" in the same sentence. (See Section 3.2.1.)

The black *circle* is small but the white *one* is big.

16.   The personal pronoun 'their' in "On their right" (Sentence 6) is, like *one* (as seen in 1 and 11), very general in meaning; it can refer to any group of people or things. Here it presupposes "The white triangle" and "the square" in the previous sentence. (See Section 2.4.1.)

The white circle is on top of *the square*.

On *their* right is the triangle, in the centre of which is the black circle.

17.   The relative pronoun 'which' in the prepositional phrase "in the centre of which" (Sentence 6) provides a link between the relative clause ("in the centre of which is the white black circle") and the main clause ("On their right is the triangle"). Like other pronouns, *which* only has a general meaning and in this case presupposes 'triangle' in the main clause.

On their right is *the triangle*, in the centre of *which* is the black circle.

As can be seen in even such a short text as Example 3, there is a great deal of presupposition. It is this that creates the cohesion in the text. In this way, Points 1-17 outline the network of ties that together constitute the cohesion of Example 3.

1.3. Cohesion within and between sentences

As is apparent from Example 3, cohesion can be found both between sentences and between elements in the same sentence; for example, in Points 3, 4, 8, 11, 13, 15, and 17, the presupposing item and the presupposed item are found in the same sentence. This, we shall call intrasentential cohesion as opposed to that which occurs across sentence boundaries: intersentential cohesion.

The term *cohesion* is most usually applied to cohesive ties between sentences and one might be forgiven for assuming that it is exclusively an intersentential phenomenon. In fact, within a sentence

there is scope for cohesion. There is indeed no universally accepted definition of what a sentence is (as opposed to clause). Although most people will have a general idea of what one is, linguistically speaking, it is a concept for which it is very difficult to find an acceptable definition that will account for all its possible manifestations. As Gowers (1954/1986: 174) succinctly puts it:

> A sentence is not easy to define. Many learned grammarians have tried, and their definitions have been torn to pieces by other learned grammarians. But what most of us understand to be a sentence is what the *OED* calls the "popular definition": "such a portion of composition or utterance as extends from one full stop to another".[15]

The problem with the "popular definition" of course – apart from its being applicable only to written language – is its inherent circularity: one puts full stops where one thinks a sentence has ended and not because of any specific structural criteria.

It has been argued that the whole notion of treating sentence as a unit of structure (see 1.4.) may be mistaken, which would explain why attempts to find structural definitions for it have all been unsuccessful. However there are noticeable structural (i.e. grammatical) links within sentences which are significant as Coulthard (1977: 7) notes:

> […] structure describable in terms of formal grammatical units ends at the sentence.

Hoey (1991) argues that sentences should be seen not as separate entities but rather as structurally linked clauses or *clause complexes,* to use the term adopted instead of *sentence* in Halliday (1985a).

Hoey (1991) notes that most intrasentential cohesion is found between clauses not within them – that is to say that the clause is a more relevant concept than sentence in the study of cohesion. Indeed,

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15   Here, it must be noted that Gowers (and the *Oxford English Dictionary*) uses terms in a loose manner. For a linguist, *sentence* is a syntactic label, *utterance* a pragmatic one. To complete the trio, *proposition* is a semantic unit (see Widdowson 1978: 22-24).

the difference between intrasentential and intersentential cohesion can, at times, be as indistinct as that between clauses which form part of the same complex and those which belong to different ones. In the absence of structural clues, which may not always be present, one has, in spoken texts, intonation and, in written texts, punctuation which may serve as guides. In actual fact, neither of these is completely reliable, but, due to the fact that all material used in this book will, whether originally taken from spoken or written discourse, be presented in written form, we will concentrate on the latter here.

Punctuation, as a guide, is problematic, not only because of the fairly diffuse phenomenon of erratic or unconventional punctuation (the rules often being so abstract that many, if not most, writers encounter difficulties in this area) but also because, although sentence boundaries are conventionally signalled only by full stops, other types of punctuation may in certain contexts act like sentence boundary markers.

Semi-colons, brackets, and dashes[16] can and often do separate units which, though not *technically* sentences by the "popular definition", can often be treated as such for practical purposes. Note, for example, the underlying similarities between the pair below – the first, due to the presence of the full-stop, is technically two sentences, while the second, due to the use of the semi-colon, is only one (Examples 4 and 5).

(4)   Always forgive your enemies. Nothing annoys them so much.

