A theory of discourse deviation:
the application of schema theory to the analysis of literary discourse.

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Abstract.

Schema theory suggests that people understand texts and experiences by comparing them with stereotypical mental representations of similar cases. This thesis examines the relevance of this theory (as developed in some Artificial Intelligence (AI) work of the 1970s and 1980s) to literary theory and the analysis of literary texts. The general theoretical framework is that of discourse analysis. In this approach, the usefulness of schema theory is already widely acknowledged for the contribution it can make to an explanation of 'coherence': the quality of meaningfulness and unity perceived in discourse. Building upon this framework, relevant AI work on text processing is discussed, evaluated, and applied to literary and non-literary discourse.

The argument then moves on to literary theory, and in particular to the 'scientific' tradition of formalism, structuralism and Jakobsonian stylistics. The central concept of this tradition is 'defamiliarization': the refreshing of experience through deviation from expectation. In structuralism, attention has been concentrated on text structure, and in Jakobsonian stylistics on language.

It is argued that whereas AI work on text pays little attention to linguistic and textual form, seeking to 'translate' texts into a neutral representation of 'content', the literary theories referred to above have erred in the opposite direction, and concentrated exclusively on form. Through contrastive analyses of literary and non-literary discourse, it is suggested that neither approach is capable of accounting for 'literariness' on its own. The two approaches are, however, complementary, and each would benefit from the insights of the other.

Human beings need to change and refresh their schematic representations of the world, texts and language. It is suggested that such changes to schemata are effected through linguistic and textual deviation from expectation, but that deviations at these levels are no guarantee of change (as is often the case in advertisements). Discourses which do effect changes through text and language are

described as displaying 'discourse deviation'. Their primary function and value may be this effect. Discourse categorized as 'literary' is frequently of this type. Discourse deviation is best described by a combination of the methods of AI text analysis with formalist, structuralist and Jakobsonian literary theories.

In illustration of these proposals, the thesis concludes with analyses of three well-known literary texts.

Contents

Figures and tables.

Figures:

Tables:

Symbols and abbreviations.

AI = Artificial Intelligence.

CD = Conceptual Dependency.

FSP = Functional Sentence Perspective.

ST = Schema Theory.

SPGU = Scripts, Plans, Goals and Understanding (Schank and Abelson 1977).

DM   = Dynamic Memory (Schank 1982).

EP   = Explanation Patterns (Schank 1986).

Schema types:

$ = script.

$S = scriptlike schema

Π = plan

Γ = goal

θ = theme

MOP = Memory Organization Packet.

Grammatical Analysis:

[ ] enclose clauses

( ) enclose phrases

⟨ ⟩ enclose co-ordinated constructions

Function labels are written outside, in front of and above the brackets enclosing the unit to which they refer. The following abbreviations are used:

S = Subject; Od = Direct Object; Oi = Indirect Object; P = Predicator; C = Complement; A = Adjunct; o = Object of a preposition.

Form labels are written outside, in front of and below the brackets enclosing the unit to which they refer. The following abbreviations are used:

Clauses: MCl = Main Clause; NCl = Noun Clause; ACl = Adverb Clause;
RCl = Relative Clause.

In non-finite clauses the following additional symbols are added:
t = infinitive; ing = 'ing' form; en = past participle.

Phrases: NP = Noun Phrase; VP = Verb Phrase; AjP = Adjective Phrase;
PP = Prepositional Phrase; AvP = Adverb Phrase; cj = conjunction.

Punctuation:

Single inverted commas are used for: terms (on first mention, or under discussion), lexical items (other than quotations), sentences, propositions. Literary theoretical terms from other languages (e.g. syuzhet) are treated as English words.

Double inverted commas are used for quotations and definitions.

Acknowledgements.

A note on earlier publications.

Parts of chapters 1-3 of this thesis have appeared in a simplified form
in the author's book Discourse (Oxford: Oxford University Press 1989).
This is an introductory textbook for language teachers, and where material
from the book has been incorporated into this thesis, it is considerably
expanded, and dealt with for its relevance to literary analysis rather than
to language teaching.

A shorter version of the analysis of an advertisement in chapter 7 formed
part of a paper given at the 1989 British Council ELT Conference in Milan
and was published in the proceedings (see Cook 1990b in the bibliography).
This analysis, together with that in chapter 5, was also used in a paper
presented at the 1989 conference of the Poetics and Linguistics
Association at the University of Nottingham.

Chapter One.
Schema Theory: its general principles, history and terminology.

1.0 Introduction.

Schema theory has its origins in the gestalt psychology of the 1920s and 1930s. Its basic claim is that a new experience is understood by comparison with a stereotypical version of a similar experience held in memory. The new experience is then processed in terms of its deviation from that structure or conformity to it. The theory applies both to the processing of sensory data and to the processing of language. After a long eclipse, schema theory has recently received an enormous amount of attention in the Artificial Intelligence (AI) work of the 1970s and 1980s. Here it has been developed for the help which it provides in the two crucial AI problems of visual recognition and the understanding of texts. (Some of the relevant AI work on language and text understanding is discussed in chapters 4 and 8.)

After a summary of the main argument of the thesis (1.1) and discussion of its interdisciplinary areas of inquiry (1.2), this chapter gives an outline of the general principles of schema theory applied to text processing (1.3), and discusses its history (1.4) and terminology (1.5). A more detailed account of one version of the theory (Schank and Abelson 1977) is given in chapter 4 and 5, together with a discussion of objections to the theory and an application of it to literary analysis.

1.1 Summary of the argument and main areas of inquiry.[1]*

AI work on text understanding, inspired by schema theory, has in turn been seized upon by discourse analysis. This enthusiasm arises largely from the powerful insight which schema theory provides into the problem of 'coherence': how texts take on unity and meaning for their receivers. In discourse analysis, the theory has been joined with existing approaches to coherence, such as the study of cohesion, text structure and pragmatics (areas which have in turn attracted the reciprocal interest of AI). As such, schema theory forms an indispensable part of an emerging overall

* Notes can be found at the end of each chapter.

theory of discourse. (Approaches to coherence in discourse analysis are discussed in detail in chapter 2.)

A theory of discourse must inevitably include an approach to that sub-group of texts which are categorized as 'literary' (though which texts are included within that category will vary between individuals and social groups). It must also address the difficult problem of what it is which leads individuals and social groups to classify certain texts in this way. There is thus a considerable overlap between discourse analysis and literary theory, particularly those literary theories which, like discourse analysis, have taken their inspiration from linguistics. Our claim is that just as discourse analysis has benefited from the insights of schema theory, so linguistics-based approaches to 'literariness' may do the same. Just as purely formal linguistic accounts of discourse are unable to account for coherence, so literary theories which attempt to characterize 'literariness' as deviation from or conformity to formal linguistic patterns have a number of notorious and widely known weaknesses. In particular, they are unable to account for the presence of supposedly 'literary' linguistic features in texts which are usually regarded as 'sub-literary', and for their absence from other texts which are accorded literary status. This failure has led to a general abandoning of the search for a linguistic characterization of 'literariness'. Chapter 7 of this thesis examines some of the claims of these linguistics-based theories, and demonstrates their shortcomings by contrasting the stylistic analysis of an advertisement with that of a poem. It will be suggested that the failure of such theories to account for the classification of a given text as 'literary' results from its exclusive concentration on the linguistic levels of discourse, and that texts which achieve high social status for their 'literariness' may do so because of their patterning or deviation at the level of schemata. In this way it is hoped to demonstrate the relevance of AI work on schema theory to the analysis of literature, and to suggest that the search for a formal characterization of 'literariness' need not be abandoned if the description of linguistic features is linked to a description of the reader's schemata and his or her processing of the text. Certain 'reader-centred' literary theories (also discussed in chapter 7) have already tried to do this, but in a vague way which would benefit from the rigour of the work in discourse analysis and AI. Their approach is also often marked by a vituperative

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rejection of linguistics approaches rather than a more productive desire to build upon them.

The influence and benefit of an interaction of schema theory and literary analysis is by no means one way. There are many insights stemming from formal linguistic approaches to literature which could contribute to AI. There are also many interactions between linguistic form and schematic representation which AI theory overlooks.

Finally, building upon all of the above areas, we shall suggest in chapters 8 and 9 that certain texts (many of which are classed as 'literary') may perform the important function[2] of breaking down existing schemata, reorganizing them and building new ones. Others, though they may share some of the linguistic features associated with literature, only reinforce existing schemata.

AI has demonstrated how schemata are essential to text processing, and this idea has been accepted in discourse analysis as a partial explanation of coherence. Schemata are also, however, at times, a potential barrier to understanding. The mind must build new schemata and adjust existing ones if it is to adapt to new experience. It has been suggested that the main functions of human language are to manipulate the environment and to create and maintain social relationships (see chapter 3). Our thesis is that a further function of language is to build new schemata and 'play around with' existing ones. The best time to do this is clearly not at moments of practical urgency or social delicacy, hence the need to withdraw from practical and social pressures for this purpose, and the existence of a type of discourse whose function is to promote this change. Schemata play a well-documented role in processing text, but certain texts may also play a role in building and adjusting schemata. Clearly, the two are complementary and, for an intelligent organism, equally important.

The idea of a dynamic reciprocal interaction between experience and schemata is suggested by Bartlett (1932) (usually regarded as the originator of schema theory) when he writes of the need for the mind to "turn round upon its own schemata". In AI the idea appears in Schank's (1982) theory of 'dynamic memory' which discusses how schematic memory may organize and reorganize itself through encounters with new experiences and discourses. Developing these ideas (in chapter 8), we shall suggest that discourse may be divided into three major types: 'schema reinforcing', 'schema preserving' and 'schema refreshing'. Discourse of the last type

will deviate from schematic expectations. Linguistic deviation and structural deviation may be side-effects or causes of schematic deviation, but are not enough to disrupt schemata on their own. Our claim is that much discourse which is acclaimed as 'literary' is often of this 'schema refreshing' type, and that this accounts for the high value placed upon it.

1.2 An interdisciplinary study.

As outlined above, our intention is to bring together (through the intermediary discipline of discourse analysis), insights from AI schema theory and from certain schools of literary theory, to investigate the points of contact which already exist between them, to indicate points of mutual interest, and to propose a theory connecting the two. The union of two such disparate disciplines poses a number of problems and demands some justification and discussion.

AI and literary theory may seem initially to be disciplines of very different kinds, epitomizing the traditional separation of the natural sciences and the humanities in academic study. The first, concerned with the replication in computers of human skills, of necessity draws heavily upon the applied natural sciences and mathematics, as well as on the 'human sciences' of psychology and linguistics. Literary theory, on the other hand, concerned to elucidate the nature of literature, has often drawn its material from the 'arts', though it too has been attracted and inspired by psychology and linguistics. These differences between the two fields may well be reinforced by mutual ignorance, different educational backgrounds, and preconceptions of reciprocal irrelevance among those involved. AI workers may regard literary theory as a subjective aesthetics, and literary theorists dismiss AI as a mundane applied science. The very different terminologies of the two fields can only serve to make matters worse.

Yet despite their differences, the two disciplines have one major concern in common: to understand the processing and production of texts. For AI this concern is central because the ability to produce and process texts for communication is so distinctive and substantial a feature of human intelligence that it would seem hard to classify a machine which could not replicate it in some way as having more than extremely limited intelligence. That literary theory shares this concern is self-evident, even tautological, for whatever disputes may rage about the nature of

'literature' and whether that nature can be defined, few would deny that the object of study is a subclass of text, or a subclass of human interaction with text.[3]

In practice however, the texts studied by the two fields are radically different. Those used by AI are, by human standards, very simple, restricted to a subscribed area of a natural language, of the world referred to, or of language processing skills. Literary texts on the other hand are typically complex or provoke complex interpretation: so much so that many theories of literature imply that textual complexity, or a concomitant complexity in processing, are definitive features of literature. AI cannot at present approach such complex texts and, in general, does not seek to, being only interested in texts whose processing or production can be modelled by the existing level of technology. Yet this difference in the type of text analysed, and in the approach to textual complexity, does not preclude the relevance of the two areas of study to each other. Insights into the processing and production of simple texts may provide strong clues to that of more complex examples. Conversely, there are many insights in literary theory which could add to the AI understanding of texts. AI researchers, though they cannot yet replicate the complexities of human text processing and production, are much given to speculation on the subject. The texts which can be handled by computer, moreover, grow ever more and more sophisticated.

1.2.1 Necessary exclusions.

As the field is unavoidably a large one, it is necessary rigorously to exclude material which is not pertinent to the argument - even when that material is regarded as central in the work discussed. In particular, we shall have nothing to say about the computational modelling of theories of text processing and production in AI. Early schema theory, predating the modern computer, was a theory of human understanding only, and contemporary AI schema theory concerns both human _and_ computer understanding. Schank and Abelson (1977:1,8) suggest that the construction of an artificial intelligence by humans is bound to share features of its intelligence with them, and to reflect the workings of the mind which created it. A source of inspiration for computer models of intelligence is thus theorizing about human intelligence, and it is this human (i.e. psychological) side of the theory in which we are interested.

The testing of the theories in computer experiments is not our concern. Theories of human intelligence developed in AI remain hypothetical, and even a successful computer reproduction of human skills, though strongly suggestive, would not prove their accuracy as models of that intelligence, as similar results may be produced by different procedures (Searle [1980] 1987)[4].

We shall also exclude schema theory which concerns visual and other sensory perception, without any reference to language. This too is of no direct concern to a theory of text. It will only be mentioned where it is related analogically to theories of text processing or has helped to develop them.

Our argument will also necessitate taking sides in a field which is full of strongly held, irreconcilable beliefs. To suggest a correlation between AI and literary analysis is already to enter an emotionally charged area and to refute a view of literature as an area impenetrable by the methods of the applied sciences. In effect, any inclusion or exclusion may amount to taking sides, but it seems true to say that the omissions mentioned above - of AI work on computer modelling or sensory perception - are rather less controversial than the exclusion we intend to make of certain approaches to literary theory. In general we shall limit our discussion to those approaches which share some of the scientific postulates of linguistics, psychology, discourse analysis and AI, in that they are prepared to act as though analysis of language may be conducted through language by an observer behaving, for the purposes of the analysis, as someone outside the process rather than inherently a part of it. In this sense, though we shall take some account of contemporary literary theoretical critiques of the scientific method (such as those of deconstruction and other post-structuralist approaches) we shall proceed as though literariness were indeed objectively analysable, believing this approach to be the most fruitful, if not, ultimately, philosophically irrefutable.

1.3 Schema theory: general principles.

Pragmatic analysis of discourse assumes both shared knowledge and processing rules. Both are assumed in speech-act theory and discourse analysis based upon it, though there is considerable difference in

emphasis among analysts. There are in effect two schools of (not incompatible) thought here, the one stressing inferencing rules, the other shared knowledge of the world. Levinson (1983), Leech (1983) and Sperber and Wilson (1986), for example, deal at length with inferencing, but less fully with shared knowledge of the world. Yet though there may be different emphases, it is widely agreed that both shared knowledge of the world and shared inferencing rules must apply if participants are to reach similar pragmatic interpretations of discourse. The approach here will dwell more upon the nature of shared knowledge of the world than upon inferencing rules, which, for the sake of our argument, we shall treat as constant and universal, though without implying that they are either.

A theory of knowledge in interaction with text is provided by the notion of 'schemata'. These are mental representations of typical instances, and the suggestion is that they are used in discourse processing to predict and make sense of the particular instance which the discourse describes. The idea is that the mind, stimulated either by key linguistic items in the text (often referred to as 'triggers'), or by the context, activates a schema, and uses it to make sense of the discourse. This is not to say that the mind does not also have representations of individual facts, perhaps stored along with the relevant typical instances which they most closely resemble (Schank 1982:37-47). In this sense schemata are 'norms' and individual facts are 'deviations'. This psychological view of 'norm' and 'deviation' will be of use to us later when we discuss the use of these terms in the analysis of literary discourse.

In this thesis, the term 'schema' (plural 'schemata'), when used alone and without qualification, refers to representations of knowledge of the world other than knowledge of text or language. Where there is potential confusion between this sense of 'schema' and others, we shall also use the term 'world schema' to mean the same thing. In the course of our argument, we shall also use the terms 'text schema' to refer to knowledge of typical text structures, and 'language schema' to refer to knowledge of typical subsentential structures.

The idea of schemata, though it has its roots in psychology, has been most fully developed in AI (see 1.4 below). It is suggested that if an intelligence is to process discourse, it will need language schemata, text

schemata and world schemata. The claim can in fact be made even more strongly: that schemata, and their efficient organization and use are intelligence (Schank 1980; Schank 1982:115)[5]. Quite how knowledge is represented in schemata, whether in natural language or some other form of representation, need not concern us for the moment, though it is the assumption of AI that the latter possibility is the true one, and that some means of translation backwards and forwards between natural language and a conceptual representation is needed in both artificial and human intelligence (see chapter 4). The assumption is based
upon the fact that the most successful attempts to model human-like intelligence on computer make use of some form of conceptual representation (for a survey, see McTear 1987:15-39). The suggestion is that humans process discourse in a similar way - although the complexity of the interaction of human language competence and knowledge is as yet far greater than that of any existing computer programme.

Clearly, this theory needs to explain how knowledge structures develop, and to avoid the circularity of arguing that they both develop from encounters with text and the world and are necessary to process text and the world (Neisser 1976), but this interaction of experience and knowledge is a major issue, at the heart of the theory we wish to develop, and we shall return to it in chapters 4, 5, 8 and 9.

1.3.1 Examples demonstrating schemata in discourse processing.

How schemata operate in discourse is best illustrated by an example. Imagine a witness - for the sake of argument and ease of reference a woman - who is asked to tell the court about her movements during the morning. She is asked to tell the court everything: "the whole truth". She begins as follows:

1) I woke up at seven forty. I made some toast and a cup of tea. I listened to the news. And I left for work at about 8.30.

Such a description might well be enough to satisfy the court. But suppose the witness had said:

2) I woke up at seven forty. I was in bed. I was wearing pyjamas. After lying still for a few minutes, I threw back the duvet, got out of bed, walked to the door of the bedroom, opened the door, switched on the landing light, walked across the landing, opened the bathroom door, went into the bathroom, put the basin plug into the plughole, turned on

the hot tap, ran some hot water into the wash basin, looked in the mirror.......

Although this is also true, we might not be surprised if the judge interrupted this witness and accused her of being facetious, or told her not to waste time. Why? How does the witness assess the amount of detail required? And if the court want to know "the whole truth", why are they prepared to allow some details to be omitted? There is in fact an infinity of extra detail that could be added, even to the second version. The witness did not mention every time she blinked, for example, or the fact that she was breathing - and even these actions can be broken down into constituent muscular movements, which can themselves be reduced to chemical changes.

Schema theory can explain omission by postulating that the 'default elements' of the schema activated can be taken as known. Thus it is not that the information in the second version of our example is not true, but rather that it is assumed - and that the witness can, and should, assume it is assumed. When she tells the court that she woke up and prepared breakfast, she assumes that the court assumes certain facts: that she got out of bed for example. When she says that she left for work, she does not need to mention that she has dressed for the outside world. This would not necessarily be the case if she were explaining what she does in the morning to the hypothetical (English speaking!) Martian; but people do have knowledge of a typical 'getting-up in the morning', and do, or at least can, use it to fill in missing details. This pre-existing knowledge could be called a 'getting-up schema'. (Here, I the writer am assuming, quite reasonably, that you the reader, and the court and the witness all have a similar schema to my own.) When a sender judges an interlocutor's schema to correspond to a significant degree with his or her own, then it is only necessary to mention features which are not contained in it (the time of getting up and the contents of the breakfast for example); other features (like getting out of bed and getting dressed) will be assumed to be present by default, unless otherwise stated. (That is why it seems more reasonable to say "I went to work in my pyjamas" than "I went to work in my clothes".) In this light, the impossible demand for "the whole truth" should not be taken too literally.

Nevertheless, in any discourse, the sender will need to choose what we shall refer to as a 'level of detail': whether to say simply, for example,

"I went to Paris" or to describe the stages of the journey. This is problematic, and lack of adequate explanation has been adduced in criticism of schema theory (Dresher and Hornstein 1976; Brown and Yule 1983:244). We shall return to the issue more fully in 4.4.2. For the moment, we shall point out only that the argument of potential infinite reduction does not hold for interactants without a particular scientific training. Actions like blinking and breathing are irreducible as far as many people are concerned. It is also true that reduction to constituent detail may disguise the holistic event. There are many well-known literary narratives which emphasize this by presenting all the constituents of an act through the eyes of a character who, through some mental limitation, cannot abstract a characterization of the whole: Benjy's description of the game of golf in <u>The Sound and the Fury</u> *
(discussed by Cluysenaar 1976:90f and Leech and Short 1981: 202-207), Lok's perception of the firing of an arrow in <u>The Inheritors</u> (discussed by Halliday 1973:103-138), the child Maisie's limited understanding of a love affair in <u>What Maisie Knew</u>⁶ . It may also be that schemata, in non-scientific practice, operate on a finite number of levels, perhaps something like the five levels of generality ᵢₙ ˡᵉˣⁱᶜᵒ⁻ˢᵉᵐᵃₙₜᵢᶜˢ (e.g. 'creature' - 'mammal' - 'dog' - 'collie' ⁻ ᵂᵉˡˢʰ ᶜᵒˡˡⁱᵉ (Brown 1958; Cruse 1986:145). If so, it is still true that schema theory needs to account in some way for selection of level; but to say this is to argue for an addition to the existing theory rather than for its abandonment.

An interesting exception to this rule occurs in narratives where, prior to recounting an extraordinary event, the narrator makes explicit reference to default elements of a schema - spells out, in other words, information which is already known to a receiver.

> It was a day like any other. I woke up in the morning, got out of bed, washed, had breakfast and set off for work. Then something happened which changed my life forever....

Such introductions to the extraordinary are common in fantasy literature, and presumably serve the purpose of attaching the incredible, individual, deviant instance to a more familiar and typical series of events. This tendency is noted by Eco (1979:165-168) in his analysis of the James Bond

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* Literary works referred to and their authors are listed in Appendix A. Those quoted, or referred to in detail are also in the bibliography.

novels of Ian Fleming. Fleming's narratives alternate between minutely accurate descriptions of 'the already known' (starting a car) and the most bizarre (an assault on Fort Knox) (op.cit.167). This cataloguing of default elements may even have become a 'device' (in the Russian formalist sense, see chapter 6) which signals to the reader by convention an impending strange event. It may also reflect the 'defamiliarization' (another formalist concept) of everyday experience which occurs at emotionally charged moments. People remember the routine events and familiar objects which accompany a disturbing experience. This fact is often reflected by the attention to detail in descriptions of such experiences. The following paragraph, for example, from The Last Enemy, occurs immediately after the narrator has helped rescue a mother and child buried in rubble during a bombing raid.

> Very carefully I screwed the top onto the brandy flask, unscrewed it once and screwed it on again, for I had caught it on the wrong thread. I put the flask into my hip-pocket and did up the button. I pulled across the buckle on my great coat and noticed that I was dripping with sweat. I pulled the cap down over my eyes and walked out into the street. (1943:214)

Such descriptions, which are by no means confined to first person narratives, serve the dual purpose of indicating characters' emotions and informing the reader of the details of their life: their schemata.

> In her weariness forgetting everything, she moved about the little tasks that remained to be done, set his breakfast, rinsed his pit-bottle, put his clothes on the hearth to warm, set his pit-boots beside them, put him out a clean scarf and snap-bag and two apples, raked the fire and went to bed. (Sons and Lovers [1913] 1961:37)

1.4 Evidence for schemata.

There are a number of pieces of evidence that the mind does in fact employ schemata in the interpretation of discourse.

1.4.1 Recall of default elements.

One piece of evidence is the fact that people questioned about a text or asked to recall it, frequently fill in details which they were not actually given, but which a schema has provided for them (Bartlett 1932:47-95; Bower, Black and Turner 1979; Graeser, Gordon and Sawyer 1979; Miller and Kintsch 1980). Our own informal findings confirm this. People

shown the first version of the testimony above and asked what the witness ate for breakfast, replied that she ate toast, although this is not stated. She said only that she made some toast, but not that she ate it. Readers made an assumption: that when someone makes breakfast, it is eaten. As nobody else is mentioned we assume that the speaker ate the breakfast herself. But it does not say this. We should note that this conclusion cannot be reached by any logical inferencing rules operating on text without reference to specific knowledge.

The issue of providing details is particularly relevant to literary narrative, in which readers are given points of reference and left to fill in the gaps 'from imagination', or perhaps from schemata. The idea forms the basis of the 'reception theory' of literature developed by Wolfgang Iser and others (see 7.4) which significantly has its roots in the same phenomenological approach to psychology as the gestalt work on perception which is the origin of schema theory (see 1.5).

1.4.2 The definite article for default elements.

A second piece of evidence is provided by certain uses of the definite article. Traditional pedagogic grammars give two main explanations of the use of the definite article rather than the indefinite article: the former is used before nouns "of which there is only one" or "before a noun which has become definite as a result of being mentioned a second time" (Thomson and Martinet 1969:3). Typical instances of the second of these rules are to be found in:

> One afternoon a big wolf waited in a dark forest for a little girl to come along carrying a basket of food to her grandmother. (....) 'Are you carrying that basket to your grandmother?' asked the wolf. The little girl said yes, she was. (James Thurber quoted in Swan (1978:74))

But neither of these rules explain the use of the definite article in an opening such as:

> I was late and we decided to call a taxi. Unfortunately, the driver spent a long time finding our house....

Here the use of the definite article with 'driver' seems quite appropriate, even though he is mentioned for the first time. Large-scale scholarly grammars both recognize and attempt to tackle this question (Kruisinga 1932:242; Jesperson 1949:479-480), making some reference to the idea of

shared knowledge in explanation, as do more recent grammars based on linguistics (Quirk et al. 1972:154-155; 1985:266-269)[7]. The usage can be accounted for by schema theory with particular elegance, however, simply by saying that our 'taxi schema'[8] contains a 'taxi driver', and we assume that a taxi that arrives at our house has a driver. It is as though he has already been mentioned. This can be tested by considering an alternative opening.

> I was late and we decided to call a taxi. Unfortunately, the retired admiral spent a long time finding our house....

Now it might be the case that the taxi driver is a retired admiral; but the sender is unlikely to assume, without evidence, that the receiver already knows this. It would probably be necessary to say:

> I was late and we decided to call a taxi. The driver, as it turned out, was a retired admiral and unfortunately he spent a long time finding our house...

Many literary narratives, especially in their opening sentences, do however use the definite article as determiner in noun phrases which neither refer to earlier indefinite noun phrases, nor are default elements of schemata.

> L'avocat ouvrit une porte. (Thérèse Desqueyroux)
> (The lawyer opened a door.)

One effect of this is to make the reader process the discourse as though the relevant schema was shared with the narrator or characters when in fact it is unknown. This achieves both a degree of involvement, by assuming a kind of unwarranted intimacy, and also drives the reader forward to construct the necessary schema as quickly as possible. It also produces the sensation of entering into a mental world other than one's own, in which the reader is simultaneously both an outsider and intimately involved.

1.4.3 Interpreting homonymy and polysemy: 'expectation-driven understanding'.

Further evidence for schemata is provided by interpretation of homonymy and polysemy in discourse. Lehnert (1979:80) gives as an

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example, among others, the interpretation of the word 'seal' in the sentence

The royal proclamation was finished. The king sent for his seal.
in which readers interpret the word 'seal' as "a device which produces an official stamp of some sort" rather than as an animal (although the king could well have had a pet seal, and no logical inferencing rule will conclude that he did not) presumably because the former meaning belongs to a schema containing kings and proclamations. Constant exposure to actual or described situations in which kings had pet seals would lead to a different interpretation. Examples of this sort are readily invented by way of illustration (see, for example, Widdowson 1983:36). An opening:

She's one of those dumb, pretty Marilyn Monroe type blondes. She spends hours looking after her nails. She polishes them every day and keeps them

generates an interpretation of 'nails' as "fingernails" rather than metal objects for knocking into walls, and a continuation such as

....all neatly arranged in little jam jars in the cellar, graded according to length, on the shelf above the hammers and the electric drills.

causes surprise, presumably because our 'Marilyn Monroe schema' is more likely to include fingernails than nails for knocking into walls. The schema activated by the opening leads to one interpretation of 'nails' and 'seal' - a phenomenon referred to in AI as 'expectation-driven understanding' - and the schema is upset by an unexpected continuation, causing processing delays (as confirmed by Sanford and Garrod 1981:114- 115 and Haberlandt and Bingham 1982).

Literary texts sometimes exploit the expectation-driven understanding of homonyms and polysemes to create surprise and 'jolt' the reader into re-processing.

> You fit into me
> Like a hook in an eye -
> A fish hook
> An open eye
> Margaret Atwood: 'You fit into me'

Such processing delay is a feature sometimes considered characteristic of literature, and was described, for example, by the Russian formalist Victor

Shklovsky, as the 'device of impeded form' (Eikhenbaum [1927] 1978:13), an idea again closely related to the formalist notion of 'defamiliarization' (Shklovsky [1917] 1965:13). It is also, however, a common feature of advertisements ("There's no such thing as the average citizen" - for Citizen watches), graffiti ("Repeal the banana") and jokes ("'Knock, knock.' 'Who's there?' 'Euripides.' 'Euripides who?' 'Euripides, I smasha your face'."). We shall return to impeded form in 6.3.1.

The phenomenon of expectation-driven understanding applies at all linguistic levels and ranks. Unexpected phonetic sounds are heard as the expected phoneme (Warren and Warren 1970; Slobin 1979:37), while at the grammatical level, the formally ambiguous phrases, clauses and sentences of the kind much discussed by linguists who eschew context are unlikely to cause the activation of rival interpretations in context (Cruse 1986:101). Again this is not always true of all discourse types, including literature, where ambiguity may remain through the absence of sufficient disambiguating co-text or context[9].

1.4.4 Ordering and selection.

Further evidence for schemata, and indeed for shared schemata, seems to be provided by instances in which people follow the same ordering of information. In a series of experiments, Linde and Labov (1975) showed how almost all subjects who were asked to describe the house or flat where they lived followed the order of describing the entrance, and then rooms branching off the entrance, returning to the hallway when they came to a dead end. Only after describing all rooms would they then proceed to detail their contents. Their descriptions, in other words, seemed to follow a set pattern, which we could describe as a 'Schema for describing one's home'. Van Dijk (1977:80) suggests a number of other general orders for description: that we tend, for example, to move from the general to the particular; the whole to the part; the including to the included; the large to the small; the outside to the inside.

Such observations, however, raise a number of complex and largely unresolvable issues concerning the nature of the schema in operation. Do such patterns reflect schematic organization of knowledge of the world or of certain text types - in this case description? (It is this latter kind of knowledge which we shall call 'text schemata'.) Though it might seem reasonable to suggest that world schemata and text schemata interact, and

that, for example, descriptions of residences follow the order they do because that is how they are perceived and/or remembered, or because the speaker imagines conducting a visitor around his or her home, there is also the strong possibility that certain text types may impose their own organization upon information, and that this organization may be at odds with its storage prior to verbalization. Such a dichotomy is clear if one imagines narrating the events of a murder as evidence to the police or as a mystery story, where, in the latter case, the chronology of events would be disrupted by the demands of the genre (Todorov [1966] 1988:157-166), and the initial event, which in a chronological narrative would come first, would be displaced to the end. There is thus the possibility of a text schema being superimposed upon a world schema.

1.5 The origins of schema theory.

In philosophy, the use of the word 'schema' to mean:

any one of certain forms or rules of the 'productive imagination' through which the understanding is able to apply its categories to the manifold of sense perception in the process of realizing knowledge or experience. (S.O.E.D)

goes back to Kant (the German word is also 'schema'). As such it is closely related to 'scheme' in the sense of "a plan or map" and the two terms are often used interchangeably. One problem with tracing the history of the term is therefore the difficulty in separating rigorous philosophical or psychological uses of the term from casual uses as a high-flown synonym of 'scheme'.

The origin of schema theory in the current sense is most frequently attributed to Bartlett 1932 (e.g. by de Beaugrande and Dressler 1981:90; van Dijk and Kintsch 1983:3; Widdowson 1984:124; Atkinson, Atkinson, Smith and Hilgard 1987:275; Greene 1987:41; Garnham 1988:45), although Bartlett (1932:199-201) himself gives credit for the idea to Head (1920), referring to the notion as one which had been current for some time. Moreover, as Garnham (1988:45) points out, although Bartlett's ideas are "often cited as an inspiration for recent AI research on memory organization, they are not formulated in a way which can be directly translated into programming terms". Schank and Abelson (1977), whose theory we describe in detail below, ignore Bartlett and credit the seminal work to Lewin (1936).

It in fact seems unlikely that the notion of schemata could be said to have a definite point of origin or to be the invention of any one individual. Bartlett was, as van Dijk and Kintsch observe (1983:3), a psychologist working "within the gestalt tradition" and his theories of memory, like Head's, must be seen against that background. As such, he shared the existing gestalt emphasis on an 'above down' approach to understanding, and belief that perception creates a whole from otherwise disparate parts (Hunter 1988:359). Like other psychologists with a gestalt approach to memory, he was concerned to demonstrate the inadequacies of theories of episodic memory relying on 'traces' of unique experiences (1932:204-205), and to stress the need for a theory of semantic memory instead (for a summary of the rival theories of episodic and semantic memory, see Loftus and Loftus 1976). Gestalt work in this vein owes much to the phenomenological approach to philosophy and psychology. The idea of schemata, and in particular the idea that discourse picks out new elements while leaving default ones to be filled in, may owe something to Husserl's theory of the 'manifold' ("the sum of the particulars furnished by sense before they have been unified by understanding" (S.O.E.D)), itself derived from Kant, an idea which through a different line of descent gave rise to Roman Ingarden's phenomenological theory of literature (Ingarden [1931] 1973:12), which has in turn profoundly influenced the 'reception theory' of the Geneva School of literary theory led by Wolfgang Iser (1974; 1978) (see 7.4).

A further reason for difficulty in fixing a point of origin for schema theory is that the notion that we interpret present experience in the light of organized past experience is both intuitively true - and a truism. As Bartlett himself observes:

> All people who have at any time been concerned with the nature and validity of everyday observation must have noticed that a good deal of what goes under the name of perception is, in the wide sense of the term, recall (....) the observer (...) fills up the gaps of his perception by the aid of what he has experienced before in similar situations, or (...) by describing what he takes to be 'fit' or suitable for such a situation. (1932:14)

So it is difficult to be precise about the dividing line between this commonplace observation and its innovative scientific development. Yet it is not the idea of schematic memory which is radical, but its detailed explication.

1.5.1 Bartlett's Remembering (1932).

Bartlett worked upon perception in general, but it is only his work on text which concerns us here. In Remembering (1932:63-95), he describes a series of experiments in which subjects were asked to recall material, either visual or textual, after ever longer and longer periods. In another series of experiments, referred to as 'serial reproduction' (op.cit.:118-186), a subject was asked to reproduce an original, and that reproduction handed on to another subject, to read and then later recall, and so on, in a process similar to the game of 'Chinese whispers'. Bartlett's aim was to study the changes which occurred in recall. He makes no particular distinction between textual and visual material, beyond noting the influence of certain narrative expectations on recall - such as the need for the weather to be 'sympathetic' to the plot in accordance with the so-called 'pathetic fallacy': "the attribution by writers of human emotions (cf, Greek pathos 'feeling') to inanimate objects or nature". (Wales 1989:342).

The text used is a translation of a native North American folk tale of a type which poses several comprehension problems for Europeans (the subjects were British). Bartlett notes the tendency of subjects to omit or rationalize details which they cannot tailor to their own expectations (such as supernatural events), to infer connections which are not stated, and to add detail which accords with stories they are familiar with (the time of death changes from sunrise to sunset for example, the setting of a frightening story becomes a "deep, dark forest"). He also notes how they remember details most relevant to their own experience: his subjects, who had all lived through the First World War, while forgetting many other details, all remembered that one of the characters in the tale is distressed to leave his relatives for battle. From this series of experiments, Bartlett proceeds to his 'Theory of Remembering' (Chapter 10:197-215) in which he propounds the basic principle of schema theory:

that text is interpreted with the help of a knowledge structure activated from memory, capable of filling in details which are not explicitly stated.

We should note, however, at this point some differences between Bartlett's schema theory and later versions. Firstly, there is no distinction made between the remembering of text and the remembering of sensory or kinesic data. Though texts were used in the experiments, language is treated as a transparent medium, and no distinction is drawn between remembering the supposed facts of the story and a verbal representation of those facts. Secondly, schemata are treated as serial: representations of data whose elements are in (chronological) order, and there is no proposed hierarchical rank structure of different types of schemata which would enable movement from one element to another without following through the original order (for further discussion see 8.2.1). There is thus no theoretical basis for explaining why certain details are omitted and others retained, either through failed recall or when deliberately summarizing, though both of these tendencies are noticed. Thirdly, prophetically, Bartlett several times (op.cit.:202-212) expresses concern that the theory can in no way explain how the mind creates, destroys and reorganizes schemata, though he does reiterate the need for the theory to explain this. It is our major claim, proposed in detail in chapters 8 and 9, that a major function[10] of certain discourses, notably literary discourses, may be to effect exactly such changes.

1.5.2 The eclipse of schema theory.

As psychologists of the gestalt tradition, both Bartlett and Lewin relied heavily upon introspection concerning mental processes. Such an approach was soon to be eclipsed in cognitive psychology during the later 30s, 40s and 50s by behaviourism, and more generally in the sciences by positivism, both of which forbade any appeal to the phenomenology of mental life. The linguistics of this period was keen to claim scientific status as defined by the intellectual norms of its time, and also adopted the behaviourist approach (Bloomfield 1935:21-41), limiting itself moreover to the analysis of sentences (see Lyons 1968:172). Work on discourse was rarely undertaken in this mould of linguistics (an exception is Harris (1952) - discussed in 2.2.1 below).

Bartlett's work, as Kintsch and van Dijk (1983:3) point out, "only occasionally inspired psychologists during the [next] forty years". In effect, there is a lacuna in the development of the theory between Bartlett and the revival of the 1970s. Schachtel (1949), in a study of Freud and Proust, used the term 'schemata' to describe adult categorization of memories which block the intensity of childhood experience from recall. Gibson (1950) drew a distinction between 'schematic perception' and 'literal perception', describing the former as casual and inattentive, and the latter as more detailed and precise (see Miller 1966:120). These uses, however, are rather different from that described above. Various attempts to trace the survival of the Bartlett's idea through the literature of the intervening decades only emphasize its absence. Van Dijk and Kintsch (1983:3), and Schank and Abelson (1977:10), for example, both give their own histories by listing a series of papers, but curiously, their lists have no single author in common, suggesting that the theory was indeed 'on ice'. Nor is this diversity of attribution a feature of these two sources alone. Slobin (1979:155), for example, in describing Bartlett's work, links it only with a work on the psychology of rumour (Allport and Postman: 1947), as do Edwards and Middleton (1987).

1.5.3 The revival of schema theory.

Figures of the revival are both more influential and more widely acknowledged to be so. The most widely cited are Charniak (1975), Minsky (1975), Rumelhart (1975, 1977), Petöfi (1976), Winograd (1977), Rumelhart and Ortony (1977), Schank and Abelson (1977). As already noted, their work is of two kinds: speculation on the nature of human intelligence and experimentation on the modelling of that intelligence in computers, conducted in the belief that each illuminates the other. If their hypothesis is true - that these pursuits are of the same object - then the old debate between behaviourist and cognitive psychology is to some degree by-passed. A behaviourist approach to psychology must limit itself to behaviour (the external manifestations of intelligence) only when it asserts, as it did in the 40s and 50s, that the internal workings of an intelligence are impenetrable. In fact, this definition of behaviour rests upon the assumption that the mental processes behind behaviour are beyond analysis. One of the hopes of the strong AI approach to psychology is to render that distinction unnecessary by building intelligences whose mental

processes are known and accessible, if only because they have been constructed by the analyst. (The leap from artificial to human intelligence still depends upon acceptance of an analogy between human and artificial intelligence). It is not that AI has rejected the behaviourist approach to intelligence, but rather that it claims to extend its frontiers. It is thus able to rehabilitate the ideas of Bartlett, while seeming in many ways akin to the more materialist views of his usurpers, sharing for example the essentially behaviourist view that similar behaviour indicates similar intelligence. The strong version of the AI thesis of course depends entirely upon the truth of the initial assumption of analogy, of which there are many opponents, most notably the philosopher John Searle (Searle [1980] 1987- see 4.1.1). And the debate, though stimulated by the emotive issue of AI, is essentially an old one, and well established in philosophy, leading back to the rival claims and methods of rationalism and empiricism.

Our own intention is to avoid this dispute, by treating current versions of schema theory as speculation about human intelligence, having the same status as any other theory of cognitive psychology whether or not they are also reproducible in whole or part by computer. In saying this, however, we do not preclude the possibility that they may at some future time be successfully modelled to human complexity and that such modelling may reproduce in whole or part the procedures of human intelligence.

1.6 The terminology of schema theory.

Ironically, the academic study of language often creates unnecessary confusion in its own terminology. This is endemic in linguistics, where theorists seem wilfully impervious to the fact that other scholars' definitions will persist alongside and in spite of their own. The simpler solution would be always to employ a new term for a new concept rather than one which is already in use - but such an elementary insight into language seems beyond many who seek to explain its obscurer reaches!

Schema theory suffers from the same vice, and abounds in new usages of established terms, new terminologies which repeat old ideas, and redefinition of terms by those who coined them. The most favoured general term for knowledge structures seems now to be that adopted here: i.e. 'schema', plural 'schemata', although some writers (e.g. Haberlandt and

Bingham 1982) limit the term to certain kinds of knowledge structures only.

As already mentioned, the origin of ~~the~~ this sense of the term is usually attributed to Bartlett, although he himself attributes it to Head (1920:605-606), ironically describing it as a term "I strongly dislike... at once too definite and too sketchy" (1932:200-201)! Confusingly, Bartlett sometimes appears to use the word 'scheme' and 'schema' interchangeably (1932:305 and elsewhere). In AI, 'schema' seems rapidly to have become the most favoured general term: it was used, for example, by Rumelhart (1975) and Winograd (1977). Minsky (1975) in a highly influential paper, uses the term 'frame', though in this case he is describing visual perception. (As he was one of the earliest AI writers on the subject, he can hardly be blamed for subsequent confusion.) Minsky's usage is perpetuated in many places, for example by van Dijk (1977:159), and by Levinson (1983:241) who defines 'frame' as an "inferential schema"! De Beaugrande and Dressler use the term 'global concepts', confusingly defining 'schemas' (*sic*) as a sub-class of these concepts relating only to "events and states in ordered sequences" (1981:90), a definition which is often used for 'scripts'. They then define 'frames' as another sub-class containing "knowledge about some central concept". (Their other sub-classes adopt the terminology of Schank and Abelson (1977: 91) which we describe in detail below; see also de Beaugrande/~~1980~~ and Dressler 1981: Chapter 6).) A further term in common use is Sanford and Garrod's (1981) 'scenario'. This is described as an "extended domain of reference", but is, in effect, a general term for knowledge structures. In Applied Linguistics the term 'schema' has gained currency following Widdowson (1983:54; 1984:106). In relevance theory, Sperber and Wilson (1986:138)8 refer to 'encyclopaedic entries' organized in chunks and mention 'scenarios', 'frames' and 'scripts' as terms referring to such chunks, without seeking to make any distinctions between them''. Elsewhere, as they point out, the term 'prototype' has been used in roughly the same way, although this now has another widely accepted and not totally unconnected meaning in semantics (see Rosch 1973, 1977; Cruse 1986:22) (see 4.4.1).

What is needed, in all this confusion, is firstly a general term, capable of referring to all types of postulated knowledge structures, and then a number of terms for sub-classes. We shall use the term 'schema'

as the general term and adopt the sub-divisions of Schank and Abelson (1977), Schank (1982) and Schank (1986). These three works accept the term 'schema' (Schank and Abelson 1977:10, see also Abelson 1987:39), but introduce a large number of sub-categories ('scenes', 'scripts', 'planboxes', 'plans', 'sub-goals', 'goals', 'themes', 'Memory Organisation Packets (MOPs)', 'Topic Organisation Packets (TOPs)') which we shall be describing in chapters 4 and 8. Their terminology is considerably confused by Schank's use of some of the 1977 terms in new senses in 1982 and 1986, but we shall endeavour to clarify these when we encounter them, and to be unequivocal about which of the rival senses we intend.

In text generation theory, which has flowered in recent years as a necessary complement to text processing theory, the term 'schema' is sometimes used in a limited and rather different sense to mean "rhetorical techniques" (McKeown 1985:10) and defined as:

> representations of a standard pattern of discourse structure which efficiently encodes the set of communicative techniques that a speaker can use for a particular discourse purpose. It defines a particular organizing principle for text and is used to structure the information that will be included in the answer. (op.cit.:20)

This use is also maintained in the influential work on text generation known as 'Rhetorical Structure Theory' (RST) (Mann 1984; Mann 1987).

To add further confusion, the term is sometimes used in the description of syntax. Thus Vinograd (1983:57-59,347) refers to 'sentence schemata'. (Sanford and Garrod (1981:34), who maintain the term 'frame' in preference to 'schema', use the term 'grammar frames' in much the same way.)

As already indicated, we shall use the terms 'world schema', 'text schema' and 'language schema'. The large issue of the difference and interrelation between world schemata, text schemata and language schemata will become increasingly important as our argument develops.

1.7 The power of schema theory.

In this chapter we have attempted to give a rudimentary outline of schema theory, selecting those elements which will later be useful in developing a theory of discourse deviation and relating it to literary theory. We have talked about schema theory in terms of text production and processing. We shall shortly be narrowing the debate even further to certain aspects and types of text. Yet before curtailing our interests, we

might note the extraordinarily wide applicability of the theory, and its
power to generate interpretations of almost every field of human life.
Emotion, personality, dreams, intelligence, language acquisition, second
language learning, drug effects, madness, metaphor, art, music, political
revolution and reaction, aging..... Explanations of such diverse areas as
these could be attempted in terms of schema theory.

Notes to Chapter One.

1. Detailed references for the ideas introduced in this section are given
in the relevant chapters.

2. We use the term 'function' here to mean "function for the receiver"
rather than "function for the sender". Thus our comments here refer more
to the effect of a discourse - what it does - rather than the intention
behind it - what its user wants it to do.

3. For discussion of our use of the term 'text', see 2.1.

4. For a fuller and further discussion of objections to AI, see 4.1.1

5. This view is similar to and compatible with connectionist theories of
'Parallel Distributed Processing' which have recently gained wide currency
in Cognitive Science (Rumelhart and McLelland 1986; Johnson-Laird
1988:174-194). In this connectionist view of knowledge there are no
separate 'stores' of rules or 'facts'. The knowledge and the rules are 'in'
the connections of a neural network, and knowledge is thus distributed
rather than localized. The strengths (or 'weightings') of connections are
increased by exposure to data which activates them. The network thus acts
"as though it knows the rules" (Rumelhart and McLelland 1986:32) though
those rules exist only as an abstraction by an outside analyst. Schema
theory is in general quite compatible with this view of cognitive
processing, although there is debate about the degree to which language
knowledge may be stored in this way (Lachter and Bever 1988; Pinker and
Prince 1988.).

6. The Inheritors and What Maisie Knew are in the third person but
maintain the limitations of the character's perception.

7. Thus Jesperson writes that the definite article is used for something
"already found in the consciousness of the speaker" and when "a thing is
mentioned and then we simply use the definite article when talking about
something connected with it."(op.cit.479). Quirk et al. (1972:154) write
that it is used for something "whose reference is immediately understood
by the users of the language..." and "things" which are "part of the
cultural situation." This phenomenon is described in Quirk et al.
(1985:267-8) as "indirect anaphora".

8. Whether a 'taxi schema' is used or some more general 'vehicle schema'
will vary from individual to individual.

9. For a discussion of these terms, see 2.1.2.

10. 'Function' is again used in the sense described in note 2 above.

11. Sperber and Wilson (1986), though they are slightly cursory in their
summary of schema theory (op.cit.:138), taking 'context' to be "the set of
assumptions used in interpreting an utterance" (op.cit.:15), define

relevance (op.cit.:147) as "that which has the greatest contextual effects and requires the smallest processing effort". This view is not however incompatible with schema theory as described here. Schema theory could define 'relevance' as that which is not predicted by the schema, but will change it ("has the greatest contextual effects"); on the other hand the existence of a schema which can accommodate new information makes processing easier ("requires the smallest processing effort"). Sperber and Wilson's lists of 'assumptions' brought to bear on a situation (e.g. op.cit.:142), are, therefore, rather like schemata.

Chapter Two.
Discourse Analysis 1: formal approaches and their capacity to characterize
'literariness'.