(5)   Always forgive your enemies; nothing annoys them so much.[17]

In Example 4, even though there is obvious cohesion (e.g. the pronoun *them* and the comparative *so much*), the fact that nothing annoys one's enemies more than being forgiven is presented as additional information, but not necessarily as the reason why one should forgive them. It is comparable to something like (Example 6):

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16   Not to be confused with hyphens which are used to link words into compound words, e.g. *bus-stop*.
17   Oscar Wilde.

(6)   Always forgive your enemies.

                                a) Dinner is served.
                                b) There's a good programme on TV.
                                c) Have you seen the cat?

In Example 6, neither a, b or c has any obvious connection to the first, and, in the absence of some logical connection, most likely represents a change of topic. The fact that in the case of 4 above, most people would infer that the second sentence is connected to the first, is due less to punctuation; and more to considerations of relevance (Sperber and Wilson 1986) and in particular to what Grice (1975) called *conversational implicature* – namely, that the addressee would expect the addressor to be coherent and for there to be an underlying logic to what is said, the way it is said, and the order in which it is said.

In Example 5 the semi-colon removes any ambiguity. It signals that the two constructions, which could structurally be separate sentences, are closely related and, in this case, acts like the conjunction *because*. Interestingly, a common (but, according to Gowers, erroneous) way of punctuating an example like 5 is to use a comma ("Always forgive your enemies, nothing annoys them so much"). This underlines the fact that a semi-colon is basically a cross between a comma and a full stop. It signals that two clauses are too closely linked in meaning to be entirely separated but too loosely linked structurally to be included in the same sentence. Brackets are usually used to add incidental information which may or may not constitute a complete sentence in itself:

(7)   Always forgive your enemies (no matter how hard it is); nothing annoys them so much.

Dashes may be used, depending on the writer,[18] identically to semi-colons or to brackets:

(8)   Always forgive your enemies – nothing annoys them so much.

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18   In some versions of Example 4, the punctuation is given as in 8.

(9)   Always forgive your enemies – no matter how hard it is – nothing annoys
        them so much.

In cases such as these, semi-colons, brackets, dashes and other punc-
tuation marks in certain situations (e.g. commas, and occasionally co-
lons, used to introduce direct speech) cannot be considered as ways of
dividing different parts of sentences but as ways of connecting two or
more separate sentences which are closely related. In this way, for the
purposes of cohesion, full-stops should not be seen as the only mark-
ers of sentence boundaries, and an analyst must be prepared to judge
less by rigid rule than by individual case.

      Studies of cohesion normally concentrate on intersentential ties.
This is because, as we noted earlier, within sentences, there are also
structural links. These typically tend to overshadow any cohesive ties
present. In fact, an underlying cohesive relationship in a sentence may
often become expressed as a formal grammatical relationship. This,
for instance, is the case of relative pronouns which are only found
within clause complexes. An example of this is found in Sentence 6 of
Example 3 (see Point 17 in Section 1.2.):

    On their right is the triangle, in the centre of *which* is the black circle.

This sentence could be rewritten as two separate sentences (10):

(10)   On their right is the triangle. In the centre of *the triangle* is the black circle.

However, when they are combined, the relative pronoun replaces the
repeated subject in the second clause, giving:

(11)   On their right is the triangle (1), in the centre of *which* [*the triangle*] (2) is
        […]

This is both a grammatical relationship and a cohesive tie. At the level
of sentences and below, it is therefore difficult to distinguish between
cohesive and *structural* ties, and where cohesion is manifest it will

normally be adequately described in the context of conventional sentence-based grammar.

Between sentences, there are no grammatical links as such[19] and subsequently the cohesive ties constitute the only links of any kind. This fact alone makes them more noticeable. Furthermore, conventional grammars have typically neglected the study of the relationships between sentences in texts making this a more recent area of language study and therefore naturally a more attractive field for research.

For both these reasons, the focus, in the study of cohesion, is on description of intersentential ties. Consequently, forms that can express cohesive ties within sentences but not between them, such as, relative pronouns (e.g. *who*, *that*, *which* – and occasionally the *complementisers*[20]: *what, when*, *where*, and *why*) are ignored by most descriptions of cohesion.

1.4. Cohesion in relation to text and discourse

While it is one thing to identify cohesion in texts, it is quite another to establish the place that it holds in the general scheme of language. Some are tempted to see it as so fundamental as to be a defining characteristic of text. Halliday and Hasan (1976:4), for example, maintain that:

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

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19   However, pronominalisation is a phenomenon which is a grammatical rule when it occurs within a clause, and an option outside, see 6.2.1.

20   See Rosenbaum (1967): in more traditional terms, *subordinating conjunctions* but see Chapter 5.

Cohesion is not the only factor contributing to texture, but plays a fundamental role:

> The textual component creates text, as opposed to non-text, and therein lies its meaning. Within the textual component, cohesion plays a special role in the creation of text. Cohesion expresses the continuity that exists between one part of the text and another. It is important to stress that continuity is not the whole of texture. The organization of each segment of a discourse in terms of its information structure, thematic patterns and the like is also part of its texture […], no less important than the continuity from one segment to another. But the continuity adds a further element that must be present in order for the discourse to come to life as text. (Halliday and Hasan 1976: 299)

It is this claim, the fact that a text must display internal continuity (i.e. cohesion) as well as organisation, which has been the focus of most of the criticism levelled against studies of cohesion. The reason why it is the theory, not the categorisation itself, which has excited debate is that there is much room for disagreement among linguists, and semioticians,[21] on the precise nature of the concept of *text*.[22]

Texts, it can be noted, take an almost infinite variety of forms starting from a single word on a sign (e.g. 'Exit') to a work such a Joyce's *Ulysses* comprising thousands of words that can be interpreted on a variety of levels (see Halliday and Hasan 1976: 295). The actual form or substance of the text would therefore seem to be irrelevant, as Halliday and Hasan (1976: 2) note:

> A text is best regarded as a SEMANTIC unit: a unit not of form but of meaning.

For Halliday and Hasan (1976), the various cohesive ties found in a text constitute a structure comparable to that found at sentence level. This is a complicated position, because it attaches the concept of

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21 A linguist studies language (in the abstract), its structure, and individual languages (e.g. French, Mandarin Chinese, Hindi); a semiotician studies all kinds of signs and symbols (including linguistic systems) and the way that they are interpreted.

22 From the perspective of functional linguistics and *theme,* Forey and Thompson (2008) explore the concepts of texture and *texturing* as they are manifested in different text types.

structure to that of meaning, which is at any level a highly abstract and complex subject.[23] The complexity can be appreciated by considering the relationship between cohesion and coherence. For Halliday and Hasan (1976), cohesion and coherence are inseparable in that cohesion constitutes a particular kind of coherence, that between linguistic elements within the text itself. It can be contrasted with register,[24] which can be seen as coherence between the text and the context:

> The concept of COHESION can therefore be usefully supplemented by that of REGISTER, since the two together effectively define a TEXT. A text is a passage of discourse which is coherent in these two regards: it is coherent with respect to the context of situation, and therefore consistent in register; and it is coherent with respect to itself, and therefore cohesive. Neither of these two conditions is sufficient without the other, nor does the one by necessity entail the other. Just as one can construct passages which seem to hang together in the situational-semantic sense, but fail as texts because they lack cohesion, so also one can construct passages which are beautifully cohesive but which fail as texts because they lack consistency of register – there is no continuity of meaning in relation to the situation. (Halliday and Hasan 1976: 23)

Many writers, however, seem to treat cohesion and coherence as separate phenomena and debate over which takes precedence.[25] For example, on one side, some scholars, such as Morgan and Sellner (1980) and Carrell (1982), sustain that cohesion, in particular that of the lexical kind, is an effect of texture and coherence. Hoey (1991), who is

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23 There is no comprehensive or complete definition for *meaning* despite the fact that scholars have striven from a variety of positions to provide one or distinguish its different senses (cf. Ogden and Richards 1923, Bloomfield 1933). Indeed, Leech (1981: 4) argues that the definition of *meaning* constitutes not the point of departure for semantics but the final objective.

24 The way language changes regarding: what is being talked about (*field*); the channel of communication (*mode*); and who the participants in the exchange are (*tenor*). See: Halliday, MacIntosh and Strevens (1964); Halliday (1978).

25 Such a view does not actually refute Halliday and Hasan (1976) as such, but represents a refocusing of the problem. For Halliday and Hasan, if cohesion is a type of "text coherence" the question of which comes first is not posed as such.

generally close to Halliday and Hasan (1976), essentially adopts the opposite view, and sees coherence as arising from cohesion.[26]

Among those who see cohesion and coherence as separate entities, the two positions are not irreconcilable; as Christiansen (2009a) points out, cohesion can be seen as either a cause or effect of coherence depending on whether one takes the perspective of the *addressor* or of the *addressee*. In the former case, coherence is an intrinsic property of the message (or set of ideas in the broadest sense) that the addressor wants to communicate (on the assumption that were it not so, then there would be no message to communicate). She[27] will know how the various elements of the message relate to each other (whether her view is correct or shared by others or not, or whether her view of the facts is easily comprehensible to others is quite another matter) and this will constitute the coherence. From this perspective, the cohesion of the text is a natural product of the underlying coherence of the message.