2.0 Introduction.

The aims of this and the following chapter are threefold:

1) to examine approaches to coherence in discourse analysis and

2) thus indicate the need for schema theory as a component of a theory of
discourse;

3) to assess the capability of the approaches examined in (1) to account
for 'literariness' without schema theory.

In this chapter, we shall look at attempts to extend grammatical and
semantic approaches to language analysis above the sentence, and at their
relevance to a characterization of 'literariness'. Thus we begin with
intersentential features. To give a full account of literary discourse we
shall also need in due course to assess the role of subsentential
linguistic features in creating literariness, but we shall delay a
discussion of these until we deal with Jakobson's theory of the 'poetic
function' in chapter 7. Eventually we hope to show that literariness can
only be described as an interaction of all levels of discourse: from the
subsentential, through the semantic and pragmatic, to the non-linguistic
representation of knowledge (i.e. schemata).

2.1 Definitions: 'text', 'context' and 'discourse'.

As the inclusion or exclusion of context with text to create discourse
is of such importance to our argument, we shall require sharper definition
of all these terms than we have given so far.

We shall define a 'text' as the linguistic forms in a stretch of
language, and those interpretations of them which do not vary with
context. We use the general term 'text' to mean language regarded in this
way. In linguistics texts have often been discussed as though their
meanings were constant for all users of the language at a given moment in
time, i.e. synchronically. Valid objections may be raised to this notion of
text as fixed for all users of the language. Firstly it may be
generalizing to the point of distortion to talk of different speakers'
language competence as homogenous. (Do a James Joyce and a six year old

child really have so much in common?) Secondly, as many literary theorists have observed, it may be misleading to separate receiver and text in any way, since each comes into being through the other (Voloshinov [Bakhtin'] [1929] 1973:103; Barthes [1970] 1974). Text is thus dependent on its receiver, and therefore variable. Neverthless, we shall use the term in the sense defined above.

Text interacts with 'context', which in our definition is a form of knowledge. The ability to use a given language is a form of (tacit) knowledge too, yet there is an important distinction to be made between knowledge of the language and other knowledge. When we later emphasize the importance of describing the knowledge of a receiver as well as the text, we are not referring to linguistic knowledge.

We shall use the term 'context' in a broad and narrow sense. In the narrow sense it refers to (knowledge of) factors outside the text under consideration. In the broad sense it refers to (knowledge of) these factors and to (knowledge of) other parts of the text under consideration. These other parts of the text are often referred to as 'co-text' (Halliday, McIntosh and Strevens 1964:125; see also Wales 1989:100). 'Context' is thus both a superordinate and a co-hyponym of 'co-text'. (Occurrences of the same word at two levels of generality are a very common feature in word relations, see figure 1.)

'Context', in the broad sense, may be considered to be either external to language users, composed of elements existing independently of them, or internal, composed of their knowledge of them (Dascal 1981; Cook 1990)[2].   In practice, the two will usually be the same, and the distinction may be felt to be pedantic. Yet there are times when the distinction is important - when interactants distort, ignore or fail to perceive elements of the context (as it is judged to exist by the analyst). We shall favour the second interpretation of context and define it as knowledge of relevant features of the world and co-text, rather than the world and co-text themselves. As such, context in the broad sense, consists of knowledge of:

1) co-text;

2) paralinguistic features;

3) other texts (i.e. 'intertext');

4) the physical situation;

5) schemata representing any of the above, or the social and cultural

situation;

6) the knowledge of interlocutors (knowledge about other people's knowledge).

'Discourse', as opposed to text, is a stretch of occurring language in use, taking on meaning in context for its users.   We shall define 'discourse' as a stretch of language perceived as purposeful, meaningful and connected, and 'coherence' as exactly this quality of perceived purpose, meaning and connection. 'Discourse analysis' is the study and the explanation of this quality of coherence.   A discourse is a coherent stretch of language.

Defined in this way as a 'perceived' quality, the coherence of a given stretch of language will vary with its perceiver and its context. Discourse analysis must therefore be both a study of the formal linguistic qualities of stretches of language (texts), and a study of the variable perception of these stretches of language by individuals and groups of individuals.

The term 'discourse' thus also exists at two levels, one as distinct from text, one subsuming it (see figure 1). We shall call these respectively the 'narrow' and 'broad' definitions of discourse.

```
         context              dog              train            discourse
          /\                  /\               /\                 /\
context  co-text     dog    bitch     train  carriage   text    discourse
```
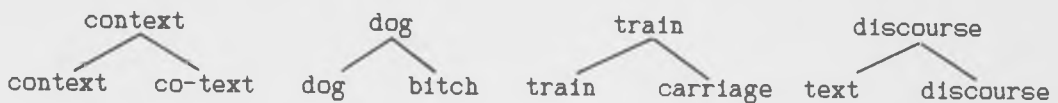
Figure 1. Broad and narrow definitions.

2.1.1 Discourse analysis and linguistics.

From the 1930s to the 1970s a good deal of Anglo-American linguistics concerned itself with the study of language in isolation from context, and considered the sentence as the highest unit of analysis (Lyons 1968:172ff; see also 1.5.2 above).   Its data were either invented by the analyst (Lyons 1968:154); idealized (Lyons 1977:586-589); or written language which was already generally of the standard variety and divorced from any particular situation.   The field of study, in other words, was phonology and grammar[a] with varying degrees of emphasis on semantics, and indeed this self-imposed limitation might well be considered to be many people's

definition of 'linguistics'. We shall however refer to this approach to language as 'sentence linguistics'.

Though this approach was dominant during the 1940s, 50s and 60s, many other traditions of linguistics persisted in studying language in context, most notably that continuing the work of anthropological linguistics begun by Boas in North America (see Bolinger 1975:506-514); that associated with the work of J.R. Firth in Britain (see Firth 1957) and continued by the neo-Firthians (see Halliday 1973:50-51; 1978:51); the functional approach of the Prague School (see Vachek 1964; Bolinger 1975: 514-524); and, in Russia, the linguistics initiated by Bakhtin, which insisted on the impossibility of divorcing a description of language from a description of its users (Voloshinov [Bakhtin] [1929] 1973:86). All of these approaches have had an influence on literary theory, and have also been drawn upon by the resurgent interest in discourse analysis from the 1970s onwards. This is because discourse analysis can only account for coherence by describing language in context and not by confining itself to sentence grammar in isolation. Its object of study, moreover, is sometimes stretches of language which fail to conform to the rules of sentence grammars and are therefore not analysable as sentences or parts of sentences at all.

2.1.2 'Scientific' and 'post-scientific' approaches to discourse.

The approaches outlined above have in common a 'scientific' approach to the study of communication. They imply that the scientist and scientific discourse can somehow stand apart from the process, observe it and assess it. They also all subscribe to the view that meaning is constructed through the interaction of some existing mental representation and the text itself, and that this mental representation can be formulated and understood. To talk of coherence, as we have done, as constructed through links which have no manifestation in the text, implies their independent existence in the mind. These views unite these approaches, despite their differences.

Three philosophical movements which have influenced contemporary post-semiotic views of text processing, but which are not compatible with the scientific views outlined above, and largely ignored by them, are deconstruction, hermeneutics and phenomenology. As all of them have exerted a substantial influence on literary theory, we shall need to take account of them in the development of our argument.

Deconstruction, largely associated with the work of the philosopher Jacques Derrida, has attacked, as part of a larger critique of the scientific method and western philosophy, both the Saussurean view which is the basis of linguistics (Derrida [1967] 1976) and the Austinian view which is the basis of pragmatics (Derrida [1972] 1982) (see 3.3). In the Derridean view, 'meaning', like concepts such as 'god', 'matter', 'the self' and 'nature' is yet another instance of an assumed but unproved 'centre' for belief, the questioning of whose existence leads to the collapse of the theory based upon it. At the heart of the linguistic sciences, according to Derrida, lies the division of signifier and signified, text and meaning, which whether reached through decoding or through inference, is an instance of the binary divisions which plague western thought. Picking upon minor, 'marginalized' points in the arguments of Saussure and Austin, Derrida seeks to 'deconstruct' their texts, and make them contradict themselves. As the attack itself can also be deconstructed, the process becomes one of infinite regression, and defers any conclusion. (This, however, only bears out Derrida's point, that there is no 'telos' - no end and no beginning.) Language, according to Derrida, is a similar process of infinite extension: if signs mean by virtue of their difference, then each sign leads to another, and meaning is eternally both different and deferred (which is in part what Derrida means by his term 'différance') (see Culler 1983:97). The scientific study of discourse creates its own discourse which in turn demands study, and so on. Again the process is infinite, and there can never, in Derrida's view, be a conclusion of the kind sought after by science.

Two further self professed 'post-scientific' philosophical movements which have influenced contemporary literary theoretical views of communication are hermeneutics and phenomenology. The former, following the opinion of Heidegger that techniques of interpretation of human behaviour are necessarily different from those of the natural sciences, has been profoundly influential, largely through the works of Gadamer (1960), in shaping the critical approaches of reception theory and reader-response (to which we return in 7.4). A similar influence has been exerted by the phenomenological philosophy of Husserl - who was himself an influence on Heidegger - which has been absorbed by the same movements through the literary theoretical writings of Roman Ingarden ([1931] 1973) (see 7.4.1). Phenomenology, while it shares the view that meaning results from the

constructive interaction of mind and text, both stresses individual variations in interpretation and "argues that there is an ultimate limitation to the power of formalization and that the most important aspects of language lie outside its limits" (Winograd 1983: 21). A similar argument is voiced by many scientific critics of AI text theory (see Born 1987, and further discussion in 4.1.1).

Ironically, many of the views expressed by the adherents of these two approaches are compatible with some of the 'scientific' tenets of schema theory which we examine in the next chapter, and both Heidegger and Husserl regarded the achievement of meaning as a creative act involving the marriage of existing knowledge with information from the text or from the senses   (Holub 1984:41).   We shall return to these views, and to some of the literary theories which derive from them in 7.4.

The deeper incompatibility of the 'scientific' approaches to language with 'post-scientific' approaches is illustrated by their failure even to engage in debate, despite attempts to bring the two sides together (Fabb, Attridge, Durant and MacCabe 1987). The evidence for this lack of contact is an absence rather than a presence: books on either side of the divide, though mutually concerned with human interaction with texts, often simply fail to acknowledge the existence of the other.

2.2 Acceptability above the sentence.

A first problem for discourse analysis is to consider the possibility that there are rules and constraints on the selection and ordering of elements above the sentence - in other words, whether grammar can be extended upwards.

It is not difficult to think up a string of sentences which seem odd to competent speakers of the language. Writing of narrative, Rumelhart (1975:211-213) puts the case succinctly, as follows:

Just as simple sentences can be said to have an internal structure, so too can stories be said to have an internal structure. This is so in spite of the fact that no one has ever been able to specify a general structure that will distinguish the strings of sentences which form stories from the strings which do not. Nevertheless, the notion of 'well-formedness' is nearly as reasonable for stories as it is for sentences. Consider the following examples:
(1) Margie was holding tightly to the string of her new balloon. Suddenly, a gust of wind caught it. The wind carried it into a tree. The balloon hit a branch and burst. Margie cried and cried.

(2) Margie cried and cried. The balloon hit a branch and burst. The wind carried it into a tree. Suddenly a gust of wind caught it. Margie was holding tightly to the string of her beautiful new balloon.
Here we find two strings of sentences. One, however, also seems to form a sensible whole, whereas the other seems to be analyzable into little more than a string of sentences. These examples should make clear that some higher level of organisation takes place in stories that does not take place in strings of sentences. (Rumelhart 1975:211-212)

There are a number of points which might legitimately be raised in objection, or at least in qualification of Rumelhart's reasoning.

Firstly, what is said here applies to narrative, and perhaps to narrative only.   Indeed, an excessive concentration on narrative, to the exclusion of other discourse types, is a limitation of much discourse analysis (especially in AI (see 3) and many branches of literary theory (see 6.4).   Whatever rules may be formulated concerning the relationship of sentences in narrative may not be applicable to other discourse types. It might be that ordering rules for sentences can be formulated for narratives, but that this formulation can not be generalized to other discourse types. This particular narrative, moreover, is one which follows a strict chronological sequence.   In the terms of the Russian formalists its 'fabula' and 'syujet' coincide (see 6.3.4). There are many other principles for the ordering of sentences other than iconic chronology⁴.

Secondly, it might be argued that the rules governing the ordering of sentences in Rumelhart's example are dependent on knowledge of the world rather than any kind of 'text grammar'.   One has to consider whether the oddity of the second version is really of the same kind as a departure from sentence grammar, such as:

           ‡ Tantamount she under am were cabbage sudden how he.
One of the major factors in the coherence of Rumelhart's story derives not from formal co-occurrence restrictions, but from belief about the nature of time, continuity and reversible as opposed to irreversible change.   Given the co-reference of every mention of the balloon (indicated by various cohesive devices, see 2.3), it cannot, competent speakers believe, both "have burst" and "be carried by the wind". Another source of coherence is our knowledge of children: they like balloons and are upset when they burst. (Rumelhart makes similar points himself.) Though these facts may always hold in our present experience, one can imagine worlds in which they would not.   Science fiction, by definition, describes worlds about which our beliefs are significantly different, necessitating both an

increase in the amount of explicit reference to background knowledge needed for interpretation, and the creation of coherence in texts which, interpreted through knowledge of the real world, would appear incoherent (Pitrat [1985] 1988:8). The same is true to some extent of any fictional world. Schematic expectation can be broken in fiction without destroying coherence. Rumelhart's second story might well be coherent in chapter 2 of Lewis Carroll's <u>Through the Looking Glass</u> (in which time is reversed) or in the film <u>Superman</u>[5] , in which the villain wins, only to be outwitted when Superman flies so fast anticlockwise around the earth that its orbit is reversed. Time returns to an earlier point in the story and the dénouement is repeated, this time with a victory for Superman. The oddity of Rumelhart's second sequence is thus in our view not textual but relative to a given context, i.e. discoursal.

Thirdly, there are strings of sentences which, though they may initially appear unacceptable, can be made to appear 'well-formed' by a change of context. This point is cogently argued by Widdowson (1979:130) against Krzeszowski (1975:41) who had claimed that the following two sentences selected from a corpus at random could not be combined into a coherent sequence:

1) The men and women eat breakfast together.
2) The nomads become restless in the big town.

Widdowson observes that in a particular context they could, and suggests by way of example that the event described in (2) may arise from a prohibition of the sexes eating together in the nomads' culture. Widdowson however stops short of the view that any pair of sentences could be combined in this way[6]. Yet one might in fact argue that given sufficient ingenuity and imagination any pair of sentences could be regarded as coherent[7]. If this is the case, then any assessment of well-formedness must be relative to the context: that is, in our sense, to the relevant knowledge of the participants. Discourse analysis, in other words, demands a description of the knowledge of a specific receiver, of the kind which can be provided by schema theory. The suggestion that any sequence may be coherent is open to empirical testing, although given the infinite generative power of grammar, no tests could be said to be conclusive. An interesting example of coherence being established between sentences through context is widely believed to occur in <u>Finnegans</u>

<u>Wake</u>, in which the word 'Entrez' is supposed to have been mistakenly
included by Joyce's amanuensis (Samuel Beckett) when somebody knocked at
the door during dictation (Ellman [1959] 1982: 649; Kennedy 1971: 207).
Knowledge of this anecdote - whether true or not - would be one way of
making this sentence coherent with its co-text when encountered[8]. Again,
a literary example defies the general rule.

The situation is further complicated by the fact that discourse does
not have to consist of strings of sentences, and that therefore a
statement of combination rules for such sentences would not be enough,
even if it were possible. Take, for example, the following:

Playback. Raymond Chandler. Penguin Books in association with Hamish
Hamilton. To Jean and Helga, without whom this book could never have
been written. One. The voice on the telephone seemed to be sharp and
peremptory, but I didn't hear too well what it said - partly because I
was only half awake and partly because I was holding the receiver
upside down.   (<u>Playback</u> [1958] 1961.)

Here, an application of knowledge about the layout and conventions of
novels, will make this a coherent discourse (just as knowledge about
balloons, wind, and children makes Rumelhart's example coherent) despite
the fact that of the six units marked orthographically as sentences, only
one conforms to the rules of sentence grammars. In this example it is
true that we have run together a number of quite separate functional parts
of the same discourse (distinguished by typography, page position and the
spaces between them) but we do not <u>have to</u> cut across discourse parts
(title page, dedication etc.) so radically to find discourses which are not
composed of sentences. Many literary texts, including narrative, contain
sequences which do not conform to the usual rules of sentence grammars.
(The orthographic sentences of the opening of <u>Bleak House</u>, for example, are
without main verbs (Leech and Short 1981:138), and Blake's poem <u>Ah
Sunflower</u> and Browning's <u>Meeting at Night</u> are without main verbs (see
6.4.2).) Whatever rules there may be for well-formed sequences, in other
words, they cannot only be regarded as rules for combinations of
sentences. AI has a habit of making the rather naive assumption that they
can, and Rumelhart's approach is in this way typical.[9]

With these reservations, however, it does seem possible to make
predictions about the well-formedness of strings of sentences. The
question of whether such judgements may ever be made without reference to

context, as Rumelhart seems to suggest, is best answered by returning to the paper from which discourse analysis takes its name, published by Zellig Harris in 1952 (Harris 1952).[10]

2.2.1 Zellig Harris' (1952) investigation of discourse.

Historically, Harris is well placed to give a verdict on the possibility of extending the techniques of sentence linguistics beyond the level of the sentence. Trained in the methods of the Bloomfieldian structuralist linguists of the thirties, he was also a seminal researcher in transformational grammar, and, as the mentor of Noam Chomsky, exerted a profound influence on Chomsky's later development of transformational generative grammar. He thus stands between the two main schools of sentence linguistics, and his conclusions on their application to discourse may be said to hold true for both approaches.

Given this background, it is not surprising that Harris makes the following assumptions, the first implicitly, and the second explicitly:

1) that the perception of the presence or absence of well-formedness in a given string of sentences will be consistent for all native speakers (just as this approach implicitly assumes perceptions of the grammaticality of sentences to be common to speakers with native speaker competence - and indeed definitive of that competence);

2) that the reasons for well-formedness, to be stated in terms of constraints and predictions as to the sequencing of sentences, can be found within the text without reference to the variables of context.

The first of these assumptions is in fact absent from Harris's discussion, and it seems reasonable to assume that absence of discussion implies that the issue is not perceived as problematic.

Harris's paper is a test analysis of a coherent discourse (an advertisement for hair tonic) in which an attempt is made to find grammatical links between one sentence and another. The text analysed is as follows:

<div align="center">Millions Can't Be Wrong!</div>

Millions of consumer bottles of X---- have been sold since its introduction a few years ago. And four out of five people in a nation-wide survey say they prefer X---- to any hair tonic they've used. Four out of five people in a nation-wide survey can't be wrong. You too and your whole family will prefer X---- to any hair tonic you've used! Every year we sell more bottles of X---- to satisfied customers. You too will be satisfied! (Harris [1952] 1964:364)

The title and each of the six sentences of the advertisement is well formed, so the problems outlined above with reference to sequences whose units are not sentences does not arise. The details of Harris' analysis need not concern us here, but his conclusions are highly relevant. At the beginning of his paper, Harris observes that there are two possible directions for discourse analysis. One is:

> continuing descriptive Linguistics beyond the limits of a single sentence at a time (Harris [1952] 1964:356).

This was what he aimed to test. The other is:
correlating culture and language (i.e. non-linguistic and linguistic behaviour) (ibid.)
At the end of the article, having weighed up the two options, Harris concludes:

> ..in every language it turns out that almost all the results lie within a relatively short stretch which we may call the sentence.... Only rarely can we state restrictions across sentences. (ibid.)

If the analysis of language, in other words, is to extend beyond the level of sentence, it will cease to be a purely formal analysis of the relations of syntactic units and incorporate variable factors of the context. This (despite his stated lack of interest in pursuing the issue further) is in fact suggested by Harris himself.

This is not to say, however, that the rules of sentence grammars are of no relevance to discourse analysis, but only that whatever units exist above the sentence are different in kind. Nor is it to say that sentence grammar and context do not mutually affect each other. In 3.6 and 3.6.1 below, we describe how syntactic ordering is affected by knowledge of the knowledge of an interlocutor. When we come to examine the relationship between 'deviant' linguistic choices in literature, of the kind emphasized by Jakobsonian stylistics, and 'deviant' conceptual representations in terms of the schemata of a given reader, one of the main points of our argument will be the futility of examining either in isolation (see chapter 7). A purely formal stylistics approach to literature is in many ways analogous to Harris' approach to discourse. Description of linguistic

choices at the level of grammar is undoubtedly important, but is significant only when related to a description of the receiver.

2.3 Cohesion.

Harris concluded that formal links between sentences were negligible, and that any explanation of discourse was to be formulated with reference to factors other than the text. In reaching this conclusion he had, however, explicitly excluded semantic factors, and thus paid no attention to what may be regarded as an exception to his conclusion: cohesion.

Cohesion is the formal linguistic realization of semantic and pragmatic relations between clauses and sentences in a text (Quirk et al. 1985:1423). The most influential and catholic work on cohesion is Halliday and Hasan (1976), summarized and slightly modified in Halliday (1985: Chapter 9). In both these works, cohesion is viewed as primarily a semantic phenomenon:

> The concept of cohesion is a semantic one; it refers to relations of meaning that exist within the text and that define it as text. (Halliday and Hasan 1976:4)
> The organization of text is semantic rather than formal and (at least as far as cohesion is concerned (....)) much looser than that of grammatical units. (Halliday 1985:290)

The Hallidayan approach to language regards the clause as a more central unit than the sentence. (The latter is regarded as an orthographic unit and the term 'clause complex' preferred (Halliday 1985:193).) The description thus deals with words and phrases which provide semantic links between clauses, either by indicating:

1) co-reference[11] of elements in different clauses, expressed by referring expressions, substitution, ellipsis, or semantically related lexical items such as synonyms, antonyms, supernyms, hyponyms and meronyms; or

2) logical, causal, temporal or attitudinal connections between clauses expressed by conjunctions[12].

In the following subsections (2.3.1 to 2.3.7) we shall briefly describe the main types of cohesive devices. With regard to our later argument, we shall pay particular attention to the way in which the use of cohesive devices varies between discourse types and the degree to which they may characterize 'literariness'.

2.3.1 Parallelism.

Despite Halliday and Hasan's definition of cohesion as 'semantic', we may - if we define a cohesive device as a formal feature capable of creating a connection between sentences - validly begin a catalogue of cohesive devices with a connection which is purely syntactic, and which is not included in Halliday and Hasan's formulation. This is 'parallelism': a device frequently used in literary and related discourses. It is in fact an instance of the kind of formal, non-semantic link between sentences sought by Harris. It is also of great importance to our later discussion for two reasons. Firstly, it is largely ignored by AI theories of conceptual representation (see chapter 4). Secondly, it is central to the Jakobsonian and stylistics attempts to associate literariness with formal linguistic features (see chapter 7).

Syntactic parallelism occurs when the form of one sentence or clause repeats the form of another[13] . This suggests a connection to the reader, through isomorphism. It occurs frequently in speeches, prayers, poetry and advertisements. It can have a powerful emotive effect; it is also a useful *aide mémoire*. Here, for example, is part of a Christian prayer in which three subordinate clauses are syntactically parallel, following the structure[14]:

```
  [ P(Teach)Oi(us)S(good Lord)Od< [ P( ) ]  (and)    [ not P( )Od )] >
MCl VP      NP   NP              NCltVP   cj      NClt   VP NP
```

    Teach us, Good Lord, to give and not to count the cost, to fight and not
    to heed the wounds, to toil and not to seek for rest, to labour and to
    ask for no reward, save that of knowing that we do thy will.
                                                    (St. Richard's Prayer)

And here is an extract from a children's book in which sentences are syntactically parallel following the pattern (with or without 'vastly' or additional postmodification in the second noun phrase).

```
    S     A       P         Od     A    o
  [ (He)  (vastly) (enriched)   ( )   (by (    )) ]
MCl NP   AvP     VP          NP     PP  NP
```

    He vastly enriched the world by his inventions. He enriched the field
    of knowledge by his teaching. He enriched humanity by his precepts and
    his personal example. He died on December 17, 1907, and was buried in

Westminster Abbey with the honours due to a prince of men... (Mee
1914:127)

That syntactic parallelism is a purely formal feature may be illustrated
by its frequent loss in translation.   There is, for example, syntactic
parallelism in the following

                    Le Général de Gaulle est mort. La France est veuve.
                    (General de Gaulle is dead.   France is a widow)
                              (President Pompidou: television address.)

in which the repeated structure is:

    S   P   C
    [(DEFINITE ARTICLE + PROPER NOUN) (est)   (   )]
    MCl NP   VP   AjP/NP

This, however, does not entirely survive translation into English where
neither definite article is needed, but an indefinite one is.

    We have described syntactic parallelism, which suggests a connection of
meaning through an echo of form, but the term 'parallelism' may validly be
extended to sound, on the one hand, and to semantics on the other.   The
former is manifest in the rhyme, rhythm and other sound effects of verse
when they create links across clause and sentence boundaries.   The latter
exists where two sentences are linked through lexico-semantic connections.

    In all the above examples, the syntactic parallelism is reinforced by
semantic parallelism.   In the prayer for example each of the direct objects
of the second clause ('cost', 'wounds' and 'rest') denotes a frequent
outcome (respectively concomitant, consequence and reward) of the verb in
the first clause ('give', 'fight' and 'toil').   In the French example, the two
syntactically parallel sentences are further linked by the contrasted
masculine and feminine genders reinforcing the metaphor of deceased
husband and bereaved wife.   Widowhood, moreover, is a consequence of a
death.

    It should be clear from the above examples (a prayer, a biographical
sketch and a piece of political rhetoric) that syntactic parallelism,
though it is made much of in Jakobsonian stylistics, is by no means
exclusive to literature.   (For an elaborate demonstration of this see Werth
1976[15]).   We shall return to this point in more detail in Chapter 7.

2.3.2 Verb form.

Parallelism is, as it were, a luxury, available for rhetorical effect to add or create links between sentences, but in no way obligatory.   A second, and more rigorous, kind of link (also strangely ignored by Halliday and Hasan in an otherwise comprehensive survey[16]) is effected by the constraints upon verb form determined by preceding clauses and sentences. This is as much of a constraint at the intersentential level as the rules of grammar are at the subsentential level. The form of the verb in one sentence can limit the choice of the verb form in the next, and we may be justified in saying that a verb form in one sentence is 'unacceptable', or perhaps even 'deviant', because it does not fit with the form in another. To classify this phenomenon as syntactic or semantic is difficult.   In some instances, as between conditional clauses and main clauses in English, whether intra- or inter-sententially, it might well be regarded as purely formal. ('If you do that you will be arrested. Then you will probably be tried and found guilty.') In others, as in the repetition of the present tense in either the original or the translated quotation from President Pompidou above, it might validly be regarded as semantic.   The existence of constraints on verb form operating across clause and sentence boundaries is perhaps best illustrated by striking deviations, for example:

Before Abraham was, I am. (John 8: 58)

or, across sentence boundaries, by the following passage from The Secret Agent:

But Mr. Verloc did not see that. He was lying on his back and staring upwards.   He saw partly on the ceiling and partly on the wall the moving shadow of an arm with a clenched hand holding a carving knife, It flickered up and down. Its movements were leisurely. They were leisurely enough for Mr. Verloc to recognize the limb and the weapon.
They were leisurely enough for him to take in the full meaning of the portent, and to taste the flavour of death rising in his gorge. His wife had gone raving mad - murdering mad. They were leisurely enough for the first paralysing effect of this discovery to pass away before a resolute determination to come out victorious from the ghastly struggle with the armed lunatic. They were leisurely enough for Mr. Verloc to elaborate a plan of defence, involving a dash behind the table, and the felling of the woman to the ground with a heavy wooden chair. But they were not leisurely enough to allow Mr. Verloc the time to move either hand or foot. The knife was already planted in his breast.
([1907] 1965:212)

Leech and Short (1981:237)[17] use this passage to illustrate "the handling of psychological time" in a way which "anticipates the slow-motion effects of the cinema":

> The reel, as it were, is wound back: we experience again, as in a temporal vacuum, the last moments of Mr. Verloc's living consciousness.

This effect is achieved in part through the disruption of verb form expectation. Again the non-literary biblical example belies the claim that departure from expected tense sequences is an exclusive feature of literature. (One may argue of course for the literary quality of certain translations of the Bible, but in this case the argument becomes circular.)

2.3.3 Referring Expressions.

Referring expressions are words or phrases whose meaning can only be determined by reference to other words or to elements of the context. The former are classifed as 'endophoric' and the latter as 'exophoric'. Examples of referring expressions are third person pronouns and deictic uses of 'here', 'there', 'this' and 'that'. Endophoric referring expressions may be divided into 'anaphoric' referring expressions where the nominal precedes the referring expression, and 'cataphoric' where it succeeds it.

Description of the interpretation of referring expressions is notoriously difficult, and an issue to which much attention is devoted in computational linguistics (see for example: Reichman 1985; Appelt 1985: 118-121; Alshwani 1987; Dale 1988). Any theory capable of predicting interpretation will need to take account of far more than linguistic form, and deal with such issues as topic, focus, saliency and schematic knowledge. This applies to both endophoric and exophoric instances. Consider for example the likely interpretations of pronouns in the following examples:

1) There was a pineapple on the table. So I ate it.

2) The teacher sent the class dunce to the headmaster because he wanted to throw pellets. (Pitrat [1985] 1988:7)

3) A man arrives at the door carrying a sack of coal and holding a pencil between his teeth. He says: "Where shall I put it?"

4) Two people are discussing a car to which they are referring as 'it' when a live hand grenade is thrown through the window and lands at their feet. One says: "What shall we do with it?"

5) <u>She Gotta Have It.</u> (Title of Spike Lee film)

All these examples suggest that the interpretation of referring expressions is at least as pragmatic as it is semantic. It demands a description of the relevant context. In our terms this means a description of the knowledge of interlocutors. Such a description can be provided in terms of schema theory.

2.3.4 Repetition, 'elegant repetition', reduction and lexical chains.

The use of repeated endophoric anaphoric pro-form referring expressions in discourse creates a 'chain', for example:

the car... it.... it... it.... it.... it.... it

Such chains have the triple advantage of being, in most cases, syllabically economical, of emphasizing the continuity of topic, and of indicating co-reference. We shall regard such chains as the unmarked means of repeated reference to the topic of discourse.

Repetition of the original nominal can create the same sort of chain, conveying the same semantic content, though with a different stylistic effect. Such repetition may be more freqent in certain discourse types than in others. Advertisements, for example, often repeat the brand name, and other words, which - we might hypothesize - they wish to associate with it, for example:

Timotei is both mild to your hair and to your scalp - so mild you can wash your hair as often as you like. Timotei cleans your hair gently, leaving it soft and shiny, with a fresh smell of summer meadows.

Legal discourse often avoids referring expressions, as in the following:

This Schedule and Policy shall be read together as one contract and any word or expression to which a specific meaning has been attached in any part of the said Schedule or Policy shall bear such specific meaning wherever the word or expression may appear.

It is often argued that this diminishes possible ambiguity, though this is disputable. It may also contribute to the elevation of legal language from everyday uses, and thus to the status of the legal profession. Instruction manuals favour repetition to avoid ambiguity. Literary discourse may favour repetition over pro-forms too, as in Robert Burns' <u>A Red, Red Rose.</u>

O <u>my luve</u>'s like a red, red rose
That's newly sprung in June;
O <u>my luve</u>'s like the melody... (our underlining)

Here once again, as the non-literary texts reveal, literature holds no monopoly.

An intermediate form between pro-form reference and repetition is the use of a reduced form of a noun phrase. Thus 'a small boy' becomes 'the boy', 'the river Alma' becomes 'the river'; 'the door on the right' becomes 'the door' and so on. This too may be exploited for literary effect, as it is in the following extract from The Long Goodbye:

> Back from the highway at the bottom of Sepulvada Canyon were two square yellow gateposts. A five-barred gate hung open from one of them. Over the entrance was a sign hung on wire: PRIVATE ROAD. NO ADMITTANCE. The air was warm and quiet and full of the tomcat smell of eucalyptus trees.
> I turned in and followed a gravelled road round the shoulder of the hill, up a gentle slope, over a ridge and down the other side into a shadow valley. It was hot in the valley, ten or fifteen degrees hotter than on the highway. I could see now that the gravelled road ended in a loop around some grass edged with stones that had been lime-washed. Off to my left there was an empty swimming pool. Around three sides of it there was what remained of a lawn dotted with redwood lounging chairs with badly faded pads on them. The pads had been of many colours, blue, green, yellow, orange, rust-red. Their edge bindings had come loose in spots, the buttons had popped, and the pads were bloated where this had happened. On the fourth side there was the high wire fence of a tennis court. The diving board over the empty pool looked knee-sprung and tired. Its matting covering hung in shreds and its metal fittings were flaked with rust.
> ([1953] 1959:101 our underlining)

Here the marked failure to fully reduce the noun phrases 'a gravelled road' and 'an empty swimming pool' lends the passage an air of attention to detail which may suggest timelessness, sinister significance, heightened sensation and vivid memory.

An alternative to chains of anaphoric referring expressions and to repeated or reduced nominals is the use of semantically related nominals, such as superordinates, hyponyms, synonyms, meronyms and even antonyms. By this criterion, all of the following, could be cohesively linked

my family .. my daughter.. my girlchild .. my blue eyes .. my son

Links through meronymy are difficult to distinguish from links through membership of a single schema. In later chapters when we come to list the contents of schemata, we shall include items which are meronymically related to the central item (thus 'feather', for example, is an item in a schema for a 'bird'). We may note in passing that cohesion through

meronymy is intimately connected to the device known in poetics as metonymy. Metonymy, in literary theory, has often been discussed in partnership with metaphor (see Wales 1989:297), a semantic relationship which we might add to those listed above. Expressions such as:
'my support' or 'my refuge from the storm'
could thus be added to the list above.

Halliday and Hasan (1976:284-291) list one other type of lexical cohesion which they term 'collocation'. (This concept is reiterated in Halliday 1985:312-313). This is a kind of cohesive link created by the use of different words or phrases which, as Halliday rather vaguely says, "do not depend on any general semantic relationship of the types just discussed, but rather on a particular association between the items in question - a tendency to co-occur." Examples given are 'smoke' and 'pipe', 'white' and 'snow'. Though there are tighter and more rigorous definitions of collocation (for example Cowie 1981) in which the likelihood of lexical co-occurance is predicted, what Halliday and Hasan seem to be suggesting is not only a tendency of words to go together but also to link with other words across sentences and substantial portions of intervening text:

> There is always the possibility of cohesion between any pair of lexical
> items which are in some way associated with each other in the language.
> (Halliday and Hasan 1976:285).

This will, they say, include such associations as those between 'garden' and 'dig', 'doctor' and 'ill', 'sunshine' and 'cloud'. In our opinion, such links are too dependent upon individual experience and knowledge to be treated as an instance of cohesion. We shall regard the effect of such links as dependent upon the contents of schemata.

2.3.5 Substitution and ellipsis.

Another formal link between sentences is the substitution of do or so for a word or group of words which have appeared in an earlier sentence. Another is ellipsis: the omission of an element on the assumption that it can be reconstructed succesfully. Neither of these play a major part in the subsequent argument, but are menitoned in this summary of cohesion for the sake of completeness.

2.3.6 Conjunction.

Yet another type of formal relation between sentences is provided by conjunctions. In Halliday's 1985 description these words are categorized as having a number of functions (Halliday 1985:303-309)[18]. They may simply add more information to what has already been said ('and', 'furthermore', 'add to that') or elaborate or exemplify it ('for instance', 'thus', 'in other words'). They may contrast new information with old information, or put another side to the argument ('or', 'on the other hand', 'however', 'conversely'). They may relate new information to what has already been given in terms of causes ('so', 'consequently', 'because', 'for this reason') or in time ('formerly', 'then', 'in the end', 'next') or they may indicate a new departure or a summary ('by the way', 'well', 'to sum up', 'anyway'). Categorized in this way, they indicate the relationship of utterances within the overall discourse structure. They are in many cases optional and will be dictated by communicative function, discourse type or assumptions about the receiver's knowledge.

2.4 The role of cohesion in discourse.

Some writers (e.g. van Dijk and Kintsch 1983) regard cohesion as an instance of coherence. Others (Brown and Yule 1983:191-199; de Beaugrande and Dressler 1981:48-111) regard the two as distinct. They regard cohesion as an element of text, explicable in terms akin to those of formal linguistics, and coherence as a result of the interaction of text and receiver, which, though it may be aided by cohesion, is distinct and independent from it. It is true that in principle cohesion is neither necessary nor sufficient to create coherence, yet in practice, any discourse of length will employ it. That most coherent texts are also cohesive, however, does not imply that coherence is created by cohesion. Contrast, for example, the following two pairs of sentences:

- It's a mystery to me how the conjuror sawed that woman in half.
- Well, Jane was the woman he did it to. So presumably she must know.

and:

   - It's a mystery to me how the conjuror sawed that woman in half.
   - Well, Jane was the woman he did it to. So presumably she must be Japanese.

The first, even without a context, is both cohesive and coherent. In the last sentence of the second pair, though there is cohesion ('So', 'she'), it

is not clear how the sequence makes sense. It <u>might</u> form part of a discourse, but this would not be by virtue of cohesion, but because of some other information about the context. This is an invented example, but if an actual sequence of cohesive sentences is divorced from its context the same incoherent effect may result:

> She thought, I'm becoming like other people. I'm getting fear and letting the present dim. But it had to happen Mary. Life is made of fear.
> (Other People[1981] 1982:89)

Such texts, though cohesive, are not coherent without some specific knowledge on the part of the receiver (Bransford and Johnson 1973). A reader will assume however that there is coherence, and read on, or seek elsewhere to find it. In fact, the absence of coherence is often an incentive to read further and thus deliberately courted in literary disocurse, whose readers' only motivation to proceed will often be interest or pleasure. The only alternative to this faith in coherence is to label the sender as insane.

Conversely, there are short discourses which are coherent without cohesion (see next section). Such instances have been major factors in pointing to the inadequacy of discourse analysis conducted in purely formal terms and in instigating a search for other sources of coherence. This search has led to investigation of the role of pragmatic interpretative processes (see 3.2 and 3.3), of knowledge of textual structures (see 3.4 and 6.4), and of knowledge of the world in general (see chapter 4). Our argument will be that although awareness of the interaction of knowledge and text in the creation of coherence has now become a commonplace in discourse analysis and AI, it has not yet made a substantial impact on literary theories describing the effect of defamiliarization (see chapter 6). Yet without a sense of this interaction, any analysis of literary effect in purely formal terms is left stranded and easily flawed.

Cohesion is a manifestation of certain aspects of coherence, and a pointer towards it, rather than its cause or necessary result. Cohesion is never more than a partial textual realization of coherence which is a feature of the perception of text rather than of text itself. Even in texts with a density of cohesive ties, many links of co-reference, cause,

sequence and logic, though recoverable by the reader or listener, remain unstated and have no textual manifestation whatsoever. Though an increase in cohesion may, to a certain point, make a text clearer, less ambiguous and more coherent, there is a point beyond which it may make it duller, and less readily processible. This is, for example, particularly evident in legal texts.

In short, in any text, there is a great deal of information which is omitted, not only connections which could be indicated with cohesive devices, but also intermediate and component events, and the motives, plans, feelings and reasoning of actors. If this were not so, any discourse would grow to an unwieldy (even perhaps infinite) length. It would also become pedantic and boring.

Though we are describing these unstated connections as 'omitted' this does not necessarily imply that they were present at some stage in the formulation of the discourse and have since been deleted. When communication takes place and discourse is perceived as coherent, these missing elements can be constructed if necessary by people processing the text, just as they could have been included if necessary by the sender. This is precisely why they are not needed. When seeking to make coherence explicit however, these missing links may need overt statement. Schema theory provides a means of doing just this.

We shall consider a brief invented example:

The guard dog died when one of the prisoners threw it poison meat. The handler cried all night, though we had always thought of him as heartless.

This potentially coherent sequence contains a number of cohesive devices: pro-forms and conjunctions, and verb forms relating across clause and sentence boundaries. One might also argue for a degree of semantic relation between the words 'guard dog', 'prisoners' and 'handler', between 'poison' and 'died' or between 'cried' and 'heartless': they might well be found close together in a semantic network for example (Quillian 1968; Norman and Rumelhart 1975; Garnham 1987: 22-25). The coherence, however, rests on more than these textually realized relations. In terms of causality, for example, neither the causal chain which links the throwing of the meat to the death of the dog, nor the death of the dog to the weeping of the handler, nor the weeping of the handler to the

presupposition that he is heartless, is explicitly stated. Readers suppose that the dog ate and digested the meat; that the poison entered its cells; that this created various medical effects which led to its death; that its death was perceived by the handler; that this perception caused various emotions to arise in his mind; that these emotions caused him to cry; that this crying was perceived by the prisoners, and judged by them to be a sign of compassion, disrupting their previous assessment of the handler. Needless to say, the chain of cause and effect here is further reducible to a level of detail where causes are unknown. Though we talk loosely of 'a cause of death' or 'a cause of tears', it is hard to be precise about either. Motives, too, are unstated. We do not need to know why the dog ate the meat or why the prisoners wanted it to do so. The temporal relation between the events depicted in the two main clauses can also be assumed. In the absence of contrary indication[19], the linear development of discourse is presumed to represent iconically the sequence of events in time (Leech and Short 1981:235).

Coherence, then, while reinforced by cohesion, is also created by elements which have no textual realization, but can be provided by someone processing the text when necessary. Given the human predilection to perceive coherence wherever possible, there may well be instances where the links will be different when provided by different individuals. Such may often be the case in the literary juxtaposition of clauses or sentences. The following opening of a poem by William Empson (though also possibly about poisoning) may meet with less consensus.

> Slowly the poison the whole bloodstream fills.
> It is not the effort nor the failure tires.
> Missing Dates

2.4.1 Meaning as encoding/decoding versus meaning as construction.

To say that the links which create coherence are only very partially realized in the text has severe implications for any merely semiotic theory of language which views communication as the encoding and decoding of thoughts. Although this view has very deep roots in the Western tradition, continuing from the Aristotelian to the Saussurean models of communication, it is one which has been discarded in contemporary views of language, in favour of a view of meaning as actively constructed by the mind through the interplay of the text with knowledge and reasoning

(Sperber and Wilson 1986:1-64). In this post-semiotic paradigm, there are
a number of approaches, each placing different emphasis upon elements in
the construction of meaning. Thus linguistics focuses upon grammar and
semantics. Pragmatics, often taking this linguistic part of processing for
granted, devotes most of its attention to the principles and reasoning
procedures which enable speakers to infer intention, function and facts
with no overt textual realization. AI, while embracing linguistics and
pragmatics, has devoted a large proportion of its attention to the nature
and organization of knowledge of the world. Discourse analysis has tried
eclectically to draw on all these approaches, sometimes seeking for an
extension of the rules of grammar to higher units than the sentence (see,
for example, Harris 1952, discussed above, also Werlich 1976, Longacre
1983), sometimes examining the processing strategies which language users
employ and the textual features which help orientation within discourse.

All of these approaches have in common a 'scientific' approach to the
study of communication. They imply that the scientist and scientific
discourse can somehow stand apart from the process, observe it and assess
it. They also all subscribe to the view that meaning is constructed
through the interaction of some existing mental representation and the
text itself, and that this mental representation can be described and
understood. To talk of coherence, as we have done, as constructed through
links which have no manifestation in the text, implies their independent
existence in the mind. These views unite these approaches, despite their
differences.

2.5 Conclusion.

In this chapter, we have discussed the inadequacy of a description of
formal links in discourse to account for coherence. This indicates a need
for a description of the knowledge of participants in discourse analysis,
in addition to a description of the text. We have also illustrated the
inadequacy of a description of formal intersentential links to account for
'literariness'. Later, in chapter 7, by examining Jakobson's theory of
literariness, we shall advance the same argument with regard to
subsentential features. In this chapter, we have also indicated our
allegiance to a broadly 'scientific' approach to discourse analysis.

Notes to Chapter Two.

1. We follow Clark and Holquist (1984:146-171) in believing that Bakhtin was the author of the book published under the name of his colleague Voloshinov. This is also now the official view in the Soviet Union. See also Terras (1985:34-36). For the alternative view see Matejka and Titunik (1986:vii-xii).

2. Sperber and Wilson (1986), for example, use the term in the latter sense.

3. Lexis, viewed as the formal relationship of lexical items in collocation and sets was a further descriptive level recognized by the neo-Firthians.

4. For an analysis of the iconic representation of time in the sequencing of text see Leech and Short (1981:233-236).

5. Films referred to are listed in Appendix B

6. This echoes Widdowson's own earlier claim (Widdowson 1978:1), ironically rather similar to Krzeszowski's, that the utterance 'The rain destroyed the crops' is not an 'appropriate' answer to the utterance 'Can you tell me the way to the railway station please?'. Clearly one can play Widdowson at his own game with these utterances and think of contexts in which they might be coherent. The second speaker may be a farmer so distraught at the financial ruin brought about by the weather that he or she considers this plight more important than the petty needs of a tourist. More co-operatively, the first speaker may be going to the station to collect a delivery of corn, making the second utterance interpretable through conversational inference as implying that the delivery will not arrive.

7. Our own experience, teaching a grammar course to English native speakers bears this out. Asking students to invent pairs of sentences which could never go together, and other students to think of contexts in which they could, has always resulted in the ingenious invention of some extraordinary - often fantastic - context which makes them coherent: even for such semantic anomalies as 'Today is Monday. Tomorrow is Friday.' It is worth observing, however, that the debate raised by Krzeszowski and Widdowson is applied only to pairs of sentences. Our case for contexts which make sense of any pair might be much harder to maintain for threes, or fours, or larger groups of sentences.

8. In fact neither the words 'Entrez' nor 'Come in' occur in Finnegans Wake. (Richard Brown, Leeds University: personal communication.)

9. AI takes no account of the utterance/ sentence distinction employed in linguistics (Lyons 1968:423; Crystal 1985:277,322).

10. This paper is often cited as the origin of discourse analysis: for example by Barthes ([1966] 1977:83N) and Coulthard (1985:3-6). Coulthard also cites as an equally seminal article Mitchell ([1957] 1975).

11. Following Lyons (1977:642-8), we shall use the term 'referring expressions' for terms which have 'co-reference' (see also Leech 1981:158). Halliday and Hasan⁴ use the term 'reference', although this often has a different meaning in semantics (Lyons 1977: 393,438; Leech 1981:12.)

12. Halliday's use of the term 'conjunction' is more catholic than many others. see for example Quirk et al. (1985:440-444)

13. The use of the term in this sense goes back to the eighteenth century when it was applied to the phenomenon in Hebrew poetry (SOED:1429). In the nineteenth century it was used in the analysis of poetry by both Matthew Arnold (ibid.) and Gerard Manley Hopkins (House and Storey 1959: 108-114).

14. Our notation system (based on Cowie 1987) is given at the beginning of this thesis.

15. Werth describes parallelism in a Sunday Times article on pest control.

16. Though it is dealt with by the Hallidayan approach under other headings, see Halliday (1985: 192-227).

17. The passage is also cited by Cluysenaar (1976:77-80).

18. For an alternative and in many ways more satisfactory description of lexical cohesion, see Quirk et al. (1985:1438-1444).

19. In this example, the use of the past perfect 'had always thought' indicates an event prior to that preceding it in a purely linear way.

Chapter Three.

Discourse Analysis 2: Pragmatic approaches and their capacity to characterize 'literariness'.

3.0 Introduction.

In brief spoken exchanges it is quite common to encounter sequences of utterances that are almost entirely bare of cohesion. The following words, for example, uttered by an elderly woman when she knocked on a male neighbour's door, may with reason be regarded (together with the man's non-verbal response in following her) as a complete, coherent and readily comprehensible discourse.

> Sorry love. I saw you were home. There's a cat stuck under the gate at number 67.

Arguably there are no cohesive ties between the three utterances. (Against this it could be said that 'love' and 'you' are co-referential, as are 'I' and a possible ellipted 'I' in the first utterance'.) There are certainly none which account for the interpretation of the utterances as coherent and meaningful in the way suggested by the neighbour's behaviour.

One way of accounting for the coherence of such a discourse is to look behind the literal meaning and linguistic form of what is said or written, and to consider what the sender of a message intends to achieve with it, to try to understand its function. Let us suppose, in the above example, that the old woman at the door hoped to change her environment, and in order to do so intended to invoke and make use of a social relationship. To realize these broad intentions, she set out 'to establish contact', 'to apologize' for disturbing someone, 'to explain' why she had chosen this door to knock on, 'to ask for' assistance in freeing the cat and 'to report' information.   That this was correctly interpreted is strongly suggested by the fact that she was not surprised by her neighbour's behaviour. We may surmise that if he had simply interpreted her remarks as having the referential function of imparting information and replied: "Oh how interesting. Thanks for telling me", she might, quite justifiably, have been offended.