For the addressee, interpretation of the same message depends on diverse factors (not all linguistic, semiotic, or indeed predictable), which is why, despite the neat mathematical models developed by various scholars such as Shannon and Weaver (1949), communication is often a fraught process in which misunderstandings are frequent (see Hockett 1960, Sperber and Wilson 1986). From the addressee's point of view, coherence is not the starting point of the message but rather a result. The cohesion of the text (the linguistic/semiotic expression of the message) plays an important part in the addressor's interpretation of the text because it allows him to perceive how the various parts of the message relate to each other. In the former case, the cohesion is a result of the particular type of coherence (addressor-oriented), for the latter, it is a cause (addressee-oriented).

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26   Hoey (1991: 12): "cohesion is a property of text, and [...] coherence is a facet of the reader's evaluation of a text."

27   Following the convention initiated by Sperber and Wilson (1986), we shall refer to the unidentified addressor with the feminine pronoun, and the unidentified addressee with the masculine.

Further confusion in discussion of cohesion is caused by the fact that the status of text in linguistic theory has always been an area where there is room for confusion with the concept of *discourse*, not least because, for some scholars the two terms are almost synonymous, while for others, they are distinct.

In non-linguistic and non-semiotic circles, *text* is sometimes used for examples of written language and *discourse* for the spoken. Nowadays linguists accept that such a distinction based only on medium and channel[28] is simplistic. Instead they use *text* for the form, *discourse* for the content. This view is summed up by Widdowson (1984: 100), but many other similar definitions exist focusing on other aspects of the dichotomy:[29]

> Discourse is a communicative process by means of interaction. Its situational outcome is a change in a state of affairs. Its linguistic product is text.

In this way, the text can be seen as the physical manifestation (e.g. sound, marks on some surface) of the discourse (the set of ideas that the addressor wants to communicate[30]).

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28 Channel is the conduit for the communication (e.g. phonic signals, black marks on white paper), the medium is the specific type of language (e.g. spoken or written), usually but not inevitably associated with a particular channel (see J. Lyons 1981: 18).

29 E.g. Widdowson (1975: 6), states that text is an exemplification of the language system, whereas discourse is "how linguistic elements combine to create messages". In a similar vein, for Brown and Yule (1983), discourse is the process, while text is the product. More specifically, for Cornish (1999), text is "a typical instance of language *cum* other semiotic devices in use – i.e. in some context and with the intention by the user of achieving some purpose or goal thereby. The term designates the connected sequence of verbal signs and non-verbal signs, vocal as well as non-vocal (i.e. visual, auditory, etc.) signals produced within the context of some utterance act" (1999: 33), and discourse "designates the hierarchically structured, mentally represented sequences of utterance and indexical acts which the participants are engaging in as the communication unfolds" (1999: 34).

30 According to Sperber and Wilson (1986), for a sign to constitute a message, there must be the intention on the part of the addressor to communicate it. This is advertised by means of *ostension* (the signal that the addressor con-

With this distinction in mind, one can typify the process of interpretation as one where a discourse in the addressors' mind is encoded linguistically as well as semiotically[31] into a text from which, in the mind of the addressee, a discourse (Discourse 1b) is reconstructed, ideally in a more or less equivalent version to the original (Discourse 1a).[32] In this way, text can be seen as a portal between two or more discourses depending on the number of addressees (Figure 2):
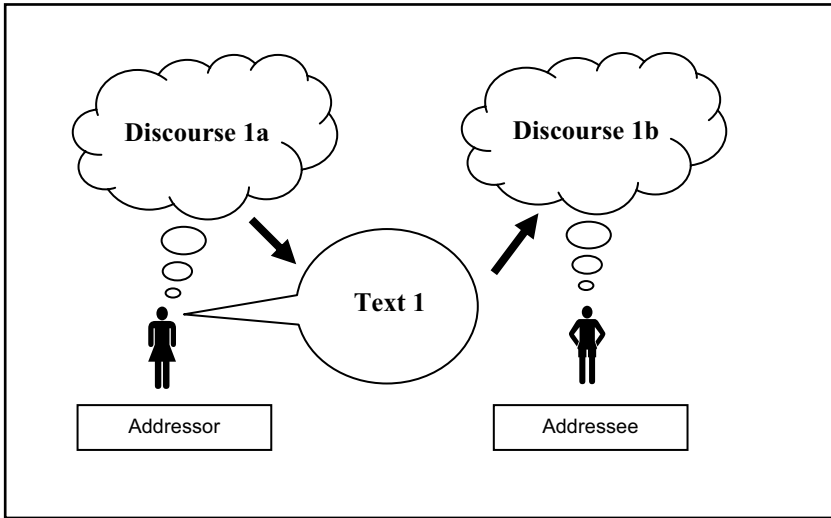