3.1 Functional views of discourse.

To discover how such inferences are made, it is necessary firstly to examine the range of possible functions of language, and secondly to try to understand how people correctly interpret them. We shall deal with 'function' on two levels: the first concerning the broadest descriptions of the purpose of language in general, the second concerning the more specific acts performed by individual utterances. The two levels are, however, related, as we shall show below. As we examine these approaches to language function and the contribution they may make to an explanation of coherence, we shall simultaneously consider the issue of the function of literary discourse, and whether the approaches described are applicable to it. We are using the term 'function' as we have already noted[2] to describe both what the sender intends to do and what is actually done: the effect on the receiver. When discussing the function of literary discourse, we shall be concerned with the latter sense.

3.1.1 Macro-functions.

There have been many, sometimes conflicting, attempts to classify the main functions of language. Among the most frequently cited in linguistics are those proposed by Bühler (1934); Jakobson (1960); Searle (1969, 1975b); Halliday (1973, 1975[3]); Robinson (1972); Popper (1972); Hymes (1972). (For summaries and comparisons of functional descriptions see Leech (1983:46-58), Stern (1983:221-229); Wales (1989:195-199).) In general, and with one major exception which we discuss below, the functions these writers suggest can be grouped under four main headings: those concerned with expressing inner states[4], those concerned with communicating information[5], those concerned with creating and maintaining social relationships[6], those concerned with affecting the behaviour of others[7]. In the theories of Jakobson, Robinson and Popper there is also fifth category: the metalinguistic function in which language describes and regulates itself. With reason, however, we may reduce this fivefold generalization even further. If we regard the expression of inner states and the discussion of the language itself as communicating information, and if we regard attempts to affect the behaviour of others as part of the regulation of the social world, then we may say that language has, in all these theorists' views, two main functions:

  1) the communication of information about the world;
  2) the creation and maintenance of social relations.

This generalization echoes part of Halliday's categorization of the functions of language. The two major functions above are equivalent respectively to Halliday's

       1) ideational function

       2) interpersonal function. (Halliday 1973:22-46;1976:19-27)

(Halliday's third 'textual' function (1973:42; 1976:28) in which language creates cohesive text - in the ways described in chapter 2 - is quite unlike any of the functions described by the other theorists, and need not concern us here. Indeed, its inward looking self-reflexive nature makes it seem more formal than functional, being more concerned with the internal workings of language than with the relation of language to the minds of its users or the world in which they live. As Leech (1983:57) remarks: "there is something back to front about saying that language has the function of producing instantiations of itself".)

From among the functional theories listed above, we shall concentrate on the classification put forward by Jakobson (1960). We make this choice because Jakobson's classification is distinctive in suggesting a 'poetic' function for language, and for making this function its main focus of attention. Other classifications either include no such function or (having adopted it from Jakobson[e]) pay it less attention. This is the 'major exception' to our broad generalizations. This function does not, however, fit easily into either of the two general categories described above. It is also of particular importance to our later argument, as it is the basis of Jakobson's case for a linguistic characterization of literariness and, as such, the origin of stylistics.

Jakobson's argument is well known, but we shall outline it briefly here. We shall return to it again, more critically and in more detail, in chapter 7.

Jakobson proceeded by first identifying six elements in communication:
- the addresser: not necessarily the same as the sender;
- the addressee: usually but not necessarily the same as the receiver;
- the context: in his terms the referent or information;
- the message: the particular linguistic form;
- the contact: the medium or channel;
- the code: the language or dialect.

Corresponding to each element is a particular function of language, respectively:

- the emotive: communicating the inner states and emotions of the addresser;

- the conative function: seeking to affect the behaviour of the addressee;

- the referential function: carrying information;

- the poetic: in which the message (i.e. form) is dominant;

- the phatic: opening the channel or checking that it is working, either for social reasons or for practical ones;

- the metalingual (*sic*): focussing attention upon the code itself, to clarify it or renegotiate it.

With the exception of the poetic function these categories may be related to the two main categories of function suggested above. Together, they allow human beings to:

1) undertake the co-operative manipulation of the environment (the referential, conative and metalingual functions);

2) create and maintain social relationships (the emotive and phatic, and - again - the conative function);

(It could be argued that the successful human manipulation of the environment is made possible by social relationships and that therefore the second of these categories derives from the first.) The poetic function, however, fits neither of these categories, and must be listed separately. What it enables human beings to do is:

3) something unknown (the poetic function).

For although Jakobson talks of literary language as having a poetic function, he nowhere gives an explanation of what that function is, in terms of what it does or is intended to do. The emotive function expresses inner states and feelings, the conative function seeks to affect the behaviour of others and so on. These are explanations as well as descriptions. But what is it that language with a poetic function does?[9] To say that the poetic function focusses attention on the message, and to describe this with great perception and detail as Jakobson does: this is description, but not explanation.

Significantly, the first two general functions of language are guarded by social sanctions, from which the poetic function is exempt. To send false information is regarded as wrong, and in certain circumstances, illegal and punishable. To ignore the need for phatic communion, or to attempt to direct the behaviour of others without authority is considered

rude and can lead to social isolation. The poetic function is sanctified institutionally as 'art' and, as such, exempted from these restrictions imposed on the other two: artists are often forgiven for being 'rude', 'untrue' or breaking taboos. (In Britain, for example, the argument of 'artistic merit' can be used against charges of pornography.) The high social esteem for those functions of language which enable efficient co-operation and those which create social relationships is easy enough to understand. Human life and prosperity depend upon them. Yet the high social estimate of the poetic function is more mysterious. In chapters 8 and 9, by bringing Jakobson's theories together with schema theory, we shall attempt to give our own explanation of this esteem.

We also note at this stage that fundamental to functional approaches to language "is the belief that uses of language shape the system" (Wales 1989:198)[10]. In Jakobson's view, when the poetic function is dominant, there is deviation from the norms of the linguistic system, and patterning of what are otherwise random elements. Again there is comment that this is the case, but no attempt to explain why.

3.1.2 Micro-functions.

If we accept Jakobson's - or any similar - categorization of language into a small number of 'macro-functions', we might then go on to subdivide each function and specify more delicate categories, or 'micro-functions'. A breakdown of Jakobson's conative function, for example, might look something like figure 2.
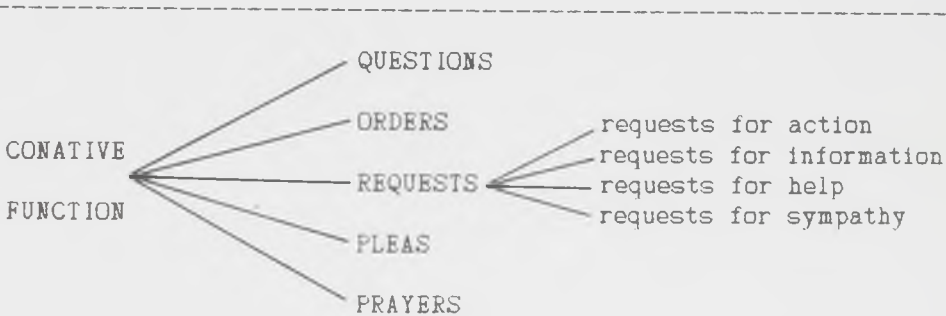
Figure 2. Macro-functions and micro-functions.

Figure 2 follows through only one function in each column, but a similar division and re-division could be made of the other five macro-functions. The result would be a systemic diagram of increasing delicacy, showing a

number of narrowly defined functions on the right-hand side. This classification is similar to Searle's (1975b) attempts to catalogue speech acts by relating them to one of five major families of acts, which we have already refered to as a catalogue of macro-functions. Searle's suggestion is that the acts performed by individual utterances are all either representatives, directives, commissives, expressives or declarations''. (We shall discuss the interpretation of speech acts further in 3.3.1 below.) Whether an exhaustive list is possible is a matter of debate.

Such classifications contribute significantly to explanations of coherence. Once the speech-act function of an utterance has been ascertained, it may be possible to formulate sequences of such acts. (An attempt to do this is decribed in 3.4 below). Thus in explaining the coherence of a sequence such as

The window is open.
Don't worry.

we might first interpret the speech act function of each utterance by examining it in context (as discussed in 3.3 below) and secondly interpret the relationship of the two acts to each other. Here the first utterance, for example, if said by one of two people in bed together in the middle of the night, might function as an expression of worry. (In other circumstances it might have functioned differently. Said by a headteacher to a pupil, for example, it might be an order, by Sherlock Holmes to Dr. Watson ▬ an interpretation.) But as an expression of anxiety it may appropriately be followed by a reassurance:

The window is open.   →   Don't worry.
(= 'expression of anxiety')   →   (= 'reassurance')

There may be expected sequences of functions: 'request' → 'refusal'; 'plea' → 'offer' and so on. Attempts to draw up such sequences are found in Sinclair and Coulthard (1975) (discussed in 3.4. below), and theories of preference organization in conversation analysis (see Levinson 1983:332-345). This is not only the case when a discourse is constructed by two people interacting face to face. It may also hold within the words of a

single speaker. The old woman's utterances (see 3.0) may follow more coherently if we construe them as:

Sorry Love.   I saw you were home.   There's a cat stuck under the gate...
= 'apology'   = 'explanation'   = 'request/report'

There are problems with this procedure, for not all functions can be so neatly labelled, nor is there always such an exact correspondence between a single utterance and a single function. An utterance may perform more than one function at once. Nor is it explained quite why one given act follows another. Nevertheless the important principle remains, that coherence may derive from interpretations of functions and that these interpretations derive from context.

Two unanswered questions remain, however, about the divergence of function and form. If the meaning of an utterance does not wholly reside in the referential meaning, and if people can mean quite different things with the same words, how do human beings interpret - usually quite accurately - what is meant from what is said? Why does this divergence of function and form exist at all when there are linguistic resources for stating the function more directly?

3.2 Interpretation of function 1: conversational principles.

Pragmatics theories of conversational principles and speech acts (see 3.3) may go some way towards providing an answer to this last question. They were developed, as their names suggest, with spoken language in mind, but are applicable to written discourse too.

3.2.1 The co-operative principle.

The idea that conversation proceeds according to a principle, tacitly known and applied by all human beings, was first proposed by Grice ([1967] 1975). He posited the existence of a 'co-operative principle', according to which we interpret language on the assumption that its sender is observing four maxims (op.cit: 45-46). We assume he or she is intending to:

  - be true (the maxim of quality);
  - give as much information as necessary, no more or less (the maxim of quantity);

- be relevant (the maxim of relation);
- be clear, by avoiding obscurity and ambiguity, and being orderly (the maxim of manner).

Using this assumption, combined with general knowledge of the world, the receiver can reason from the literal, referential meaning of what is said to the pragmatic meaning - and induce what the sender is intending to do with his or her words. Consider our own example:

There's a cat stuck under the gate at number 67

The receiver is likely to have started with the knowledge, from experience of the world: that a cat will be unhappy at being stuck under a gate; that a human, by virtue of greater intelligence and manual dexterity is likely to be able to free such a cat; that humans generally like to alleviate the suffering of pets; and that old women in British society frequently have an - often misplaced - belief in the practical abilities of men. (The organization of such information is the domain of schema theory to which we turn in detail in chapter 4.) By virtue of the co-operative principle, the neighbour will also have assumed that the old woman was telling the truth (there was no evidence that she was lying, hallucinating or playing a practical joke). He will also have assumed she was being relevant. If she had come and said, 'There's a flower growing in the garden at number 67', though this would also be true, it would be hard to see its relevance[12]. Assuming all this, it is possible to explain how he interpreted this utterance as a request for help in freeing the cat - as having a pragmatic meaning roughly paraphrasable as

Come and free the cat which is stuck under the gate at number 67.

If we also assume that the speaker tacitly assumed that her addressee knew these facts about the world, and that he would interpret her words according to the co-operative principle, then we can also see why the way she actually phrased her request is not only true and relevant, but also brief and clear. That he did in fact think this way, and that her assumptions about his assumptions were in fact correct, is suggested by the fact that her words were so interpreted, and that she seemed perfectly satisfied with this interpretation. (The potentially infinite extension of the need for assumptions about assumptions, and thus for assumptions about assumptions about assumptions, and so on *ad infinitum*, has often been dealt with in pragmatics (see, for example, Sperber and Wilson 1982; 1986:17; Garnham 1987:46). We shall ignore it here, partly for reasons of

space, but also because it seems to us to be an unnecessary distraction'³.)

The interpretation of discourse is thus the interaction of three levels: the linguistic, the functional and that of world knowledge. These three levels correspond to three types of description: linguistic, pragmatic and schematic and are closely related to the three types of schema we have already suggested in chapter one: language schemata, text schemata and world schemata'⁴. The interpretation of the examples we have given in this chapter can only be interpreted as an interaction of these three levels, and not at one level of description alone. This will be an important principle in our theory of discourse deviation in chapter 8.

3.2.1.1 Departure from the maxims of the co-operative principle.

In the above example, the speaker was able to obey all four maxims at once, and, on the assumption that all four were in operation, the receiver could interpret what she said correctly. But there are cases, when the demands of the four maxims do not fit so happily together. Brevity and truth often pull in opposite directions, and a short utterance is often simplified to the point of distortion. 'Water boils at 100° Centigrade' is brief and considered to be true but is not as true - if one can talk in degrees of truth - as the longer 'Water boils at different temperatures depending on altitude'. Legal discourse and scientific discourse often sacrifice the maxim of quantity to the maxim of quality. The maxims of quantity and manner are often at odds too: clarity may demand length.

There are also times when meaning derives from deliberate violations - or 'floutings' as Grice calls them (op.cit.:49) - of the cooperative principle, always provided that the sender intends the receiver to perceive them as such, and that this is how, in fact, the receiver does perceive them. If the sender does not intend violations of the principle to be perceived as such, or if the receiver does not realize that they are deliberate, then communication degenerates into lying, obfuscation or simply breaks down altogether. It is possible, for example, to flout the quality maxim without lying. Utterances like 'I've got millions of beer bottles in my cellar' or 'My car breaks down every five minutes' are likely to be perceived as figures of speech: as hyperbole, rather than as lies. The same holds for metaphor ('Queen Victoria was made of iron') and irony and sarcasm ('I love it when you sing out of key all the time')

which depend upon the assumption that they will be interpreted as deliberate floutings of the charge to 'be true' rather than as untruths intended to deceive. In such cases, the crucial condition is the sender's correct estimation of the receiver's state of knowledge. These figures of speech work only if the sender knows that average house cellars will not hold millions of bottles, women are not made of iron and so on - a fact which suggests that their succesful use in literature is as much contextual as textual. Through misjudgement of an interlocutor's knowledge of the world, metaphor becomes a lie. Children or people unfamiliar with a given context, for example, may take figures of speech literally ('Was Queen Victoria really made of iron, Mummy?' / 'You English people must have very big houses'). This leads to the disturbing conclusion that the truth of a message is something constructed by sender and receiver, and not only - as is popularly held to be the case - a quality of the sender's intention or the message itself. Interpretation and coherence are constructed not only through language knowledge and knowledge of pragmatic principles, but through the interaction of these two kinds of knowledge with more general knowledge of the world. Again we are pointed towards the need for a description of such knowledge in the analysis of coherence. Such a description is provided by schema theory.

Just as the quality maxim can be flouted for effect, so can the other three. The quantity maxim is violated in both directions: creating prolixity if we say too much and terseness if we are too brief. Prolixity may mark a sense of occasion, or respect; terseness may be judged as rude, or blunt, or forthright. The flouting of the relevance maxim may signal embarrassment or a desire to change the subject. Lastly, the maxim of manner is violated either for humour, as in the case of puns and *doubles entendres*, where rival meanings are deliberately tolerated, or in order to establish solidarity between speakers and exclude an overhearer from the conversation.

3.2.1.2 The co-operative principle and literariness.

The co-operative principle mediates between world knowledge and language knowledge and can go some way towards explaining the construction of coherence: how text becomes discourse in the mind of the receiver (Leech and Short 1981:295; Brown and Yule 1983:31-33; Widdowson 1984:109-110). It is worth noting, however, the rather strange

relationship which exists between this principle and discourse which is classed as literature. Consider, for example, the relationship of literature to the quality maxim. Writing commonly categorized as literary ranges from that presented as true (Homage to Catalonia), to the fantastic (The Tempest). In between these two extremes, there are many kinds of relationship between fiction and fact: works which interweave fact and fiction (War and Peace, The First Circle) or are loosely based on fact (Sons and Lovers); works which are allegorically factual (La Peste, Animal Farm) or which, though fictional, may be interpreted as 'the kind of thing which might happen' (Tess of the D'Urbevilles, Thérèse Desquevroux). In the case of individual utterances, the degree of truth seems singularly irrelevant. To ask whether opening lines like

I was born in the year 1632 in the city of York... (Robinson Crusoe)
I went to the Garden of Love (The Garden of Love)

are true, is quite beside the point. It is the case, however, (Barthes [1966] 1977:102; Eco 1979:166; Pitrat [1985] 1988:8-9) that even in the most fantastic literature the connections of minor constituent detail must be perceived as possible in the real world, however fabulous the overall effect. It is also the case, as Short (1989) argues in an analysis of drama, that the presuppositions in fictional utterances build up a world against which the truth value of subsequent utterances can be measured. Nevertheless, the operation of the quality maxim is in literature very different in kind (Searle 1975c).

Similarly, the quantity maxim is difficult to apply to literary discourse. What is the appropriate length for something which has no apparent practical or social function? By any practical criterion any work of literature is too long. Yet, conversely, the compression of meaning is also a feature of literature, and often perceived as a virtue. The kind of linguistic inventiveness so amply detailed in the literature of stylistics often effects a degree of economy, which is implicitly praised. Widdowson (1975:15), for example, cites Shakespeare's word class conversion of the noun 'boy' to a verb in the line

And I shall see some squeaking Cleopatra boy my greatness

observing that this enables a number of ideas to be brought together simultaneously, which in paraphrase would take many more words. In fact, the implicit claim of any school of literary criticism which devotes its

time to explicating the meaning of texts at much greater length than the text does itself, implies both the existence of compression and a positive assessment of that compression. This flouting of the quantity maxim in literary texts, however, creates quite different effects than the terseness it might create elsewhere. Similarly, the maxim of relevance is hard to apply to texts with no immediate practical or social effect. Lastly the flouting of the maxim of manner, like that of the flouting of the maxim of quantity, is often regarded as a virtue in literary writing. The Russian formalists referred to this as 'impeded form': a common feature of literary writing (see 6.3.1).

It is also worth noting that co-operative principle does not always apply easily to either intimate or belligerent interactive discourse. Here frequent repetition infringes the quantity maxim and sudden unexpected topic switches infringe the relevance maxim. This tallies with the suggestion by Wolfson (1988) that discourse between people in a clear power relationship is often very similar to that between people on intimate terms.

> when we compare these behaviours in terms of the social relationships of the interlocutors, we find again and again that the two extremes of social distance - minimum and maximum - seem to call forth very similar behaviour. (op.cit: 32).

Between these two extremes is what Wolfson terms 'the bulge': the great majority of relationships which are neither. Grice's maxims apply most successfully to this bulge - the civil interaction of acquaintances - rather than to closer and more emotional intercourse. The similarity of literary communication to the two extremes suggests that it too suspends social niceties. The literary voice is both the voice of power and the voice of an intimate.

In non-literary discourse, however, of the kind to which Grice applied his principle, the meanings created by these floutings are often social, signalling the attitude of the sender to the receiver of the message, and the kind of relationship which exists or is developing between them. Grice viewed these attitudinal meanings as being created by departures from the co-operative principle. An alternative way of looking at this is to posit another principle also universally present in human intercourse: the politeness principle.

3.2.2 The politeness principle.

The politeness principle, like the co-operative principle, may be formulated as a series of maxims which people assume are being followed in the utterances of others. As with the co-operative principle any flouting of these maxims will take on meaning, provided it is perceived for what it is. Although Grice had suggested the existence of such a principle, he had not developed it in detail. The idea was, however, considered by Lakoff (1973), and by Leech (1983:132)[15].) Lakoff formulated the maxims of a politeness principle as follows:

- don't impose
- give options
- make your receiver feel good

These maxims of the politeness principle explain many of those frequent utterances (excluding literary ones) in which no new information is communicated about the world. The words 'I'm sorry. I saw you were home.' are an attempt to mitigate an imposition. In English, requests, order and pleas are often interrogatives ('Would you mind/ Could you possibly/ May I ask you to') which give the option of refusal; apologies ('I'm sorry to bother you'); and add praise to make our hearer feel good ('You know much more about car engines than I do'). Clearly the politeness principle and the co-operative principle are often in conflict with each other. Politeness and truth are often mutually incompatible (a fact acknowledged in the popular expression 'a white lie') and so are politeness and brevity.

The co-operative and politeness principles, and the tension between them, like the functional theories of language discussed in 3.1, again reflect a dual purpose in human intercourse: to act efficiently together with other people, and to create and maintain social relationships. There are situations, and there are types of relationships, in which one of these purposes becomes dominant, and the other hardly matters at all. In emergencies, when there is a need for immediate action, it is hardly appropriate to follow the politeness principle. When commenting on someone's new hairstyle, on the other hand, the truth of the assessment may seem unimportant.

3.2.2.1 The politeness principle and literariness.

Like the co-operative principle, the politeness principle seems singularly irrelevant to much literary discourse, and it would be hard to

answer a   question, after reading a novel or poem, as to whether the
sender had been polite. Leaving aside the obligations imposed on students
to read for examination, it might also be said that literary texts are
typically ones which, as they serve no immediate practical purpose, may be
taken or left as the receiver wishes. Despite this, they often take up a
great deal of time. As such they both keep and break the maxim: 'Don't
Impose'. As non-reciprocal discourse, they give no options in the sense
that their development cannot be affected by the reader; on the other hand,
they give the receiver an option *par excellence*: to cease receiving
altogether, by closing the book or walking out of the theatre. Whether
literary discourse makes its receivers 'feel good' is a similarly moot
point, varying wildly from text to text and reader to reader, and
considerably complicated by the deliberate seeking out of literature which
causes sadness and pain.

Brown and Levinson (1978, 1987) suggest that the origin of the co-
operative and politeness principles is the same in all societies. All
human beings need to manipulate the environment. To do this successfully,
they need to co-operate, and to enter into social relationships in which
they must acknowledge the 'face' of other people. They avoid intruding
upon each other's territory - physical territory, a particular field of
knowledge, a friendship - and also seek to enlarge the territory of others
- make the other person feel good in Lakoff's terms - presumably on the
assumption that the same will be done to them. (Literature, we might note,
intrudes very much upon face, in the sense that it often concerns the most
intimate of subjects.) The specific nature of face varies from society to
society. In some societies, parents have more rights to interfere in the
domestic affairs of adult children than in others. In some cultures, a
bedroom is private and cannot be entered without permission, while in
others it can. Moreover the precise way of indicating respect for face
may be culture specific, and not subject to direct translation. In some
cultures, initial refusal of an offer may be merely polite, and invite
repetition, in others the opposite may be true. Though their realizations
differ, the two, often conflicting aims of communication - to co-operate
and to maintain social relations - are universal. Brown and Levinson's
theory also goes some way towards answering the question of why people
speak indirectly. It enables them to give options, and also to retreat, to
save their own 'face', behind the literal meaning of what is said.

3.2.3 A third principle: of cognitive change.

The co-operative and politeness principles, then, reflecting a universal need to act together and to maintain social relationships, have been seen as a source of functional interpretation. Yet, on their own, they are inadequate in dealing with certain types of discourse, including literary discourse. In our last two chapters we shall argue that some discourse (including many literary texts) is motivated by neither of these principles and demands interpretation by quite some other principle. We shall call this other principle the 'Cognitive Change Principle'. According to this principle, some discourse is best interpreted as though it followed a maxim: 'change the receiver'. Such discourse fulfils the need to rearrange mental representations: a process which can be best effected in the absence of pressing practical and social constraints. Certain types of discourse may aid this rearrangement, but in so doing, they demand suspension of both the politeness and co-operative principles. This is a major claim which we develop in chapter eight.

3.3 Interpretation of function 2: speech acts.

A further relevant approach from pragmatics is speech-act theory. This was first formulated by Austin (1962) and further developed by Searle (1969, 1975, 1975b), who both added to Austin's original ideas and presented them more systematically (see note 11). These ideas have subsequently been developed by other thinkers, but for the sake of clarity and brevity, we shall treat them as a single body of thought. The terminology we use is from Searle (1975b). Speech-act theory is advanced in discourse analysis to explain how knowledge is brought into play in the construction of coherence (Labov and Fanshel 1977; Widdowson 1979:97-98; Leech and Short 1981:290-294; Brown and Yule 1983:231-234).

Speech-act theory observes that there is a class of highly ritualistic utterances which carry no information about the world at all, because they refer only to themselves. Examples of such utterances are swearing an oath, sentencing a criminal, opening a building, arresting a felon, naming a ship. They are utterances in which saying the words and doing the action are the same thing: the function is created by the form. Such utterances are 'declarations'. The utterance 'I sentence you to death', for example, performs the function of sentencing someone to death, and this function is only performed (within certain legal systems[6]) by this

utterance. However, the utterance only succeeds in having this function if certain external conditions are fulfilled. The words must be uttered by someone with the necessary authority, in a country in which there is a death penalty, to a person who has been convicted of a particular crime; they must be spoken, not written, at the right time and in the right place. For the words to function as a death sentence, all these conditions must be fulfilled. Such conditions are 'felicity conditions'.

Declarations, however, are only a special case of a much commoner group of utterances, performatives. These are also utterances in which saying is doing, and they too are only successful if certain felicity conditions are fulfilled, but, unlike declarations, their related verbs ('vow', 'arrest', 'declare' etc.) are not always actually said. A good, and often cited example, dealt with in detail by Searle (1975), is the act of ordering someone to do something. To do this it is possible to use the verb 'order' or use the imperative form, which is often associated with ordering. Yet, as with declarations, such utterances will only be perceived as orders if certain conditions are in operation and known to be in operation by both the sender and the receiver. The felicity conditions for an order are:

1) The sender believes the action should be done
2) The receiver has the ability to do the action
3) The receiver has the obligation to do the action
4) The sender has the right to tell the receiver to do the action

If any one of these conditions is not fulfilled, the utterance will not function as an order. Consider a situation in which a speaker tries to order a hearer to clean a pair of boots. For the speaker's utterance to function as an order, all of the above conditions must be fulfilled. If the speaker does not really believe that this should be done, then the order is insincere, and flawed (Condition 1). The speaker can order the hearer to clean the boots, but not to eat the Eiffel Tower - the hearer will not have the ability (Condition 2). The order will not succeed as an order unless the hearer is obliged to clean the boots (Condition 3), and the speaker has the right and the power to make them do so (Condition 4). Conversely, we can see that if the conditions do hold, then any reference by the sender to the action will be perceived as an order, even without an explicit form like 'I order you to...' or the imperative.

Developing this description of performatives, speech-act theory
formulates felicity conditions for other 'families' of acts, each member of
the family sharing felicity conditions with other members (Searle 1975b).
The family of 'expressives' includes the acts of congratulating,
welcoming, thanking, and apologizing; the family of 'commissives' the acts
of promising and contracting; the family of 'directives' the acts of
threatening, ordering, praying, advising and warning; the family of
'representatives' the acts of asserting, claiming and stating. As the verb
related to a particular act need not be said, but can be inferred if all
the felicity conditions hold and are known to hold, then various layers of
meaning can be identified. The formal literal meaning of the words is the
'locution'; the act which is perfomed by saying it the 'illocution'; a third
layer is the 'perlocution' or overall aim of the discourse (Searle 1975).
An utterance is said to have 'illocutionary' and 'perlocutionary' force.
Meaning becomes more and more slippery as we move from one layer to the
next. This is something which human beings exploit to their advantage.
It enables them to avoid committing themselves and to retreat in front of
danger; and this is one of the major reasons why people speak indirectly.
'Are you busy?' is a more avoidable request than 'Sit down and talk to me'.
Quite often, people explicitly discuss, or try to clarify the illocutionary
and perlocutionary force, to formulate the 'upshot' of what is said. This
is often a major concern of legal discourse. Even in more casual
situations people often try to get at the upshot of what is being said,
through utterances such as 'What are you trying to tell me?'.

Speech-act theory, which relates the function of utterances to sets of
felicity conditions and the knowledge of participants that these
conditions exist, may, like the theory of conversational principles,
provide a partial explanation of coherence. It provides a means of
probing beneath the surface of discourse and establishing the function of
what is being said. This in turn may help in the formulation of
structures beneath the surface, sequences and relations of acts.

3.3.1 Speech-act theory and literariness.

Yet like the conversational principles of co-operation and politeness,
speech-act theory encounters problems when applied to literature, and
indeed to non-reciprocal discourse in general. Firstly, and most
obviously, the inference of an illocution, when a related verb is not used

in its expression, depends upon the sender's correct assessment of the receiver's knowledge. Yet literary texts have, along with other written texts for unspecified receivers, a degree of uncertainty about the knowledge of the receivers; they are also very frequently severely displaced in time and culture. What judgements, for example, could Homer have made about the knowledge of his readers in the twentieth century? Secondly, although perlocutionary force is, as we have observed, at the best of times elusive, it seems likely, in the case of literature, that there is often, in the sense that literary works lack an overt purpose, no perlocutionary force. Thirdly, if interpretation relies upon mutual knowledge of relevant context, then in a fictional work, it is often difficult to say what the implied elements of relevant context are. On the other hand, relevant features of the context are often explicitly stated. They may also be constructed from the inferred presuppositions of utterances (Short 1989).

3.4 Discourse structure.

Pragmatics provides us with a means of relating stretches of language to representations of the physical, social and psychological world in which they occur. Discourse, indeed, might be defined as the totality of all these elements interacting. Yet pragmatics tends only to examine how meaning develops at a given point. Some means is needed to describe the linear development of discourse too.

One way of representing the relationship of parts in discourse is as a rank structure, analogous to the rank structure proposed for grammar. As each element may consist of one or more of the elements of the line below, it is possible for a discourse to consist of a single utterance, just as it is possible for a sentence to consist of a single clause which consists of a single phrase which consists of a single word. ('Go!', for example). Thus, if we regard a three volume series of books as a complete discourse, for example, we can render its structure as in figure 3. Similarly the structure of a trial might be rendered as in figure 4.

What is proposed is not a rank structure applicable to all discourse in the way that the grammatical rank structure is applicable to all sentences, but a structure specific to a particular discourse type. For these structures rules of 'grammar' may be drawn up. In the discourse type 'trial', for example, if the token paradigmatically selected from the

Ranks: Tree Diagram:

Figure 3. Rank structure of a discourse type (1).

_____

Figure 4. Rank structure of a discourse type (2).

_____

closed set ('guilty'/'not guilty'/ no plea) is 'guilty' then every subsequent
syntagmatic selection element up to the verdict is omitted.

In many discourse types, the boundaries of units are clearly marked.
Volumes are physically separate; parts and chapters are labelled as such;
paragraphs are marked off by indentation and are visible without reading
the words. Similarly the stages of a formal spoken discourse are also
often clearly marked with utterances such as 'I rest my case', 'Let me ask
you another question' or 'Next witness'. Other discourse types do not have

such overtly marked units; but they may also be susceptible to the same representation.

An influential study in this field was carried out by Sinclair and Coulthard (1975) and we shall use it here to introduce the concept of discourse structure. The discourse chosen by Sinclair and Coulthard was primary school lessons, a number of which were recorded and transcribed. With minor exceptions like reference to the raised hand of a pupil, the analysis was carried out on these transcripts only, and the situation, in terms of what could be seen by the participants, was ignored. On the basis of this data the authors proposed a rank structure for these lessons as follows:

- Lesson
- Transaction
- Exchange
- Move
- Act

Acts, the lowest rank in this scale, are examples of speech acts (see 3.3). It is not clear quite what the felicity conditions for establishing these acts were. To have spelt out these conditions might in fact have revealed an important absence of rigour, despite the apparently scientific approach of the study; for felicity conditions demand access to the inner intentions and beliefs of participants which, though they may be stated reasonably enough in invented philosophical examples, are hard to come by in actual discourse. (For a discussion of the problems inherent in analysing actual discourse into acts see Labov and Fanshel 1977). Sinclair and Coulthard did, however, posit a finite number of acts used by the teachers and pupils in their data and gave each one a code as in table 1.

Rules were drawn up, based on the data, showing how these acts combine together to form moves and how moves combine to form various kinds of exchange. These rules are analogous to grammatical rules describing how words combine into phrases, or phrases into clauses. One kind of exchange, for example, called a Teaching Exchange, consists of between one and three moves:

Opening   (Answering)   (Follow-up)

(An element within brackets is optional.) Going down to the next layer, each of these moves consists of specified acts, as in figure 5.

Code	Act	Function	Realization (e.g.)
acc	Accept	shows T has heard correct information	'yes', 'good', 'fine'
ack	Acknowledge	shows P has understood,intends to react	'yes', 'ok', 'mmhm', 'wow'
z	Aside	T talking to himself/herself	Statement/question/command
b	Bid	signals desire to contribute	'Miss!' 'Sir!' Raised hand
ch	Check	checks progress	'Finished?''Ready?' Questions
c	Cue	evokes bid	'Hands up!' 'Don't call out!'
cl	Clue	gives extra information	Statement/question/command
com	Comment	exemplifies/expands/justifies	Statement/tag question
con	Conclusion	summarises	'So,what we've been doing is..
d	Directive	requests action	Imperative
el	Elicitation	requests answer	Question
e	Evaluation	evaluates	'Good!' 'Interesting.' 'Yes.'
i	Information	provides information	Statement
l	Loop	returns to point before P's answer	'Pardon?' 'Again?'
m	Marker	marks boundary in discourse	'Well.' 'ok' 'Right'
ms	Metastatement	explicitly refers to development of lesson	Statement
n	Nomination	tells or permits a P to contribute	'You.' 'Yes.' 'Jane.'
p	Prompt	reinforces directive or elicitation	'Go on.' 'Hurry up.'
rea	React	provides appropriate reply to directive	non-linguistic
rep	Reply	provides appropriate reply to elicitation	Statement/question/nod
*	Silent Stress	highlights marker.	pause
s	Starter	provides information to facilitate response	Statement/question/command

(based on Sinclair and Coulthard 1975:40-44 (P = pupil; T = teacher)
Table 1. Acts in classroom discourse.

An Opening Move consists of the following Acts (/ = or):

```
     (m)    + (s)          + el/d/i/ch +   (p/cl) +   (c/b/n) + (s)
      |        |               |            |          |        |
e.g. (Right) (we're going   What's the   (You can    (Angela) (It begins
             to continue our longest river remember if          with M.)
             study of rivers) in the world? you try)
```

an Answering Move of

```
        (ack)         +    rep/rea/ack    +     (com)
         |                  |                    |
e.g (Yeah yeah, hold    That funny one. Missis  (That was easy
     on a minute)        ..er.. Mississipi        that was!)
```

and a Follow-up Move of

```
        (acc)       +      (e)        +       (com)
         |                  |                   |
e.g.   (That's right)  +   (Good)           (I'm very pleased with you)
```

(invented example based on Sinclair and Coulthard 1975)
Figure 5. Moves in classroom discourse.

We have described the Birmingham School approach as an influential, and seminal approach to the analysis of structure in discourse analysis. It does however have a good deal in common with much earlier structuralist descriptions of various text types, such as those by Propp ([1928] 1968) and Todorov ([1971] 1977) (to which we return in 6.4.) As such it reveals that the concerns of discourse analysis and literary theory are not so distant as might at first appear. If, as this chapter argues, the former would benefit from a more rigorous analysis of the knowledge representations used in the construction of coherence, then so too, it seems reasonable to claim, would the latter.

The Birmingham School approach has since been applied to many different discourse types: for example medical consultations (Coulthard and Montgomery 1981) and television quiz shows (Berry 1981). Those discourse types to which this approach is most easily applied tend to have certain features in common. They are all rather formal and ritualistic, and feature one participant with the institutional power to direct the discourse. This person may well plan the development of the discourse in advance, operating within the fairly narrow limits of the social conventions for that discourse type. There are cases where participants depart from the plans and conventions. Such 'deviation' from the expected structure is interpreted in varying ways. When it is assumed that such a structure is known and deliberately flouted, the deviation may be interpreted as insubordination, crime or madness - or, if judged more positively, as radical political action. If the deviation is assumed simply to arise from ignorance then it may be put down to immaturity or perhaps to the fact that the perpetrator is from a different culture. But again, as with the flouting of conversational principles, deviation from the predictions enabled by a discourse structure in literature, seems to produce quite different effects. In many ways, as we have said, the Birmingham School description simply assigns to spoken discourse the kind of 'story grammar' beloved of structuralist literary theory (see 6.4) and later taken up in AI (Rumelhart 1975) though it is true that these are more textual than discoursal. In such descriptions there is analysis both of conformity to type and departure from it. Deviations are, moreover, often judged positively. The Birmingham School analysis simply cannot cope with deviant though coherent discourse. Fortunately for the analysts, the

transcripts contain no instances of creative misbehaviour: the classroom
equivalent, from a structuralist viewpoint, of art.

3.5 Discourse as process.

Dialogue in the narrow sense of the word is of course only one of the
forms - a very important form to be sure - of verbal interaction. But
dialogue can also be understood in a broader sense, meaning not only
direct, face-to-face, vocalized verbal communication between persons, but
also verbal communication of any type whatsoever. A book, i.e., a verbal
performance in print, is also an element of verbal communication.
(Bakhtin [Voloshinov] [1929] 1973:95)

The Birmingham School approach examines spoken discourse, seeking to
interpret it in terms of a rank structure and showing that when it is
analysed after the event, it is more rule governed than might at first be
apparent.   Knowledge of a particular structure presumably enables
participants to relate utterances to each other and perceive them as
coherent. We have compared this approach to structuralist analyses, and
despite some obvious differences the comparison seems to be a valid one.
Against this, it might be argued that the discourse of a primary school
lesson is fundamentally different from that of, say, a novel or story, in
that it is the creation of several people in interaction, and thus only
partly under the control of one individual. It might also be observed
that it is spoken rather than written and that these are fundamentally
different parameters in discourse typology. In the remainder of this
chapter we shall advance several arguments against these typological
parameters: dialogue versus monologue; written versus spoken.

The traditional division of language into the spoken and the written is
clearly and sensibly based on a difference in media and perception, the
means of production and reception. There are many other differences too
(Gregory 1966; Halliday 1985:xxiii-xxv). Yet in terms of discourse
structure and typology the difference may not be so fundamental. Spoken
discourse is often considered to be less planned and orderly, more open to
intervention by the receiver. There are some kinds of spoken discourse,
however, (like lessons, lectures, interviews and trials) which have
significant features in common with typical written discourse. As we have
seen in our summary of the Birmingham School approach, these kinds of
spoken discourse are also planned, and the possibilities for subordinate
participants can be severely limited. It is clear that in reading a novel

one cannot influence its development (that can be the pleasure or pain of reading), but it is almost equally hard for a criminal to influence the direction of a trial, or a primary school pupil to prevent the lesson progressing as the teacher intends.

An important alternative view of spoken discourse is provided by the conversation analysis of ethnomethodology. This reveals that even conversation, which is apparently the least structured type of discourse, yields a surprising degree of patterning to analysis (Levinson 1983:284-370). It also provides a fundamentally different approach to that of the structuralists and the Birmingham School. Rather than trying to impose large structures on what is happening from the outset, it begins at the most local level, trying to see how participants in interaction handle conversation: how they judge who can speak, and when. Indeed conversation analysts regard work like that of Sinclair and Coulthard as over-hasty, calling it 'premature theorizing' (Levinson 1983:287). Rather than wait until a discourse is finished, and then analyse it as a whole, from outside and with the benefit of hindsight, the ethnomethodologists try to understand how it unfolds in time. They view discourse as a developing process, rather than a finished product; and this, after all, is how the participants must be handling it and making sense of it, without the benefit of transcription and *post hoc* theorizing. The difference is analogous to that between process grammars and product grammars (see 4.1 below). It is also analogous to the schism in literary theory between the work of the structuralists (see 6.4) and the work of reader-response and reception theorists (see 7.4).

It is worth remarking at this point that conversation, apparently so far removed from writing in its casual haphazardness, shares many features with literature. Therefore the kinds of process models used in its analysis may be highly relevant to literary theory. Conversation analysis in fact shies away from the issue of definition. But let us assume that this rarely defined, but intuitively recognizable kind of talk may be characterized as follows:

1) It is not primarily motivated by a practical task
2) Any unequal power of participants is partially suspended
3) The number of participants is small
4) Turns are quite short

5)   Talk is primarily intended for the participants and not for an outside audience

These definitions are imprecise - as imprecise as any working definition of literature.   The boundary between conversation and other discourse types, like that between literary and non-literary discourse, is a fuzzy one, and there are many intermediate cases.   Yet this resistance to definition is not the only feature conversation shares with literature. Literature is also unmotivated by practical need, marked by an intimate relationship between sender and receiver: the act of reading is perceived as a private experience, a direct communication with the author.   Both literature and conversation are at once predictable and unpredictable. Conversation may serve the purpose of refreshing and changing schematic knowledge (Edwards and Middleton 1987) in a similar way to literature. These features may make some of the observations of conversation analysis as a discourse type pertinent to the analysis of literature.

3.6 Discourse as dialogue.

This chapter has argued for the construction of coherence as the interaction of text and knowledge.   Text (which is itself the product of the tacit language knowledge of the receiver in interaction with substance) must enter into further relationships with pragmatic knowledge (3.2, 3.3), structural knowledge (3.4) procedural knowledge (3.5), and knowledge of the world.   The next chapter will examine the issues of the representation and organization of world knowledge (schema theory) as a prelude to relating the latter to literature and literary theory.   Yet it would be wrong to regard these elements in the construction of coherence as discrete and mutually impenetrable.   In later chapters we shall argue that, contrary to some of the theories advanced in AI, text and world knowledge both constantly affect each other, and that this dynamic interaction is particularly true of a certain type of discourse (to be defined in Chapter 8) including many literary discourses.

It is pertinent at this point in the argument to draw attention, in illustration of this, to a phenomemenon extensively studied in linguistics: 'Functional Sentence Perspective' (hereafter FSP) (a term often attributed to Mathesius'[7]).   This refers to the different linguistic forms (specifically the different syntactic arrangements) which may realize the same conceptual content. This phenomenon can be explained in terms of

the interaction of form and knowledge: more specifically in terms of the interaction of form with the sender's knowledge of the knowledge of the addressee.

As such the issue is profoundly connected with the role of dialogue in discourse and with the effect of an author's presuppositions about readers. These are issues which are much discussed in literary theory. Formalists, structuralists and new critics argue for an examination of the text as an autonomous object unsullied by consideration of authorial intention or reader variation, while phenomenologists, reader-response and reception-theory critics argue for the necessity of including a description of the individual reader (see 7.4). Bakhtin (Voloshinov ([1929] 1973:83-99)) argues that dialogue is one of the fundamental structuring principles of all discourse, written and spoken alike. The phenomenon of FSP, gives weight to this hypothesis even at the level of the clause, and thus penetrates far into the territory of sub-sentential linguistics. Paradoxically, this domination of the 'dialogic principle' is as true in discourse - like literary discourse - which appears to be created by one person alone, as it is in discourse which is created by two or more. It is also arguably true - we may note in passing - that dialogue precedes monologue in both ontogenetic and philogenetic language development, and this gives further weight to arguments for its predominance in human discourse in general.

FSP is also important in our argument as it suggests a limitation to the representation of discourse in formal languages by AI (see next chapter).

3.6.1 Reciprocity in discourse.

As a prelude to examining the influence of dialogue on monologue, let us suppose that there are two fundamental types of discourse: reciprocal and non-reciprocal. Discourse is reciprocal when there is at least a potential for interaction, when the sender can monitor reception and adjust to it - or, to put it another way, when the receiver can influence the development of what is being said. In non-reciprocal discourse, sender and receiver may have no opportunity for interaction. The prototype of reciprocal discourse is face-to-face conversation. The prototype of non-reciprocal discourse is a book by a dead author. The distinction, however,

is misleading. Suppose reciprocal and non-reciprocal discourse are considered to be opposite poles of a cline.

RECIPROCAL ----------------------------------- NON-RECIPROCAL

If we try to assign positions to particular instances of discourse we find firstly that there are many intermediate cases, and secondly that absolutely non-reciprocal discourse is unlikely. Even writers working in solitude try to form some idea of the receiver of their work and adjust to it - the meaningfulness of what they say can be viewed as a measure of the success of that prediction and adjustment.

All discourse is more or less reciprocal, if only because it is based upon assumptions about receivers. It should also be clear that although there is a general tendency for speech to be more reciprocal and writing to be less so, this is by no means necessarily true, and the reciprocal/non-reciprocal cline, like the formal/informal cline, cuts across the distinction between speech and writing. A church liturgy, though spoken, is far from the reciprocal end of the scale, but a scribbled memo, though written, may trigger off a series of replies and counter replies, and is thus highly reciprocal.

3.6.2 Functional sentence perspective (FSP).

So far we have described the reciprocity of all discourse in the vaguest of terms, connecting it to the mechanisms of dialogue only generally by saying that monologues are often constructed with the receiver in mind. Yet this structuring of discourse along the patterns of dialogue has an effect at the most detailed, grammatical level.

Chapter 2 examined the details of formal lexical and grammatical connections between clauses and sentences in monologue. Another kind of formal connection in monologic discourse is very intimately related to dialogue with an imagined receiver. One could even regard the end of each clause as the point at which the sender assesses the effect on a potential receiver, imagines a reply, and adjusts the next sentence accordingly.

If we want to tell somebody a fact about the world - let's say that Jane ate fish and chips - we have a number of ways in which we can put this into a sentence. We could say simply:

- Jane ate fish and chips

but there are many other ways of saying the same thing:

- It was Jane who ate fish and chips.
- What Jane did was eat fish and chips.
- The person who ate fish and chips was Jane.
- Fish and chips were eaten by Jane.
- Eating fish and chips is what Jane did.
- Fish and chips Jane ate.
- Fish is what Jane ate - and chips.

In a discourse consisting of a succession of sentences each one will make a choice between the kind of grammatical options illustrated above. The strange thing about these choices, however, is that while each sentence apparently means exactly the same thing, the aptness of choices, from the reader's viewpoint, may aid or disrupt the construction of coherence. This is best demonstrated by example. Consider the following two versions of the biographical sketch of Ernest Hemingway which appears on the inside cover of the Penguin edition of For Whom the Bell Tolls:

1) It was in 1899 that Ernest Miller Hemingway was born in Oak Park, a highly respectable suburb of Chicago. Being a doctor was the occupation of his father, a keen sportsman. Of six children, Ernest was the second. A lakeside hunting lodge in Michigan, near Indian settlements, was the place where holidays were spent by the family. Although in school activities Ernest was energetic and successful, twice he ran away from home before the Kansas City Star was joined by him as a cub reporter in 1917. The Italian front was the place where he volunteered to be an ambulance driver during the next year. Somebody wounded him. Features were written by him for the Toronto Star Weekly when he returned to America in 1919. 1921 was the year he married. As a roving correspondent he came to Europe, and several large conferences were covered by him.

2) Ernest Miller Hemingway was born in 1899 at Oak Park, a highly respectable suburb of Chicago, where his father, a keen sportsman, was a doctor. He was the second of six children. The family spent holidays in a lakeside hunting lodge in Michigan, near Indian settlements. Although energetic and successful in all school activities, Ernest twice ran away from home before joining the Kansas City Star as a cub reporter in 1917. Next year he volunteered as an ambulance driver on the Italian front and was badly wounded. Returning to America he began to write features for the Toronto Star Weekly in 1919 and was married in 1921. That year he came to Europe as a roving correspondent and covered several large conferences.

A reader (and such judgements must always be reader-specific) may judge which of the two versions is more easily perceived as coherent. This reader (i.e. the present writer), who re-wrote the original (2) as (1) would imagine, on the assumption that he shares many assumptions with other readers, that (2) is the more readily coherent. In fact, contrary to

opinions expressed in reader-response literary theory, there is evidence
from empirical studies to support the view that there is more uniformity
of judgement among readers than might at first appear (see van Peer 1986,
Short and van Peer 1989, Short and Alderson 1989).

If coherence is affected by such choices of FSP, then it is possible
that the choice is being dictated by the sentence before, each one having
a 'knock-on' effect on the structure of the next. If this, and only this,
were the explanation, then FSP might justifiably be regarded as another
instance of context-independent formal connection between sentences (like
endophoric cohesion). FSP, however, is contextual as well as formal,
dictated by the assumptions of the sender about the knowledge of the
receiver. Monologic discourse, in fact, may be viewed as a succession of
answers to imagined and unspoken questions by the receiver (Widdowson
1978:25-26). In this light, all discourse seems to proceed dialogically,
even if the other voice, is only present as a ghost.

    - (Where and when was Ernest Hemingway born?)
    - Ernest Hemingway was born in 1899 at Oak Park, a highly respectable
    suburb of Chicago
    - (What did his father do?)
    - where his father, a keen sportsman, was a doctor
    - (What was his position in the family?)
    - He was the second of six children
    - (Where did the family spend their holidays?)
    - The family spent holidays.....

and so on. The order of information in each answer is dictated by the
question, in that, as a general rule, known information is fronted and
unknown information forced to the end, following the principal of 'end
focus' (Quirk et al. 1985:1360-1362).

It is not our intention here to examine in all their complexity the
many different analyses of this phenomenon, and in particular we shall say
nothing about the interaction of phonetic focus (which is the central
concern of many studies) and that achieved by syntactic reordering.
Suffice it to say that in all the varying interpretations and their
different terminologies, there is agreement that the clause has a bi-
partite structure, and the function of choices is to enable different
information to be brought into different degrees of prominence.

One widely accepted explanation is that the ordering of the discourse
is determined by the sender's hypotheses about what the receiver does and

does not know (Halliday 1976:174-188; Halliday 1985:278-281; Quirk et al. 1985:1360). Information divides into two types - that which the sender thinks the receiver already knows, and that which the sender thinks the receiver does not already know - 'given' and 'new' information respectively. Any unit of information may change status as the discourse proceeds, and what was new in one sentence become given in the next, precisely because it has just been said. Indeed communication might be defined as the conversion of new information into given information, and a successful communicator as a person who correctly assesses the state of knowledge of his or her interlocutor. If the sender misjudges, and treats what is given as new, the discourse will be boring; in the reverse case, when the new is assumed to be given, discourse becomes incomprehensible. In this sense it can be said that the structuring principle of all discourse is dialogue.

A typical discourse then, proceeds roughly as follows:
- Given.....New.   Given.....New.   Given.....New.
each given unit being already known by the receiver, or deriving from a preceding piece of new information. The boundary between each pair may well coincide with, or indeed define, the boundary of a language unit: a sentence or a clause. We can analyse the biographical sketch of Ernest Hemingway in this way, and explain why the second version 'felt right' and the first version 'felt wrong'. The first clause can be divided as follows:

```
            GIVEN                                    NEW
Ernest Miller Hemingway was born ǀ in 1899 at Oak Park, a highly
                                     respectable suburb of Chicago
```

This of course is relative to the knowledge of a particular receiver. The writer may well have assumed that most book buyers already know of the existence of an author called Ernest Hemingway, and even if they did not before they picked up the book, they would already have seen his name on the cover before turning to read this biographical sketch inside. Even without previous knowledge or the sight of a cover or title, people often have to begin a discourse with new information, though this is often mediated by a 'dummy', like 'there was' in the 'given slot' at the beginning

```
            GIVEN                              NEW
          There was                ǀ    a man called Ernest Hemingway
```

The fact that Hemingway was born can be treated as part of the given information because all human beings are born (with disputable mythical exceptions). The next part, however, "in 1899 at Oak Park" might reasonably be treated as new. In the opening clause, however, one piece of new information is inserted into the given information. It is unlikely that most readers already know Hemingway's middle name[18].

<pre>
        GIVEN   NEW
   where his father | a keen sportsman, was a doctor
</pre>

Readers will know that he must have had a father, from knowledge of the world, but are not assumed to know what that father was. (The stock opening 'X was born' excludes the main protagonist in this universal biographical event: the mother.)

<pre>
        GIVEN   NEW
   he was | the second of six children
</pre>

It is known that Ernest existed but not his position in the family.

<pre>
        GIVEN   NEW
   the family | spent holidays in a lakeside hunting
                           lodge in Michigan near Indian settlements
</pre>

At this point it is known that he had a family - seven of them have already been mentioned - but not whether they went on holiday nor where; although here we may make an important cultural assumption: if we assume it as a norm that families go on holiday (a fact of life as inevitable as having a father) we might divide it into:

<pre>
        GIVEN   NEW
   the family spent holidays | in a lakeside hunting lodge in
                                 Michigan near Indian settlements
</pre>

The ordering of given and new information is not always as straightforward as this however. In the very next sentence:

> Although energetic and successful in all school activities, Ernest twice ran away from home before joining the Kansas City Star as cub reporter in 1917.

new information is forced to the front as though it can be assumed that a famous writer is naturally energetic and successful at school.

(Alternatively we can read this as beginning with a clause in which the given information is ellipted: 'although he was energetic and successful')

The phenomenon of FSP reveals the futility of an account of grammatical choice, or of the relationship between grammatical choice and coherence, in isolation from a description of the knowledge of a specified receiver or group of receivers. In their approach to discourse, however, AI and linguistics-based literary theories, have a tendency to err in opposite directions. The former seeks to account for knowledge independently of linguistic choice, the latter to describe linguistic choice without reference to the knowledge of specified receivers.

3.7 Conclusion.

In this chapter, we have discussed the relationship of linguistics and discourse analysis, and the view that a formal decontextualized approach is incapable, on its own, of accounting for coherence. We have rehearsed the arguments for integrating descriptions of pragmatic knowledge with linguistic knowledge, but noted their inadequacies in dealing with certain discourse types, including those which are regarded as literary. We have glanced at descriptions of discourse structures, both as products and as processes - a knowledge of which may also aid the construction of coherence. In all of this we have observed the need for a description of world knowledge to be added to one of pragmatic and linguistic knowledge, and held out the possibility that such a description may compensate for the inadequacies of linguistic and pragmatic description in accounting for literariness.

Our last section on FSP (3.6) has demonstrated the potential and actual interaction of levels, illustrating that they are in no sense discrete, and warning against any atomistic or reductionist approach to discourse. For this reason we shall make frequent reference to it in the chapters which follow: in our analysis of AI descriptions of the relationship of conceptual to linguistic representations (Chapters 4 and 5), in our examination of theories which seek to define literature at one level and one level only (Chapters 6 and 7), and in our own theory (Chapters 8 and 9).

Notes to Chapter Three.

1. In Halliday's terms (see 2.3.4) 'home' 'gate' and 'number 67' could be treated as collocations. As already indicated, we do not accept this kind of connection as semantic. They might also be related in a semantic network. We prefer to regard them as linked through inclusion in the same schema.

2. See chapter one, note 2.

3. Halliday's (1975) list of the functions of language for an infant, though it is often discussed along with other functional theories, is not included here on the grounds that it is a description of child functions which are then 'mapped' on to and absorbed into the adult functions.

4. Under this heading we include Bühler's 'expressive' function, Jakobson's 'emotive' function, Searle's 'expressives', Robinson's 'expression of affect' and Popper's 'expressive' function. (Hymes' functions are not included in this and the following two notes as they are so close to Jakobson's.)

5. Under this heading we include Bühler's 'representational' function, Jakobson's 'referential' function, Searle's 'representatives', Robinson's 'reference to non-linguistic world', Popper's 'descriptive' function

6. Under this heading we include Jakobson's 'phatic' function, Searle's 'commissives' and Robinson's 'role relationship marking encounter regulations'

7. Under this heading we include Bühler's 'conative' function, Jakobson's 'conative' function, Searle's 'declarations' and 'directives', Robinson's 'regulation of self and others', Popper's 'signalling' function.

8. Both Robinson's and Hymes' lists of functions develop and add to Jakobson's. Neither makes the poetic function a centre of attention.

9. Newman (1986), citing evidence from neurology, advances the extraordinary view that linguistic and prosodic patterning affects the brain

> enhancing neurotransmitter synthesis among otherwise dormant neurons in both propositional and prosodic left- and right-brain linguistic areas, causing new neural circuits to be constructed, perhaps bridging the hemispheres, perhaps facilitating integration of the neocortex, perhaps facilitating evolution.

This view, as he points out, need not be as 'far fetched' as it at first appears.

10. These words are used about Hallidayan functionalism, but it seems reasonable to apply them to any functional theory of language.

11. We treat broad classifications of speech acts as descriptions of the major functions of language (see Wales 1989:196). We shall use Searle's taxonomy of speech acts rather than Austin's. The best summary of the relationship of Searle's description of speech acts to that of Austin is given in Searle (1975b).

12. It is possible of course, in keeping with what we have said in 2.2, to imagine contexts in which this utterance would be relevant and meaningful: if, for example, both speakers had mutual knowledge of the unusually late arrival of spring, or earlier failures to grow flowers in this garden.

13. The argument seems to us to be a misguided intrusion of mathematics into the analysis of language. While it is true that, in order to interpret an utterance pragmatically, the Sender (S) must know the relevant context but also know that the Receiver (R) knows it, and that R knows that S knows it, and that R knows that S knows that R knows it, it seems to us, through introspection into our own thought processes, that

this proliferation is in practice taken no further. There are limits to the capacity of the mind. Similarly, though I am thinking, and I can think about the fact that I am thinking, and think about the fact that I am thinking about the fact that I am thinking, it is hard to take it further.
14. We do not imply by this that there are no individual facts stored in memory as well as schematic representations. These may be attached to the most relevant schema, however and thus described along with them: see 1.3 and 8.1.2.
15. Leech, not only formulates the politeness principle in more detail than either Lakoff or Grice, he also adds to the co-operative and politeness principle an 'irony principle', and, under the heading of textual rhetoric principles of 'processibility', 'clarity', 'economy' and 'expressivity'.
16. The death penalty is still in force in some English-speaking countries, for example, in the U.S.A. and Jamaica.
17. This attribution is made, for example, by Lyons (1977:509) and Wales (1989:199). Essays by Mathesius can be found in Vachek (1964).
18. Though this insertion is innocuous enough in this example, the treatment of new information as though it were new is used in more sinister way in propaganda and journalism.

Chapter Four.
Schema theory 1: conceptual representation; one version of the theory.

4.0 Introduction.

Chapters 2 and 3 have examined various approaches to discourse and their capacity to explain coherence. All of these approaches point towards the need for a theory of the organization of pre-existing knowledge as a necessary addition to a successful explanation of the construction of coherence. It is also clear that factors effecting coherence behave differently in literary discourse, and for this reason we may expect the role of knowledge to be different too. In this chapter we shall examine some specific suggestions about the nature and organization of knowledge in discourse processing, and thus prepare the ground for subsequent discussion of the relation of knowledge and literary discourse.

The particular theories of knowledge organization examined in this chapter are from AI. Like all AI, and a good deal of current linguistics work on language, they assume that the mind abstracts a semantic or conceptual representation of 'facts' from language[1]. Representations of single facts[2] are organized into larger knowledge structures. In examining this approach we shall concentrate upon one particular theory as representative of many others (for a summary and comparison of different systems see Garnham 1988:24-57). Eventually, we shall seek to qualify and modify the AI view, especially when applied to discourse of a particular kind (which for the moment we shall continue to call 'literary').

The chapter, therefore, proceeds as follows. As a prelude to detailed discussion of one version of schema theory in 4.5, we shall:
1) examine in general the computational and AI approach to language and text (4.1);
2) describe one system for representing 'facts' in natural language (4.2);
3) discuss some of the problems inherent in such formal representations of the 'content' of a natural language text (4.3 and 4.4).

4.1 The computational paradigm of language.

Making use of Kuhn's well-known characterization of the development of scientific thought as a succession of 'paradigms' (Kuhn 1962) in which periods of 'normal science' are disupted by 'revolutions', Winograd (1983)

identifies what he considers to be a major 'paradigm shift' in the
linguistic sciences during the 1970s. He terms the new paradigm 'the
computational paradigm' and regards it as having replaced the
'generational paradigm' as the most widely accepted and fertile framework
for research into language. AI work on text was both instrumental in
shaping this paradigm and continues to operate within it. (For further
summaries of the computational paradigm see also, among others, Fodor
1978:27-53 and Greene 1987:59-99).

The computational paradigm, in Winograd's view, is based upon a
metaphorical comparison of the mind with the operation of a computer, and
as such replaces other metaphors of language (as law, chemistry, biology
or mathematics) which were the basis of earlier paradigms. ('Strong'
versions of AI, which contend that the computer 'really is a mind' (see
Searle [1980] 1987), reject this view of the comparison as merely
metaphorical, but this dispute will not affect our description at this
point.) The paradigm, in the opinion of both its supporters and
opponents, is dualist, concerning itself with the mind rather than the
brain, or - in the terms of the metaphor - the software rather than the
hardware (Fodor 1978:9,17; Winograd 1983:13; Searle [1980] 1987:39).

The computational paradigm views language as "a communicative process
based on knowledge" (Winograd 1983:13). In terms of the computer
metaphor, the processes may be regarded as analogous to computer programs
and the knowledge as analogous to data structures (Simon 1979). It may
be represented in more detail by a stratificational model in which input
at one level is processed in the light of a discrete body of knowledge and
produces an output of assigned structures which then form the input for
the next level up. A version of such a model is given in figure 6. Such
a model, which conceives of comprehension as a bottom-up process and
production as a top-down process, has the virtue of modularity, allowing
input to be dealt with stage by stage, but it has certain drawbacks too.
Most obviously, it is 'brittle' and failure at any stage in the hierarchical
progression will bring it to a standstill. It also takes no account of
means by which levels may be by-passed. The use of stock phrases or
idioms, for example, may dispense with the grammatical level; top-down
processing may employ general impressions concerning meaning, intention or
text type to interpret lower levels. It is also true that the
identification of an exponent at one level must always involve reference

- 88 -
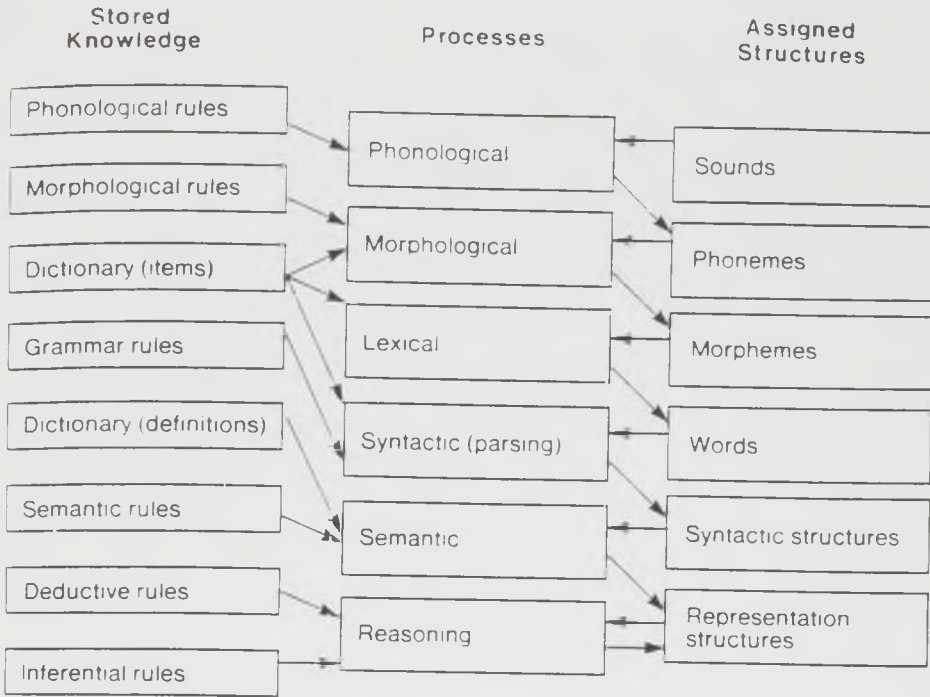
Figure 6: A stratified model of language comprehension. (Winograd 1983:17)

to others and that therefore there can be no isolation of one level from the others.   Thus description must always be 'shunted' from one level to another (Halliday 1976:59)[3]. Such shortcomings, however, do not negate the validity of the stratificational model, but only point to a need for adjustment and supplementation.   Schema theory is an instance of such a supplementation.

A central difference between this paradigm and its predecessors lies in the emphasis it places upon process rather than result.   In contrast to the semiotic model which separates *langue* from *parole* or the generative model which separates competence from performance, it views the operation of language knowledge as its area of enquiry, believing that the "structure of language is derived from the structure of processes" (Winograd 1983:21). The effects of this shift in emphasis can be most clearly seen in the

computational paradigm's approach to grammar. Earlier models which
analyse data *post hoc* as a given whole, have been replaced by grammars,
such as the widely used augmented transition networks (ATNs), which are
concerned with the processes of classification and analysis 'on line' (see
for example Wanner and Maratsos 1978; Winograd 1983:195-267; Bower and
Cirillo 1985; Pitrat [1985] 1988:67-84). The recent and influential theory
of connectionism (Rumelhart and McLelland 1986, see chapter 1, note 5
above) in which rules and knowledge are seen as being 'in the connections',
and thus epiphenomena rather than phenomena, can in many ways be seen as
a further extension of this emphasis on process. In this view it is as
though there are no data structures, but only programs. What appear to be
independent 'knowledge' and 'rules' are by-products of paths through the
connections and thus in a sense pure procedures.

Procedural views emanating from the computational paradigm are
compatible with the approach to discourse analysis which emphasizes
process rather than product (see 3.4. and 3.5), and with those reader-
centred literary theories which emphasize the ongoing experience of
reading rather than structures derived after the event (see 6.4 and 7.4
below).

4.1.1 The AI approach to text.

The computational paradigm, as we have described it above, does not
view language understanding as a process of decoding, but rather one of
construction. In other words, the mental representation which is at the
end of the chain of processing has not been merely transferred. Any
features it may share with the mental representation of the interlocutor
are present by virtue of the fact that shared knowledge and shared
processing strategies have interacted with text to produce similar results.
As such, this view of language processing is compatible with work in
pragmatics, which may be viewed as concentrating attention upon the strata
which derive representations from assigned semantic structures through the
application of deductive and inferential rules (reasoning). In a similar
way, work which goes under the traditional headings of phonology,
linguistics and semantics concentrates attention upon the earlier stages
of this stratificational computational paradigm.

AI, on the other hand, concentrates its attention on the mental
representations which are the beginning (in production) and end (in

comprehension) of this hierarchy. In the view of AI, however, they are not only the result of that assignment of structures to the text. Existing representations (i.e. schemata) are also used. It is a two way interaction. Schemata may be related to the assigned structures derived from text via reasoning, which is the focus of research in pragmatics, or more directly, through comparison of their contents with those derived directly from text.

Initial work in AI concentrated almost exclusively on text comprehension rather than generation, sometimes with the vague and naive assumption that human text generation is simply comprehension in reverse (Pitrat [1985] 1988:93). In the eighties, this imbalance has been redressed slightly with a number of publications and projects on text generation (see for example Appelt 1985; McKeown 1985; Mann 1987; Danlos 1987; Patten 1988; Dale 1988). We shall use the term 'communication' to cover both, though because of the work we shall be looking at, both in AI and literary theory, our bias too will be towards comprehension.

Two points about the AI approach to mental representation need to be made very clearly:

1) mental representations are considered to exist in some language other than a natural language.

2) such representations may be derived either from a natural language representation (i.e. a discourse) or from events themselves. (This tenet is referred to by van Dijk and Kintsch (1983:5) as the 'constructivist principle' of the computer paradigm.)

Both of these ideas have been arrived at practically rather than theoretically (Schank and Abelson 1977:11). That is to say, in attempts to simulate text processing by computer, the use of a data base representing knowledge in a formal language has proved most successful in the handling of natural language texts. The fact that human memory of texts does not usually include the linguistic form of the original suggests the use of similar representations in memory by people. In psychological experiments on recall, subjects confuse sentences with different syntactic structures but similar meanings (Johnson-Laird and Stevenson 1970); they do not remember whether sentences were active or passive (Sacks 1967); they do not remember whether information was presented in one or more sentences (Bransford and Franks 1971). Interestingly, literary language, particularly that of poetry, is an exception to this. People also

remember verbatim chunks[4] of certain other discourse types, especially advertisements and prayers, as well as words which were used at emotionally charged moments such as separation, declarations of love, and news of death.

It is important to note that in literary analysis even limited acceptance of the constructivist principle would be a considerable blow to formalist dismissals of positive evaluations of 'realism' in fiction. For though a narrative may be fictional as a whole, the non-linguistic representations of the units which compose it[5] may correspond to representations of non-fictional events, and this may give a theoretical basis to evaluative judgements based on the match between the two. To take an example: in Paul Scott's The Towers of Silence ([1971] 1973:327) a male character, going to the lavatory, decides to urinate against the porcelain on the inside of the lavatory bowl so that the sound of his action will not embarrass people in the next room. (This rather crude example is a felicitous one as - because of the private and taboo nature of urination - this strategy to avoid embarrassment is known by male readers but is unlikely to have been verbalized.) A positive judgement of this detail as 'realistic' may result from comparison of the representation of the 'fact' derived from its verbal realization in the novel with its representation from non-verbal experience in the mind of the reader. Linguistic choices such as those between synonyms ('piss', 'urinate','pee') (see 2.3.4) or different FSPs ('What he did was...', 'The side of the bowl was the place where....' etc.) (see 3.6.1) will also make no difference.

4.1.2 Objections to AI text theory.

The AI approach to text is open to challenge from a number of directions. Not only is it incompatible with approaches such as deconstruction and hermeneutics which challenge the scientific approach in general, it has also been hotly disputed by philosophers and psychologists who do share AI's scientific assumptions (Searle [1980] 1987; Dreyfus and Dreyfus 1986; Born 1987; Boden 1987, 1989). AI simulation, it is argued, has not succeeded in approaching human capacities for text handling (Shanker 1987), and even if it had, similar results would not necessarily indicate similar processes (Searle [1980] 1987). Successful symbol manipulation, argue AI's opponents, does not entail understanding or intentionality, and human beings may employ quite different, more intuitive

and heuristic strategies (Dreyfus and Dreyfus 1986).   It is not the
machine which thinks but the programmer with the aid of the machine
(Neumaier 1987; Kobsa 1987).   False premises, incorrect knowledge,
mistaken inferences and inbuilt bias may make artificial intelligence
unreliable (Boden 1989)[e].   AI strengthens the mechanist metaphor and
ignores the moral significance of language (Harris 1987). There is, in
short, in the view of some scholars,   inadequate evidence for making the
leap from the partial abilities of AI programs to conclusions about the
human mind. (For an AI answer to these kinds of objections to its claims,
see Schank 1986: 1-24.)

    In what follows, we shall attempt to explore some AI ideas about
conceptual representations and their interaction with text, though without
implying any wholesale acceptance of those ideas as theories of human
psychology. We shall also examine problems and objections. We should say
at this point, however, that it seems to us counterproductive to see these
views as either wholly 'right' or wholly 'wrong'.   They may simply be
helpful in progressing further. Certainly the   strong emotional reaction
to any hint of an end to the human monopoly of intelligence, or to any
suggestion that research in AI may provide insights into human thought, is
not helpful. We rather take the view that the AI approach may provide a
starting point on which a more complex model of human interaction with
text may be built. The kind of text-handling strategies developed in AI
do not have to be the strategies used by humans, or not. Human beings, as
van Dijk and Kintsch point out in their complex model of discourse
comprehension, may use many strategies simultaneously (van Dijk and
Kintsch 1983).

    For the moment, however, we shall provisionally accept the AI approach
as a plausible theory of human communication.   One of the strongest
versions of this belief in the applicability of AI to human psychology is
to be found in the work of Roger Schank and his colleagues.   This,
together with the power of his theory, and its extraordinarily widespread
influence and citation (almost every contemporary introduction to
discourse analysis, psychology and AI has a section devoted to his
theories), is our reason for concentrating on his work.

4.2 One system of conceptual representation: Conceptual dependency theory (CD).

> We regard language as being a multi-leveled system, and the problem of understanding as being the process of mapping linear strings of words into well formed conceptual structures. A conceptual structure is defined as a network of concepts, where certain classes of concepts can be related to other classes of concepts. The rules by which classes of concepts combine are called the conceptual syntax rules. Since the conceptual level is considered to underlie language it is also considered to be apart from language. Thus the conceptual syntax rules are organizing rules of thought as opposed to rules of language.
> Schank (1975:268)

> Conceptual dependency is based on the theory that language is used to describe events that take place in the world and that these events consist of actions which can be represented as conceptualizations. The emphasis is on the content of information and not on its form. Thus the level at which actions are represented is language-independent and any two sentences which describe the same action and are therefore identical in meaning will have a single representation for that meaning.
> McTear (1987:33)

AI text theory, as we have stressed in the previous section, is based upon the disputable premises that concepts are represented by the mind in some formal system, and that this representation can be derived either from events in the world or from linguistic representations of those events. Linguistic representations which 'mean the same' but are different in form will also give rise to the same formal conceptual representations. These large claims - if accepted - immediately raise two practical questions. What is the nature of the formal representation? How is it derived from and translated into natural language?

Most importantly, from the point of view of discourse analysis, the theory must account for the function of variations in natural language representation: different types of cohesive tie, for example, or different FSPs (see 2.3 and 3.6.2). A third question which arises from the claims outlined above is therefore: what are variations in natural language representation for, if they are to be so readily discarded, and the beginning and end of communication is a formal representation in 'another language'? It would seem strange if such intricate structures were assembled only to be dismantled.

This section will outline one AI approach to the two practical problems; the broader third question is one which will become increasingly

prominent as our argument develops, and feature more prominently in our
attempts to apply schema theory to literary texts. For the moment, it
should be said that AI text theorists are well aware of the more obvious
omissions from their approach and also of its simplification of complex
issues.   Early work on text was limited to straightforward narratives
admitting little stylistic variation or sophistication; but this limitation
does not preclude its potential as the basis for a more capable model.

   In order to consider the proposal that discourse is processed via
conceptual   representations, it is essential, though problematic, to
address a description of the nature of those representations, even if that
description is to be considerably modified at a later stage. From among
various   systems   proposed   in   AI   we   shall   concentrate   on   one   as
representative of the general approach[7]. This is conceptual dependency
(henceforth CD), as developed by Schank (1972), and described in Schank
(1975:268-271), Schank and Abelson (1977:11-17;30-32); Barr and Fiegenbaum
(1981:300-305); Winograd (1983:402); McTear (1987:33-39); Pitrat ([1985]
1988:26-29) and many   other places.   It is a system of conceptual
representation for which large claims have been made concerning its
applicability in human psychology (Barr and Fiegenbaum 1981:211), and for
this reason is more relevant to our present concerns than comparable
systems whose interest is limited to purely artificial intelligence.   It
has been widely used in AI and frequently referred to in text linguistics
and discourse analysis (de Beaugrande and Dressler 1981:44, Brown and Yule
1983:241ff; Sperber and Wilson 1986:259) as a partial explanation of
coherence.   It   is also a necessary prerequisite to our description of
Schankian schema theory in the following sections. We shall first review
the theory, and then consider some of the problems which CD (and
comparable systems) raise in relation to discourse.

4.2.1 CD: basic principles.

   CD was originally conceived as a system for representing the meaning
of sentences and deriving inferences from them.   It was then developed
further to describe texts. Its building blocks are events, which are seen
as the results of earlier events and the causes of subsequent events. Its
importance for a theory of coherence is, that by inferring and
representing explicitly events that are omitted in a discourse (see 2.4),
it can present coherence as an unbroken chain of causes and effects. Some

of the events represented are events in the world, others are events in the mind (such as the transfer of information from short term to long term memory). They are not regarded as different in kind. Sections of the causal chain may take place 'within' the mind, with one 'mental event' causing another. The moving of information from one 'part of' the mind to another, for example, is placed on a par with moving an object from one place to another. This strange mixture of positivism and mentalism is a potential source of confusion and misunderstanding to anyone who is used to regarding these two approaches as mutually exclusive.

In its representation of individual sentences, CD reduces a word denoting an action to a series of constituent primitive acts. Most commonly, these acts will be the constituents of the meaning of a verb, but they can also be associated with other grammatical classes. (The relevant acts entailed in a particular word are part of the knowledge about that word, so in terms of artificial - as opposed to human - intelligence, there are clearly problems concerning the building up of vocabulary, recognition of different senses and functions and so on[e].)

In the orginal (1972) formulation, 11 primitive acts were postulated as in table 2.

----

act	coding
1. the transfer of abstract relationship such as possession or control	(ATRANS)
2. the transfer of the physical location of an object	(PTRANS)
3. the application of physical force to an object	(PROPEL)
4. the moving of a body part of an animal by that animal	(MOVE)
5. the grasping of an object by an actor	(GRASP)
6. the taking of an object inside an animal by that animal	(INGEST)
7. the expulsion of an object by an animal	(EXPEL)
8. the transfer of mental information between animals or within an animal	(MTRANS)
9. the construction by an animal of new information from old	(MBUILD)
10. speaking	(SPEAK)
11. the action of attending or focussing a sense organ towards a stimulus	(ATTEND)

Table 2. CD acts.

Many actions denoted by a single lexical item are thus represented by a number of acts: 'give' and 'gift' for example involves both 'ATRANS' and 'PTRANS'; 'buy' and 'purchase', whether as nouns or verbs, will involve the ATRANS and the PTRANS of both money and an entity. Each primitive act is related optionally or obligatorily to entities performing particular roles: agent, object, instrument and so on[9]. From this representation, various inferences can be drawn and made explicit. 'Buy' for example must involve two agents (buyer and seller) and two patients (goods and currency). Each act will additionally entail other inferences. An inference to be drawn from 'PTRANS', for example, is that its object is not where it was. An inference from 'INGEST' is that the patient is inside the agent. Clearly, there are enormous problems involved in associating the correct acts with the occurrence of a particular word in natural language. Even in the apparently straightforward example of 'give' and 'buy' there are many complications. There are non-literal uses of words. 'Giving advice' will involve quite different acts ('SPEAK'; 'ATTEND'; 'MBUILD') from 'giving a present'. There are complex variations on standard meanings. It is hard to say what exactly is 'PTRANS-ed', to whom and by whom when somebody buys something by credit card.

There is also a need to represent stative relations. We shall use the following abbreviations for those used in subsequent analyses: BE (for projected complementation), IS or ARE (for actual complementation) , HAS (denoting inalienable possession), SOC-CONT (denoting the state of having social control over something), KNOW (know), WANT (want).

4.2.2 CD: two examples.

Thus far, CD allows inferences to be made explicit, though it cannot evaluate which of those inferences will be important in discourse. The relations between actions and entities may be related diagrammatically as in the representation of a sentence in figure 7. Here various inferences have been drawn from knowledge activated by the encounter with the word 'eat' in conjunction with 'with a spoon'. (For a start the spoon is assumed to be the instrument, not a companion! (see Rich 1983:326-8)) These inferences will include such facts as 'the spoon contains ice cream', 'John moves the spoon backwards and forwards to his mouth' and so on. Schank (1984:78-81) compares the information in such a diagram to that which would be necessary in explaining how to eat to someone who had

never done it before. Note, however, that different FSPs (for example 'What John did was eat ice cream with a spoon') would all be represented by the same diagram.
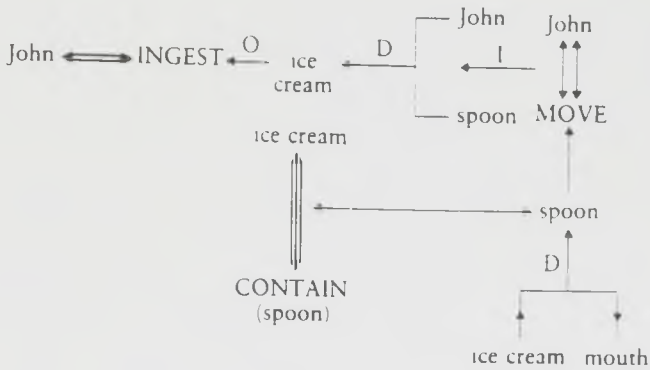
(D = direction   I = instrument   O = object).

Figure 7. CD diagram of 'John eats ice cream with a spoon.' (Barr and Feigenbaum 1981:302).

----

cause	coding
1. an act results in a state	↑r
2. a state enables an act	↑E
3. a state or act initiates a mental state	↑I
4. a mental act is the reason for a physical act	↑R
5. a state disables an act	↑dE

When the separation of (1) and (2) , and of (3) and (4) has no consequence for inferences, they may be paired together as follows:

6. an act results in a state which enables an act	↑RE
7. an act or state initiates a thought which the reason for an act	↑IR

Table 3. CD causes and effects.

The next stage in CD, once all inferences have been made explicit, is to
establish links between events in terms of cause and effect. These too are
often omitted in human discourse. Very frequently, for example, as Schank
and Abelson observe (1977:23), the MBUILD act which is the intermediate
between manifestations of mental activity is omitted, because inferred. In
the following, for example:

John cried because Mary said she loved Bill.

the mental representation which links the two is omitted. John, in other
words, did not cry as a direct result of Mary's words, but as a result of
a mental construction caused by them. For potential causes and effects,
as for each primitive act, specific rules concerning which acts can cause
which states in which circumstances are assumed to be part of human
knowledge and need to be programmed in to the knowledge of an artificial
intelligence. A finite set of possibilities can be used as in Table 3.

To this is appended a set of scales concerning attributes of states
marked numerically from -10 to +10. These are used "only suggestively"
(Schank and Abelson 1977:15) and the set is an open one. Examples of
scales are

```
HEALTH          (dead, diseased, under the weather, tolerable, in the pink)
ANTICIPATION    (terrified, nervous, hoping, confident)
MENTAL STATE    (broken, depressed, all right, happy, ecstatic)
PHYSICAL STATE  (end of existence, damaged, OK, perfect)
AWARENESS       (dead, unconscious, asleep, awake, keen)
```

(ibid.)

In each of these scales the left hand term would be marked -10 and the
right hand term +10 with intermediate terms having intermediate numerical
value.

4.2.3 CD: Text representation.

With this apparatus, texts, in principle, can be represented in terms of
causality, always supposing that unstated causal connections have been
inferred and made explicit. CD, in other words, depicts an unbroken chain
of states and events, each of which is the result or cause of any
immediate neighbour. Schank and Abelson (1977:28) give the example in
figure 8.

Consider the following story

9 John was thirsty. He opened a can of beer and went into the den.
There he saw a new chair. He sat down in it. Suddenly the chair
tilted over and John fell on the floor. His beer spilled all over the
chair. When his wife heard the noise she ran into the den. She was
very angry that her new chair had been ruined.

John **THIRSTY**
 ◆IR
John **DO**   John **PTRANS** John **to** den
 ◆r   ◆r
Beer **OPEN**   John **LOC** (in room)
 ◆E ◆E   ◆E
   INGEST   John **MTRANS** (chair be)
                                ◆IR
                               John **PTRANS** John **to** chair
                                ◆rE
                               John **MOVE** John **to** (in chair)
                                ◆r
                               Chair **STATE CHANGE**
                                ◆E ◆E ◆r

      gravity **PROPEL** John **to** floor
              ◆r
      John **LOC**(on floor)

                                    noise
                                     ◆E
                               wife **MTRANS** noise **to CP**(wife)
                                    ◆IR
                               wife **PTRANS** wife **to** den
                                    ◆rE

gravity **PROPEL** beer **to**(on chair)
          ◆r
      chair **WET**
         ◆I

      wife **MTRANS** 'chair **WET'** **to CP**(wife)
            ◆R
      wife **ANGRY**

Figure 8: CD representation of a simple story (SPGU: 28-29)

The linking of events is one way of describing coherence though it does not fully account for how these links are produced, if they are produced at all, by the receiver.

4.2.4 CD: Conclusions.

An obvious objection to this system is that while it may be capable of handling the highly simplified and controlled texts of AI, it will be baffled by the complexity of human discourse. The problem may be not merely quantitative but qualitative as well. Success with simple texts does not imply that the same strategies will work on more complex ones. From an AI perspective, the important fact about the representations in figures 7 and 8, which is not apparent in their presentation here, is that tested rules exist for deriving such CD representations from text, and similar representations have actually been executed by machine. Nothing is proved, however, by concocting a representation of a given discourse into which inferred acts and states have been inserted. To do this is merely to use the analysts' inferences not explain them. The central problem for AI is the formulation of rules which will explain how a representation was derived. In other words, it must be procedural rather than declarative.

The status of CD as a theory of the human processing of natural discourse (as opposed to the machine processing of controlled discourse) therefore remains as speculative as any other theory of psychology and language. This judgement, however, cuts both ways, and its status is no lower than any other speculation for being unproved. (It is doubtful in any case what such proof might consist of. Even the total simulation of human text handling to a degree that would pass the Turing test for intelligence (Turing 1950)[10], accompanied by a full statement of procedures used, could still be dismissed as proof, as it is for example by Dreyfus (1987) and Searle ([1980] 1987).)

Our own view (which we develop in chapters 8 and 9) is that while some form of conceptual representation of content such as CD may play a part in human text processing, its role is only partial. Belief in some form of conceptual representation is consistent with the generally accepted findings that people remember content rather than form, but ignores the role of formal options in establishing that content. The AI leap from the observation that form is often forgotten to the claim that it can be

dispensed with entirely after a certain stage in processing, is rather glib.

AI, however, together with those who accept the computational paradigm in linguistics, does speculate that a CD representation, algorithmically derived from sense data or natural language, is at the heart of human discourse understanding. In effect, what we have presented here in this brief outline of CD is an image of AI gradually building up miniature schemata for each word. Again, there are obvious qualitative as well as quantitative limitations. Not every word meaning can readily be captured by a reduction to constituent objects, acts and states, even if these include mental 'objects' and 'acts'. 'Kiss' - as Barr and Fiegenbaum observe (1981:214) - is not the same as 'MOVE lips to lips'. Clearly the complexities grow as the texts encountered approach those of natural language. If CD is to survive as a theory of human discourse understanding, it must cope with this. Schema theory is an attempt to do so. Before going on to describe a version of schema theory based on CD however, we shall briefly examine the relation of conceptual representation systems (such as CD) to semantics, and discuss some of the problems arising from the use of such systems as a component of a theory of discourse.

4.3 CD and semantics.

Superficially, a system of conceptual representation such as CD would seem to have a great deal in common with approaches to semantics which also seek to present a formal representation of the 'content' of natural language. It has certain similarities, for example, with 'truth-based semantics' (see Leech 1981:76ff; Lyons 1977:597), with componential analysis (see Leech 1981:89-123; Lyons 1977:414; Cruse 1986:16-22), and with case grammar (Fillmore 1968). It also has much in common with the semantic networks (Quillian 1968), which in turn have elements in common with the 'neural networks' of connectionism (Rumelhart and McLelland 1986).

Clearly, with its use of inferences, case relations and primitives, it has made borrowings, if only terminological ones, although its pioneers claim to have reached their conclusions independently (Schank and Abelson 1977:11). Yet whether it may fairly be regarded as a further - and indeed, if one sees it in such terms, comparatively unsophisticated -

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variation of earlier systems of semantic representation is open to dispute.
Woods, for example, (1975:36) and Pitrat ([1985] 1988:3) are unequivocal in
describing CD as a descendent of earlier semantic systems, but there are
other commentators who do not regard it as semantic - in the sense of
being 'about the world' - but describe it as a model of processing (McTear
1987:33). To this, we might justly add, that it is no more 'about the
language' than it is 'about the world'. It seeks rather to reproduce the
processing strategies of an intelligence in dealing with the world or with
language about the world. Closely allied to this is its concern with
encyclopaedic knowledge, and thus, in so far as they can be separated,
with analytic rather than synthetic truth, which is sometimes regarded as
beyond the boundaries of semantics altogether (Leech 1981:69). In this
sense it is in keeping with the paradigm shift described in 4.0 above, and
if, along with similar systems spawned by that shift, it is labelled as
semantics at all, then it is best distinguished as a type of 'procedural'
rather than 'declarative' semantics (de Beaugrande and Dressler 1981:88)''.

Truth-based semantics is concerned with the static aspects of
knowledge and with facts and inferences which are assumed to be true in
all situations. As such it is the epitome of a declarative system. Such
systems contrast with procedural systems whose central concern is how
and when to use knowledge and in which situations. Procedural systems
match knowledge with a given situation through such heuristic devices as
'assuming a fact to be the case until proved otherwise' or 'trying a given
inference' even in the absence of logical proof. Procedural systems, using
techniques of matching and of spreading activation (Barr and Fiegenbaum
1981:185; de Beaugrande and Dressler 1981:88), go some way towards
avoiding the kind of combinatorial explosion which results from a
procedure which tries every logical possibility. CD representations are
derived from text by a combination of declarative representation and
'procedural attachments': that is to say, they contain instructions
capturing strategies which are likely to work in a given context (Barr and
Fiegenbaum 1981:156; de Beaugrande and Dressler 1981:91; Anderson 1983).
Though procedural representations have clear advantages over declarative
ones when used to predict the contents of routine texts and situations,
they will also have disadvantages in encounters with a situation or a text
which is similar but subtly different from expectation. As this
combination is a frequent characteristic of literary texts, which foster

elements of surprise, and demand lateral or creative thinking, this shortcoming of procedural systems will need to be born in mind in the application of Schankian schema theory (which is a development of CD) to literary analysis.

Perhaps the most striking similarity between CD and truth-based semantic representations is that they both seek to convert natural language into underlying 'units of meaning' which centre upon a single action or state ('predicate', 'V' (in case grammar) , or 'primitive act'). To this action or state they append entities in varying types of relation, constrained by various rules. Truth-based semantics, like CD, can be taken further than this, and used to connect these units of meaning together, to create a propositional 'textbase', a semantic representation of text (Kintsch 1974); case grammar, like its transformational-generative and structural forbears, limits itself to sentences and has no pretensions to representing texts.

The crucial differences between these representational systems, however, is not in the details of their analysis and notation, but in their underlying philosophies and views of the relationship between mind, language and the world. Truth-based semantics, with its roots in the philosophical premises of logical positivism, eschews all study of mental states and mental phenomena, and espouses the behaviourist view of psychology. By so doing, it cuts itself off from the common-sensical view that language is the bridge between our inner states and the world. The only option open to it is to present semantics as a representation of the world 'as it is' and eternal truths existing independently of mind or language. Case Grammar, on the other hand, in the generative tradition, is unashamedly mentalist. Its evidence is native speaker introspection and intuition, and it is purportedly a description of semantic competence. CD, like any other conceptual representation in AI, is subtly different from both of these approaches, and cannot be described in terms of the familiar dichotomy between mentalism and empiricism. Its strong belief in the computational paradigm of human thought and language, whether as a literal equivalence or a metaphor, leads it to claim that mental processes are in effect accessible. The programs and the data of AI systems are open to inspection and experimentation and they are, if the paradigm holds, analogous to human procedures and knowledge. In this sense, AI systems are both behaviourist and positivist, but do not halt in their hypotheses

at the frontier between mind and world (hence terms in CD like 'MBUILD' and 'MTRANS'). AI presents neither a representation of the world, as truth-based semantics does, nor of the language, as case grammar does. Its representations are rather representations of the-world-in-the-mind and its relation to language - representations, in other words, of the knowledge used in (and derived from) language processing. As such they can be used for further hypotheses (like Schankian schema theory) about the organization of knowledge and its application in human text processing. (One clear weakness of this, however, is exactly CD's heavy dependence on the computational metaphor of mind: for if that falls, so does the whole theory.)

4.4 Problems for conceptual representation as a component of a theory of discourse.

If a system of conceptual representation like CD is to play a part in a theory of discourse, it must come to terms with a number of problems concerning the relationship between the underlying representations which it proposes as an account of coherence, and their realization and use in discourse. In particular it must account for the principles behind the selection and omission of elements, for their ordering, and for the linguistic choices which bring them into varying degrees of focus. For a theory of conceptual representation to contribute to an analysis of the human handling of complex texts - especially literary texts - it must either incorporate some method of dealing with these problems or be compatible with a parallel approach which does. We shall now examine some of these problems, which apply to any attempt to represent 'the content' of text.

4.4.1 Problem One: prototypes and fuzzy concepts.

Though by no means prone to the extreme naiveté of equating concepts with the words of a particular language, systems like CD do treat concepts as discrete entities, like counters which can be manoevred and combined in clear-cut mathematical ways. They are treated as though they were equivalents of the components of the meaning of words as described by componential analysis in semantics. As such they are open to the same criticisms.

Research into word meaning conducted from an empirical psychological standpoint has long since questioned the componential approach. Though it may adequately describe meaning, componential analysis may not always mirror the way that meaning is perceived. Rosch suggests that we classify a perceived phenomenon, whether lexically or conceptually, by reference to a prototype (Rosch et al 1976). Her suggestion is that this applies not only to phenomena which are continua in the natural world such as colour, as had been suggested by Berlin and Kay (1969), but also to the most 'discrete' categories such as biological classification. Thus neither the word nor the concept 'bird' is understood in terms of components such as 'biped', 'feathered' and 'oviparous', but rather by the degree of similarity between a given instance and a mental prototype, or 'typical bird'. Experimental evidence on speed of identification supports this hypothesis; blackbirds are more readily and confidently classified as birds than emus. Though Rosch points out that concepts occur in 'clusters' with 'natural breaks' between them (most birds do in fact have features in common and there are comparatively few birds which lack these features) there is nevertheless the possibility of 'fuzzy' concepts which do not clearly belong to one category or another but are nevertheless assigned to one in practice[12]. This possibility has been vividly demonstrated by Labov. In an experiment in which subjects were asked to name the objects represented by drawings in which the features of a cup are gradually modified into those of a bowl, on the one hand, and a jug, on the other, there was contradictory and uncertain indentification (Labov 1973).

Conceptual dependency is both in harmony and in disharmony with this approach. On the one hand, it is extended in schema theory to build up elaborate prototypes, not of single concepts but of frequent or typical combinations of them. On the other hand, the components of schemata are discrete concepts which admit no 'fuzziness'. In this sense, schema theory can be made to contradict itself, and is ripe for Derridean deconstruction.

4.4.2 Problem Two: level of detail.

But what are the simple constituent parts of which reality is composed?
What are the simple constituent parts of a chair? The bits of wood of
which it is made? Or the molecules? Or the atoms? - 'Simple' means not
composite. And here the point is: in what sense 'composite'? It makes no
sense to speak absolutely of the 'simple parts of a chair' (......) We use
the word 'composite' (and therefore the word 'simple') in an enormous
number of different and differently related ways. (Is the colour of a
square on a chessboard simple, or does it consist of pure white and pure
yellow? And is white simple or does it consist of the colours of the
rainbow? - Is the length of 2 cm. simple, or does it consist of two parts,
each one centimetre long? But why not one bit 3 cm long, and one bit one
cm long measured in the opposite direction.

                                        Wittgenstein ([1953] 1968:21-22)

The representation of discourse as a series of propositions or acts
says nothing about what we may refer to as 'the level of detail' of
description. Most processes, actions and entities may be regarded as
composed of constituent processes, actions and entities, or conversely as
themselves being constituent parts of larger ones (Sanford and Garrod
1981:30). Physical actions, for example, may be almost indefinitely
reduced. Consider the action denoted by the sentence 'she drove home' as
represented in figure 9. The constituent movements ~~in the right hand~~ at the bottom of the
~~column~~ diagram could be further reduced and described in terms of the contractions
of muscles. In principle the limit of such a hierarchy would only be the
limits of the physical description of matter - i.e. at some molecular,
atomic or particle level! This level, however, is only available to some
people, and generally confined to particular discourse types. For most
people the limits of reduction are reached relatively quickly.

Discourse analysis needs a principle to explain the level of
description. Addressing this problem from the viewpoint of
ethnomethodological conversation analysis, Schegloff (1972) suggests that
we can only choose a level of description by reference to the needs and
knowledge of the addressee. Whereas the answer 'in England', for example,
though possibly true, would not be a helpful riposte to the question 'Where
do you live?' in a conversation between two people who both work in

She drove home. =

She opened the door. +   She got into the car. +   (etc.)

= She grasped the handle. + She turned the handle. + She pulled the handle.
  (etc.)