Figure 2. The concepts of text and discourse in the process of interpretation.

For convenience, Figure 2 represents interpretation as a one-way process with fixed roles of addressor and addressee. In reality, the situation may be considerably more complex: the roles of addressor

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sciously has a message to transmit), which is one of the prerequisites for communication to function.

31   That is, with signs and symbols of various kinds which complement / supplement natural language (itself a semiotic phenomenon: see C. Morris 1971).

32   In essence, this process mirrors that which happens in translation; Steiner (1975, 235): "inside or between languages, human communication equals translation."

and addressee may be interchanged and the text constructed jointly (but not necessarily equally[33]) by two or more participants, each constructing their own discourse out of the resultant text.

There is therefore ample room for variant interpretations, which are partly due to differences between individuals (attributable to personal background, psychological factors, and also to culture[34] – see Section 9.1. on the last), and also to what is mutually manifest (i.e. shared knowledge), as Widdowson (1984: 100) notes:

> The extent to which recovery of discourse from textual evidence is possible will depend on how far the situational features which complement the recorded utterances are known to the receiver.

While it is difficult to define *discourse* and say what precise form it takes in the mind (see 9.1.), its effect on text or actual instances of language can be shown. In such a case, it is the influence of the absent on the present.[35] In this way, items in the text may display links with elements that are not actually manifested in the text but which can be traced to the underlying discourse. One phenomenon that shows this clearly is what has come to be called in generative linguistics *donkey anaphora*. This was first identified in structures such as the one below (and from which it gets its name) in Example 12:

(12)   Every farmer who owns a donkey beats *it*.

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33   Because of this inherent asymmetry, Sperber and Wilson (1986) use the analogy of ballroom-dancing partners, where one leads and the other follows, to describe the process of communication.

34   Spanning the pychological and the cultural are the conceptual metaphors that underlie throught processes, language and communication in general (see Lakoff and Johnson 1980), constiututing as they do the way in which people perceive and hence talk about the world.

35   The emphasis on textual data of approaches like corpus linguistics (see Sinclair 1991a) can obscure the fact that many elements of the discourse, even some which are key, may not actually be manifested in the text itself., a well known example being Aristotle's *Poetics*. This is widely regarded as, in part, a response to Plato's *Republic* even though he, Aristotle, makes no direct reference to it. Plato and his challenge to poetry can thus be said to be present in the discourse of *Poetics*, but not in the text.

Without going into technicalities, this kind of construction presents problems[36] because the relationship between 'donkey', the so-called antecedent (the interpretation of which is necessary to understand the dependent item) and the anaphor,[37] 'it' is difficult to account for referring to elements present in the text alone. 'It' is related in some way to 'donkey' but they do not both refer to the same entity as is normal in such relationships; 'it' is definite and specific: 'donkey' is non-definite and non-specific and does not refer to any particular animal at all, rather to a hypothetical or perhaps archetypical donkey. Notwithstanding these considerations, addressees find it no more difficult to interpret such a sentence than they do something more straightforward from an anaphoric point of view such as: "That farmer owns a donkey and he beats it". Obviously, for the anaphora to work there must be a link somewhere, not manifested in the text but still readily retrievable, which proves the importance of discourse in the interpretation of text, and in its constitution.

The distinction between text and discourse is particularly relevant in a discussion of Halliday and Hasan (1976) because, while recognising a distinction between the two,[38] they adopt an approach that is predominantly text-oriented from the perspective of the definitions that we have employed.[39] It is however clear that much of what they

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36   See Cooper (1979), Heim (1990).

37   *Anaphora* is "the use of (usually) a pronoun to refer to the same element as some prior term" (Levinson 1983: 85). Unlike general coreference (items having the same referent) anaphora is "an asymmetrical relation of referential dependency" (Cornish 1999: 106n).