  = She opened her hand. +   = She rotated her wrist. = She bent her elbow.+
  She touched the handle. +   She moved her arm. +
  She closed her fingers. +   (etc.)
  She rotated her wrist. +
  (etc.)
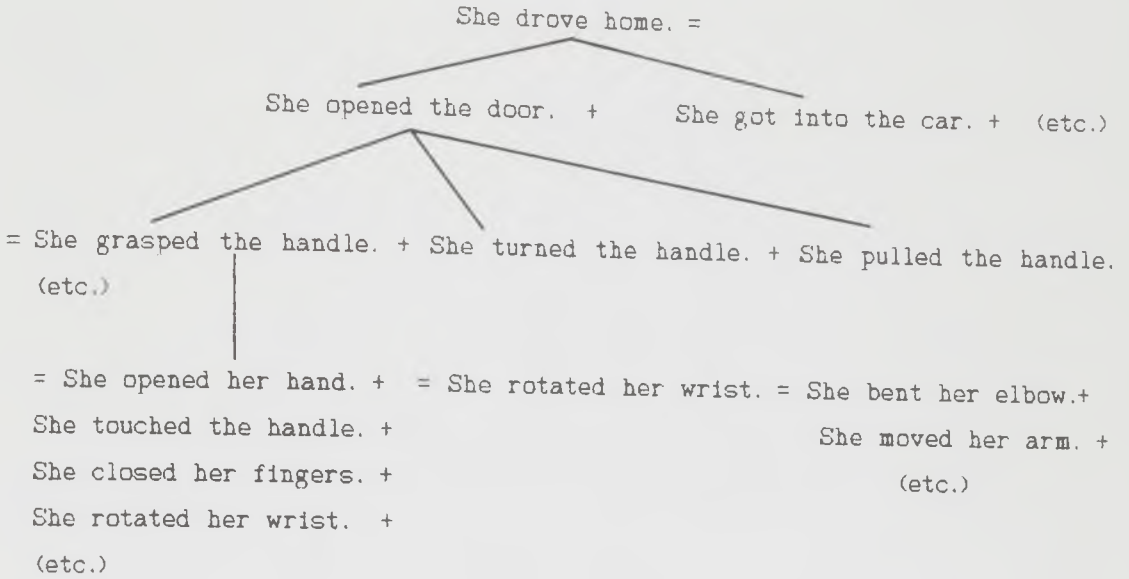
Figure 9: 'Level of detail'.

Nottingham, it might well be an informative answer to the same question
from a fellow passenger on an intercontinental flight. This perspective
is by no means incompatible with conceptual representation as an approach
to discourse, but it needs to be added to it. It points to an inadequacy
of any mere representation of the facts of a text. Successful
communication must distinguish between what is true and what is needed.

    Interestingly, this problem, often ignored in AI, is addressed by the
Russian formalist Tomashevsky ([1925] 1965) and by Roland Barthes ([1966]
1977:74-124). We shall return to these analyses when considering the
compatibility of AI and literary theoretical approaches to discourse in,
respectively 6.3.6 and 6.4.5.

4.4.3 Problem Three: principles for omitting inferred connection.

    We have described how CD may aid the generation of inferences which
have no realization in the text. Most of the elements of these
representations are likely to be absent from discourse. This applies not
only to connectives indicative of causal, temporal, and logical links, but
also to entire acts: the movement of the spoon to the mouth in Figure 7
for example; the eating of the poisoned meat by the dog in 2.4; the
rotation of the wrist in Figure 9. Discourse analysis needs a principle to

explain the basis of omission and inclusion[13]. One set of answers is provided by relevance theory which, operating with a psychological context very similar to a propositional textbase (Sperber and Wilson 1986:15-21), espouses the principle that what is mentioned is what is relevant, and defines relevance as the greatest contextual change for the least processing effort (op.cit. 46-50). Another set of answers which we shall go on to develop more fully is provided by schema theory.

4.4.4 Problem Four: failure to account for linguistic choices.

CD purports to express meanings which can be realized in different linguistic forms. The corollary of this claim is that it omits certain variations of linguistic form, and gives no account or explanation of these variations. Thus such linguistic features as FSP and passivizations, which topicalize or focus; deictic terms and article choice which reflect the sender's orientation to the semantic content; modals expressing the sender's attitude or judgement; choices between subordination and coordination or between synonyms; density of cohesive ties; use of discourse markers to direct the receiver - all these are paid virtually no attention in CD, however crucial they may be in the creation and maintenance of coherence. Van Dijk and Kintsch (1983:10-18) in their global view of discourse comprehension suggest that recourse to a conceptual representation is but one of a number of strategies open to the receiver. The others include perception of rhetorical structure (or 'schema' in their terms); knowledge of production (i.e. text generation) strategies; attention to stylistic cues; attention to non-verbal elements of the message; attention to conversational mechanisms. Some of these, especially those relating to style, rhetorical structure and conversational mechanisms, will be intimately involved with linguistic choice. In general, the notion of complementary strategies operating in parallel is an attractive one and in our view intuitively true. Yet it may also be possible, as we hope to suggest at a later point in our argument, that these approaches interact with each other, and that such natural language phenomena as thematization, style, rhetorical organization and discourse type, may affect or be affected by the conceptual representation which is derived from or used to generate a given discourse[14].

4.4.5 Problem Five: charge of linguistic relativity.

At the heart of CD and of truth-based semantics is the categorization of concepts as acts, states and entities. The confidence of this division raises the vexed issue of possible linguistic relativity: the idea that the structure of thought is determined by the structure of language and is thus different for speakers of different languages (Whorf 1956; Sapir [1949] 1956). This issue is in fact of little moment for CD, though it is of far greater significance for truth-based semantics, and the reasons for this may serve to illustrate the difference between the two. CD may justly claim that it is representing a structure used by a particular intelligence in the handling of text. In this sense it does not matter whether the concepts used are universally true or relative to a particular language. For truth-based semantics which seeks to represent the world and synthetic truth, or for generative semantics which seeks linguistic universals, the situation is far more serious. Yet conceptual dependency would do well to bear the possibility of linguistic relativity in mind - whether in a weak or strong version.

4.5 A version of schema theory: Scripts, Plans, Goals, and Understanding (Schank and Abelson (1977).

The introductory description of schema theory (ST) given in chapter one is highly simplified. Actual discourse is unlikely to be interpretable with reference to a single schema, but rather to activate several at once, each interacting with the other. In addition, as we have already hinted, there may be different types of schema, and these may be in varying types of relationship. A fuller version of ST must provide a typology of schemata, and elucidate the relationship of one type to another; it must show how an intelligence selects schemata, how it moves from one to another, how it uses more than one simultaneously, how it focuses on a 'sub schema' (say a 'menu' within a 'restaurant schema'), and so on. Finally, it must explain the development and rearrangement of schemata, how new ones are built and old ones changed or abandoned. It is on one aspect of this last requirement that we shall eventually concentrate our attention in chapters 8 and 9.

We need, therefore, a more elaborate version of the theory, and we shall provisionally adopt that proposed by Schank and Abelson in Scripts, Plans,

Goals, and Understanding (1977) (henceforth SPGU). Although this version has undergone severe modification as a model for AI programming, not least by Schank himself, it has a number of distinct advantages for our argument, which is concerned primarily to adapt a version of ST for the analysis of literary discourse. Firstly, it is still one of the most detailed, rigorous, well-known and influential versions of ST. Secondly, it is primarily concerned with text production and processing rather than intelligence in general. Thirdly, it concerns itself with human intelligence, not with artificial intelligence alone. Lastly, the version is self-contained, and makes scant reference to others, so by specifying this theory we shall avoid the kind of terminological and conceptual confusion referred to in 1.6.

As the SPGU version of ST is the one we use for our argument and analyses in the next chapter, we shall present it here in some detail. Later, we shall also be concerned with the modifications of the system proposed in Schank's subsequent books Dynamic Memory (Schank 1982) (henceforth DM) and Explanation Patterns (henceforth EP) (Schank 1986). These are, however, developments of SPGU rather than completely new departures. Their main contribution is the suggestion that schemata may be broken down in memory and then reassembled for processing, with each new experience modifying existing schemata. Their descriptive categories are, however, less satisfactory for analysis than those of SPGU. DM pays scant attention to the plans of characters in discourse (which are a major factor in SPGU). Plans are, as we hope to show below, a particularly useful category in interpreting coherence, and are widely used (see, for example, Appelt 1985:13-21; Reiser, Black and Abelson 1985; Litman and Allen 1987; Rist 1989). EP, though it does reinstate an emphasis on planning, is primarily concerned with the ability to explain events as an index of intelligence. We shall return to DM and EP in 8.1.2 below.

SPGU, DM and EP all purport to describe both human intelligence and actual and potential artificial intelligence. The sub-title of SPGU is 'An inquiry into human knowledge structures', of DM 'A theory of reminding and learning in computers and people' and of EP 'Understanding mechanically and creatively'. Clearly, if they are implemented in computer programs, then they are *de facto* descriptions of those programs - but that, as we have said above, is not our major concern. Their status as descriptions of human intelligence is of course highly speculative and disputable for

reasons given in 4.1.1 and 4.2.4. It should, however, be pointed out, that even if the details of the model are inaccurate as representations of human intelligence, its basic claim may still stand. We take this basic claim to be that human understanding (and in SPGU specifically text understanding) can be represented as a hierarchy of levels in which failure to understand on any level can be referred to the level above. In production, the opposite is true, and what cannot be generated by one level, must originate in the level above. This does not, of course, deny the possibility that, in more automatized instances, the higher levels need not be involved at all[15]. In fact the function of low-level schemata is precisely to by-pass higher level processing. The implications of this principle for a theory of coherence are clear. Failure of connection at a lower level may be referred to a higher one. As in any rank structure in which one rank consists of elements from the rank below and is to be explained in terms of the rank above, there is of course the problem of where to go when one reaches the top or the bottom of the model. The alternatives would seem to be either to extend the rank hierarchy indefinitely and thus simply postpone explanation, or to hand over the burden of explanation to some other academic discipline when the upper and lower limits of the hierarchy are reached. SPGU and DM suggest that explanation of the highest level in text processing must be sought in the neurophysiology of the brain (SPGU:148). There is, however, no reductionist or materialist claim that mental processes can be explained in physical or biological terms (EP:12).

The levels postulated in SPGU are as follows.

```
THEMES
GOALS
SUB GOALS (INSTRUMENTAL AND DELTA GOALS)
PLANS
SCRIPTS
CONCEPTUAL DEPENDENCY ACTS
TEXT
```

We shall give details of these ranks and our own interpretation of them working through them as the authors do 'bottom up'.

4.5.1 From text to CD.

An essential premise of SPGU is that an intelligence derives from a natural-language text a representation in another, more formal language,

CD. This CD representation depicts information as an unbroken causal chain of primitive actions (see 4.2.1 above). In this sense, a CD representation may be said to have 'coherence' if the state resulting from each act is one which is, in the world (or the intelligence's perception of the world - for both text and knowledge may be wrong but internally consistent), the starting point for the next act. As already shown in 2.4 and 4.4.2, many causal links are left unstated in natural language. These links are - or at least can be - filled in from the first schema type postulated in SPGU: scripts.

This leaves us with the problem, skated over in the last sentence, as to whether causal links are actually filled in at some subconscious level. SPGU (38-39) suggests that the function of schemata is in this respect twofold: on the one hand they enable us to omit a sequence of well known causal links, thus saving time (SPGU:41), on the other hand they enable us to provide them if needed.

4.5.2 Scripts.

Scripts are structures "that describe appropriate sequences of events in a particular context... a predetermined, stereotyped sequence of actions that defines a well-known situation" (Schank and Abelson 1977:41). They fall into three main categories:

- Situational Scripts (e.g. restaurant, bus, jail)
- Personal Scripts (e.g. being a flatterer/ pickpocket/ spy/ jealous spouse)
- Instrumental Scripts (e.g. lighting a cigarette, starting a car, frying an egg)

As such, they are the closest of SPGU's categories to the general description of schemata given in 1.3. A script may have a number of 'tracks', which are different but related instances of the same general category. In one of SPGU's examples, the restaurant script, the tracks are such instances as Fast Food Restaurant, Coffee Shop, Italian Restaurant etc. Each script is represented from the point of view of one of the participants and his or her role in it - in the case of the restaurant script, such roles as customer, or waitress, or owner. Each script has an 'essential precondition' and 'a main consequence'. The essential precondition for a (customer's) restaurant script is 'wanting to eat', and the main conseqence is 'having eaten'. In addition, each script has a

number of 'slots' (similar to the 'default elements' described in 1.3.1) whose realization can be assumed unless there is information to the contrary. Specifically, SPGU proposes that the slots in a script are:

- a number of props,
- the roles of participants,
- the entry conditions,
- results,
- scenes and their sequence.

The distinguishing feature of scripts, as a type of schema, is that these slots are instantiated by quite specific entities and events. If we imagine, for example, a trial script from the point of view of a judge, then the props will be a wig, a gavel and so on; the roles will be defendant, lawyers, witnesses etc.; the entry condition will be 'being appointed to hear the case'; the result will be punishment or exoneration of the defendant; the scenes will be indictment, plea, defence case, etc.'[16]. The script is therefore an example of specific rather than general knowledge, and though connected to general plans and goals, may run without reference to them. A script is dependent on personal experience, either of situations or reports of them, and will thus vary both between individuals and within individuals.

A script is activated by any one of a number of 'headers' concerning the preconditions (eg 'wishing to please someone' may activate a 'buying a present script'), the instrumental function of actions (taking the subway may activate a 'shopping' or 'work' script), a location habitually associated with the script ('The Loon Fung restaurant'), or explicit mention of the occupant of a slot in the script ('that rude waiter in the Loon Fung'). In text understanding, script activation enables details to be by-passed or provided by the default elements of the script as required.

There are of course a number of problems connected with the smooth running of a script in text processing and the description given in the paragraphs above is perhaps misleading, as in practice scripts which run without obstacles, errors or deviations are unlikely to be worth talking or writing about. A theory of script-based text understanding, though it may take the above description as an unmarked instance, will need to take into account a number of marked cases, for example:

- the incidental mention of potential 'headers' for other scripts;

constraints. SPGU's insistence on this aspect of script composition results from the limited types of text with which it deals.

4.5.3 Plans.

Although much verbal and non-verbal experience is repetitive enough to be dealt with by scripts, there are also experiences which are sufficiently novel and unpredictable to demand interpretation with reference to a structure which is not so specific as to its constituent elements. Such a structure is postulated in SPGU as a 'plan'. This structure is a schema, in the sense that it consists of ordered 'slots', but is far less explicitly connected to specified places, individuals or locations. In terms of behaviour a plan is used to deal with situations for which the agent has no existing script. In terms of text understanding, assumptions about the plans of agents described in the text may create coherence when no relevant script is available in the understander's memory. In the case of texts, such as descriptions of landscape or objects, in which no agents are referred to, the function of plans in providing coherence is less apparent, and significantly such texts are conspicuously absent from AI work, including SPGU. It may be, however, that in such cases a reader's hypotheses about the plans of the author, or hypotheses about the author's attempt to influence the reader's plans, may contribute to coherence.

Plans, according to SPGU, realize goals, which may themselves be subordinate to higher goals. It is the recognition of the goal, or sub-goal, and the stages of the plan realizing it, which establish coherence. We shall adapt one of the examples in SPGU by way of illustration. If the goal or sub-goal is to be in a state of having social control (CD abbreviation 'SOC-CONT') of an object and there is no script available for doing this, then there may be a number of 'named' plans. SPGU hypothesises that the named plans to achieve this goal are: ask for[17]; invoke topic[18]; inform reason[19]; bargain object; bargain favour; threaten; overpower; steal. Each of these plans for achieving the goal of gaining social control of an object is realized by a 'planbox'. All planboxes consist of:

  key action + controllable precondition + uncontrollable precondition + mediating precondition → result

The agents, things, places and information are not specified as in a
script, but can be adapted to variables. The constituents of the planbox
for 'ask for', for example, can be represented in conceptual dependency as
follows:

```
e.g. Planbox: ASK FOR (realising sub-goal SOC-CONT)
   key action                    = PTRANS O to X
 + controllable precondition     = X BE (ProxY)
 + uncontrollable precondition   = Y SOC-CONT O
 + mediating precondition        = Y WANTS to PTRANS O to X
   → result                      = O BE (PLOC X)
```

where O, Y and X are variables, standing for, respectively, the object, the
owner and the asker, LOC means 'location' and PROX means 'near'. The
planbox can be used in a situation whose constituent elements are utterly
new. It can be adapted to very different situations. One might equally
well use this planbox to ask someone for a coin for the phone, or for
protective clothing after a chemical explosion. The difference between
scripts and plans thus suggests two very different types of schemata:
those in which slots are specific entities, people and events; and those
which are more widely applicable to a greater variety of situations.

Recognition of planning by characters in a discourse may provide
coherence to sequences of sentences. SPGU gives the following example:

(1) John was lost. He pulled his car up to a farmer who was standing by
the road. (SPGU:75)

This is coherent because John's action can be seen as executing the
controllable precondition of a planbox 'ask for' to obtain information.
(This interpretation also makes use of 'scriptlike' knowledge that farmers
are likely to be people who know the area[20].) The following sequence on
the other hand:

(2) John was lost. He noticed a chicken. He tried to catch it. (p.76)

is incoherent - unless we know of some way in which the catching of a
chicken may execute a relevant planbox, such as 'find out', or unless we
assume that the plan (suggested by our knowledge that people who are lost
try to find out where they are), has been abandoned in favour of another
plan. (John might be a pagan priest trained in augury through entrails,
writing a thesis on chickens, or very hungry.) Our hypothesis is that

when such sequences as (2) are encountered in actual discourse, people will read on as though the text is coherent, assuming that actions are parts of plans that execute goals, even when the goals are unknown. (This will be illustrated in our analysis of a passage from Crime and Punishment in the next chapter.) Tolerance of suspended goal revelation is accompanied by a growing demand for knowledge of the goal, which must be satisfied at some later point, if the text is not to be viewed as finally incoherent or the character as mad. (Surrealist texts form an interesting exception to this rule, although there, paradoxically, the unifying goal is that of the artist attempting to eschew goals altogether.)

With reference to the discussion in 2.3.3 and 2.4, it is interesting to note that, in examples (1) and (2) above, although both sequences are cohesive - through the anaphoric referents 'he' and 'it' - this is not sufficient to create coherence in (2).

The essential point about plans for text processing is that in cases where we cannot process by reference to a script and create coherence by assuming the default elements of that script, we may do so by reference to a plan, fitting the more specific elements of the text to the generalized goal-related elements of the planbox. Interpretation with reference to a plan will involve more effort and more time. Repeated exposure to the same situation (more than one chemical explosion, frequent overpowering of people to take their possesions) will lead to the replacement of plan-based interpretation by script-based interpretation.

It is important to notice at this point that the theory of scripts and plans makes no claim for their cultural homogeneity or universality. One may speculate about the degree to which the contents of scripts and plans coincide in members of the same culture. It might even be possible to define cultural identity for a given individual in this way. Yet these lines of inquiry are not pursued in SPGU, which, on the contrary, stresses variations, even within one community. Thus the specific contents of scripts and plans, and even whether a particular eventuality is dealt with by a script or by a plan, will vary between individuals and social groups. For an ambulance driver, for example, an accident will be dealt with by a script, while for someone less frequently involved in accidents, it may be dealt with by a planbox. Even for two people dealing with an accident by script, the details will be different, according to whether they are, for example, a priest, a doctor, or someone who faints at the sight of blood.

Within the individual, moreover, the contents of plans and scripts will change. (If a prime minister, for example, has a 'meeting-important-people script' it will have changed as he or she rose to power, and will change again on his or her retirement.) Therefore some people will process a given text predominantly with reference to scripts, while others will activate a higher proportion of plans. A novel about Hollywood love affairs may be interpreted through scripts by a Hollywood star, but with reference to plans by a British academic.

In literary analysis, individual differences in scripts and plans, and the consequent differences in the projection of scripts and plans on to characters, are highly relevant. This may be illustrated by the following account of differences in interpretation. A poem frequently analysed in British literary critical and stylistics classes is Wilfred Owen's 'Futility' which reflects upon a soldier's death from hypothermia in the trenches during the First World War. The text of the poem is as follows:

> Move him into the sun -
> Gently its touch awoke him once,
> At home, whispering of fields unsown.
> Always it woke him, even in France,
> Until this morning and this snow.
> If anything might rouse him now
> The kind old sun will know.
>
> Think how it wakes the seeds, -
> Woke, once, the clays of a cold star.
> Are limbs, so dear-achieved, are sides,
> Full-nerved - still warm - too hard to stir?
> Was it for this the clays grew tall?
> - O what made fatuous sunbeams toil
> To break earth's sleep at all?

The opening line of the poem is often explained as a futile or perhaps symbolic attempt to revive the soldier, a refusal to accept the death of the young. This is to interpret the imperative in terms of a plan vainly attempting to execute the goal of preserving life or dealing with death. While teaching this poem in an adult evening class, however, I encountered a rival explanation, significantly advanced by a First World War veteran. This elderly student explained how, in his experience, in the absence of burial facilities, the bodies of soldiers who had died of cold overnight were immediately removed from the trench, partly to avoid risk of infection, partly to satisfy some need for action, partly to maintain

morale. In this reading, the opening command becomes the rough, routine order of the officer in charge. This is to interpret the opening in terms of a script, no doubt one which was familiar to many people at the time. Of these two readings, the latter is the more horrifying. Dealing with death is routine.

In this reading, however, we may glimpse a phenomenon which we shall later develop further. In this interpretation, the sun is mentioned, almost accidentally, as a synonym for 'the open air'; the subsequent musing on the sun takes this mention as a point of departure. A conceptual representation of this command would, however, regard the choice between synonyms as insignificant, both would in this context 'mean the same'. Yet it is only this lexical choice which links the script invoked by the opening line - let us call it a 'removing corpse script' - to the script in the next lines - a 'waking up at home script' (from the viewpoint of a young farmer). The anaphoric referent 'it', cohesing with a noun phrase which was not the topic of the preceding sentence, emphasizes the tenuous nature of the link. The conceptual links developed as the poem progresses, derive from the linguistic choice of 'sun'.

Another important and potentially confusing point about plans, which has become apparent to us when trying to apply them to literary analysis, is that they may form parts of each other, or even of scripts. In this sense, the hierarchical relation of SPGU's schema types to each other is recursive, and analogous to that of the ranks of grammar. (A clause, for example, although higher in the rank structure than a phrase, may yet be a constituent of a phrase.) Such structures as those in figure 10 are therefore possible, where 'daughters' realize slots of the schema at the
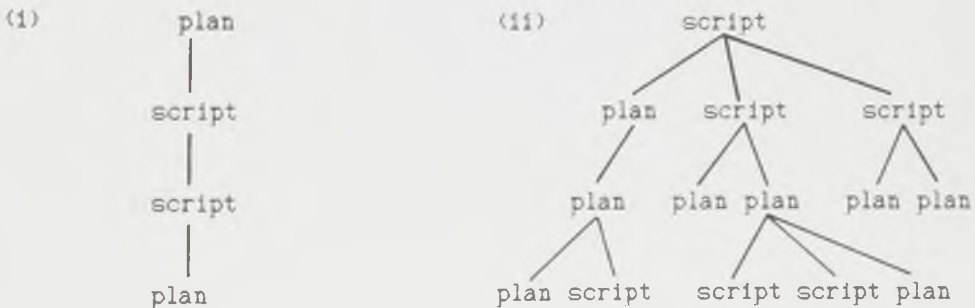
Figure 10. Hierarchical relationship of plans and scripts.

'mother' node. A holiday script, for example, may contain a scene slot filled by 'going home' which may be realized through an airport script, although if the airport is unexpectedly closed, this may activate a plan. An important difference between the tree in (ii) and grammatical trees, however, is that the vertical connections represent alternative realizations. The plan or script at the highest node is realized through the plans or scripts lower down. This vertical movement downwards is pursued as far as necessary. If this strategy fails, another line is followed.

4.5.4 Goals and sub-goals.

Just as unconnected actions in CD representation can be explained at the level of scripts and plans, so scripts and plans need explanation at a higher level too. This next level, in SPGU, is that of goals, and these may be divided into two: main goals and sub-goals. If we assume that agents in a discourse have plans, although we cannot recognize what they are, yet we may be able to reconstruct them by reference to sub-goals, and, similarly, unknown sub-goals may be interpreted with reference to goals.

Consider a literary example. Lady Macbeth urges Macbeth to wash his hands of blood to avoid detection; she wants him to avoid detection to preserve his life; perhaps she wishes him to preserve his life to further her own status. In this interpretation, her goal is to further her own status. This is executed by the sub-goal of advancing her husband's status. This activates a plan to preserve his life, which in turn gives rise to the plan of avoiding detection. This last plan is executed by, among other things, an (instrumental) 'washing hands script' (although the usual slot filler 'dirt' has been replaced by 'blood'). Such an interpretation reveals a number of problems. It highlights the uncertain dividing line between goals and plans. It also reveals a growing uncertainty in interpretations at higher levels. Scripts are relatively transparent, as are plans. The goals behind them are at once both more mysterious and more interesting. (It is the ambiguity of Lady Macbeth's goals which attracts the greatest interest.) On the other hand, there are certain 'basic' goals of which we may be fairly sure for most people: the goals to survive, to protect offspring[21], to seek sexual satisfaction. It is the intermediate area between these most fundamental goals and the

plans and sub-goals which execute them which are both most interesting and most frequently concealed.

The five main goals proposed in SPGU are:

Satisfaction   (of hunger, sex, sleep and addiction)
Enjoyment   (of travel, entertainments, exercise, competition)
Achievement   (of possessions, power, job, social relationships, skills)
Preservation   (of health, of safety, of family, of people, of property)
Crisis handling (of accident, fire, storm etc.)

There are also sub-goals (divided into 'delta' or general planning goals and 'instrumental' or executive goals) employed in the execution of these main goals. The main goal of preserving one's own children, for example, might be realized through, among others, the delta goal of ascertaining the identity of a baby-sitter, and the instrumental goal of using that baby-sitter. The instrumental goal will then be initiated by a planbox 'ask', which, if it fails, will create a recursive loop, leading to asking another baby-sitter, or a change of plan, perhaps to stay at home. Clearly, there are complex interrelations and preference rules between both goals and subgoals, and those which operate with enough frequency and predictability will be handled by plans and scripts. Subgoals, moreover, may have their own subgoals, and no limit is set to this recursion. Although this point is not explicitly stated in SPGU, we may regard main goals as types of schemata whose default elements are actual or potential sub-goals, and sub-goals as schemata whose default elements are other sub-goals and/or plans.

At this level, as at that of scripts and plans, there is much room for debate as to the degree in which goals are universal or specific to cultures, social groups or individuals. This of course may be the source of interest in reading texts concerned with other people's goals. Many of SPGU's categories are specific to the culture and social class of its authors, and it might be unkindly observed that there are many ways in which the list reflects the goals of a male, middle-aged North American academic - though to be fair, the authors often show humorous recognition of this. It is easy enough to speculate on different classifications and identities of goals and, in sociology, psychology and anthropology, there are in fact many such attempts (for a discussion see Atkinson et al. 1987:315-346), but the accuracy or inaccuracy of SPGU's specific

suggestions concerning main goals in no way invalidates the theory that
goals of some sort control the lower levels of both discourse and action.

4.5.5 Themes.

Just as plans and scripts demand goals, so goals need explanation too.
In text comprehension, if a goal is not recognized, or is unfamiliar,
recourse may be made to some higher level. Whether or not there is a
degree of universality in goals, it is indisputable that the priority given
in conflicts between goals varies both within individuals, from individual
to individual, and from group to group. Why will one person risk their
job for sexual satisfaction and another sacrifice sexual satisfaction to
their job? Why will one individual stop work to watch television and
another stop watching television to work? And why, for that matter, do
such preferences change within the behaviour of one individual? Once
again reference to a higher level is demanded, and SPGU proposes the
category of themes, divided into three, as follows:

> Role themes: Such as 'being a lawyer', 'being a garbage collector' etc.
> Interpersonal themes: These are rated as clines on three scales of
> positive/negative; intimate/distant; dominant/submissive. They are
> realized in relationships such as 'lover:lover', 'father:son',
> 'boss: employee'.
> Life themes: These are grouped under headings such as: personal
> qualities, ambition, life style, political attitude, approval, physical
> sensations. They are realised in such manifestations as: 'being a
> communist', 'liking luxury living', 'wanting to become rich'; 'being
> honest'. (SPGU: 131-150)

This process of explanation at higher and higher levels is potentially
endless, but the explanation of themes, as SPGU points out, is beyond the
scope of the investigation of text understanding. Further speculation
would need to consider such issues as the interaction of the nature of
intelligence with the neurophysiology of the brain, and the degree to
which an intelligence is 'programmed' genetically or environmentally.

4.6 Conclusion.

In this chapter we have examined some of the claims of an AI approach
to text understanding and the contribution they can make to discourse
analysis as an explanation of coherence. In particular, we examined the
suggestion that the facts of a text may be represented in a language other
than a natural language, and we described and evaluated one such system:

conceptual dependency theory. We examined some of the problems inherent in the belief that a text can be represented in this or similar ways. This is important in our argument, as AI claims that the knowledge held in schematic form in memory is represented in a system of this kind. The theories in SPGU, DM and EP all suppose that schematic knowledge is represented as conceptual dependencies.

We then described and evaluated the types of schema proposed in SPGU. We gave reasons for preferring this version over the later versions in DM and EP. So far however we have accepted this approach at face value and without criticism. We have yet to test it in the analysis of discourse. The texts on which the theory has been applied in AI are all of necessity simple. This is a necessary limitation for work which seeks to model the system on computer. In the next chapter, however, we shall make a more speculative application of the theory to complex discourse, as a step towards our own modification of schema theory and its peculiar relationship to certain kinds of discourse.

Notes to Chapter Four.
1. We do not at this point distinguish 'semantic' from 'conceptual' representations. The terms are often used interchangeably. For further discussion see 4.3 and also Garnham 1987:29-40.
2. A 'single fact' corresponds to a CD 'event' or, in truth-based semantics, a proposition: see 4.2, 4.3.
3. Halliday's conclusion that reference to one level must therefore involve "reference to others and therefore indirectly to all others" is reminiscent of the Derridean notion of 'différance' (see 2.1.2).
4. The size of these chunks, however, may be much smaller than is popularly believed. This is true even in pre-literate cultures (Ellis and Beattie 1986:248-9). For discussion of the use of ready-made units in discourse see Bolinger (1974) and Cowie (1981).
5. Ironically, such units are well described in formalist analyses. They resemble Propp's 'functions' or Tomashevsky's 'motifs': see 6.3.6 and 6.4.
6. These failings are all, however, features of human 'intelligence' too.
7. Comparable systems of representation are 'semantic networks' (Quillian 1968), 'propositional textbases' (Kintsch 1974), and 'mental models' (Johnson Laird 1983). Despite the bitter disputes that rage in AI concerning the differences between systems, they all share the belief that the 'content' of text can be represented in a way which will correspond to different linguistic realizations.
8. There is a good deal in common between this approach to word meaning, and that of the lexicologist Melchuk (see especially Melchuk 1988).
9. These terms are used much like case roles in Case grammar (Fillmore 1968). For discussions of adaptations and uses of case grammar in computational linguistics see Winograd (1983:311-328).

10. Turing suggests that a machine could be classed as intelligent if it is impossible to tell in interaction whether one is communicating with a person or a machine (for further discussion see EP (Schank 1986:1-15)).

11. The same observations about the applicability of the word 'semantics' are true of 'semantic networks'. The term is perhaps a misnomer (Garnham 1987:23). The term 'neural networks' is also a misnomer - if it implies a correlation between such systems and neurons.

12. Prototype theory is compatible with the Wittgensteinian notion of 'family resemblance'. Rosch borrows the term and takes the idea as a starting point (Rosch and Mervis 1975). This underlines the view that belief in conceptual representation and a Wittgensteinian approach are at odds (see Fodor 1978:69-73).

13. So does AI work on text generation, as opposed to text interpretation. Reasons for the choice of level of detail, which can be taken as given in text processing must be considered more exactly. The shift of emphasis towards text generation focusses the attention of AI on this problem .

14. There are discussions of the interaction of conceptual structure with discoursal choice. De Beaugrande and Dressler (1981:99) suggest, for example, that a concept which lies at the node connecting other concepts in a semantic network is likely to be foregrounded in some way in discourse. This kind of principle is receiving more attention in recent AI literature on text generation (See Mann 1984, 1987; Dale 1988).

15. There is evidence that memory for swearwords and prayers can persist when other knowledge is lost (Ellis and Beattie 1986:262-263).

16. As a trial is a linguistic phenomenon these may be seen as parts of text structure too as in 3.4.

17. SPGU's term here is 'ask', but we have changed the term to 'ask for' to avoid confusion with 'ask' in the sense of 'ask a question'.

18. SPGU's name for this plan is actually 'invoke theme', but there is some confusion here as the word 'theme' is used in a specialized sense later in SPGU (see 4.4.5) below. On the assumption that it is the general sense of 'theme' which is intended here, we have changed the word to 'topic' to avoid confusion'.

19. 'Invoke topic' and 'inform reason' as a way of asking for something presumably - though SPGU does not mention this - rely upon pragmatic inference to interpret mention of the topic, or of the reason for wanting the object, as having the illocutionary force of a request or demand.

20. This 'piece of knowledge' - that farmers know the area - does not fit the definition of a script exactly. We shall develop the term 'scriptlike' further in the next chapter.

21. Significantly and 'unnaturally' Lady Macbeth specifically denies this goal, which would otherwise be attributed to her 'by default':

I have given suck, and know
How tender 'tis to love the babe that milks me:
I would, while it was smiling in my face,
Have plucked my nipple from his boneless gums,
And dashed the brains out, had I so sworn as you
Have done to this. (Act One: vii: 54)

Chapter Five.

Schema theory 2: an application. Analyses of a 'literary' and 'non-literary' text; a modification of the categories.

5.0 Introduction.

In this chapter, we shall attempt to use the schema types proposed in SPGU in the analysis of two complex pieces of discourse: an advertisement and the opening of a novel. Our purpose in doing this is:

1) to test the relevance of the approach to discourse analysis;

2) to see whether description of schemata can help account for coherence;

3) to see if these analyses suggest any differences between the two types of discourse in question. The results will of course be no more than suggestive, as there is no guarantee that features of these individual texts are characteristic of their genres in general. They can, however, point towards ways in which schema theory may contribute to the analysis and characterization of literary discourse.

Text one is a translation of the opening paragraphs of <u>Crime and Punishment</u>'.

On a very hot evening at the beginning of July, a young man left his garret in S------ Lane, went out into the street, and, as though unable to make up his mind, walked slowly in the direction of K-------- Bridge. He succeeded in avoiding a meeting with his landlady on the stairs. His garret, right under the roof of a tall five-storey building, was more like a cupboard than an apartment. His landlady, who sub-let the room to him, together with meals and the services of a maid, lived in a separate flat on the floor below. Every time he went out, he had to walk past her kitchen, the door of which was almost always wide open; and every time he walked past that door, the young man experienced a painful and cowardly sensation which made him wince and feel ashamed. He was up to the neck in debt to his landlady and was afraid of meeting her.

It was not as though he were cowardly or submissive. Quite the opposite. But recently he had been in an irritable, tense state - like hypochondria. He had withdrawn into himself and cut himself off from everybody so completely, that he was afraid of meeting anybody, not only his landlady. He was crushed by poverty, but even his impoverished circumstances had recently ceased to be a burden to him. He had lost all interest in daily affairs and could no longer be bothered with them. Actually he was not afraid of his landlady at all, whatever plots she might be hatching against him. But to have to stop on the stairs and listen to a lot of silly practical nonsense which was of no interest, to all those nagging demands for payment, to all those threats and complaints, and then to have to wriggle out of it and think up excuses

and tell lies... no thank you! A thousand times better slip downstairs like a cat and escape without anybody noticing.

Text 2 (see figure 11) is a magazine advertisement for Gore-Tex fabric. Contrasting a literary translation with an advertisement will be useful in our later argument concerning the Jakobsonian definition of literariness (in Chapter 7). None of the linguistic choices of the original can by definition appear in a translation - though the translators may have sought equivalents for them, or compensated for their loss by adding 'devices' of their own. The advertisement, by contrast, contains word play ("silver lining", "just the ticket") of a kind often associated with literature, and which would be impossible to translate without loss on some level. The position of these two puns at the beginning and end of the piece, moreover, gives it a structural symmetry which is only present on the linguistic level.

The texts and examples used in SPGU and in related work attempting to implement them[2], are necessarily simple, in order that they may be processed or produced with the rigour needed in computer modelling, according to the capacities of AI. This simplicity of AI texts may be characterized as follows. They tend to be narratives, following a strict chronological sequence. The clause structure is simple and FSP unmarked. Vocabulary is limited and lexical cohesion is effected through denotation rather than connotation. The texts concern events within a limited world, initiated by a fixed number of actors with known goals. Coherence is achieved with reference to a fixed number of known schemata. Narrative stance is uncomplicated. There is no adaptation of a narrative persona with a consequent apparent limitation on authorial knowledge. Consequently, there are no complex changes of viewpoint such as 'slipping' (Leech and Short 1981:340) between the points of view of author, narrator and characters.

Our texts, by contrast, are complex, and certainly unsuited to the capacities of AI. Events do not follow a chronological order. Clause structure is complex and sentence perspective often marked. Cohesion is complex. The interpretative schemata which we shall suggest for the texts are consequently both uncertain and open-ended. It is not always possible to distinguish with any certainty between scripts, plans, goals or themes. Uncertainty arises because interpretation may refer to readers' schemata, which will vary between individuals and groups, and also to speculation
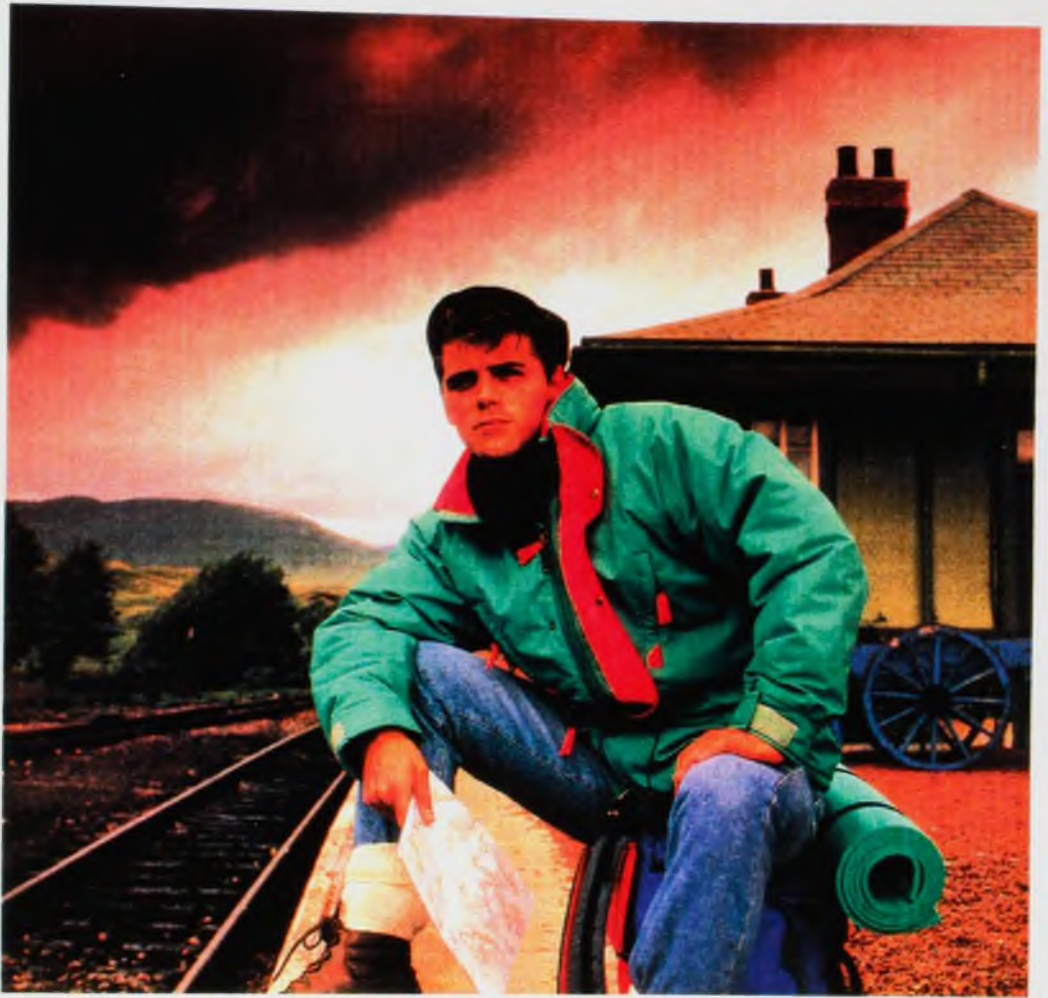
Every cloud has a silver lining.

Rannoch Moor, Scotland. The wind is howling down the tracks and the last train has gone the same way; be grateful you're wrapped up in GORE-TEX ® fabric.

Its not only totally waterproof, it's also impenetrable to stiff breezes, gales and even hurricanes. In fact, the harder the wind blows, the more noticeable the insulation effect becomes.

And if you've worked up a good sweat trying to match the timetable, you'll still be comfortable. Because of the unique membrane structure of Gore-Tex fabric, perspiration can escape freely, keeping you feeling fine. It's the most breathable weatherproof fabric ever invented and is guaranteed to stay that way for at least two years.

And these days, Gore-Tex fabric is one of the most stylish as well. It comes in a choice of fashion colours and features in top ranges of leisure and sports wear.

All of which makes it just the ticket for travelling first class, however you plan to get home.

Gore-Tex fabric consists of an outer fabric, a lining material and a skin-like membrane that has no fewer than 9 billion pores per square inch, each pore is 20,000 times smaller than a raindrop but 700 times larger than a molecule of perspiration. That's why rain cannot pass through, but sweat escapes easily.

GORE-TEX ® *fabrics*

about characters', narrator's and author's schemata, which are tentatively constructed by the reader as the discourse progresses. Open-endedness arises from the activation of potentially huge scripts - a 'city script' for example or a 'holiday script'. There is an inevitable selectiveness and arbitrariness in decisions concerning the boundaries of schemata: whether, for example, knowledge of kitchens is part of knowledge of houses, or a separate domain of its own.

Our aim, therefore, cannot be to achieve the definitiveness of AI text analysis, and it certainly cannot be to produce an analysis rigorous enough to be used in any processing algorithm. Rather, we seek to suggest, tentatively, a possible network of a reader's schemata, activated or added to by the text, and of a reader's hypotheses about characters' schemata. Though speculative, however, our analysis may still have - it is hoped - the virtues of a preliminary reconnaisance. Inevitably, it must be to some extent an analysis for one reader (this one: the present writer), though the coherence of these passages for many readers, and the perceived 'normality' of such textual clues to script activation as the use of definite articles for default elements (see 1.4.2), suggest that within a speech community, individual and group variation is not as significant as is sometimes supposed in reader-response literary theory[3]. This view of literary texts is strongly expressed by Short (1989c), when he writes of "the major fact"

that, though we are all different, we agree to a remarkable extent over the interpretation of texts. Indeed, if it were not the case, it would be difficult to see how communication could ever take place. (op.cit.:3)

5.1 TEXT ONE: the opening of 'Crime and Punishment' (translation).

Our procedure will be as follows:

1) assign schemata to the text (in 5.1.1);

2) list some of the contents of the schemata proposed, indicating both a selection of default elements, and new elements added to these schemata by the text (in 5.1.2);

3) discuss the analysis (in 5.1.3);

4) suggest connections between them which contribute to coherence. (in 5.1.4)

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We shall then, in 5.2, repeat these stages (1-4) with Text 2. In 5.3 we shall contrast the two analyses and summarize our findings, so that in 5.4., we can suggest a modification of the SPGU model.

5.1.1 Suggested schemata.

In assigning schemata to the text we use the following symbols:

$ = script
π = plan
Γ = goal (sub-Γ = sub goal)
θ = theme

These symbols may be followed by a 'type' (for scripts and themes only), a 'viewpoint' and a 'name'. The following abbreviations are used for script types.

SIT   = Situational
PERS   = Personal
INST   = Instrumental

and for theme types:

ROLE   = ROLE
INTERP   = INTERPERSONAL
LIFE   = LIFE

The following abbreviations are used for viewpoints:

R   = Reader
C (or name of character)   = Character
R/C   = Reader and character

In a sense all schemata are readers' schemata. Their autonomous existence for characters is illusory.

The name of the schema refers to its contents. Thus $ SIT LANDLADY CITY means 'a situational script about a city from the landlady's viewpoint'. Plans and goals have no type, but only a viewpoint and a name. π LANDLADY GET RENT means: 'the landlady's plan to get the rent'.

Text One is interpreted in terms of the following schemata:

scripts

$ SIT R SUMMER
$ SIT R CITY
$ SIT R HOUSE
$ PERS YOUNG MAN BEING A LODGER
$ INST YOUNG MAN GO OUT
$ PERS R/C ARGUMENT

plans

π YOUNG MAN GO OUT
π YOUNG MAN GO SOMEWHERE
π YOUNG MAN AVOID LANDLADY
π LANDLADY INVOKE TOPIC
π LANDLADY DEMAND
π LANDLADY THREATEN
π LANDLADY COMPLAIN
π YOUNG MAN EXCUSE
π YOUNG MAN LIE
π YOUNG MAN AVOID LANDLADY

goals

Γ YOUNG MAN UNKNOWN
Γ LANDLADY STAY SOLVENT
Γ YOUNG MAN STAY SOLVENT
sub-Γ YOUNG MAN AVOID RENT
sub-Γ LANDLADY GET RENT

themes

θ INTERP YOUNG MAN BEING LODGER
θ ROLE YOUNG MAN BEING COWARD
θ LIFE YOUNG MAN UNSOCIABLENESS
θ LIFE YOUNG MAN BEING POOR
θ LIFE YOUNG MAN NERVOUS TENSION

Again, it should be emphasized that this list is highly speculative. There is not, and perhaps cannot be, any claim to 'correctness' or 'completeness'. In particular the above suggestions could be broken down into a larger number of small 'sub-scripts', for example, $ KITCHEN, $ STREET. There is also arbitrariness in deciding whether schemata are themes, goals, plans or scripts. YOUNG MAN GO OUT and YOUNG MAN AVOID LANDLADY for example might initially be regarded as plans, though on the evidence of the passage as a whole, it seems that they are so habitual for this character that they are better described as scripts. (Thus YOUNG MAN GO OUT is listed above as both a script and a plan.)

5.1.2 Analysis.

The following analysis attempts to link the proposed schemata to the unfolding of the text. Names of schemata are written in three lines above the text, the top line containing themes and goals, the second plans and the third scripts. We do not deal here with the problem of when and how a schema ceases to be relevant. In general we consider a schema, once activated, to continue. We do, however, repeat the name of a schema where we consider it to be brought back into prominence by the text. Inevitably, for reasons of space, not every potential minor schema which may be temporarily activated can be included. We name a schema when we judge it to contribute significantly to understanding.

.... Γ YOUNG MAN UNKNOWN.................
.... π YOUNG MAN GO OUT ....
$ R SUMMER..
On a very hot evening at the beginning of July, a young man left his

....
....
$ R HOUSE...................... $ R CITY ....
garret in S------ Lane, went out into the street, and, as though unable to

Γ YOUNG MAN UNKNOWN ....
................π YOUNG MAN GO SOMEWHERE ....
....
make up his mind, walked slowly in the direction of K-------- Bridge.

Γ YOUNG MAN UNKNOWN ....θ ROLE YOUNG MAN BEING A LODGER ....
.... π YOUNG MAN AVOID LANDLADY...
.... $ PERS YOUNG MAN BEING A LODGER.................................
He succeeded in avoiding a meeting with   his landlady on   the stairs.

....
....
$ R HOUSE ....
His garret, right under the roof of a tall five-storey building, was more

θ LIFE YOUNG MAN BEING POOR ....
.... Γ YOUNG MAN STAY SOLVENT ....
...............................$ PERS YOUNG MAN BEING A LODGER.........................
like a cupboard than an apartment. His landlady, who sub-let the room to

....
....
....
him, together with meals and the services of a maid, lived in a separate

....
........................π YOUNG MAN GO OUT ....
$ R HOUSE ....$ INST YOUNG MAN GO OUT ....
flat on the floor below. Every time he went out, he had to walk past her

....
................π YOUNG MAN AVOID LANDLADY ....
$ R HOUSE ....
kitchen, the door of which was almost always wide open; and every time he

.... θ ROLE YOUNG MAN BEING A COWARD ....
....
....
walked past that door, the young man experienced a painful and cowardly

θ INTERP YOUNG MAN NERVOUS TENSION ....
....
....
sensation which made him wince and feel ashamed. He was up to the neck

θ LIFE YOUNG MAN BEING POOR .θ ROLE YOUNG MAN BEING A COWARD...............
....
....
in debt to his landlady and was afraid of meeting her.

.... θ ROLE YOUNG MAN BEING A COWARD ....
....
....
    It was not as though he were cowardly or submissive. Quite the

.... θ INTERP YOUNG MAN NERVOUS TENSION ....
....
....
opposite. But recently he had been in an irritable, tense state - like

.... θ LIFE YOUNG MAN UNSOCIABLESNESS ....
....
....
hypochondria. He had withdrawn into himself and cut himself off from

....................θ ROLE YOUNG MAN BEING A COWARD ....
.... π YOUNG MAN AVOID LANDLADY.....................
....
everybody so completely, that he was afraid of meeting anybody, not only

....................θ LIFE YOUNG MAN BEING POOR ....
....
....
his landlady. He was crushed by poverty, but even his impoverished

..........θ LIFE YOUNG MAN UNSOCIABLENESS.................................
....
....
circumstances had recently ceased to be a burden to him. He had lost all

....
....
....
interest in daily affairs and could no longer be bothered with them.

θ ROLE YOUNG MAN BEING A COWARD ....
π YOUNG MAN AVOID LANDLADY .... SUB-Γ LANDLADY GET RENT..................
....
Actually he was not afraid of his landlady at all, whatever plots she

....
....
.... $ R HOUSE ....
might be hatching against him. But to have to stop on the stairs and

Γ LANDLADY STAY SOLVENT ....
π LANDLADY INVOKE TOPIC ....
....
listen to a lot of silly practical nonsense which was of no interest, to

```
SUB-Γ LANDLADY GET RENT ...........................................................
π LANDLADY DEMAND ...................... π LANDLADY THREATEN ..........................
$ R/C ARGUMENT ....................................................................
all those nagging demands for payment, to all those threats and

......................................................................................
π LANDLADY COMPLAIN ..........................π YOUNG MAN EXCUSE .....................
......................................................................................
complaints, and then to have to wriggle out of it and think up excuses and

......................................................................................
π YOUNG MAN LIE ...........π YOUNG MAN AVOID LANDLADY..π YOUNG MAN GO OUT...
.......................... $ INST YOUNG MAN GO OUT ...................................
tell lies... no thank you!  A thousand times better slip downstairs like a

θ YOUNG MAN NERVOUS TENSION ........................
π YOUNG MAN GO SOMEWHERE...........................
...................................................
cat and escape without anybody noticing.
                 -------------------
```

5.1.3 Discussion of analysis.

Naming, classifying and assigning schemata in this way is highly speculative and highly problematic.   Yet the problems encountered are illuminating.   They provide insights into the system proposed in SPGU, into these particular texts, and potentially into the characteristics of the two discourse types: literary narrative and advertisement.

A major problem concerns the viewpoint in each schema. In processing, a reader will make use of existing schemata and build new ones.   Some of these reader's schemata will contain characters' schemata, narrator's schemata and author's schemata. (For the author, one might speculate, the situation is reversed. Author's schemata contain reader's schemata.) Any section of narrative can be described from one or more of these viewpoints.   In addition there is variation between readers.   This can easily be illustrated with reference to the second schema postulated here $ SIT R CITY, which, while it may be an accurate description for, say, most contemporary British readers, will be something more like $ SIT R 19th CENTURY ST. PETERSBURG, for, say, readers who know in advance (from a $ R DOSTOEVSKY NOVELS) where and when the action takes place[4]. And, even within broad groups of readers no $ CITY or $ ST. PETERSBURG will be exactly the same. (Readers with direct or vicarious experience of the beginning of July in Leningrad will know by default that these events take place during the 'white nights', when there is virtually continuous daylight, making people restless and wakeful, the author may well have

assumed that Russian readers will supply this detail as a default element from their $ SUMMER and $ ST. PETERSBURG.)

Movement between the characters' viewpoints, and interweaving of author's narrator's, characters' and reader's schemata is well illustrated in the meeting on the stairs.   It is part of both ⊓ LANDLADY GET RENT, and a failure of ⊓ YOUNG MAN GO OUT. It also, we might surmise, realizes a plan of the author's: something like ⊓ AUTHOR CREATE INTEREST THROUGH CONFLICT which in turn executes a goal, perhaps Γ AUTHOR WRITE A SUCCESSFUL NOVEL.   Narrator's schemata are perhaps the hardest to characterize, existing in the interface between reader's, author's and characters'. The reader meanwhile is presumably adding each event to the scripts he or she is building about the character of the young man, the house and the landlady.

The choice among these possibilities in our own analysis is thus a considerable   simplification.   We have tended to emphasize reader's schemata and those of one character, the young man. This latter choice seems justified by the predominance of reference to the young man, his goals and plans.   The absence of information or suggestion about the higher goals and themes of the landlady also leads us to favour this choice.   It is difficult to suggest a higher level schema for the landlady than STAY SOLVENT and GET RENT, both of which are likely to be defaults in an $ R LANDLADY. The narrative moreover frequently adopts the young man's view: "he was lucky to avoid a meeting with his landlady", "all this silly practical nonsense".   In terms of FSP, the anaphoric 'he' is very often in the given (or topic) position[6]. 'Landlady' by contrast is not, and needs repetition, despite the absence of any other female character to cause ambiguity of reference. It is also possible that readers possess $ SIT R NOVEL PLOT in which a young man is more likely to occupy the central character slot than a landlady!

A further major problem is to differentiate instrumental scripts, personal scripts, sub-goals, goals, and themes. Key factors are the degree of habit on the part of a character, the permanence of a particular state of affairs, whether one action is subsidiary to another. Being a lodger may be a temporary script for some people, and a life theme for others. A reader's judgements must await further information, and may change as more details are provided. Much of the coherence and interest of this text is

provided by the absence of motivation in the young man's initial exit from
the house, and the lack of enough detail to reveal whether this action
results from a plan or a script (readers will assume, of course, that the
conscious actions of a human agent derive from some plan or goal). That
the situation is initially seen from a reader's viewpoint is clearly
indicated by the indefinite article in the phrase 'a young man' - he is
neither named nor assumed to be known. Various possible goals and plans
may be suggested by the interaction of a reader's schemata and the text,
ranging from the desire to go out on a hot summer's evening (from $ R
SUMMER) to the desire to escape a small uncomfortable room (from $ R
HOUSE) to the plan to avoid the landlady (from $ R BEING A LODGER).
Further explanations are then suggested in terms of personality or - in
SPGU's terms - themes. Unsociableness, nervousness, depression, and being
poor may all motivate the exit, and indeed each other. Finally, the young
man's action is represented as one which is often repeated - hence our
suggestion of the script $ INST YOUNG MAN GO OUT as well as П YOUNG MAN
GO OUT; the origin of the goal of avoiding the landlady, however, remains
unclear, and may be caused by any - or any combination of - the
suggested themes. Nor does the possibility of some other purpose
disappear. That the young man has some darker intention - though not its
exact nature - is revealed in the two paragraphs which follow this
extract. Though we have not here postulated a $ SIT R YOUNG MAN, one
might argue that the building of this script by the reader is potentially
(provided he remains as 'central character') one of the major causes of
coherence for the whole novel.

A further complication in the assignment and description of schemata
arises from the apparent contradiction in the text between "he... was
afraid of meeting anybody, not only his landlady" and "Actually, he was not
in the least afraid of his landlady at all." Dostoevsky's writing is
characterized by rapid and contradictory changes of viewpoint, a technique
which led Bakhtin to describe his novels as 'polyphonic' and 'dialogic'
(Bakhtin [1929 and 1963] 1984: 5-47, 251-270; Bakhtin [1934] 1981), and
this is a case in point. What we have here is the invocation of two
contradictory themes, in the first of which the young man is a coward, in
the second of which he is not. This causes the straightforward approach
of the opening lines, in which narrator informs reader, to be disrupted in
a shift of viewpoint, an apparent abdication of narrative control which is

quite alien to the simple text types of AI. Here the cohesion affected by
the colloquial 'actually'⁶ perhaps provides the clue, and the second
version, we may presume, is the young man's own. We are thus presented
with two sets of schemata: the first being the narrative view, the second
the young man's own: his schema of his own schemata. Here we encounter a
problem not dealt with in SPGU. Themes, though they are the ultimate
source of scripts, are also a part of them. Our script about a character,
and a character's script of himself/herself, contains themes.

Bearing these immense complications in mind, we shall now attempt to
give more detail about the possible contents of a selection of the
suggested schemata.

5.1.4 Contents of schemata.

In the following, square brackets [] indicate default elements mentioned
by the text; angle brackets <> indicate suggestions for further default
elements not mentioned. For other symbols and abbreviations, see 4.2 and
4.5.3.

Scripts:

```
$ SIT R SUMMER
$ Type:          situational
  Viewpoint:     reader
  Content:       summer;
Headers in text: "a very hot evening at the beginning of July"
 - scenes:       [going for a walk]
(The number of possible props and roles is very large.  It is difficult
to specify an 'entry condition' or 'main consequence', the sequencing of
scenes, or results.)

$ SIT R HOUSE
  Type:          situational
  Viewpoint:     reader
  Content:       house
headers in text: "his garret"
slots:
   - a number of props: [little room], [several storeys], [S---- Lane]
   - the roles of the participants: [lodger], [landlady]
   - entry conditions: $ CITY ?
   - results: ?
   - scenes: [being in], [meeting other occupants], <having visitors>,
 <sleeping>, <waking>, [eating], [going out], [being out].
(Again, it is difficult to specify either results or their sequence, or
limit the number of slot fillers)
```

$ SIT R CITY
   Type: situational
   Viewpoint: reader
   Content: city   (Possible track: 19th Century St. Petersburg)
Header in text: "S------ Lane"; "K------ Bridge"
slots:
   - a number of props : [houses], [streets], [bridges], <parks etc etc,>
   - the roles of the participants : <police>, <shopkeepers>, <students>
etc.,
   - the entry conditions: ?
   - results: ?
   - scenes: [walking], <working>, [being at home].
(This script raises similar problems. It is difficult to specify entry
conditions, results or a sequence of scenes.)

$ PERS YOUNG MAN BEING A LODGER
   Type: Personal
   Viewpoint: Young man
   Content: Being a lodger
   Header in text: "his garret right under the roof", "his landlady"
slots:
   - a number of props: [room], [rent], [meals]
   - the roles of the participants: [lodger], [landlady], <other lodgers>
   - the entry conditions: possibly [θ BEING POOR] or [θ BEING A STUDENT]
   - results: [possibly $ ARGUMENT]
   - scenes and their sequence: [being in], [$ GO OUT], [$ MEET LANDLADY]
(Some of the slots are highly speculative and await confirmation. Some
of the scenes relate to suggested scripts.)

$ INST YOUNG MAN GO OUT
   Type: Instrumental
   Viewpoint: Young man
   Content: Going out
   Header in text: "left his little room"
slots:
- a number of props: [stairs], <front door>
- the roles of the participants: [landlady]
- the entry conditions: possibly[$ SUMMER] or [$ ROOM] or
                [θ UNSOCIABILITY] or [π AVOID RENT]
- results: [being in the street]
- scenes and their sequence: [going downstairs], [passing kitchen],
[meeting or not meeting landlady].

   There are numerous possible readers' scripts which may affect
interpretation: e.g. $ SIT R DOSTOEVSKY NOVEL, $ SIT R YOUNG MEN etc.

Plans. We suggest a possible planbox for one of the named plans.

```
π YOUNG MAN AVOID LANDLADY
π Viewpoint: Young man (X);
    Name: Avoid Landlady
        Key action: NOT BE (PROX LANDLADY)
        controllable precondition:   X NOT IS (PROX Y) (where Y=landlady)
        uncontrollable precondition: Y NOT PTRANS Y (PROX X)
        mediating precondition :    X KNOWS (LOC Y)
        result:                      Y NOT SPEAK X
```

Others could be constructed along similar lines. The distinction between plans and sub-goals is a difficult one to draw and this is illustrated by the fact that the sub-goals suggested may also be given planboxes as follows:

```
SUB-Γ LANDLADY GET RENT
    Viewpoint: Landlady (X)
    Name      : Get Rent
Key action: PTRANS RENT X
        controllable precondition:   X BE (PROX Y)      (where Y=lodger)
        uncontrollable precondition: Y SOC-CONT MONEY
        mediating precondition :    Y WANTS PTRANS RENT X
        result:                      X SOC-CONT MONEY
```

Goals and themes have no content other than the viewpoint and subject indicated by their names, and the goals, plans and scripts they activate (see next section).

5.1.5 Diagrams of schemata as a representation of coherence.

Coherence is created (at least in part) when a reader perceives connections between schemata. These connections may be causal (θ LIFE YOUNG MAN BEING POOR may cause SUB-Γ YOUNG MAN AVOID RENT) or because one schema is contained in another ($ SIT R HOUSE is part of $ SIT R CITY). Connections can be represented diagrammatically. We shall do this in two ways.

The first diagram (figure 12) is a hierarchical representation of connections between schemata.

The second diagram (figure 13) employs a means of representation of connections employed by Reichman (1985) in her description of conversational 'context spaces'[7]. To show the relationships, she adopts a system of boxes, enclosing and excluding each other. In this diagram, numbers and arrows indicate the linear sequencing of schemata . Pervasive
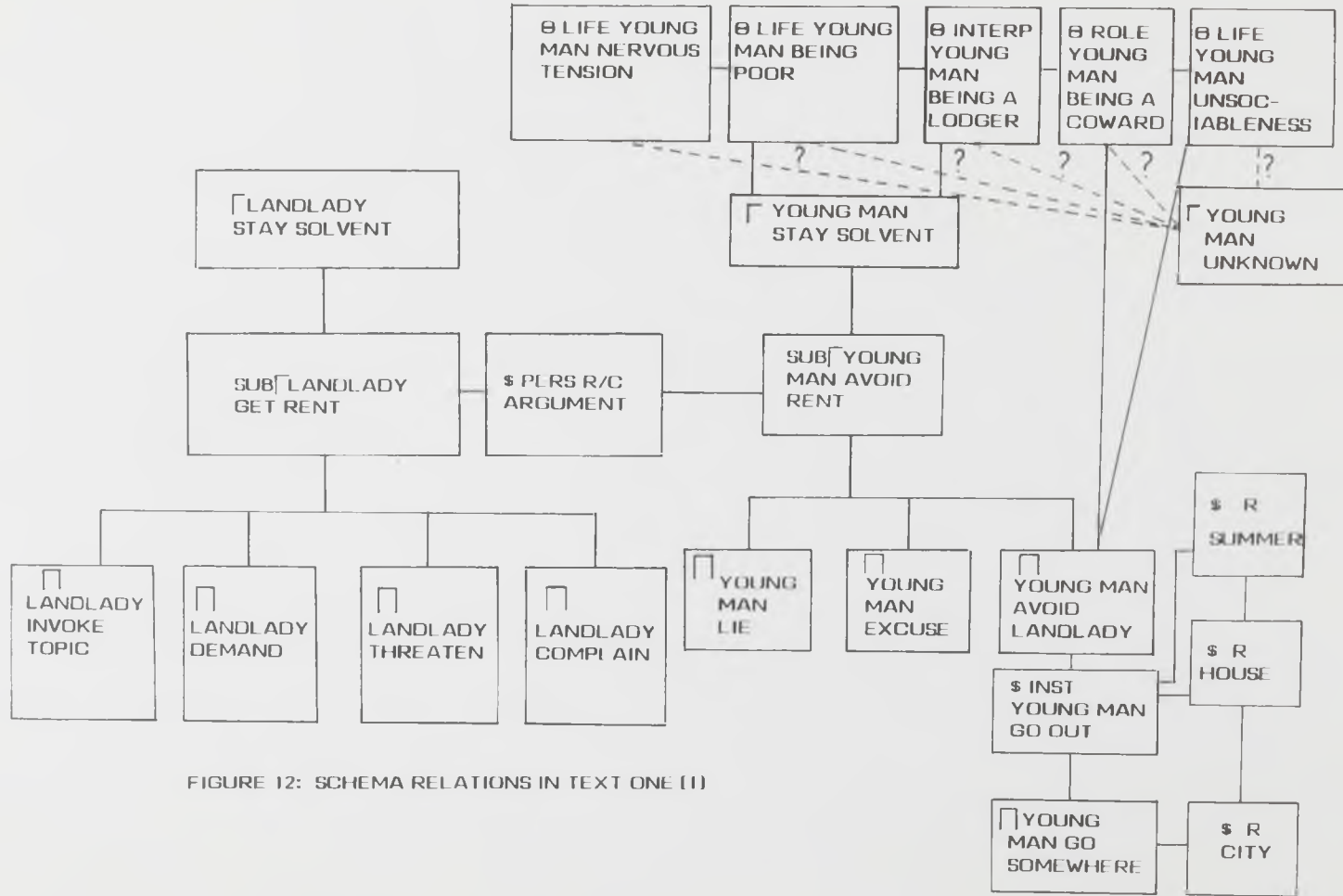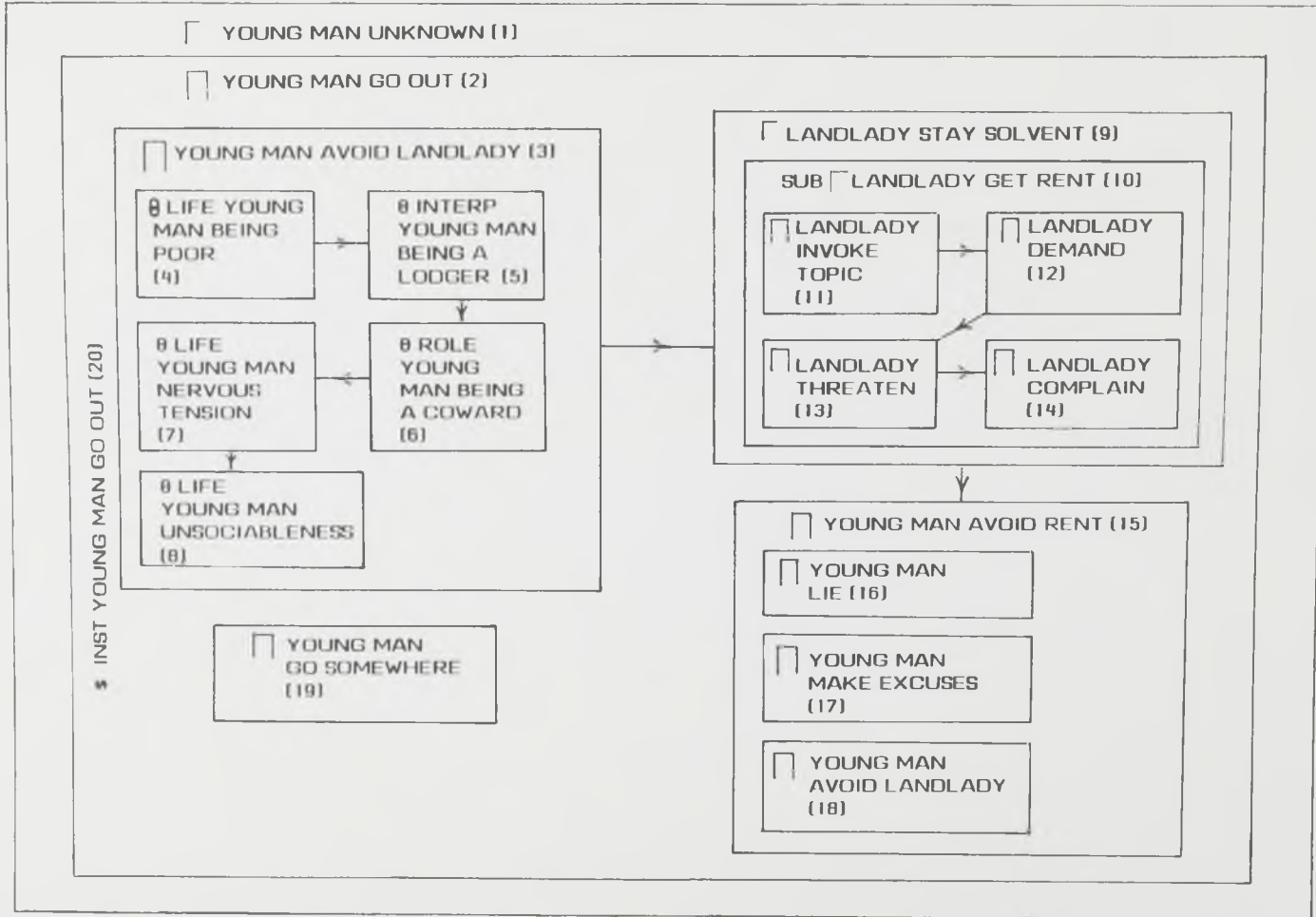
FIGURE 12: SCHEMA RELATIONS IN TEXT ONE (1)

FIGURE 13: SCHEMA RELATIONS IN TEXT ONE (2)

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schemata which unify the passage as a whole are represented as enclosing boxes. These are Γ YOUNG MAN UNK and Π YOUNG MAN GO OUT. Reference to these begins and ends our extract and all other schemata are related to them. When they are invoked again at the end of the text they have changed considerably. The unknown goal is now to some extent clarified. What was initially perceived as a plan has become more like a script.

Figure 12 is a product view of the discourse (see 3.4 and 6.4); figure 13 is a process view (see 3.5 and 7.4).

Both diagrams are highly speculative. This should only emphasize the fact that they are two among many other possibilities. One reason for this is that almost any schema may be both the container and the contained in relationship to another. Thus, for example, the city is part of the young man's life, but equally the young man is a part of the city.

5.2 TEXT TWO: Every Cloud has a Silver Lining (advertisement).

The second text has been chosen for the contrast it provides with the first. Novels and advertisements are usually regarded as quite dissimilar types of discourse, attracting different attention and evaluation. It would, however, be a circular argument to dwell on differences in advance. Our aim is rather to examine the interplay of schemata and text, and then examine differences.

We shall, however, comment straight away on two relatively superficial differences which may affect our analysis.

Firstly, text one is an extract, the first of several hundred pages, while text two is complete[8]. Treating parts of a text in isolation can have a distorting effect upon perception of both cohesion and coherence (Cook 1986). We assume, however, that this hazard is less serious in the opening of a longer text, where, as reading progresses in a linear manner, a degree of coherence will exist at each point in the process, and some absence of connection will be tolerated on the assumption that it will be resolved by later information.

Secondly, text one is words only, while text two is accompanied by a picture (see figure 11) showing a healthy, young, handsome, stylishly dressed man wearing a Gore-Tex coat and - because of the camera angle - dominating the view of the small windswept station where he is sitting[9]. Clearly, in such advertisements, there is interplay between text and image

and such features as the meaning of anaphoric referring expressions (such as 'he') and of exophoric referring expressions (such as 'you') may be determined by the picture (Cook 1988). Slots for evoked schemata may well be provided pictorially. Nevertheless, we shall deal with the text as writing only.

We shall now repeat the same stages of analysis as in 5.1.

5.2.1 Suggested schemata.

The text is here interpreted in terms of the following schemata:

scripts	plans	goals
$ SIT R/C HIGHLAND SCOTLAND	π R/C RETURN HOME	Γ R/C SAVE MONEY
$ SIT R/C BE ON HOLIDAY	π R/C CATCH TRAIN	Γ R/C BE MODERN
$ INST C WEARING GORE-TEX	π R/C STAY WARM	Γ R/C STAY COMFORTABLE
	π R/C STAY DRY	Γ R/C BE STYLISH
	π R/C BUY TICKET	Γ R/C MAINTAIN STATUS
	π R/C GORE-TEX	

Once again, it must be emphasized that this list and the following suggestions concerning the connections of these schemata in the text reflect one of many possible interpretations.

5.2.2 Analysis.

As no themes are suggested here, only two lines are used above the text.

<div align="center">Every cloud has a silver lining</div>

.... π R/C RETURN HOME...................................
$ SIT R/C HIGHLAND SCOTLAND. $ SIT R/C BE ON HOLIDAY.. π R/C CATCH TRAIN
Rannoch Moor, Scotland. The wind is howling down the tracks and the last

.... Γ R/C STAY COMFORTABLE....................................
.... π R/C STAY WARM ... $ INST C WEARING GORE-TEX..
train has gone that way; be grateful you're wrapped up in GORE-TEX fabric.

...π R/C STAY DRY .... π R/C STAY WARM ....
...............................$ SIT R/C HIGHLAND SCOTLAND).......................................
It's not only totally waterproof, it's also impenetrable to stiff breezes,

....
..........$ INST C WEARING GORE-TEX ....
gales and even hurricanes. In fact, the harder the wind blows, the more

....
....
noticeable the insulation effect becomes.

∏ R/C RETURN HOME....... ∏ R/C STAY DRY .... Γ R/C STAY COMFORTABLE
∏ R/C CATCH TRAIN...
And if you've worked up a good sweat trying to match the timetable, you'll

....
....
still be comfortable.

....Γ R/C STAY COMFORTABLE.........
$ INST C WEARING GORE-TEX.....................................∏ R/C STAY DRY.............
Because of the unique membrane structure of Gore-Tex fabric, perspiration

....
.... $ INST C WEARING GORE-TEX ....
can escape freely, keeping you feeling fine. It's the most breathable

...... Γ R/C BE MODERN .... Γ R/C SAVE MONEY....................
.... ∏ R BUY GORE-TEX...
waterproof fabric ever invented, and is guaranteed to stay that way for at

.... Γ R/C BE MODERN ....
∏ R BUY GORE-TEX...
least two years. And these days, Gore-Tex fabric is one of the most

Γ R/C BE STYLISH...
....
stylish as well. It comes in a choice of fashion colours and features in

Γ R/C MAINTAIN STATUS................
....
top ranges of leisure and sports wear.

∏ R/C CATCH TRAIN.................... Γ R/C MAINTAIN STATUS....................
.... ∏ R/C BUY TICKET.......... ∏ R BUY GORE-TEX..........
All of which makes it just the ticket for travelling first class, however

....
....
you plan to get home.

5.2.3 Discussion of analysis.

We have attributed most schemata to both reader and the character (the
young man in the photograph) on the assumption that the male reader is
invited to identify with him, or seek to imitate him. (The situation for
women readers is discussed below.) The exophoric referent 'you' thus
apostrophizes both the character and the reader. Interestingly, if we
assume, as the advertiser does, that the reader does not yet own a Gore-
Tex coat, then the only script which does not reflect the viewpoint of
both the character and the reader is $ INST C WEARING GORE-TEX. The only

other schema which is not shared is ∏ R BUY GORE-TEX. This cannot be one
of the character's present plans, as he is already wearing Gore-Tex, and
has thus, presumably, already executed the plan in the past. The effect of
the reader instigating ∏ R BUY GORE-TEX will be to eliminate it and create
a new script $ INST R/C WEARING GORE-TEX, thus achieving complete
identity between the schemata of character and reader.

A complicating factor in all this, is that despite the apparent
apostrophization of the reader, the advertisement may also be read by
someone who will buy the coat for a partner. (As advertisements appear
exclusively to aim at, and depict people in, heterosexual relationships, we
shall assume that such a reader is a woman.) In this case the process of
identification is more complex, and the potential buyer must first
empathize with the recipient of her purchase and then identify on his
behalf with the character. Alternatively, she may be directly attracted to
the character, and seek to make the recipient of her gift more like the
character - by buying him a Gore-Tex coat. (In 7.2, in analysing an
advertisement aimed at a woman, we encounter the opposite situation.)

As in the first analysis, there is a degree of arbitrariness about
decisions concerning the distinction between scripts, plans and goals. A
person who frequently returns home from this station might well handle
events with a script - though if so they would be less likely to miss the
train! In the absence of any information to the contrary we may assume
that this is not a regular activity. The fact that there is only one
character, with whom the reader is blatantly invited to identify, makes the
assignment of viewpoint extremely straightforward, and there is absence of
any direct reference to anything theme-like. There must be themes which
motivate goals, such as θ BEING ATTRACTIVE or θ BEING SUCCESSFUL. The
text presumably assumes that these are the same for reader and character:
present by default and thus unmentioned.

An assumption which we'º have made about this text is that the young
man (and 'you') must be in Scotland on holiday. Readers do not assume
that he lives or works in the vicinity of Rannoch Moor and is simply on
his way home, perhaps to a station a couple of stops down the line. This
impression is partly created by the picture, in which the character is
wearing hiking boots and sitting on a rucksack. It also suggests that for
many (non-Highland Scottish) people a default element in their script $
HIGHLAND SCOTLAND is that it is a place for holidays. This is why we

have suggested 'need to return home' in the results slot, and 'arriving, being there, and leaving' in the scenes and their sequence slot. If this hypothesis is true we have a good example of a phenomenon we shall term 'double inclusion'. For many people Highland Scotland is part of their $ BEING ON HOLIDAY, and being on holiday is also part of their $ HIGHLAND SCOTLAND. Another example of double inclusion is the relationship of $ WEARING GORE-TEX, which may contain holidays as one of its scenes, to $ BEING ON HOLIDAY, which may contain Gore-Tex as one of its props. Similar relations have already been noted in text one.

5.2.4 Contents of schemata.

The conventions here are the same as in 5.1.4. In addition brackets () indicate additions to reader's scripts from the text. We shall speculate on the contents of the scripts we have suggested and on some of the planboxes executing plans. In general the contents are much easier to specify than in text one.

$ SIT R/C HIGHLAND SCOTLAND
      Type: situational
      Viewpoint: reader/ character
      Name: Highland Scotland
      Header in text: "Rannoch Moor, Scotland."
Slots
-    props: [the   tracks],[the   last   train],[the   wind],(Gore-tex),
<sheep>,<streams>
- roles: <tourists>, <residents>
- entry conditions: <desire, money and time to travel>
- results: [need to return home]
- scenes and their sequence:<arriving>,[being there],[being on holiday],
[leaving]

$ SIT R/C BEING ON HOLIDAY
      Type: situational
      Viewpoint: reader/ character
      Name: Being on holiday
      Header in text: "Rannoch Moor, Scotland."
slots:
- props: [sensible clothing], [tickets], [train], [railway], <restaurant>
- roles: [holiday maker], <waiters>, <hotel owners> etc.
- entry conditions: <time>, <money>
- results: [being comfortable/ uncomfortable]
- scenes: [travelling], <staying somwhere>, <swimming>,
(Like $ CITY in text one, these first two scripts are huge, and subsume many others, e.g. $ RAILWAY, $ TOURIST ACCOMMODATION.)

```
$ INST C WEARING GORE-TEX
     Type:       instrumental
     Viewpoint: character
     Name:       wearing Gore-Tex
     Header in text: "you're wrapped up in Gore-Tex fabric"
slots:
- props: [wind], [stations], [moorland]
- roles: [traveller]
- entry conditions: π C BUY GORE-TEX
- results: [being warm], [dry], [comfortable], [stylish], [high status]
- scenes: [walking], [running], [waiting]


π R/C CATCH TRAIN    (X = R/C)
  Key action:                  X PTRANS X (LOC TRAIN)
  Controllable preconditions:  X BE (PROX STATION)
  Uncontrollable precondition: DRIVER PTRANS (TRAIN) (LOC (STATION))
  Mediating precondition:      X SOCCONT TICKET
  result:                       X BE (LOC TRAIN)


π R BUY GORE-TEX (for the advertiser, the most important schema of all)
             Key action:                  X SOC-CONT (GORE-TEX)
             Controllable precondition:   X PTRANS X (LOC SHOP)
             Uncontrollable precondition: X SOC-CONT MONEY
             Mediating precondition:      X WANT GORE-TEX
             result:                      X SOC-CONT GORE-TEX
```

As in the text one, the names of goals reveal their contents. It is significant that there appear to be no themes necessary for processing.

5.2.5 Diagrams of schemata as a representation of coherence.

The interconnection of our proposed schemata are represented diagrammatically in figures 14 and 15, using the same methods of representation as in 5.1.5. The beginning and ending with a pun cannot be represented in CD. The link here is purely linguistic like that effected by the phrase 'the sun' in Futility (see 4.5.3).

FIGURE 14:   SCHEMA RELATIONS IN TEXT TWO (I)

⌐R/C
BE MODERN

⌐R/C
SAVE MONEY

⌐R/C
BE STYLISH

⌐R/C
STAY
COMFORTABLE

⌐R/C
RETURN HOME

⌐R/C
STAY
WARM

⌐R/C
STAY
DRY

[failure]

⌐R/C
CATCH
TRAIN

$ C
INST
WEARING
GORTEX

$ R/C
BEING
ON
HOLIDAY

$ R/C
HIGHLAND
SCOTLAND

⌐R/C
BUY
TICKET

⌐R/C
BUY
TICKET
(FIRST
CLASS)

⌐R/C
BUY
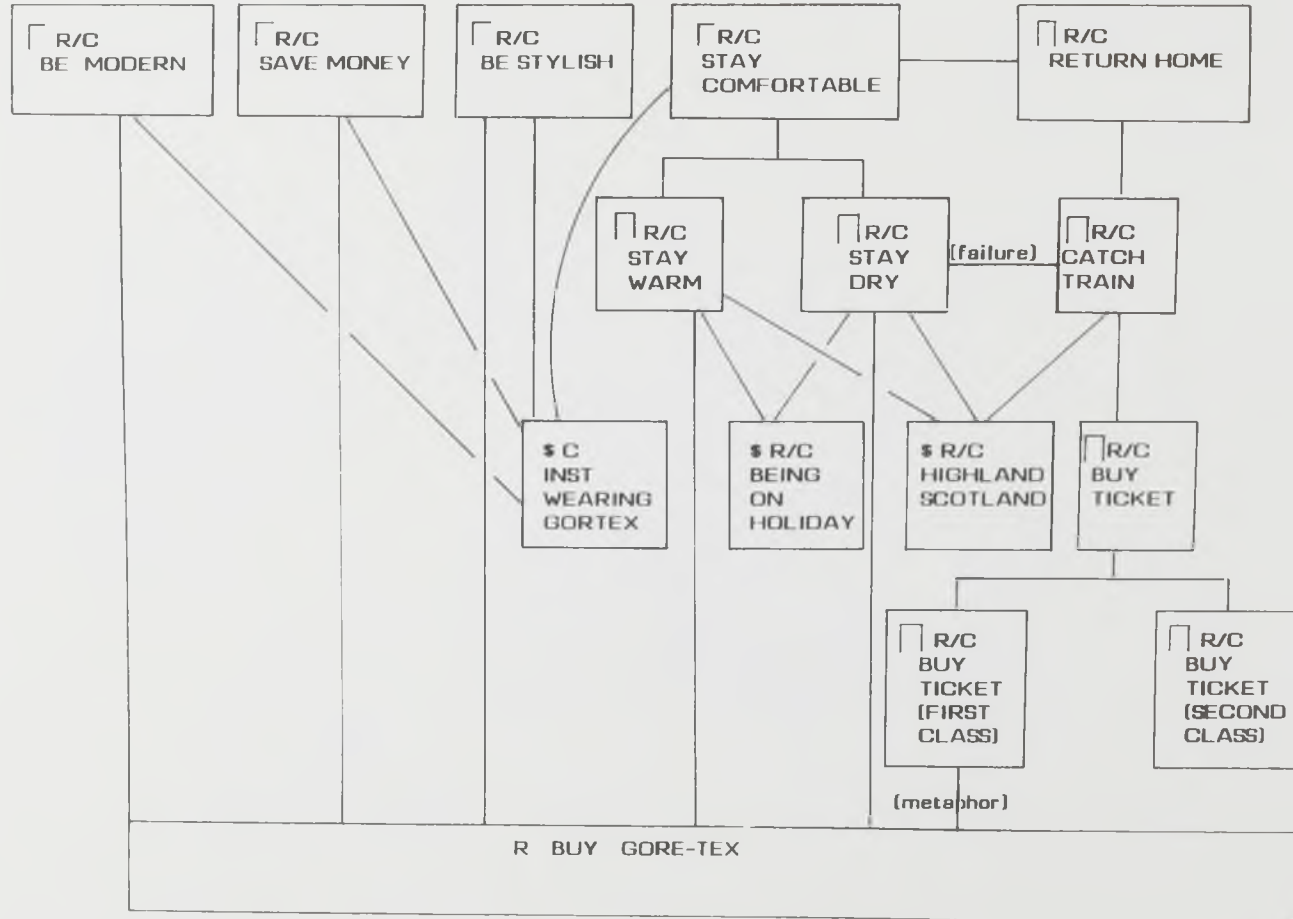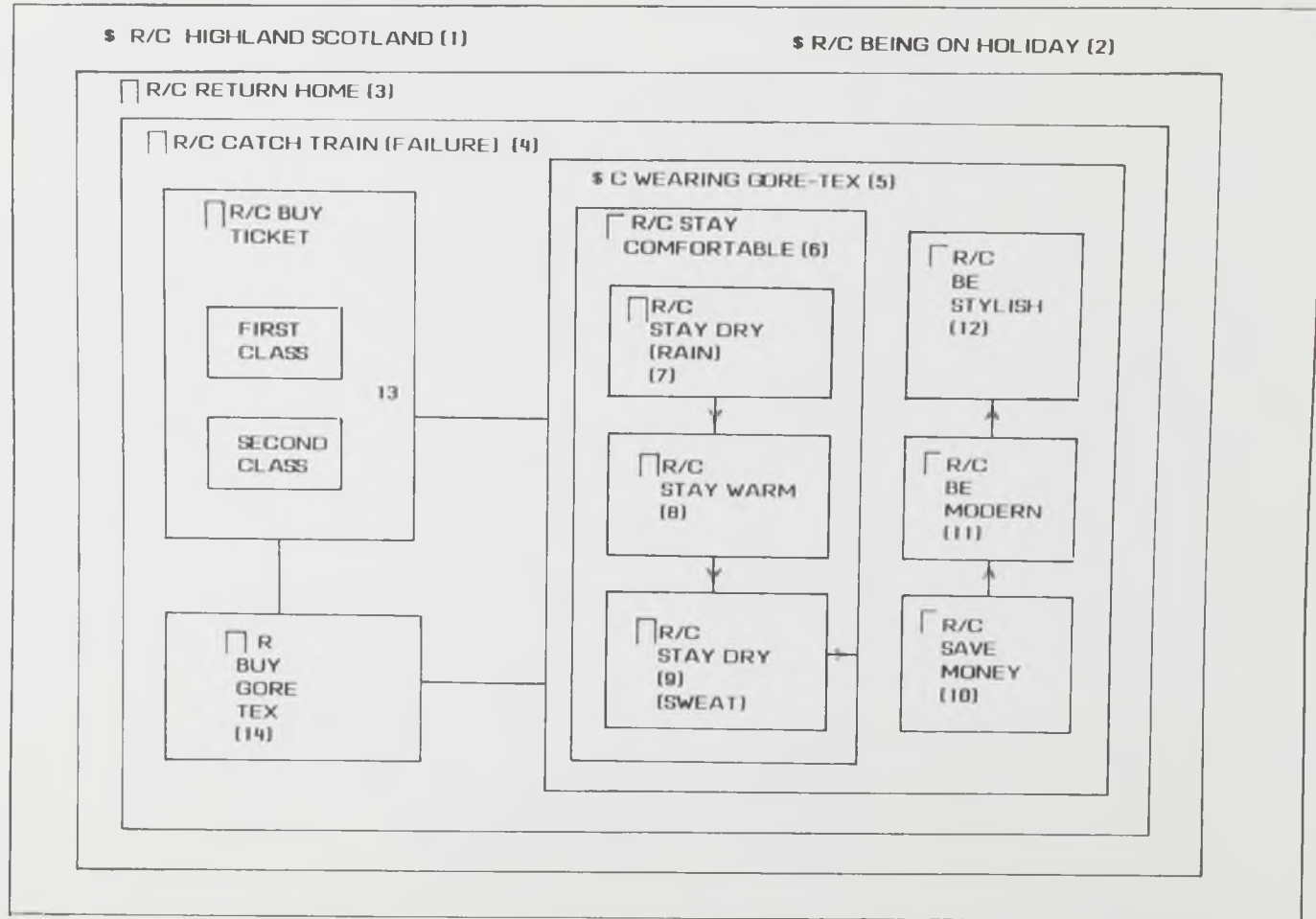TICKET
(SECOND
CLASS)

[metaphor]

R   BUY   GORE-TEX

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FIGURE 15: SCHEMA RELATIONS IN TEXT TWO (2)

5.3 Conclusions from analyses.

The above analyses give rise to a number of conclusions concerning:
1) the usefulness of schema theory - and of Schankian schema theory in particular - in discourse analysis as an explanation of coherence;
2) differences between the two texts as possibly indicative of differences between two discourse types;
3) the categories of schema suggested in SPGU.
We shall deal with each of these in turn.

One basic hypothesis holds good: that the schemata in a coherent discourse are perceived as connected. One schema, moreover, is crucial to coherence, as all other schemata are related to it. In text one this schema is the young man's goal. In text two it is the reader's plan to buy Gore-tex. There is a danger, however, that the inevitable subjectivity in decisions concerning the contents and type of schemata could attract the valid criticism that connections, and the identification of a central schema, are the product of the analysis rather than the texts. Against this we would argue that discourse itself is the product of analysis. There is no such thing as coherent text but only text which is coherent for given readers. Thus if we have succeeded in accurately describing our own perception of coherence, we have described one variant of coherence itself''. Description can only be made more global by adding to this one reader's viewpoint the viewpoints of others.

5.3.1 Literary and advertising discourse.

There are important differences between the roles of schemata in the two texts which suggest possible differences between the two discourse types they represent. Contrary to the Jakobsonian approach to literariness (discussed in 3.1 and 7.1) these are not differences in the use of linguistic form. In our view, the literariness of text one survives translation, which is a change of such form. The advertisement, on the other hand, though it makes use of word play which is beyond paraphrase or translation, would not, in most people's estimation be considered literary.

On the other hand, the schemata evoked by the two texts, and the kinds of connections which exist between them are very different. In the advert, goals and plans are both assumed, unquestioned, and therefore, presumably reinforced. The focus is upon their fulfilment through the

purchase and use of the product, which is a slot filler in several
scripts. In text one, on the other hand, goals and plans are disputable
and themselves sources of interest. Viewpoint in text one is shifting and
unclear, and this is tolerated. In text two viewpoints are more uniform,
and where there is a difference, the communicative purpose is to remove it.
In text one, there is a conflict between the plans of one character and
those of another; in the advertisement there is no such conflict. In text
one, 'slot-fillers' in scripts serve to illuminate goals and plans; in the
advertisement the focus is upon scripts for their own sake, and upon one
slot filler in particular: the product.

5.4 A modification of the SPGU model.

   This analysis has revealed a number of weaknesses and complications in
the categories proposed by SPGU when used in the analysis of complex
discourse. These are as follows:
- It is not possible to specify a sequence of scenes in all scripts
- It is not possible to specify entry conditions or results.
- At any point in a narrative, in establishing coherence, reference may be
made to the schemata of the reader, the author or the characters. (The
narrative stance can perhaps be characterized as an interweaving and
juxtaposition of these viewpoints.) This considerably complicates attempts
to represent connections and multiplies the number of possible
interpretations
- A schema may both contain and be contained by another schema. This
applies both where the two schemata are of the same type (i.e. two
scripts) and also across levels (a script and a plan, a script and a
theme etc.). This phenomenon of 'double inclusion' means that, even given
a limited number of schemata, the possible permutations in representing
connections are enormous
- A representation of schemata does not reveal connections which are text
structural or which exist only through linguistic choice. The symmetry
given to text two by the opening and closing puns is a case in point.
- Distinguishing plans from scripts, on the one hand, and sub-goals from
plans, on the other, is not always possible.
- For these reasons we shall make the following modifications to the basic
categories in further analyses.
1. We shall recognize only three levels of schemata[12].

2.   The first, corresponding broadly to scripts, we shall term 'scriptlike schemata' (symbol $S). We shall define these as schemata whose contents, whether in terms of objects, people or events, are specific. Such a schema will not need to specify results, or a sequence of scenes. Consequently, in future, we shall simply list a selection of the contents (defaults) of scriptlike schemata, indicating the relationship of each default element to the whole.   In listing contents of scriptlike schemata, we shall employ some of the terms used in SPGU, such as 'props', 'roles' and 'results', though in a freer and more selective manner. We shall indicate qualities and states by use the of 'IS/ARE/BE' and 'HAS/HAVE' (see 4.2.1). The principle of double inclusion will enable us to list plans and themes as default elements of scriptlike schemata.

3. We shall make no distinction between plans and sub-goals, but have a single   level called 'plans'.   We shall no longer list the contents of planboxes in detail.

4. Similarly, we shall subsume the SPGU categories of goals and themes under a single heading for which we retain the name 'themes'.

5. Most importantly, in future analyses, we shall emphasize connections established through linguistic and text structural choices which are not taken into account by SPGU.

Notes to Chapter Five.
1. The translation of this passage is by Guy Cook and Elena Poptsova-Cook. The analysis applies to the translation and not to the original. It might be said that the degree to which a schematic analysis is equally applicable to the original and the translation is a measure of 'equivalence' and could be used to evaluate different translations of the same original (Cook 1984:61-75; Cook and Poptsova-Cook 1989).
2.   Such as the 'Sam' and 'Talespin' described in Schank (1984), and 'Moptrans' Frump, see EP (Schank 1986: 10).
3.   As we have already observed in 3.6.2, this view is born out by empirical investigations.   Van Peer (1986), for example, has correlated formal foregrounding and psychological saliency for a wide variety of readers.   For further discussion of this controversy and its history, see 7.4 and 8.1.
4.   Magarshak's translation (Penguin 1956) gives the name of a bridge (Kokushkin Bridge) and a street (Carpenter Street) although Dostoevsky had only written K--- and S----.   One might suppose that in Russia in 1866, for a novel set in an unnamed city, the name 'St. Petersburg' would be provided by default.
5. This is true of the Russian original too.
6. The Russian equivalent is perhaps not so colloquial.

7. 'Context spaces' are related series of claims and counter-claims made by participants which, in Reichman's theory, are 'units' of conversation.
8. There is also the further description of Gore-Tex fabric in the triangular box which we ignore.
9. A visit to Rannoch Moor station during the course of this research revealed that it is not the scene of the photograph!
10. And a number of other people questioned on this point.
11. A weakness of this is that it assumes that our intuitions about the schemata activated correspond to those which we actually used.
12. In DM (Schank 1982) the number of levels is also reduced to three but not in the way proposed here (see 8.1.2). In EP (Schank 1986:71) scripts are treated as "fossilized plans"; 'themes' are replaced by 'beliefs'.

Chapter Six.
Literary Theory 1: formal approaches to deviation.

6.0 Introduction.

The first five chapters have outlined the discourse-analysis approach to coherence and that of AI schema theory, hoping to show how the latter can contribute to the former. The approach was hierarchical, so that where coherence was not signalled by cohesion, or induced from conformity to text structure or pragmatically inferred, it could nevertheless be constructed through schemata. Schemata are themselves hierarchical and may be classed as scriptlike schemata, plans or themes. In this approach, coherence can be established by referring to as high a level as necessary. Failure to account for coherence at one level can be overcome by reference to the level above. Failure at the highest level will often lead to the attribution of incoherence or madness (though this is as likely to reflect a failure of comprehension as of production.)

So far, however, inevitably, the approach has presented only a partial framework. It has been far more concerned with conformity to expectations than with deviation from them. It does, however, have the potential to classify an instance of deviation from expectations by identifying it with one of the given levels.

A further shortcoming of the approach so far is that it has viewed the construction of coherence as the interaction of a single isolated discourse with knowledge of the world; it has taken little account of knowledge of other texts, and of the complex effects which intertextual resonances may have on the overall effect. It has also neglected discourse as a mode of action, affecting - or attempting to affect - the lives of others, and the consequent effects of different narrative stances. Related to both these omissions is the crucial role of choices between linguistic and text structures: the many ways in which the same conceptual content can have different functional or temporal arrangements, the number and nature of overt signals of this arrangement, the demands of knowledge of similar structures in other texts, the level of detail, and the subsentential linguistic choices. Indeed, the conceptual content itself may be affected or dictated by structure.

Our aim in this chapter will be to elaborate the approach in ways which will enable it to cope more fully with literary discourse, and to develop its potential as a description of readers' experience of deviation. In so doing, we shall begin to incorporate the notion of discourse structure (already touched on in 3.4). As a preliminary to this expansion, we shall examine ideas from a body of knowledge which, despite its heterogeneous nature, is now widely characterized as 'modern literary theory', seeking for additional insights and contributions. This examination is essential for a number of reasons if schema theory is to contribute, as we intend, to a theory of discourse deviation and of a function of cognitive change in certain discourse types (suggested in 3.2.3).

These reasons may be summarized as follows. Firstly, there are literary theories which voice objections to some of the premises of schema theory, and these objections must be answered. (In particular, we must examine the relationship between schema theory, which stresses knowledge and interpretation as to some degree separate from form, and theories which stress linguistic and textual form as all important.) Secondly, there are theories which, though couched in different terminologies, derived from different sources and applied in different fields, are nevertheless compatible with schema theory, and in fact develop it and amplify it. (One of our claims is that sophisticated versions of schema theory exist, under different names and unacknowledged by AI, in the writings of avant-garde theorists of earlier decades.) Thirdly, there is a considerable literary theoretical literature on the nature and function of linguistic and text-structural deviation which may both benefit from and add to schema theory. Fourthly, there is a comparatively small body of literary theoretical writing which is explicitly aware of, and uses, AI text theory.

Our aim then is to try to draw relevant insights from literary theory and AI text theory together, and to use them in a theory of discourse deviation. The first task, however, is to say something of the nature of modern literary theory in general.