38   While not actually stating as such, it is clear that Halliday and Hasan see the distinction between text and discourse as we have set it out above: e.g (1976:300) "[…] the continuity adds a further element that must be present in order for the discourse to come to life as text," part of the extract quoted above.

39   At times, Halliday in his writings uses the two terms almost interchangeably, almost as stylistic variations. For example (Halliday 1978: 109) in a section entitled *Text*, "For some purposes it may suffice to conceive of a text as a kind of 'supersentence', a linguistic unit that is in principle greater in size than a sentence but of the same kind. It has long been clear, however, that discourse has its own structure that is not constituted out of sentences in combination;

describe could be better analysed from the perspective of discourse and also that it is more useful to draw a distinction between intra-discoursal and extra-discoursal relationships than between intra- and extra-textual ones. This is particularly true of what they call 'reference', anaphora between co-referential items (see 2.3.). For instance, to cite an example from authentic discourse, discussed by Brown and Yule (1983: 219):

(13)   Oh I was on the bus + *he* didn't stop at the right stop.

The pronoun 'he' refers to some given item (the addressor obviously expects the addressee to be able to retrieve its antecedent), but there is no co-referential full-form elsewhere in the text that allows one to recover the referent. However, it would be untrue to state that the identity of the referent is completely irretrievable from the information in the text. The latter contains the clues 'bus', 'stop' and "right stop" and these textual elements, together with knowledge of the world, tell the addressee that the addressor is speaking about the bus driver when she uses *he*. "Bus driver" then is a component of the discourse (an addressee knows that a bus will have a driver regardless of whether the fact is stated in the text or not[40]) and the reference relies on the addressee being able to make a link between two items in the discourse (one within the text, one outside it). As we shall see in examples discussed in the following sections, this kind of relationship is common especially with reference and lexical cohesion, and also with substitution/ellipsis, but not with conjunction.

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and in a sociolinguistic perspective it is more useful to think of text as *encoded* in sentences, not as composed of them." Revealingly too, in the index to the same work, there are only two entries for the term *discourse* preceded by the note in brackets: "*see also* text".

40   In technical terms, interpretation rests upon various elements in the discourse that at a cognitive level can constitute means of representation functioning via processes that can described by various models: 'scripts'; 'scenarios'; 'schemata'; 'frames' (see Schank and Abelson 1977, Anderson 1977, Warren et al. 1979, Sanford and Garrod 1981, Emmott 1989, 1994, Shiro 1994, Cornish 1999).

It is extra-discoursal relations, those of a non-cohesive kind, that prove rarer and this is limited usually to occasions when some element is linked to some extra-discoursal item that is present in the physical context and can be indicated by some form of physical reference or indexical act (gesture) e.g.

(14)　ALVY:　I think he has a little thing for Annie.
　　　ROB:　Oh, no, no, that's bullshit, Max. He goes with *that* girl *over there*.[41]

A final, more abstract problem with Halliday and Hasan's description of cohesion lies in the way in which it gives a definite structural status to text. Halliday, in particular, working within the field of systemic grammar for which he is most famous, is attempting to define a hierarchy of structural categories that could encompass the entire range of linguistic forms from morpheme up to text. It is perhaps this larger quest that leads to the failure to clearly distinguish between the textual and discoursal aspects of cohesion, as discourse being non-formal does not fit easily into this scheme.[42]

Linguists, however, are not all in agreement over whether text can be treated as a purely linguistic unit at all. To argue that a text is a structural unit is to say that it displays formal characteristics that distinguish it from non-texts (i.e. collections of sentences that are not the expression of some rationally-structured discourse). Taken to an extreme, the text is a kind of 'supersentence' which can be subjected to a rigorous structural analysis.

Various different approaches have been employed to demonstrate this, from that of Katz and Fodor (1963) to Halliday and Hasan's (1976), and van Dijk's (1977, 1980). According to Katz and Fodor, "discourse [i.e. text] can be treated as a single sentence in isolation by regarding sentence boundaries as connectives" (1963: 490).

41　'Annie Hall', Woody Allen (source: <www.scriptorama.com>).
42　Given the rivalry between some exponents of Halliday and those of Chomsky, it is ironic that the generative linguists showed a similar desire to concentrate on form and were, for a time, to exclude all considerations of semantics in their descriptions of syntactic structures (see Lakoff 1971).