6.1 The rise of 'modern literary theory'.

One of the commonplaces of post-modernism is its exploitation of Nietzsche's observation that, contrary to common sense, cause follows

rather than precedes effect (Nietzsche (ed. Schlechta) 1966:804). When we
sit on a pin we feel the pain first and then seek the source afterwards;
only when we perceive the pin as the source does the source, as source,
exist. The idea is fertile and iconoclastic. Thus Derrida reasons that,
contrary to the orthodox view of linguistics, writing precedes speech, both
ontogenetically and philogenetically, for the concept of speech can only be
grasped through writing, and only in writing can people begin to
understand that the source of writing is speech (Derrida [1967] 1976). So
too, Hayden White reasons that historical events come into being through
the descriptions which they apparently have caused (White 1973). The same
argument may be applied to 'product' views of grammar, text and discourse
such as those described in 3.4 above, and 6.4 below.

Aptly, the concept of 'modern literary theory' might be characterized as
a similar *post factum* creation. In recent years a multiplicity of
university courses, anthologies and introductions (Jefferson and Robey
[1982] 1986; Eagleton 1983; Davis 1986; Rylance 1987; Lodge 1988; Rice and
Waugh 1989) have brought together, under this single title, an imbroglio of
diverse writings, categorized them, related them one to another, and
generally, in Barthian terms, 'closed them down'. To say, therefore, as we
have done in chapter one, that 'modern literary theory' ignores or is
unaware of AI text theory, merely reflects the arbitrary choices and
categories of the latter-day creators of the discipline. AI text theory
could easily be included within the field. Its lack of specific attention
to literature need not preclude it, as anthologies and courses frequently
include writings (for example, by Marx, Freud, Saussure and Derrida) which
though considered relevant to literature, do not often address it directly.

Despite this rather arbitrary and *post factum* nature of the field, and
notwithstanding the diversity and incompatibility of approaches which the
term subsumes, modern literary theory may broadly be characterized as
writing about literature which does not merely accept and comment upon a
literary canon, but rather seeks to understand the rationale behind the
canon. Its aim is to understand, not particular literary texts *per se*, but
the nature and function of literature in general. In so doing, however, it
may, and frequently does, employ analyses of individual texts and provide
considerable insights into them.

Within this general framework, particular theories and groups of
theories may be identified by their concentration upon one element, or

upon combinations of elements in the model of communication in figure 16.
Other theories and groups of theories may be characterized by their
rejection of the terms of such a model, arguing for example that the
reader only exists through the text (Voloshinov [Bakhtin] [1929] 1973;
Barthes [1970] 1974), or that the author is a culturally determined and
thus dispensible concept (Barthes [1968] 1977; Foucault [1969] 1979). The
hanging of theorists and their writings on to the pegs of this model - or
something similar to it - yields a finite number of labels which are then
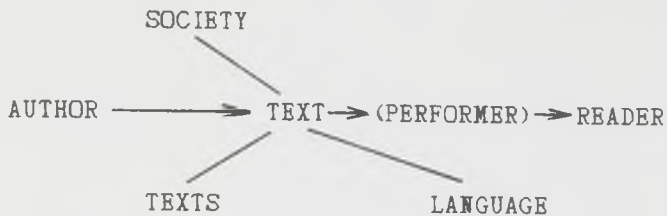conveniently used for the chapters of introductory texts,

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Figure 16. **A simple model of literary communication.**

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the sections of anthologies, the weeks of courses, the titles of books in
series. In the anthologies and introductions referred to above, the
following categories are the most favoured: formalism, structuralism,
linguistics, psychoanalysis, Marxism, feminism, reader-response, post-
structuralism. The attachment of each of these 'movements' to an element
of figure 16 may be listed as in table 4.

We may detect, in this categorization, a nascent rigidity and uniformity
in which individual theorists who do not profess allegiance to one 'school'
or another are nevertheless lumped together under the nearest heading.
Others, such as Bakhtin, whose stature has only recently been acknowledged
in the West (see Clark and Holquist 1984; Terras 1985:34-36; Lodge 1987;
Cazden 1989; Hymes 1989), are left stranded, while theorists like Barthes,
whose thoughts have developed idiosyncratically through temporary
attachment to different philosophies, have their work fragmented and
misrepresented. In addition, certain elements of communication receive
short shrift. There is little attention to the author, other than a
negative critique of literary biography and scholarship. The intermediate

role of the performer in drama and recitation is almost entirely ignored
(a fact which is underlined by the almost universal reference to the
'reader' in preference to the 'audience'). The perception of linguistics is
limited to Saussurean semiotics, Jakobsonian functionalism, and an
occasional reference to Chomsky; there is litle awareness of developments
of text theory in discourse analysis or the computational (including the
AI) paradigm. Related to this - as linguistics has now taken decisive
steps towards cognitive psychology - is the absence of theories of the
cognitive role of literature'. The presence of psychology in the literary
theoretical canon (for a canon is what - ironically - it has become) is
limited to psychoanalysis and phenomenology.

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AUTHOR       literary scholarship and biography (rejected).
PERFORMER    acting theory (not included).
SOCIETY      Marxism, feminism.
TEXT         formalism, linguistics, stylistics.
TEXTS        structuralism, post-structuralism, deconstruction.
LANGUAGE     linguistics, stylistics.
READER       feminism, psychoanalysis, reader response, reception theory,
                                                    post-structuralism.
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THEORIES WHICH CONTEST THESE CATEGORIES: Bakhtinian criticism, post-
structuralism,   post-modernist   feminism,   Lacanian   psychoanalysis,
deconstruction.

Table 4. A typical correlation of 'schools' and elements.

In the following discussion of literary theory, despite these
shortcomings, we shall provisionally adopt these widely disseminated
categories. Our aim,however, is not simply to add another heading to the
list: 'AI text theory', which could then be appended to future anthologies
or inserted into new editions. We seek rather to maintain an awareness of
the dangers of this rigid categorization, while also using it as a guide to
this enormous and complex area. We hope to conclude, however, that ideas
which can contribute to AI schema theory occur in the writings of many
different and apparently incompatible schools, and that
compartmentalization disguises similar and mutually fertile ideas. Above
all, we hope to show that AI text theory has a considerable contribution
to make to attempts to describe literariness as deviation.

In the terms of the communication model in figure 16 our primary interest is in the relationship of author, reader, text, related texts and language, and the issue of whether these categories are valid. For this reason, and for reasons of space, we shall exclude those schools whose emphasis is primarily on the relation of the literary text to its social, political and historical context, or whose approach introduces features of author, reader, text(s) and language which are not of central concern to AI text theory. We shall not then pursue feminist, Marxist or psychoanalytic theories further. Our exclusion of these approaches is purely practical, and does not imply that they have no contribution to make to the application of schema theory to literature. Nor does it imply that the categories of figure 16 are any more than a descriptive convenience: no author, reader or text can be rigorously separated from the social and historical context in which, and through which, they exist.

Our first concern shall be to trace theories which characterize literariness as a deviant or patterned use of language - as, in other words, a particular type of text. From the ultimate failure or incompleteness of these theories we shall progress to some of the literary theories which regard literariness as a relationship between texts and readers, and are thus more readily compatible with schema theory.

6.2 Theories of pattern and deviation.

From this ravelled skein of complex and often contradictory writings, we shall attempt to pick out a single thread of thought which sees in literature a tendency to deviate from expectation[2]. In so doing, we must follow also a parallel strand which attempts to describe the nature of the expectations which are overturned, for talk of deviation must remain impressionistic and intuitive if it cannot describe the plain backcloth of normality against which the brighter stitches of deviation stand out. (For discussion of a psychological rather than formal approach to the terms see 1.2 above.) 'Normality' and 'deviance' are an instance of a mutually defining binary pair, in which neither term can 'mean' without the other (Cixous and Clément 1975:115). Although post-modernists (like Cixous) regard such pairs as a means of ideological control, and seek ways of escaping or at least of reversing the value judgements they encapsulate, we shall adopt this particular pair as a useful tool for the moment. It may be that in literature, the deviant is elevated to the normal, and one

of the functions of literariness in discourse is to reverse the perceptual placing, in a move akin to deconstructionist readings of binary distinctions in established philosophical and scientific writings.

In attempting to trace these theories of deviance, we shall pick out, from among the categories of theory described in 6.1, a developing tradition which runs from Russian formalism through structuralism and Jakobsonian functionalism to stylistics, reader-response and reception theory. We shall highlight theories within this tradition which echo or foreshadow schema theory and can contribute to it. In so doing, we should not ignore the arguments advanced against the tenets of these approaches by post-structuralists, and in particular remember that we may, in the manner referred to in the opening paragraph of this chapter, be imposing our own conceptual structure after the event. Nevertheless, in so far as earlier theorists explicitly occupied themselves with the nature of deviance and normality in discourse, their area of enquiry inevitably touches that of schema theory, for schemata are expectations, and the essence of schema theory is that discourse proceeds, and achieves coherence, by successfully locating the unexpected within a framework of expectation.

6.3 The formalist theory of defamiliarization.

Although the term formalist may be generally applied in literary theory (as it is, for example, by Davis (1986:45) and Rylance (1987:31)) to any who seek to study the literary text as an autonomous object divorced from the specific circumstances of its creation and creator, and from the historical and social context of its reception, the term is most generally associated with the 'Russian formalists', a group of critics who were active in Moscow and Petersburg in the years immediately prior to and after the Bolshevik revolution. It was a 'school' which recognized itself as such, willingly accepted the label 'formalist' (though it was initially applied as an insult) and indeed met as a group in the shape of the 'Opoyaz' and 'Moscow Linguistics' circles (Bennet 1979:18; Eikhenbaum [1926] 1978:32; Terras 1985:151-154). It also came to a relatively neat historical end, for despite its initial sympathy with the Bolshevik revolution and with Marxism, it soon fell foul of the growing dogmatism of Soviet ideas of literature. It was criticized both by Lunacharsky, the first commissar for the arts, and by Trotsky who referred to the

formalists as 'followers of St John' (Terras 1985:134), implying (ironically with an analogy later taken up by deconstruction) that the formalists, like the fourth evangelist, were believers in the 'logos', a metaphysical root of language. Though Shklovsky, one of the school's founding members, lived and worked in Moscow until the 1980s (Clark and Holquist 1984:340-343; Terras 1985:407), the activities of the group ceased fairly abruptly after his forced recantation of the formalist approach in 1930[3]. The movement can be defined in terms of its personnel (the most prominent figures are Eikhenbaum, Jakobson, Tomashevsky, Tynyanov, Shklovsky and Brik) or more fittingly (in keeping with the formalists' own rejection of the author) in terms of its ideas. As these ideas contain the seeds of the major theories of subsequent movements which we wish to integrate with schema theory, we shall describe them here in some detail.

Like many movements, formalism began, and defined itself initially, in terms of its polemical and iconoclastic rejection of the critical *status quo*. Firstly, it scorned the biography and scholarship which dominated the study of literature at the time: "a history of general"', as Tynyanov ([1929] 1978:66) mockingly characterised it, preoccupied with such petty biographical questions as "did Pushkin smoke?" (Brik [1923] 1977:90). Provocatively, it declared the author's individual circumstances irrelevant (Tomashevsky [1923] 1978). Even if Pushkin had not lived, it was suggested, his poetry would still have been written (Tynyanov [1929] 1978). "There are no poets or literary figures; there is poetry and literature" (Brik [1923] 1977:90). Secondly it rejected the current symbolist definition of art as "thinking in images" (Eikhenbaum [1926] 1978:11), and the perennial Aristotelian view of art as mimesis: a view which was cruelly to reappear and wreak revenge on the formalists in the doctrine of socialist realism. Opposition to the notion of art as reflection cost many their freedom, health or lives.

From the initial wild attacks on the critical establishment emerged a new and radical aesthetic, the cornerstone of which is the notion of 'ostranenie': a neologism which nominalizes the Russian adjective for 'strange' and prefixes it with a morpheme denoting a process. This term is most frequently translated into English as 'defamiliarization' or 'making strange', expressing the idea that the function of literature is to restore freshness to perception which has become habitual and automated: to make things strange, to make us see them anew.

> This new attitude to objects in which, in the last analysis, the object becomes perceptible, is that artificiality which, in our opinion, creates art. A phenomenon, perceived many times, and no longer perceivable, or rather, the method of such dimmed perception, is what I call 'recognition' as opposed to 'seeing'. The aim of imagery, the aim of creating new art is to return the object from 'recognition' to 'seeing'. (Shklovsky [1940] 1974:114)

> the fate of the works of bygone artists of the word, is the same as the fate of the word itself: both shed light on the path from poetry to prose; both become coated with the glass armour of the familiar. (op.cit.:68)

This 'making strange', however, was not conceived as taking place at the level of content, as it would in a theory regarding literary language as a transparent or reflective medium through which 'reality' may be perceived. It is rather at the level of form, that 'the glass armour of the familiar' is shattered. Shklovsky unequivocally rejected the reigning critical view that 'new form comes about to express new content', replacing it with the assertion that

> New form comes about not in order to express new content but in order to replace an old form that has already lost its artistic viability. (Shklovsky, quoted by Eikhenbaum [1927] 1978:29)

With this radical new view of "Form conceived as content itself" (ibid.), the centre of critical attention shifted away from the relationship between the literary text with the world or with its creator, and towards internal formal relationships, either within one literary work or between literary works. Defamiliarization in literature is viewed as operating either intertextually or intratextually ('syn-functionally' or 'auto-functionally' in formalist terms (Tynyanov [1929] 1978:68)). It is achieved through formal 'devices', and it is to the study and classification of devices to which the bulk of detailed formalist analysis is devoted. This, the formalists believed, would help to define 'literariness', the object of their study, and pave the way to their ultimate goal, the establishment of a science of literature (Bennett 1979:48). This goal, together with their early historical position, places them firmly, in spirit if not always in execution, at the beginning of the 'scientific' tradition of text theory discussed in 2.2.2. At the risk of repeating well documented material, we shall now describe in detail some of the formalist devices of defamiliarization so that we may later discuss

their relationship to the more recent approaches to discourse in discourse analysis and AI schema theory.

6.3.1 Impeded form.

Shklovsky proposed that a characteristic feature of literary writing is 'impeded form', or difficulty for its own sake. This

> increases the difficulty and length of perception, because the process of perception is an aesthetic end in itself and must be prolonged
> (Shklovsky [1917] 1965:12)

The attention and slowing down which this entails will in itself prevent automatized perception. Characteristically, little distinction is drawn between the levels at which this impediment may take place; Shklovsky's own examples concentrate upon discourse organization. We will assume for the moment that it may take place at any of the levels suggested by discourse analysis or AI schema theory: at the text-structural level certainly, but also at the level of world knowledge, the sub-sentential level (including even at the graphological or phonological level). We will not assume, however, that impediment at one level necessarily entails an impediment at higher levels. Many advertisements, for example, impede processing at the sub-sentential level (through puns, ambiguities, word-class conversions and so on) while remaining conspicuously simple at the levels of text structure and world knowledge (see 5.2 and 7.3). Handwriting which is difficult to read does not imply interesting content. The reverse, however, may not be true. An impediment at world-knowledge or text-structural levels, however, may sometimes entail an impediment at the subsentential level. These are points to which we shall return.

The notion of the device of impeded form encapsulates a common sense psychological principle expressed in sayings and proverbs such as "the grass is always greener on the other side". What is hard to come by, attracts both interest and value. There is always room for disappointment after attainment, however. There are literary experiences, such as - in many people's estimation - <u>Finnegans Wake</u>, where the effort seems disproportionate to the reward.

6.3.2 Bared form.

In some senses, no fiction is more 'real' than another. Yet 'realism' and its illusion of verisimilitude, may be defined as that which successfully distracts the reader's attention from its own devices (Jakobson [1921] 1978; Tomashevsky [1925] 1965:80). In opposition to the criterion of realism, which praises art for the success of this distraction, much formalist analysis concentrates upon writing which deliberately draws attention to its own fictionality and the processes, conventions and illusions of its own genre. This is referred to as 'bared form' (Tomashevsky [1925] 1965:84, Eikhenbaum [1927] 1978:20). The classic analysis is Shklovsky's commentary ([1921] 1965) on (the classic example of bared form) <u>Tristram Shandy</u>. It is a rich approach of wide applicability to any instance where the reader's or audience's attention is drawn to the artistry rather than the illusory subject matter. Nor is its relevance confined to works which are as 'modern' in spirit as <u>Tristram Shandy</u>. Consider, for example, the effects of Shakespeare's plays within plays, or Chaucer's tales within tales, on any nascent "suspension of disbelief" (a prerequisite of realism) in their perceiver (see 6.4.2).

Ironically, by these definitions, the great 'realist' oppressor of formalism, 'socialist realism', is a misnomer. Rather than distracting from its own devices, it rather manipulates painfully bare conventions, though lacking the impeding of form to promote interest. (In this sense it is highly formalist, and arguably owes more to the traditions of Russian orthodox iconography than to either socialism or realism (Achildiev 1989).)

6.3.3 Canonization of the junior branch.

The literary work, according to the formalists, inherits the characteristics of its uncles, aunts and grandparents, but rarely of its parents. Literary traditions proceed oedipally, each new work establishing its ascendancy by destroying the assumptions of the generation before, incidentally often taking on the characteristics of the generation before that (for a later Freudian version of this theory see Bloom 1973). In this sense defamiliarization is achieved intertextually: expectations created by an established group of writers are overturned by rising stars. Clearly, here, the formalist desire to treat the text as autonomous and independent of history and authors runs into trouble, for the corollary of

this theory is that defamiliarization is not a feature of text, but of the interaction of text with context.

One of the means by which this rejection of the earlier generation is achieved is, according to the formalists, the elevation of a genre accorded low status by the previous generation to be a vehicle for the highest art. This they termed the 'canonization of the junior branch' (Shklovsky, quoted by Eikhenbaum ([1927] 1978:32)). Thus, for example, Dostoevsky elevated the detective story in Crime and Punishment (ibid.). Like the theory of impeded form, the idea, once perceived, is ubiquitously borne out. Thus Wordsworth and Coleridge elevated the ballad, Blake the children's song, Capote the newspaper 'human interest story', Orwell the children's story, Bob Dylan the country and western song, and so on. The rise of vernacular literature in the renaissance, or of the novel in the nineteenth century, may be seen as wider instances of the same process. Perhaps the institutional nature of literary study, and its innate conservatism, blocks the perception of similarly far-reaching canonizations in our own time. The status of the poem and the novel have fallen, while that of the song, television programme, and film have risen. Within literary studies, writers like John le Carré and Raymond Chandler are still often excluded because of the apparently junior status of their branch.

6.3.4 'Syuzhet' and 'fabula'.

One of the best known and longest lasting devices identified by the formalists is the 'syuzhet'. This word describes the narrative ordering of the plot and is opposed to the 'fabula', the sequence of events as they happened - or rather, if we are talking of fiction, apparently happened. Where syuzhet and fabula coincide, there is a straightforward chronological narrative, which we might regard as the unmarked form of story telling: the kind of narratives most easily handled in AI (see, for example, the narratives discussed in 2.2 and 4.2.3). Syuzhet is in many ways the text-structural equivalent of the sub-sentential phenomenon of FSP (described in 3.6.2.).

Again the theory is extraordinarily productive, and useful for describing such literary narrative devices as 'cliffhangers' (commonly used by Dickens for example), 'flashbacks' (as in Silas Marner), 'interleaving' (as in Madame Bovary, Oscar and Lucinda), description of the same event

from another narrator's point of view (The Sound and the Fury), or apparently random jumping backwards and forwards in time to create thematic juxtaposition or connection (as in Eyeless in Gaza). It may also be used to characterize a whole genre, as it is in Todorov's structuralist analysis of the detective story (Todorov [1966 and 1971] 1988). Here Todorov describes the genre's typical 'double' narrative in which the fabula is completely reversed, so that the initial event is described last, while the order of events in the investigation moves backwards into the events of the crime. (Todorov (1966b), incidentally, together with Erlich [1955] 1980, was instrumental in introducing Russian formalist ideas in the West.)

The distinction of syuzhet and fabula is conspicuously absent from AI text theory, both in the work on production described in Chapter 2, and in more recent work on text generation (McKeown 1985; Danlos 1987; Patten 1988). A typical AI syuzhet slavishly follows its fabula. A current program, asked to write a 'whodunnit', might well begin by telling the reader exactly that!

6.3.5 'Skaz'.

'Skaz' is perhaps the most general of all the formalist devices. Though there is some disagreement over the use of the term by the formalists, and the relation of their use to other meanings (Terras 1985:420), we shall take it to mean the manner of narration, the apparent attitude of the narrator.

> Possibly the nearest equivalent of 'skaz' is 'yarn'. Technically, a 'skaz' is a story in which the manner of telling..... is as important to the effect as the story itself. (Lemon and Reis 1965:67 footnote)

As such it overlaps with the other devices described above, but it may also be used as an element in distinguishing what contemporary theory would describe as different discourse or text types, or speech events (Bakhtin [1929] 1978; [1936] 1986; Hymes [1964] 1977; Gregory 1967; Brown and Yule 1983:61-2; Dimter 1985; Cook 1989:95-99). A police report, a poem and a personal anecdote may all describe the same incident, but their skaz will be radically different. Again, the concept is productive in literary analysis. If discourse is partly classified by identification of the sender, consider what defamiliarizing effects are achieved when a fictional

narrator is quite outside of a reader's previous experience. Shklovsky
([1917] 1965) drew attention to the defamiliarizing effect of the narrative
by a horse, who perceives familiar human events as extraordinary in
Tolstoy's story Kholstomer; Tomashevsky ([1925] 1965) to the description
by a child of an adult council of war in a chapter of War and Peace. Such
odd points of view are by no means unusual: Benjy the 'idiot' in the Sound
and the Fury, the unborn foetus in Prayer before Birth (or the Jimi
Hendrix song Belly Button Window), the neanderthal man in The Inheritors[4],
the dying man in Pincher Martin, the corpses in Dostoevsky's Bobok, a
child too young to understand adult intrigues in What Maisie Knew, an
amnesiac in Other People. A related means of defamiliarization is to use a
narrator who would normally be excluded from the social milieu of the
reader: Genet's prostitutes and petty criminals, Burroughs' junkies,
Dostoevsky's convicts in parts of Notes from the Dead House, Huckleberry
Finn. The list is potentially endless.

Bakhtin, though not a formalist, was to take the idea further and to
describe the novel, in distinction from other discourse types, as having a
'polyphony' of voices in 'dialogue' with each other (Bakhtin [1934] 1981,
[1929 and 1963] 1984: 251-270). The voices may be those of different
characters, or indeed the 'voices' of other discourse types. In this way
parody is born. In Tom Jones, for example, are both the voice of the
moralizing sermon and the voice of the ribald tale, in The Rape of the
Lock the voice of the epic and the voice of gossip, in Don Quixote the
voice of realism and the voice of romance. We have already illustrated
the presence of more than one voice in our analysis of the opening of
Crime and Punishment, and contrasted it with the single voice of the
advertisement in which narrator, character and reader are all assumed to
have the same goals and knowledge.

The notion of skaz is in fact so all embracing that it covers almost
every aspect of discourse. It also has a good deal in common with the
approach to discourse which incorporates speech-act theory (discussed in
3.3), in which understanding of what the sender seeks to do with an
utterance is all important to the construction of coherence. Yet again,
however, an understanding of 'skaz' is rather painfully absent from AI
theory, even text generation theory, whose variation of the relationship
between discoursal choice and events is limited to the omission of
knowledge assumed to be already known. This is not the same thing at all.

6.3.6 Theme and motif.

There are other endeavours, however, in which the interests of formalist analysis do seem to foreshadow those of AI text theory. Tomashevky's theory of 'thematics' investigates what he terms the 'theme' of a literary work: "the idea that summarizes and unifies the verbal material" (Tomashevsky [1925] 1965:67). Each work as a whole, and at the same time each part, will have a theme. The themes of a work may thus be hierarchically described. There is however a limit to this reduction:

> parts that are irreducible, the smallest particles of thematic material: 'evening comes', 'Raskolnikov kills the old woman', 'the hero dies', 'the letter is received' and so on. (ibid.)

These he termed 'motifs'. From this starting point, he proceeded to examine the motivation for the inclusion or exclusion of 'motifs'. If we summarize a story, for example, we will exclude some and include others depending on the length of the summary. In Tomashevsky's view 'motifs' may be subdivided into two types: 'bound' and 'free', or, to put it another way, those which are essential to the narrative (Macbeth killed the king[5]) and those which are optional (house martins nested on Macbeth's castle). A further division is between 'dynamic' and 'static' motifs, those which change the situation (Gertrude drinks the wine) and those which do not (Hamlet picks up the skull). Clearly, bound motifs and dynamic motifs are less readily omitted than free motifs and static motifs: in a tree of motifs and themes, those at the higher nodes must always survive those lower down. The theme at the highest node would be equivalent to the 'dominant' or unifying theme (Jakobson [1935] 1978). The problem, however, is to explain the 'motivation' for the inclusion of 'free' and 'static' motifs in the first place, and for the ordering of motifs and themes in general. Three categories of motivation are suggested[6].

1) 'realistic motivation' which yields motifs fulfilling expectations of life in the real world, thus fostering an illusion of verisimilitude;

2) 'compositional motivation' which yields motifs creating a particular discourse structure (an interlude between periods of action, for example);

3) 'artistic motivation' yielding motifs contributing to defamiliarization.

In our terms, if a motif is not motivated, the text becomes incoherent.

From the above description, the coincidence of approach between
thematics and AI text theory should be quite apparent. Both are concerned
primarily with narrative, which they arrange into a hierarchy of units;
both talk of irreducible units (motifs or CD events) as the building
blocks of this structure. Tomashevsky is in fact dealing with the
principle for the exclusion and inclusion of events, with the problem of
the level of detail as we described it in 4.4.2. Schema theory explains
omission and inclusion in terms of slot filling in schemata: a point which
is absent from the theory of thematics, as Tomashevsky did not realize
that an event may be essential to the plot but not mentioned because it
can be inferred. On the other hand, a schema-theory approach to discourse
would be greatly enriched by Tomashevsky's theory.

6.3.7 Conclusion: formalism as a theory of deviation.

In retrospect, it is easy to point out that there is a good deal that is
confused, omitted or inconsistent in formalist theory. The formalist
concept of 'defamiliarization' and the various devices which realize it,
concern departure from expectation, and consititute a theory of literature
as deviation from a norm. Yet it fails to identify the norm by which that
deviation is defined. This is largely because it focused its attention
almost entirely upon literary discourse in isolation, rather than alongside
non-literary discourse. It is, in fact, odd that formalism, which was in
many ways so revolutionary and iconoclastic, never sought to question the
existing literary canon, or the concept of literature as a distinct form of
discourse, but accepted both uncritically. The theory would be hard
pressed to account for the defamiliarization which occurs in many other
discourse types. It might escape by labelling such occurrences as
instances of literariness within non-literary discourse, but with this line
of argument the definition of literariness becomes hopelessly circular and
diffuse.

Another central weakness is the failure to distinguish between three
areas of defamiliarization: sensory perception, text structure and
linguistic form. It is strange, considering formalism's rejection of
imagist, mimetic, realist and reflection theories of art, that it should so
easily make the jump from defamiliarization in the sense perception of
objects to defamiliarization in text structure and language. One might

argue that the former is a metaphorical description of the latter - alternatively, the theory may be simply confused.

Undoubtedly, the cause of this confusion is the absence of a rigorous linguistic theory. Saussure's work was known in Russia in the early 1920s (Kholodovich 1977), but it had not made a great impact, and was rejected by Bakhtin (Voloshinov [1929] 1973:57-63). Bakhtin himself, whose theory might have become as influential as Saussure's, did not publish his first major work on linguistic theory, under the name of Voloshinov, until 1929 (Voloshinov [1929] 1973). (Bakhtin was in any case a stalwart critic of formalism for its attempts to isolate language from its senders and receivers (Bakhtin under the name of Medvedev [1928] 1978) He may further have antagonized the formalists by the superficial compatibility of some of his theories with the orthodox Soviet Marxism of the late 1920s (though with his faith in the Russian Orthodox Church and his hatred of regimentation he was anything but a Marxist-Leninist supporter of Stalin[7]).

The absence of a linguistic theory perhaps accounts for the creativity of the formalists' work on text structure and the sparseness of their work on language (with the exception of prosody, which we have not mentioned here). The result is a granary of fertile ideas, but the foundation is weak. In particular, the claim to deal with texts as autonomous objects does not fit with the notion of defamiliarization which, far from being a fixed feature of an isolated text, is a variable which cannot be separated from the psychology of the reader or from the particular and changing social and historical context which conditions it. Bakhtin was right, in his critiques of formalism, when he wrote that it is not possible to divorce language wholly from its senders and receivers. Language is, in his words, "like an electric spark" which can only exist between two terminals (Bakhtin [Voloshinov] [1929] 1973:103). Quite how the formalist thinkers might have reacted to this problem, or to what extent they could have made use of Bakhtin's theories of language and discourse, must remain a matter for speculation. By the end of the twenties they were scattered and silenced. Bakhtin too was arrested, exiled and forced into a relative obscurity. Jakobson, in Prague and later in the USA, turned his attention almost exclusively to the formal linguistic aspects of literature (see 3.1 above and 7.1). The work which the formalists and Bakhtin had begun on the deviant discoursal features of literature thus lay dormant, buried

under an exclusive attention to the formal system of language, until the
revival of interest in discourse in the 1970s. 'Scientific' approaches to
literature had split into two directions: the rigorous attention to
subsentential form of Jakobson and stylistics; and the search for
conformities to text structural patterns - rather than deviations from
them - of the structuralists (see 6.4).

Yet the formalists, despite the weaknesses of their theory and its
abrupt end, had introduced a number of important theoretical concepts
which are often overlooked in the AI approach to text. Though it may seem
odd to ask contemporary high-technology scientists to return to the
works of 1920s literary scholars, AI would do well to reach back to these
theories over the intervening decades. The formalists had described a
type of discourse (which they, perhaps wrongly, wholly identified with
literature) whose salient characteristic is deviance from expectation, but
whose deviance is neither solely linguistic nor a function of the
relationship of a text to events in the world. To explain this phenomenon
they had introduced the important concepts of intertextuality, internal
discourse structure, discourse type and narrative attitude, all of which
were to become major concerns in discourse analysis, and should be major
concerns in AI. What they did not do was try to describe the norm
against which deviation is defined, or say quite why readers find such
deviation so attractive and important, often according literary texts a
higher status than any others produced by a society. Our claim will be
that an answer to these questions may be provided by bringing together
the insights of schema theory with the fundamental concept of formalism:
defamiliarization. Firstly, however, we shall look at further development
of theories of literature as deviation.

In western Europe, after (and sometimes unaware of) Russian formalism,
the 'scientific' approach to literary discourse divided into two. Both
approaches were profoundly affected by the growing influence of the
Saussurean description of language, but the uses which they made of this
description were very different. The French structuralists, taking the
categories of Saussurean description almost metaphorically, largely ignored
the sub-sentential linguistic system, and searched instead for
'grammars' and structures at the higher levels of narrative and text
organization, presaging the interest in 'story grammars' in AI and
discourse analysis (see van Dijk and Kintsch 1983:55-59). Jakobson on the

other hand and later Anglo-American stylistics turned back to the linguistic code, searching for 'literariness' at the sub-sentential level. These two approaches may both throw light on, and benefit from, schema theory as an aid to literary analysis. They may also elucidate the difficult problems involved in describing the intuitive categories of 'norm', 'pattern' and 'deviation'. We shall turn our attention now to each approach in turn.

6.4 Patterns in discourse: structures and structuralism.

Another interesting fact from an evolutionary point of view is the following. A work is correlated with a particular literary system depending on its deviation, its 'difference' compared with the literary system with which it is confronted. (Tynyanov [1929] 1978:73)

In its description of devices like syuzhet and fabula, skaz, motif and theme, Russian formalism had touched upon something which is conspicuously absent in any comparatively sophisticated form from AI text and schema theory as we have described it so far. This is the point that the same conceptual information may be represented in different text-structural and linguistic forms, and that these different natural language representations, far from being marginal and relatively unimportant, may in fact dominate the conceptual content in the perception of the reader. (If we watch a comedy about a particular battle, for example, and then read a lyric poem about the same battle, the genre may be more salient than events which are, in the world schemata derived from them, the same. Similarly the syuzhet of the account of a murder may dominate the world schema derived from it, helping to distinguish, for example, a police report and a detective story.) Different ways of presenting the same conceptual content exist at both sub-sentential level, where there are choices between various FSPs, discourse markers and cohesive ties, and at the supersentential level where there are choices in the arrangement of (in Tomashevsky's terms) motifs and themes. As well as the world schemata described in chapter four, there are also text schemata and language schemata. The relationship between the three is undoubtedly complex, but cannot be avoided. We should not assume that the influence of one upon the other is uni-directional. Choices among sentence and text schemata may directly affect world schemata.

The identification and classification of text schemata is a similar endeavour to the structuralist approach to literature. Any theory of literary discourse as a particular kind of discourse deviation or patterning will need to take account of the substantial body of theory this approach has produce[e]. Structuralist critics sought, by analogy with the methods of Saussurean linguistics, to identify the underlying structure (analogous to the *langue*) of a genre or group of texts, expressed - sometimes only partially - in particular texts (analogous to *parole*). Within this structure, again by extension from Saussure, they have tried to reveal how elements take on meaning through opposition, paradigmatic substitution, syntactic ordering, deletion, insertion and transposition (Barthes 1977:79-125; Culler 1973, 1975, 1975b:4-54; Lyons 1973; Robey 1973; Lentricchia 1980:102-156; Genette [1982] 1988). In this they have drawn heavily on structural anthropology, which had sought to discover the underlying 'langue' of myths (Lévi-Strauss 1955, 1957) and kinship systems (Lévi-Strauss [1949] 1962), and Barthes' structuralist sociology, whose aim was to unmask the grammars of contemporary cultural artefacts such as fashion (Barthes 1967) and a whole range of contemporary 'myths', such as those concerning meat eating, washing powders, striptease, wrestling and so on (Barthes [1957] 1970).

The terminologies, units and objects of study in structural analyses of literature may vary, but fundamentally the procedure (the underlying structure of structuralism itself!) remains the same: to identify the minimal parts of a genre (almost always in practice a narrative genre) and to elaborate rules of paradigmatic substitution and syntagmatic combination. So Propp ([1928] 1968) in a seminal work significantly called The Morphology of the Folk Tale, worked out formulae which showed that the 'functions' (as he called the minimal units of the 449 tales he studied) are finite in number and identical in sequence. Lévi-Strauss broke down myths from a variety of sources to 'mythemes' and, by describing their various combinations, arrived at a typology of myths (Culler 1975b:40-54). Todorov ([1969] 1987) did the same for his 'minimal schemata' of The Decameron and, as we have already mentioned (6.3.4), the detective story, drawing up a 'grammar' which enabled him to define the difference between this genre, the 'thriller' and the suspense novel. Greimas, whose minimal units 'semes' combine into 'classemes' which combine into 'isotopies', has done similar work on a wide range of texts

from Mallarmé and Baudelaire to bar-room jokes (Greimas 1966:53; see Culler 1975b:75-95). Eco (1979) has analysed Superman comics and the James Bond novels, then reversed the process by using his semiotic analyses to generate a work of fiction (The Name of the Rose) which he has then analysed himself (Reflections on 'The Name of the Rose') (Eco 1989). The list of extant analyses is vast.

6.4.1 TEXTS THREE: Adventure stories.

Rather than repeat the details of one of these well-known narrative grammars, we shall briefly present two of our own, hoping to illustrate some of the problems and the weaknesses of the approach.

Our first group of texts is one which intuitively appears to be homogeneous: six adventure stories from the late nineteenth and early twentieth centuries with boy heroes: Treasure Island, Kidnapped, Moonfleet, Huckleberry Finn, Kim, Tom Brown's Schooldays. Analysing the plots of these six novels we might hypothesize the following elements:

(1) a 'boy' lives peacefully at home →
(2) his father dies →
(3) an event disrupts this peace →
(4) he leaves home with an older male (not his father) →
(5) he seeks for a precious object →
(6) he learns a new language →
(7) he is imprisoned in an enclosed space →
(8) he finds the object →
(9) he returns home as a 'man' →

and a syntagmatic structure as follows:

1 → 2 (or 2 → 1) → 3 → 4 → (5 → 6 → 7 in any order) → 8 → 9

These in Tomashevsky's terms are the 'motifs'; the main 'theme' (or 'dominant') is initiation. From the specific plots we might make paradigmatic substitutions of particular events. Thus, the older male (4) in Treasure Island is Long John Silver, the precious object (5) is the treasure, the language (6) is swearing, the enclosed space (7) is the apple barrel where Jim learns of Silver's treachery. In Kidnapped the older male (4) is Alan Breck, the precious object (5) the title deeds to David Balfour's inheritance (5), the language (6) the dialect of the Jacobite rebels, the enclosed space (7) the ruined tower to which David is

sent under false pretences by his uncle. In <u>Huckleberry Finn</u>, the older male (4) is Jim, the precious object (5) is Jim's freedom, the language (6) is Jim's 'nigger talk', but (7) occurs only in the earlier tale <u>Tom Sawyer</u> (where the boys are lost in a cave). In <u>Moonfleet</u> the older male (4) is Elzevir, the precious object (5) is the diamond, the language (6) is the smugglers' argot, the enclosed space (7) is the crypt which leads to the caves, and then again a prison cell.

Against this proposed regularity, whose occurrence identifies each book as one 'speaking the same language', we might identify 'deviations': in terms of the linguistic analogy, marked patterns. Thus in <u>Kim</u> for example, though there is one dark space (Lurgan's shop) many of the other features of our 'grammar' are multiplied. Thus there is not one older man but three: Mahbub Ali, the lama and Creighton. And each of these men teaches Kim a new language: horse-dealing slang, mystic rules and the jargon of espionage respectively. There are two precious objects (the Russian plans sought by Creighton and the healing stream sought by the lama) and Kim must choose between them at the end. In <u>Tom Brown's Schooldays</u> there is a different kind of 'deviation'. The hero is himself the older male who guides the younger one through his initiation, and here the journey and the enclosed space are dreamed rather than physical, the language and the precious object spiritual rather than material.

This 'langue', moreover, like many 'uncovered' by structuralism, is not only confined to literary texts. Similar events are key features of many tribal initiation ceremonies (van Gennep [1908] 1960:65-115; Frazer [1922] 1949: 692-693; Kirk 1970:71). A boy is taken into the care of an older male; he leaves home and goes into a dangerous place; he learns a new language; he is confined in an enclosed space; he finds the object; he returns home. A similar initiation ritual, for that matter, may be found closer to home in modern industrial society. University examinations (though their personnel are no longer exclusively male) have all the features of this ritual!

6.4.2 TEXTS FOUR: Concentric narratives.

Another recognizable narrative structure is that of a narrative within a narrative within a narrative - and so on. We shall term such narratives 'concentric'. Our 'data' will be six literary works which seem, intuitively, to have this structure: <u>The Canterbury Tales</u>, <u>Heart of</u>

<u>Darkness</u>, <u>Wuthering Heights</u>, <u>Notes from the Dead House</u> and <u>The Turn of the</u>
<u>Screw</u>. In <u>Wuthering Heights</u> and <u>Heart of Darkness</u> for example, a narrator
gives an account of a tale told by someone else, and within this tale
there are further narratives. The movement 'inwards' at the beginning is
complemented by a movement outwards at the end, a return to the original
narrative relationship. We might regard this as the 'unmarked' structure,
in much the same way, and with as little reason, as we described the
sentence 'John ate fish and chips' as the unmarked sentence perspective in
3.6.2. A formula for the structure would be is set out below:

> (Narrator 1 addresses reader 1 [=the reader] (narrator 2 addresses
> reader 2 [=narrator 1 + the reader] (narrator 3 addresses reader 3
> [=the reader + narrator 1 + narrator 2] (narrator 4 addresses reader
> 4 [=the reader + narrator 1 + narrator 2 + narrator 3] (.......)
> narrator 4 addresses reader 4 [=the reader + narrator 1 + narrator 2
> + narrator 3]) narrator 3 addresses reader 3 [=the reader + narrator
> 1 + narrator 2]) narrator 2 addresses reader 2 [=narrator 1 + the
> reader] Narrator 1 addresses reader 1 [=the reader])

Or more simply, giving each level of narrative a number:

$$(1 \quad (2 \quad (3 (4 (.......) 4) 3) 2) 1)$$

In addition we say that each narrator is a character in the narration of
the narrative outside it, narrator 1 being a character in the discourse of
the author, thus:

$$\text{Narrator } x = \text{character } (x-1).$$

Moreover, the readers (i.e. receivers, though not necessarily addressees) at
each level will include those at all outer levels, thus:

> readers x = reader/s x + reader/s (x-1) + reader/s (x-2) etc.
> (providing no result < 1)

Many concentric narratives are variations upon this theme. The <u>Canterbury</u>
<u>Tales</u>, for example, proceeds, generally speaking as follows:

> (1   (2   (3   (4   ) 3) 2 (3 (4) 3) 2 (3 (4) 3
> Chaucer Sir Topas Pilgrim Characters in tale

though there are also rapid transitions embedding the whole formula in
miniature within one tale (i.e. level 4), as when, for example, the Friar

interrupts the Summoner's tale (Canterbury Tales (ed. Robinson) line 1760)
yielding the following:

```
(1(2(3          (4            (3    )   (4          ) ))
      Summoner  Characters  Friar    Characters
```

Notes from the Dead House provides another variation on the theme. The
narrator reports how, on moving to Siberia, he met a reclusive ex-convict,
Goryanchikov, working as a tutor to local children, and how, after this
man died, the narrator was given his notebooks. The inner narrative is
the story, told in the notebooks, of Goryanchikov's four years'
imprisonment. Within this narrative there are further narratives: stories
told by the other prisoners. Yet, despite one brief interjection by the
narrator of the outer narrative, there is no return back to this layer of
narrative at the end, leaving the structure open as follows:

```
(1                (2      (3            )  2) 1            (2
  Outer narrative Notebooks Prisoners' stories   interjection  Notebooks
```

This device of leaving the progression literally open-ended is arguably
commoner than its opposite; it is also present in Canterbury Tales and
Turn of the Screw (discussed in detail in 9.2). It has also, if we accept
the return stage by stage back through the levels to that of the first
narration as the norm, an analogue in sentence grammar. Embedded
subordinate clauses, in which the reader loses his or her way, forgetting
to expect a main verb and a complete main clause, are rather like the
structure we are describing. Blake's Ah Sunflower is a single vocative
noun phrase with no main verb.

```
                        Ah (Sunflower weary of time
                        [Who countest the steps of the sun]
                        [Seeking after that fair golden clime
                        <[Where the traveller's journey is done]
                        [Where < (the youth [pined away with desire])
                        And (the pale virgin [shrouded with snow])>
                        < (Arise) (from their graves) and (aspire)
                        [ Where my sunflower wishes [to go]]>]>])
```

So powerful are the inner units, however, that the absence of a main verb
may pass unnoticed. Similarly, in the riveting complex of stories within
stories in Notes from the Dead House, the reader may simply forget the
outer structure of which they are a part.

In the strong structuralist view, the meaning of each exemplar of a structure cannot be found in isolation, within one text, nor in the relationship of one text to the world. The argument is that each story takes on meaning, like the Saussurean sign, through its difference or similarity to others. Meaning is, to use one of Lévi-Strauss's explanatory images, like an orchestral score where there is not only the horizontal melody of an individual realization, but also the vertical harmonies and disharmonies of comparison (Lévi-Strauss [1955] 1972:176). Alternatively it is like a card index, in which we put a pin through the patterns on one card to see how they correspond with those on the others (ibid.:182).

6.4.3 Weaknesses of the structuralist approach.

The failures and weaknesses of the structuralist approach have been often rehearsed. Indeed, twenty five years after the heyday of structuralism, they may seem rather painfully obvious. Notably, despite pretensions to a cold empirical objectivity, there is often a marked arbitrariness in the choice of an object of study - a set of texts for example - as well as in the definition of units, the rules of combination and the selection of significant features. There is certainly none of the rigour of the subsentential grammars to which structures are supposed to be analogous. Barthes in his later post-structuralist work candidly acknowledged this shortcoming, defining his new minimal unit, the 'lexia', as a category arbitrarily imposed according to the insight of one reader - himself (Barthes [1970] 1974, [1981] 1988).

There is also often considerable confusion as to the nature of the structures defined. It is not clear, for example, whether a structure is to be found in one manifestation (a kind of prototypical instance analogous to those posited by Rosch in lexico-semantics (see 4.4.1)) or whether it is an abstract applying equally to all instances (analogous to components of meaning in semantics). If the latter is the case, it is not clear how many examples are needed before the abstraction can be made, and whether this abstraction corresponds to some psychologically real processing structure or has come into being through the analysis. It is true that similar problems exist at the linguistic level in the definition of *langue* and *parole*, but the structuralist objects of study, being often

trans-cultural and trans-linguistic, are even more slippery than natural languages.

Above all, the closed introverted nature of the systems of strong structuralist hypotheses, in which meaning is conceived wholly in terms of systemic variation, make it hard to see quite what the significance of the structure, or variations within it, may be. If a given structure is not related to another system outside itself - language or thought or history - then it seems to have no meaning other than itself, and the activity becomes a dead end. In many analyses, it is not clear whether structures are regarded as culturally and historically determined, or the reflection of universal mental structures independent of history and culture. In a study such as Propp's, where the data is from one fairly homogeneous cultural source, there are grounds for the first hypothesis; but in the work of Lévi-Strauss, which ranges freely across cultures, there seems little option but to accept the second. In fact, Lévi-Strauss, adopting a similar argument to that propounded by Chomsky (1965) in explanation of universal 'deep' syntactic structures, suggests that myths reveal universal structures of the mind. At times he even suggests that they may reflect structures of the brain (Lévi-Strauss [1962] 1972:212,222). Yet without some explicit means of linking these vaguely defined mental structures to those revealed by analysis of behaviour, there seems little point in such hypothesizing[9].

Furthermore, as structuralism proceeds by analogy with Saussurean semiotics, Derridean objections apply equally to both activities. Meaning is achieved by difference, but as each sign evokes another from which it differs, meaning is endlessly deferred. The writing of structural analyses, moreover, creates a new set of texts which may themselves be structurally analysed, initiating a process which is potentially infinite. In this interpretation, the attempt to establish a single structure unifying and giving meaning to a discrete and finite number of instances is yet another attempt to bring this endless 'play' of meaning to a halt. Proposed abstract structures are merely 'centres' (Derrida [1967] 1988:109), through which an attempt is made to 'close down' the irreducible and ungraspable interconnections. Explaining the deep structures of language or myth, as Chomsky and Lévi-Strauss do, as universal genetically inherited mental structures, creates another kind of centre, to which all meaning relates, and beyond which interpretation cannot proceed:

a centre analogous to a fundamentalist's 'god' or 'creation'. Though we may crave the stability such centres bring, it is perhaps more rewarding to let 'meaning' remain in flux. It is interesting to note the resemblance between these philosophical objections to structuralism and Bakhtin's much earlier theory of the novel (Bakhtin [1929 and 1963] 1984). In this view, the novel is polyphonic, an intertwining of points of view from which no controlling single authorial voice can be disentangled (see also Barthes [1968] 1977:142). No single voice has a higher status than others. In the same way, perhaps, though there are structures in a set of texts, there is no single structure.

In practice, moreover, as a theory of literature, a structuralist analysis is often disappointing. Despite elaborate terminologies and procedures, the analyses themselves remain often quite simplistic, and limited, inevitably, to the most stereotypical texts. Eco (1979), echoing Barthes' ([1970] 1974:10) distinction between 'writerly' and 'readerly' texts, makes a distinction between texts which conform to structures (his own examples are the James Bond novels and Superman stories) and those which depart from them. These he terms, respectively, 'closed' and 'open' texts. The pleasure to be derived from the first category lies precisely in their safe and predictable nature. The pleasure of the second lies in their novelty - though they are never entirely novel, but rather deviations from the closed structure. Total novelty would presumably be incomprehensible (de Beaugrande and Dressler 1981:139-162). The new must always attach itself to the known in order to mean. This applies at the linguistic level, in the bipartite structure of the clause described in 3.6.2, and at the level of world schemata (described in Chapter 4).

The problem is that description of text structures is a powerful tool in the analysis of closed texts, yet far less powerful in the analysis of open ones. (Similar problems exist in discourse analysis with 'product' analyses like those of the Birmingham School; they work for socially rigid 'closed' discourse types, but not for open ones like conversation (see 3.4; 3.5).) Yet texts regarded as literary are often of the open type. Moreover, as closed structures are not only found in literature, but also in behaviour (for example initiation rites and examinations, see 6.4.1), and in non-literary texts as well, it is clear that the recognizable presence of the structure is unlikely to reveal those features which have

led to an open text being elevated to literary status. Deviation from the norm may be noted, but the significance of its details remains unexplored.

Take for example, some simple elements of the structure of a story - that there should be an end and a beginning, central and peripheral characters. Then take instances of stories which, in these terms, are deviant. In Bunuel's film The Discreet Charm of the Bourgeoisie there is no central character whose fate provides a unifying theme or dominant; the narrating camera, apparently randomly, picks out a peripheral character in one scene and follows his or her fate in the next, making connections seem arbitrary and unstructured. Similarly, in Julio Cortazar's Rayuela (Hopscotch) there is no fixed sequence of chapters: they are to be read in different orders to produce different stories. The French 'nouveau roman' eschews endings. What can be said of these aberrations except that they do not conform to structural expectations? There seems no way to explore their detail for its own sake except by positing them as prototypes of a new structure.

What, for example, are we to make of concentric narratives deviating from the formula set out at 6.4.1 and 6.4.2 - providing of course that we accept that formula as the norm in the first place? It seems that the 'meaning' of such deviations lies not merely, introspectively, in their difference from expectation, but also, looking outward, in connections which the reader may build between this perceived difference and other value systems. Thus we might judge the 'meaning' of The Discreet Charm of the Bourgeoisie (though Bunuel would no doubt have objected (Bunuel [1982] 1983:174,222)) to be a rejection of hierarchies of characters in traditional stories and of hierarchies of people in general, as well as a rejection of coherence[10]. The 'nouveau roman' may be judged to 'mean' that events do not come to neat endings. Notes from the Dead House may lay bare (in formalist terms) the automatic trust we place on a narrative first person, by denying us the narrator's final judgement, defamiliarizing the convention of trust in narrative authority. (A similar point is made by Agatha Christie's The Murder of Roger Ackroyd in which the first person narrator is the murderer, but does not confide this to the reader.) Kim may reveal that choice of adult models is not always imposed and may be a fusion of several. The meaning of the 'open' text, in other words, is often perceived to lie not only in its difference from the pattern of closed text, but also in the specific nature of that difference, and its

connection outwards to other systems of meaning (see 6.4.5 below). Such interpretations demand more than a catalogue of closed structures and deviations from them.

Textual structures, then, are undoubtedly significant, but their full significance can only be realized when they are related outwards, to linguistic systems on the one hand, and to conceptual representations (schemata) on the other. It is true that in a sense this is only to place one kind of structure inside another. The interrelation of world knowledge, text schemata and language may simply form another, bigger, but equally closed structure. As such this larger structure might seem to be, not an escape from structure, but one step in another Derridean system of infinite postponement and play. Yet arguably, this larger structure encapsulates the totality of human experience of discourse, and its study will bring us closer to understanding discourse than the study of any of its components in isolation.

6.4.4 Text structures and text schemata.

This section began by observing that the notion of a recurrent structure is very similar to the notion of a text schema. It is true that various elements of a structuralist approach have been assimilated into AI text theory (see for example Sanford and Garrod 1981:34; McKeown 1985:53). An important difference, however, is that while the ontological status of a structure is rather unclear, that of a text schema is far more specific and adaptable. Whereas structures, if they exist at all, belong in some vague neo-Platonic or quasi-Jungian landscape of immutable cultural, mental or even cerebral universals, text schemata are the constructions of a given individual used very practically in text processing''. As such they may be born and perish with individuals; they may be wrong, idiosyncratic, distorting. Their important feature in communication is not their 'truth' but the degree to which they are shared, and to which that shared nature is successfully exploited. In Derridean terms they are not an absolute centre, but a centre of convenience. In practice this difference may seem of little relevance, and a 'structure' posited by a 'hard' structuralist may be converted to a 'text schema' for the saying so. Yet the difference plays an important role in making schema theory essentially compatible with the literary theories of reader response and reception theory, to which we shall turn in 7.4, and in general psychologically more plausible.

One other important difference is that while structuralism was contented with aspects of the question of how literary meaning is achieved through structures and deviations from them, it makes no attempt to ask why recurrence or deviation, as evidenced in literary texts, should attract the high social and personal evaluation that it does. Schema theory, as we hope to show in chapter eight, can at least attempt an answer to both the how and the why of pattern and deviation.

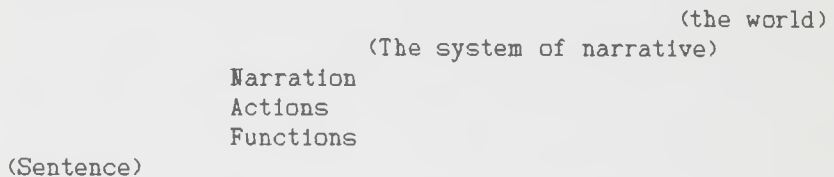### 6.4.5 Roland Barthes' The Structural Study of Narratives ([1966] 1977).

In this section we have caricatured structuralist analysis as ignoring the details of language on the one hand and of conceptual representation of the world on the other. We have presented it, in other words, as a contributory but limited endeavour within discourse theory. This caricature might with justice be regarded as unfair. There are structuralist analyses which attempt to make connections, both between structures and language on the one hand, and between structures and conceptual representations on the other. Notable among such attempts is Barthes' Introduction to the Structural Study of Narratives, an analysis which is remarkable for the breadth of its view of discourse, and its attempt to integrate approaches which are in danger of remaining separate.

Barthes proposes a hierarchy of discourse levels for narrative situated between the levels of linguistic description and the systems of the extra-linguistic world. Thus he describes structural analysis of narrative, not as an activity of intrinsic and self-contained worth, but as a means of linking the levels of description below it to those above.

> Narration can only receive its meaning from the world which makes use of it: beyond the narrational level begins the world, other systems (social, economic, ideological) whose terms are no longer simply narratives but elements of a different substance (historical facts, determinations, behaviours,etc.) Just as linguistics stops at the sentence, so narrative analysis stops at discourse - from there it is necessary to shift to another semiotics. (op.cit.:115)

Showing full awareness of formal linguistics approaches to discourse (for example Harris 1952, see 2.2.1), he sees structural analysis of narrative as taking over where linguistics description leaves off. Sentences, the highest units of linguistic description, realize 'functions' and 'actions', the lowest units of his description of narrative. Barthes also refers to Tomashevsky's theory of theme and motif (op.cit.:89), and there is some

connection, though not necessarily a one-to-one equivalence, betweeen his use of the term 'action' and Tomashevsky's 'motif' (see 6.3.6) Functions[12] are the minimal components of actions. The action of 'lighting a cigarette' for example consists of the functions 'striking a match', 'putting a cigarette in the mouth' etc. Functions combine into actions, and actions into the narration. (It is thus a system which, like Tomashevsky's, can deal with the problem of the level of detail (see 4.4.2.) which remains unsolved by schema theory.) Once the narration has been described it may be linked to a system of narrative (or structure). After this there are two directions for analysis beyond the description of the discourse in question: one to discover the 'langue' or system behind individual narrations, the other to step outside of language altogether and to examine non-linguistic systems. Barthes' hierarchy is shown in figure 17.

                                                    (the world)
                                        (The system of narrative)
                        Narration
                        Actions
                        Functions
        (Sentence)
                Figure 17. Barthes' levels of discourse.

Here, structural description is not seen as an end in itself, but as a mediator between language and representations of the world. Such a view is deeply compatible with schema theory, adding to it a level of description between successions of sentences and conceptual representations.

6.5 Conclusions.

In this chapter we have examined Russian formalist and structuralist approaches to literary discourse. These provide important ideas concerning text structure, narrative stance, conformity and deviation. With notable exceptions, however, these theories have a number of limitations. They tend to ignore subsentential features on the one hand, and the representations of the world made by readers on the other. Their contribution to discourse analysis and literary theory, however, is immense. The notion of defamiliarization is, in one form or another,

perhaps the single most persistent element in contemporary literary theory. We shall accept it wholeheartedly, and attempt to build upon it. Our aim in the following chapters will be to show how formalist and structuralist ideas may combine with linguistic description on the one hand, and description of world schemata on the other. In doing so we hope to suggest ways in which defamiliarization may take place, not at one level in isolation, but in their interaction. We shall term such interaction 'discourse deviation'.

Notes to Chapter Six:
1 The final section heading 'Cognitive literary scholarship' in Lodge (1988) is in this respect misleading.
2. What de Beaugrande (1987:58) describes as the principle of 'alternativity'.
3. He later moved away from these views more voluntarily. (Shklovsky 1966:298)Shklovsky was also still publishing and expressing certain aspects of formalist theory in 1940: see the following quotation in the main text.
4. Grammatically, The Inheritors is in the third person. Neverthelss it is very much from Lok's point of view (Halliday 1973:103-138). What Maisie Knew is also in the third person, but limited to what Maisie perceives.
5. The examples from Shakespeare are our own, not Tomashevsky's.
6. An interesting parallel could be drawn between these three categories of motivation and Halliday's three functions of language discussed in 3.1.1.
7. There is a good deal of controversy over whether Bakhtin was a Marxist or simply paid lip service to Marxist ideas to avoid persecution. If the latter, he was not in any case successful, as he was arrested and exiled for religious activities in 1929. Forgacs (1982:160) assumes that he was a Marxist, as does Bennet (1979:75-82) and Hymes (1989). Clark and Holquist (1984:38) on the other hand and Terras (1985:34-36) convincingly suggest that though he may have shared some of the anti-capitalist aspirations of the October revolution, he was never a Marxist, and deeply though warily anti-Stalinist. Generally Bakhtin's position remains an enigma. There is a simple explanation of the scholarly controversy. Marxists and non-Marxists, united in their esteem for Bakhtin, both wish to prove that he shared their point of view.
8. The need for AI to pay closer attention to the long history of structuralism is well illustrated by Sanford and Garrod's (1981:34) 'howler' in believing that Propp [1928] is a work of 'recent linguistics' published in 1968 (the date of the translation).
9. This reductionist view of the mind is rejected by AI but accepted by many of its opponents. Searle ([1980] 1987), for example, accepts the argument that intelligence is indissolubly wedded to the biology of the human brain.
10. Bunuel and his friends themselves made structuralist analyses of films, constructing grammars predicting likely outcomes (Bunuel [1982] 1983:132).
11. This also applies to the mental models theories of Johnson-Laird and Garnham.

12. Propp's [1928] 1968 use of the term 'function' is closer to Barthes'
'action'.   Barthes divides functions into two kinds, 'cardinal functions'
which like Tomashevky's 'bound motifs' are essential, and 'catalysers'
which are not.   These are analogous to the obligatory and optional
elements of the sentence in grammar. The logic of the level of detail to
be included is therefore that catalysers must be included, although it may
not be immediately evident that they are catalysers. To give an example of
our own: in the film Sex, Lies and Videotape one of the characters loses
an ear-ring while in bed with her sister's husband. When her sister later
finds the ear-ring she takes it as evidence of the adultery. The loss is
thus a catalyser, though this is not immediately evident.

Chapter Seven.
Literary theory 2: Jakobson's 'poetic function'. Stylistics and schema-
theory analyses of a 'literary' and a 'sub-literary' text.

7.0 Introduction.

We have criticized structuralist approaches to literature for
concentrating upon text schemata to the detriment of language and world
schemata, and to the detriment of any theory of the interaction of these
three areas. The literary theory of Roman Jakobson, exhibits a
complementary, but equally limited, concentration upon language, to the
exclusion of the other two. The potential application of the formalist
theory of defamiliarization to all three levels of discourse was thus not
realized by this approach either. (We shall regard the parallel
development of Jakobson's literary theory and structuralism as essentially
distinct, a bifurcation of the formalist legacy; we do this despite the
fact that Jakobson's theories are sometimes classed as 'structuralist' (de
George and de George 1972) and he himself sometimes worked with more
'mainstream' structuralist analysts (Jakobson and Lévi-Strauss [1962]
1972).)

In this division of the ways, the relevance of non-linguistic knowledge
representation in discourse processing was to all intents and purposes
ignored, and even denied. This was in harmony with developments in
philosophy, psychology and linguistics during the central decades of this
century; it coincides with the fall from favour of theories of conceptual
representation, such as Bartlett's, which are the basis of schema theory
and which we have described in 1.5.1. and of phenomenological literary
theories such as those of Roman Ingarden (see 7.4.1 below). One famous
refutation of the validity of postulating a conceptual level independent of
language is Wittgenstein's argument against the existence of private
languages (Wittgenstein [1953] 1968:94-96). The view is also implicit in
behaviourism, and though Chomsky's theories restored the notion of
psychological structures underlying language behaviour, they did so only
for the subsentential formal level and not for discourse. Only with the
reinstatement of a belief in conceptual representation systems existing
independently of natural languages has a holistic approach to discourse
and to literature again become possible. Precisely such a reinstatement

has followed from the work in psychology, linguistics and AI of the last two decades. (For an argument in favour of conceptual representation systems and against Wittgenstein see, for example, Fodor 1976.) What we are concerned with in this section, in the poetics of Jakobson, is work in a tradition which isolates language both from the larger issues of discourse structure and from the psychology (conceptual representations) of its users.

Among the formalists, Jakobson's interests had always been more markedly linguistic than discoursal. It was he who had coined the term 'literariness' and definined it as:

the organized coercion of <u>language</u> by poetic <u>form</u>. (Quoted in Erlich [1955] 1980:219 (our underlining)).

In 1920 he left Moscow for Prague where he worked as a translator and Soviet Cultural attaché for the Red Cross. In 1926 he was one of the founding members of the Prague School of linguistics and stayed on, for fear of Stalin, in academic jobs in Czechoslovakia until 1939 when, fleeing from the Nazis, he moved first to Scandinavia and thence, in 1941, to the U.S.A. (Terras 1985:208). Thus, through his personal history, he was able to bring together the approaches to literature and discourse of Russia, Western and Central Europe and the USA over a period of eighty-six years.

In Prague he worked with Mukarovsky, whose views on the matter of literary language were, if anything, even more extreme:

The distortion of the norm of the standard is..... of the very essence of poetry (Mukarovsky 1932 (Quoted in Burton 1980:5)).

The two men shared, in other words, a view of literariness as a deviant use of language. Together with other linguists of the Prague School, they developed the notion of linguistic foregrounding, though the roots of the idea go back to earlier formalist work (see O'Toole and Shukman 1977:34; van Peer 1986:5-26). With this increased emphasis on language as opposed to textual form, the formalist interest in longer stretches of discourse began to be forgotten: a fact reflected in the increasing substitution of the novel, drama and epic by lyric poetry as the object of study.

7.1 Jakobson and stylistics: poetic function and poetic form.

Jakobson was to continue developing these ideas throughout his life. In 1958, at a conference in Indiana, he summed up his views (and the conference) with a particularly lucid and elegant paper (Jakobson 1960) which is undoubtedly the single most influential and often cited contribution of linguistics to literary analysis this century (Carter and Simpson 1989:1; Fabb et al. 1987:1) and has dominated Anglo-American stylistics ever since. Its clarity and lack of equivocation makes it also a useful target for those critics who wish to reject a scientific formal linguistic approach to literature altogether (see 7.4).

Jakobson's proposals and their place in the history of functionalist theories of language have already been discussed in 3.1 for their relevance to discourse analysis. The theory will serve as a means of characterizing either individual utterances or even particular types of discourse. This application to discourse typology does not belie the claim that Jakobson's proposal ignores discourse structure, for he seeks to define a discourse type by its formal linguistic features, showing how in certain discourses and utterances one function dominates the others (see also Jakobson [1935] 1978). In literature the dominant function is the poetic. Meaning is carried not by the relations of signs to the world, but rather by the relation of signs to each other, either inside or outside the text - by, in other words, the specific linguistic choices, their deviations from the norm and the patterns which they create. In the words of the most famous sentence of this paper, italicized by Jakobson himself:

> The poetic function projects the principle of equivalence from the axis of selection into the axis of combination. (Jakobson 1960:358)

In many ways the objections which may be made to this thesis of Jakobson's concerning the language of literature are similar to those which may be made to the structuralist thesis about text structures. We have already touched upon the weaknesses of the implication that literariness can be found at one level in isolation. In Jakobson's argument, the concentration on language and the exclusion of other levels is vulnerable at many points. Jakobson writes of 'reference' and 'a principle of equivalence'. Yet it is not clear what this 'reference' and 'equivalence' are to. It cannot be, in the case of language with a poetic function, equivalence to some other linguistic form, since the uniqueness

and unparaphrasable nature of literary linguistic choices is exactly Jakobson's point. Presumably, though the explicit statement of this inference is carefully avoided, the 'equivalence' is to some conceptual representation in the mind of its users - but this is not clear, and understandably so, since to introduce individual readers, and therefore the notion of individual variability, would undermine Jakobson's point that literariness is to be found in language itself without any reference to the world or the people in it. Related to this is the difficult problem of the whole issue of norms and deviations. Definition of a deviation depends on the definition of a norm. What is normal will vary with individuals and in history. There is thus a degree of arbitrariness in the choice of the yardstick of normal language, just as there is in structuralist choices of standard patterns extant in some texts on which others are variations. 'Normality' is relative to a system as a whole and thus vulnerable to changes within that system; a literary text will in fact - to be deconstructionist about the issue - even shift the norm by virtue of its own existence, for it too is a part of the totality of language. Norms and deviations will exist not only through comparison with the language as a whole, but also through comparison with the expectations and patterns set up by the text itself (Halliday [1964] 1967; Burton 1980:7; Leech and Short 1981:55-56). The characterization of literariness as a particular use of the code is moreover dependent upon showing that such uses do not occur in 'non-literary discourse'. Yet it is not difficult to demonstrate that non-literary discourse is also full of patterning and deviation. Werth (1976) demonstrated as much for a Sunday Times article on pest control. (The counter-claim that such instances are merely examples of 'literariness' within non-literary texts is blatantly and hopelessly circular). It is also true, as Culler has observed (1975b:55-74), that the patterns and deviations discovered by Jakobson are not absolutes, engendered by a total and objective linguistic description, but functions of the linguistic elements he chooses to look for in the first place.

7.1.1 Stylistics and 'representation'.

Yet all these objections notwithstanding, it is indisputable that the Jakobsonian approach has spawned a vast number of perceptive and valuable studies of individual works of literature, not only in the many analyses by Jakobson himself but also in the sizeable literature of stylistics

which developed during the sixties, seventies and eighties (see especially Fowler 1966; Fowler 1975; Leech 1969; Widdowson 1975; Ching, Haley and Lunsford 1980; Leech and Short 1981; Carter 1982¹). In the stylistics of this period:

> there is never any real doubt expressed about the fact that in order to write about style in a linguistically justifiable way, we must be able to relate the language used in a text, or by an author, to the conventions of the language as a whole. All practical stylistics papers carry this assumption. (Burton 1980:5)

In this respect, stylistics was based upon Jakobsonian premises. The main differences from Jakobsonian analysis are perhaps a reluctance to state overtly that literariness can be defined as a feature of the code on the one hand, and a readiness to connect formal linguistic features to interpretations on the other. This latter practice may be summed up by the term 'representation' (Widdowson 1984:150-160). A simple example would be the claim that a breakdown of normal syntax reflects a breakdown of order in the fictional world or the mind of a character, as it might be said to do, for example, in the novels of William Burroughs. Another would be to say that the morphemic and tonal alternation of 'see' and 'saw' in Dylan Thomas' words "see-sawing like the sea" 'represents' the alternating motion of both a see-saw and the sea (Under Milk Wood 1954:7). Yet whereas Jakobson was in the habit of listing, with a claim to inclusiveness, the formal patterns and deviations in a work without comment, a practitioner of stylistics is more likely to select a few linguistic features and demonstrate their connection to a particular interpretation. This exposes stylistics to the charge that its apparently scientific nature is a sham, that there is no rigorous basis to the selection of features. (For a discussion of this challenge, see Carter 1982b.) It can be said that the interpretation does not derive from the linguistic analysis, but rather that the linguistic analysis is used, *post hoc*, to support an intuitive interpretation (Fish 1980: 68-97; 246-268), and that stylistics selects only those texts which bear out its own assumpions. Many of these problems have been more recently acknowledged in stylistics, which in the eighties has begun to move away from the rather rigid claims of Jakobson and to assimilate a wider view of literature as discourse which must embrace both context and its users (Leech and Short 1981:257-287; Carter 1982b; Carter 1989; Carter and Simpson 1989:1-20; Short 1989c; Short and

van Peer 1989). This, it seems, is a wise direction, for the Jakobsonian and stylistics approach is so rich, that its theoretical shortcomings are far better remedied by building upon it, than by rejecting it out of hand.

In the analyses which follow we shall apply the Jakobsonian methodology to two texts: the first of which is presented as an advertisement, the second as a poem. Our analyses ignore the issue of establishing linguistic norms and deviations, and assume this to be unproblematic. We shall then contrast these stylistic analyses with descriptions in terms of interpretative schemata. By so doing we hope to illustrate some of the strengths and weaknesses of the two approaches and also ways in which they interact.

7.2 TEXT FIVE: Elizabeth Taylor's Passion (advertisement). (see figure 18)

This nine word text contains an extraordinarily concentrated exploitation of every linguistic level, in a way which not only reinforces and represents the message, but, in the best traditions of stylistics, is inseparable from, and identical to it. It is a gift to formal stylistic analysis, and if such matters were simply quantifiable - a ratio of stylistic points to words - would be a great lyric poem.

7.2.1 Graphology.

On a graphic level, the displacement of the second of the four lines, allows the text to reproduce iconically the hexagonal shape of the perfume bottle which is pictured above it. In this way, the advertisement makes use of a graphological device which is occasionally - though rarely - used in poetry. (Each stanza of George Herbert's Easter Wings for example represents the shape of an angel's wings; Lewis Carroll's 'Mouse's Tale' in Alice in Wonderland is written in the shape of a mouse's tail; Apollinaire has Calligrammes whose letters picture their subject: a mirror, a train, a night sky, falling rain.)

7.2.2 Phonology.

In a Jakobsonian view, the patterning of stressed and unstressed syllables to create rhythm and of phonemes to create rhyme, alliteration, consonance, assonance and the other sound effects of verse, is at once both a deviation from the code and an imposition of order upon it. It is a deviation - the argument

goes – because in other more 'normal' uses of the code where the focus is on meaning rather than form, such sound effects occur at random. It is an imposition of order because it enables the language to be analysed by a set of prosodic rules which, like the rules of phonology, grammar and semantics, can both predict and restrict possibilities.

Leaving these arguments temporarily aside, and assuming that phonic regularity is unusual, literary, and a feature of text, we (and contrary to Fish (1980:309) we believe that other English speaking readers would also) analyse the stress patterns of the advertisement as follows:

$$\breve{Be}\ \acute{touched}\ \breve{By}\ |\ \breve{the}\ \breve{fra}\acute{grance}\ \breve{|}\ \breve{That}\ \acute{touches}\ \breve{|}\ \breve{The}\ \acute{wo}\breve{man}$$

Its rhythm, in other words, is absolutely regular. It consists of four amphibrachs. And as an amphibrach, which consists of a single stressed syllable between two unstressed syllables, has the quality of being the same backwards and forwards, it follows that a succession of an equal number of amphibrachs can be divided into two halves, of which the second half is a reversal, an exact mirror image, of the first. (We shall return to this point in 7.2.5.) The name

$$\breve{E}\acute{li}\breve{za}\ |\ \breve{beth}\ \acute{Tay}\breve{lor}$$

moreover,is also amphibrachic, and the rhythm of the advertisement thus mimes the name of the product, in much the same way as its shape reproduces the shape of the bottle.

7.2.3 Lexis.

The advertisement exploits lexical ambiguity, both at the relatively fixed semantic level of denotation, and at the discoursal level of meaning in context. Thus, at the semantic level, "touches" means both "to bring or be brought into physical contact with" and also "to arouse positive emotion". "Woman" means both "adult, female, human being" and also "femininity" (as it does in a sentence like 'it brings out the woman in you'). Both of these lexical items, when taken in the context of the pictorial part of the advertisement, and in the context of its function of persuading a reader to buy a product, take on further meaning. The noun

phrase "the woman", with its definite article assuming a specific
identifiable referent, can now mean either "the woman in the picture" (i.e.
Elizabeth Taylor) or "the woman reading the advertisement" (i.e. you, the
reader), and in fact invites identification by the reader with Elizabeth
Taylor, presumably on the assumption that readers will wish to take on
certain of her qualities. Here the advertisement makes use of a common
discoursal ambiguity in advertising whereby the second person pronoun is
used to refer to both the addressee, the reader, and also to a character in
the advertisement. (Something similar occurs in songs "Well it ain't no
use to sit and wonder why babe/ If you don't know by now" (Bob Dylan);
"Nothing compares to you" (Prince)). A further complication is introduced
by the fact that the reader may be a potential buyer of the product for
somebody else, rather than for personal use. Indeed, luxury items such as
perfumes are often bought as presents - hence their intensive advertising
in the weeks before Christmas. As perfume is often a token of sexual
attraction, and as advertisements seem to assume an exclusively
heterosexual world, the targetted reader may also be a man, buying it for
a woman (see 5.2). Thus "the woman" comes to mean "your actual or desired
female sexual partner" and "touches" appeals to the reader by suggesting a
means - albeit vicarious - of emotionally or physically touching the
desired person. In this case "the woman" may perhaps even take on an
extra dimension of meaning: "the female part", "the vagina". Interestingly,
these latter discoursal ambiguities are only present when the text is read
as an advertisement. They are not formal features of text, in the
Jakobsonian sense.

7.2.4 Grammar.

Grammatically, as phonically, the text is both deviant and patterned.
Using the nul sign 'Ø' to mark the ellipsis of the pronoun 'you', its
grammatical structure may be analysed as:

```
[ Ø (Be touched) (by (the fragrance    [(that) (touches) (the woman)])))]
MCl                                     RCl
```

The deviance is in the use of the passive imperative: an exceedingly rare
form. ('Be seated' is an exception, but 'be kissed', 'be killed', 'be seen',
'be amused' would be similarly odd.) The patterning is in the clause
structure, for the relative clause which post-modifies the noun "fragrance"

exactly reverses the main clause of which "fragrance" is a part. Indeed, if we write in the ellipted 'you' as 'you, the woman' and replace the relative pronoun "that" by the noun it stands for ("the fragrance"), then the relative clause is a back transformation of the passive main clause to its original active form.

[Woman, be touched by the fragrance] is a transform of
← [The woman is touched by the fragrance] is a transform of
← [The fragrance touches the woman]

This is odd, because the usual function of a relative clause, as of any modifier, is to add information which will help identify the referent of the head word. Here the relative clause simply repeats the meaning of the main clause. This creates a grammatical mirror image. The embedded relative clause reflects the main clause, as illustrated in figure 19. The break between the two clauses
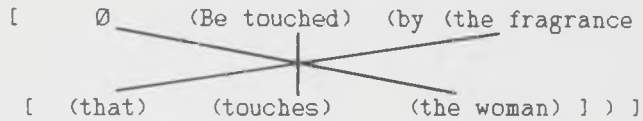

[Ø   (Be touched)   (by (the fragrance

[(that)   (touches)   (the woman)])]

Figure 19. Grammatical parallelism in Text Five.

---

coincides with the half way point in the rhythm which is also reversed after the half-way point. The grammar is mimed by the sound which mimes the grammar - (to use the same device). The woman is touched by the perfume which touches the woman.

Note also that the active clause is subordinate to the passive clause.

7.2.5 Representation.

The language of this advertisement, then, reveals regularities, similarities, ambiguities, polysemies of the kind revealed by classic Jakobsonian analyses. The point is, however, that it is not difficult, in the traditions of stylistics, to go further than mere formal analysis and suggest ways in which these exploitations of the code reinforce, amplify and add to the meaning, ways in which they are that meaning in a manner

which would be lost if paraphrased into semantically equivalent instances
of the code. The reader is invited to become like Elizabeth Taylor through
the use of a bottle of perfume. Perfume, as a substance which, when used
for seduction, enables the wearer, after the initial adornment, to attract
by doing nothing more, is concerned with an unusual relationship of
passivity and activity. It is also, as something used before the mirror in
the privacy of the bathroom or bedroom, concerned with narcissism,
reflection, and contemplation of the self. It is also, being bodiless and
verbally indefinable, akin to an abstract concept, while being
simultaneously, as something sexually attractive and perceptible at the
most intimate distances, inherently sensual and physical, concerned both
with romantic and with sexual love. In this perfume advertisement, as in
many others, the perfume is seen, not as attractive in itself, but as
something which releases a dormant attractiveness in the wearer. All of
these features may be related to the linguistic features described above:
the imitation of the bottle's shape by the graphic form and of the
filmstar's name by the prosodic unit, the reversible rhythm and
grammatical structure, the ambiguous lexis denoting both the physical and
abstract, the confusion of referents, the embedding of the active within
the passive, the redundancy of meaning.

7.2.6 Schemata.

So far, following Jakobson, we have analysed the formal subsentential
features of the advertisement. No mention has been made of the plans or
the goals of the author, the character (Elizabeth Taylor) or the reader.
Yet for the advertisement to function as a coherent communicative act
rather than to be merely a superfluous and meaningless (if grammatical)
bit of text (see 2.2), certain themes and plans must be recognized by the
reader, if only subconsciously. At this level there is even less certainty
than there can be concerning norms of language and significant deviations.
Hypotheses reflect the introspections of one observer (the present writer)
in the hope that they are shared by others. Allowing for the usual
fuzziness in distinguishing themes, plans and scripts, we interpret
relevant schemata to be:

```
θ A SELL PRODUCT
π A ATTRACT ATTENTION
π A SUGGEST PERFUME FULFILS θ R

θ C (LIZ TAYLOR) BE ATTRACTIVE
θ C (LIZ TAYLOR) BE SUCCESSFUL
π C (LIZ TAYLOR) WEAR PASSION PERFUME (already executed)

θ  R (FEMALE) BE ATTRACTIVE
θ  R (FEMALE) BE FEMININE
θ  R (FEMALE) SEXUAL SATISFACTION
π  R (FEMALE) IMITATE ATTRACTIVE WOMEN (LIKE LIZ TAYLOR)
$S R (FEMALE) WEARING PERFUME

θ  R (MALE) SEXUAL SATISFACTION
π  R (MALE) TOUCH WOMAN
π  R (MALE) BUY PERFUME
π  R (MALE) GIVE PERFUME
```

No explicit mention of these plans and themes is made in the text, and in asserting them we can appeal to no more than our own intuition and cultural knowledge. This is in the advertiser's favour, for should he or she wish to deny the interpretative use of such themes and plans it is very hard to prove their existence. (This avenue of retreat is often exploited to deny sexual suggestiveness in advertisements, by attributing it to one reader's mind.) But we are assuming that readers with a similar cultural background will have the same intuitions about how the advertisement works. In fact, it is the advertiser's assumption that we all share and recognize these themes and are susceptible to the suggestion that they may be fulfilled by buying the perfume, which enables them to go unsaid. They are – in every sense – schematic, stereotypical and predictable.

7.2.7 Conclusions.

We hope to have shown that in this text the formalist notion of defamiliarization operates only at the linguistic level, not at the schematic and discoursal level. In so far as this text is classified as an advertisement and not as a work of literature, that classification appears to view the schematic level as more important. This judgement, however, will vary with the schemata of the reader.

A way of avoiding this conclusion would be to say that the defining feature of advertisements in terms of the six Jakobsonian functions is that the conative function (see 3.1) is the dominant. In contradiction of

this, we would argue the conative function also involves reader interpretation and is thus also schematic. It is also vulnerable to changes outside the text. If the product ceases to be available for purchase, the conative function will be invalidated, though the advertisement may endure (Cook 1988).

7.3 TEXT SIX: First World War Poets by Edward Bond.

The text of this poem is:

```
                                            Line no.
You went to the front like sheep              (1)
And bleated at the pity of it
In academies that smell of abattoirs
Your poems are still studied

You turned the earth to mud                    (5)
Yet complain you drowned in it
Your generals were dug in at the rear
Degenerates drunk on brandy and prayer
You saw the front - and only bleated
The pity!                                      (10)

You survived
Did you burn your general's houses
Loot the new millionaires?
No, you found new excuses
You'd lost an arm or your legs                 (15)
You sat by the empty fire
And hummed music hall songs

Why did your generals send you away to die?
They saw a Great War coming
Between masters and workers                     (20)
In their own land
So they herded you over the cliffs to be rid of you
How they hated you while you lived!
How they wept for you once you were dead!

What did you fight for?                         (25)
A new world?
No - an old world already in ruins!
Your children?
Millions of your children died
Because you fought for your enemies             (30)
And not against them!

We will not forget!
We will not forgive!
```

This text, arguably, is, both linguistically and schematically, the polar opposite of the advertisement analysed in 7.2. Linguistically conformist and unoriginal, it is innovative and disruptive at both the text-structural and conceptual levels. (Again as in 7.2, these judgements are those of one reader, the present writer, but assumed to hold for some other readers, on the assumption that certain schemata are shared.) Our argument is that this text is literary without being linguistically deviant or patterned, while the previous text is not literary, despite a significant concentration of both patterning and deviation. As such, our argument can be instantly demolished by the claim that this is 'not literary' or 'not a poem'. Against this we can say only that it is presented as a poem by writer and publisher (in the 'poems' section of a book entitled Theatre Poems and Songs) and that this classification is accepted by bookshops and literature courses. It is also graphologically set out as a poem in that line change is effected before the margins and lines are grouped into stanzas. There is also an absence of conventional punctuation, fairly common in twentieth century poetry. Thus, though there may well be readers who reject its pretensions to be poetry, we shall proceed as though (and indeed we believe that) it is.

To say, as we do of this text, that a stretch of language shows no significant deviation or patterning is open to challenge from two directions. It assumes, first of all, consensus about linguistic norms, where no absolute consensus exists. Secondly, it is a negative claim, and thus hard to demonstrate, being vulnerable to refutation. Nevertheless, it seems reasonable. As with the advertisement in 7.2, we shall, following Jakobson, assume the issue of linguistic norms to be relatively unproblematic.

7.3.1 Graphology and phonology.

On the graphological level the only features of note are those already mentioned above: the conventional lineation and stanza divisions of poetry, the absence of conventional punctuation. On the phonic level, there is little regularity. Line by line, the syllable count is as follows: 7, 9, 11, 7 ; 6, 7, 9, 10, 9, 3 ; 3, 8, 6, 7, 7, 7, 6 ; 11, 7, 7, 4, 14, 8, 9 ; 5, 3, 10, 3, 6, 9, 5 ; 5, 5. Although there is a tendency towards six and seven

syllable lines, there are many other lengths too. Similarly, though there are lines which fall into metrical paterns reminiscent of more conventional poetry

> You turned the earth to mud
> Yet complain you drowned in it

the effect is immediately broken

> Your generals were dug in at the rear
> Degenerates drunk on brandy and prayer

There is no rhyme except the (possibly accidental) half rhyme in 7 and 8 between "rear" and "prayer", perhaps in 12 and 14 between "houses" and "excuses", and the internal echo between "generals" and "degenerates".

The overall effect is thus of language whose phonic regularity is no greater than that of discourse types (for example bureaucratic prose) where attention is traditionally supposed to be on meaning rather than sound, and less than that of other discourse types excluded from the literary canon (see 2.3.1, 7.2). Arguably, however, there is just enough patterning - in syllables, prosody and rhyme - for expectations to be set up and immediately dashed: a feature which is reinforced by the contrast between the traditionally 'poetic' graphology and the lack of 'poetic' phonology. That, at least, is how it seems to us.

7.3.2 Grammar.

Grammatically, the situation is much the same. Occasional glimpses of patterning or 'poetic' syntax serve only, in our view, to highlight their absence elsewhere. Thus there is a degree of parallelism (see 2.3.1) between sentences beginning with the subject 'you'. There is also parallelism in the two lines

> How they hated you while you lived!
> How they wept over you once you were dead.

which both follow the pattern

```
                   S         P       Od        A                    S       P
         [  (How) (they)  (PAST)  (you)  [  (TEMPORAL)        (you)  (PAST)  *   ]]
      MC1 AvP      NP       VP      NP   AC1 cj                NP      VP
```

the second of the two lines having, within the adverb clause at *

```
                   C
                 (dead)
                 AjP
```

This adjective phrase, though it has no syntactic parallel with the preceding line, is semantically linked to "lived" (see 2.3.4). Such parallelism is, however, found often in political rhetoric (see 2.3.1), a discourse type with which this polemical diatribe, by virtue of its subject matter, has much in common. There is also fronting of a prepositional-phrase adjunct in lines three and four: a construction much favoured in poetry. Interestingly, this comes, like the syllabic and prosodic patterning referred to above, near the beginning of the poem, and thus establishes a hint of convention, making its later absence more marked.

Given the length of the poem though, syntactic patterning and deviation are not intense.

7.3.3 Lexis.

The lexis is 'ordinary' rather than 'poetic'. To talk of lexis as 'ordinary' demands appeal either to word counts in corpora related to particular discourse types, or to intuition. We favour intuition[2]. Almost the only lexical cohesion of note is the collocational chain[3] created by the sustained metaphor of sheep: "like sheep", "bleated", "abattoirs", "bleated", "herded". But this comparison is a cliché: a fact which, paradoxically, makes it deviant in poetry, where, traditionally, clichés are avoided. Lines like the following, are in fact far more 'normal':

> Their feet are four-leafed clovers
> that leave a jigsaw in the dust.
>
> They grin like Yale keys that tease
> us with joke shop Niagara tongues
> > > > Craig Raine The Behaviour of Dogs

The only other metaphor in the poem is another standard one - that of drowning in mud - about which we have more to say below.

7.3.4 Intertextuality.

Poor in prosodic, grammatical, lexical and metaphorical innovation, the poem is rich in intertextual meanings. These, like schemata, must be described with a specified reader in mind. This reader has observed the intertextual allusions listed in table 5. For other readers there may well be more, but we would assume those listed to be shared by any British reader exposed to the intense institutional retrospection which followed either the First or Second World Wars, and by anyone who has had a Christian education, focussing upon the New Testament.

Evoked reference	'Trigger' in poem
"My subject is war and the pity of war." Wilfred Owen ([1920] 1931:40)	"bleated at the pity of it" "only bleated/ The pity"
"He was brought as a lamb to the slaughter." Isaiah 53:7	"like sheep....abbatoirs"
"Guttering choking drowning" Wilfred Owen: Dulce et Decorum Est	"You turned the earth to mud Yet complain you drowned in it."
"The whole herd rushed down the steep bank into the lake and died in the water." Matthew 8:28-32	"they herded you over the cliffs to be rid of you"
"We will remember them." Laurence Binyon: For the Fallen	"We will not forget"
"Then Jesus said, Father forgive them for they know not what they do." (Luke 23:34) "Father forgive." (War Memorials) "Lest we forget." (War Memorials)	"We will not forgive"

Table 5. Intertextuality in Text Six.

7.3.5 Schemata.

Here again hypotheses must relate to particular readers. Let us specify then British readers who received a Christian education during the twenty-five years following the Second World War. For these readers, a good deal of time and emotional intensity would have been devoted to:

- study of the First World War poets (especially Wilfred Owen)
- study of the New Testament (in the Authorized or Revised Standard version)

   - an annual remembrance service

   - study of nineteenth and early twentieth century poetry.

We can therefore hypothesize that the intertextual references listed above will evoke the following schemata. In fact, it was the intention of the educators to inculcate such schemata. For each schema, we give only a selection of default elements.

θ R/C/As MAKE LIFE BETTER.

$S R FIRST WORLD WAR.
in execution of (misguided) plans: π BRITAIN DEFEND EMPIRE.
                                    π BRITAIN HELP FUTURE GENERATIONS.,
                                    π BRITAIN BUILD 'NEW WORLD'.
Events: Slaughter of young men; maiming of young men.
Results: Sympathy for veterans/ invalids.
         War poetry (see $S WAR POETRY).
         Second World War.
         π AVOID REPETITION.

$S R WAR POETRY.
TRACK 1: 'Patriotic' poets: Rupert Brooke, Laurence Binyon and others.
TRACK 2: 'Anti-War' poets.
Roles: Wilfred Owen, Siegfried Sassoon, others.
ARE Sensitive, brave, good, wasted.
Events: writing poetry about $S A FIRST WORLD WAR.
Results: Sympathy for soldiers,
         'Anti-war' feelings.

π R STUDY 'ANTI-WAR' POETRY.
Result: helps prevent war.

π R REMEMBER WAR DEAD.
result: helps prevent war.

π R FORGIVE ENEMIES.
result: brings reward, makes life better.

π R MAKE SACRIFICES.
result: better society.

$S R POETRY (A TEXT/ LANGUAGE SCHEMA).
HAS: Rhythm, rhyme and other sound effects, elevated language, figurative language, original language.

   The poem challenges every element in the scripts and plans (as we have described them), its poets and their poetry, and the efficacy of

remembrance. It also represents (in the sense defined above in 7.1.2) a contradiction of Script 2: Poetry. In formalist terms it defamiliarizes received ideas of war, war poetry, and poetry in general. Thus, possibly, it suggests a connection between the conventions of poetry, the conventional philosophy of proponents of war, and conventional anti-war views. It acts out, in its own poetic form (or lack of it), the revolution which it advocates in the political sphere. Yet, paradoxically, it also very obviously, and presumably self-consciously, does what it criticizes: bleats and does not act. In this sense it is iconic and 'self-reflexive'.

The literariness of this poem can not then be described in simple Jakobsonian terms as a deviation from linguistic norms, or as a patterning of elements which would otherwise occur at random. In fact in purely textual terms it is singularly lacking in linguistic interest *per se*. Only with reference to schemata, (including text and language schemata), can an argument be made for its literariness at all. Interestingly, one of the schemata it breaks is precisely that which demands that literary language be innovative.

7.4 Incorporating the reader.

The analyses in 7.2 and 7.3 point clearly to the limitations of Jakobson's attempt to identify and characterize 'literariness' at the linguistic level in isolation. The density of formal patterning and deviation in the advertisement will not raise it, in most people's estimation, into the literary canon. The poem, by contrast, lacks formal patterning and deviation, yet may still be regarded as literary. Whether it is so regarded will depend upon the reader, and it is precisely the kind of poem which, because of its viewpoint and technique, will arouse very different judgements. Such judgements will vary with the political outlook, world and text schemata of the reader, and the degree to which the attempted disruption of them is valued. On the other hand, both the advertisement and the poem are vulnerable to reclassification as audiences change. It is not difficult, in the contemporary world, to imagine a readership which might reclassify both.

This reader-dependency of 'literariness' was overlooked by Jakobson, despite the fact that the terms in which he chose to express his theory imply very strongly the presence of the reader. If language has a poetic 'function' then it must do something to somebody - the reader - and if

that function reflects a 'set towards the message', then it must be a 'set' by somebody – again the reader. Unlike the Jakobsonian approach, much recent literary theory has shown acute awareness of reader variations, and their effect on interpretation. Dimensions of inter-individual difference (such as class, gender, culture, age and education) have been brought to the fore, as have intra-individual differences (such as mood, the context and purpose of reading, and age). While rejecting formalist, structuralist and New Critical approaches to reader variation (see Wimsatt [1949] 1954), the movement can point to the centrality of the reader in much older approaches. The Aristotelian view of tragedy, for example, is couched in terms of effect upon the reader, while Wordsworth's view of poetry as "heightened sensation" or Coleridge's dictum of the "suspension of disbelief" both appeal to the relation of reader and text, rather than to features of text in isolation. In the 1920s and 30s, I.A. Richards stressed 'response' to poetry, though the response, as he termed it, "of the right kind of reader" (Richards 1926:10). This last remark betrays a confident belief in the reading of the academic establishment as the correct reading, privileging one group of readers over others, bestowing on it a right to 'correct' the 'wrong' readings of others (Richards 1929). It is a view still present, half a century later, in Culler's notion of 'literary competence', an ability (analogous to Chomsky's linguistic competence) which can (and in Culler's view should) be transmitted institutionally (Culler 1975:113-131; Culler 1988:3-57). These approaches accept and justify the critical status quo. Other approaches to the reader, however, influenced by the deconstructionist attack upon all centres and 'transcendental signifiers', have emphasized the equality of all readings, or tried to shift the centre from one social group to another: from the middle to the working class, from a patriarchal to a feminist readership.

The diversity of reader-centred approaches is thus vast, both synchronically and diachronically, and it is not our intention to attempt to survey them. From among the many reader-centred approaches, we shall isolate two contradictory tendencies relevant to our own discussion. The first tendency is one which seeks to incorporate reader variation as an element in the construction of discourse, but regards the reader's response as delimited by the nature of the text in question. The second, influenced

by deconstruction, is one which rejects the existence of autonomous text, reversing the apparent direction of communication from author through text to reader, and regarding text and even author as the creation of the reader. This second view rejects - often ingeniously, sometimes playfully - the approaches of discourse analysis, formalism, structuralism and linguistics. These two opposing approaches to the role of the reader are well summed up by the debate between Wolfgang Iser and Stanley Fish. The former likens the perception of text to the perception of stars in the sky:

> Two people gazing at the night sky may both be looking at the same collection of stars, but one will see the image of the plough, and the other will make out a dipper. The "stars" in a literary text are fixed; the lines that join them are variable. (Iser 1974:282)

The latter is summarized by Fish's rejoinder to this analogy in which he claims that the reader supplies

> everything: the stars in a literary text are not fixed; they are just as variable as the lines that join them. (Fish 1981:7)

This leads Fish (1980:21-58) to attack both linguistics and formal stylistics, suggesting a new 'affective stylistics'[4] which will replace the traditional dichotomies such as text/reader and subject/object with a monistic view in which there is no text separate from the reader (Fish 1972). Even 'linguistic fact' such as parallelism is in Fish's view interpretation. (We shall look in more detail at an example of Fish's rejection of stylistics in 9.1.)

Iser, and other 'reception theorists', on the other hand, though they emphasize both the reader and the process of reading over the text and the product of reading are prepared to accept text as a component in the reading process. In this they trace their roots back to the work of the Polish literary theorist Roman Ingarden, and particularly to the work he published in 1931. As Ingarden's work and its continuation in reception theory has certain elements in common with the approach we are advocating, we shall give a brief outline of it here as it is expressed in this most influential work. We shall regard reception theory, despite the many other influences upon it, as, fundamentally, a continuation of his work.

7.4.1 Roman Ingarden's The Literary Work of Art ([1931] 1973).

Ingarden was a pupil of the phenomenologist Husserl. In this he shares a common influence with the gestalt tradition in psychology, in which his contemporary Bartlett developed the first ideas of schema theory (see 1.5.1). In fact Ingarden even uses the word 'schema', as we explain below, though in a rather different sense. (Both Bartlett and Ingarden had perhaps inherited the term indirectly from Kant.)

In Ingarden's view:

> What is essential and valuable in the literary work of art is considered to be what develops in the reader under the influence of the reading (op cit: 18-19)

and "what develops in the reader" is the product of four strata. The first of these is the stratum of 'word sounds' and 'phonetic formations' and the higher orders built upon them. The second stratum is that of meaning units. The third that of 'schematized aspects of the text' and the fourth that of 'represented objectivities'. The first two of these strata essentially encompass, though in less detail, the area marked out by modern linguistics and acknowledge the objectivity of the text (though Ingarden worked outside the Saussurean tradition, and was also dismissive of the formalists (Grabwicz 1974:xv)). With an argument which could be used against Fish today, Ingarden simply observes that if there were no shared intermediate level between substance and reader, then every copy of a book would be a different text (op.cit.12). Thus:

> One may not (...) foist upon the literary work various objects which are altogether foreign to it .... the view that the literary work is nothing but a manifold of experiences felt by the reader during the reading is (...) false and its consequence absurd. (op.cit.:15)

In explaining the third stratum, that of 'schematized aspects', Ingarden employs gestalt and phenomenological theories of perception, observing that in perceiving something, we never see it in totality, but only 'aspects' of it which we combine to make a 'concretization' of the experience (op.cit.255-264). To make this concretization we make use of existing 'represented objectivities', previous experiences of the same or similar experiences. It is the same, in his view, with reading. The discourse presents meaning units provided by the first two strata, in such numbers and combinations that they enable the reader to make 'individual

concretizations' (op.cit 265). Thus if, for example, the action of a novel takes place in Rome, the reader will provide details from a 'represented objectivity' of the real Rome (op.cit 30)⁵. Successful 'concretization' thus depends on the representation of previous experience and, in this sense, Ingarden's theory resembles schema theory. Similar ideas can be seen in later developments of 'reception theory', most especially in the notion of 'the horizon of expectations'⁶: "an intersubjective system or structure of expectations, a 'system of references' or a mind-set that a hypothetical individual might bring to any text" (Holub:1984:59).

The similarities between Ingarden's views and those of schema theorists like Bartlett should be clear from the above. The terminology, however, is confusing. 'Schemata' in our sense correspond most closely to Ingarden's 'represented objectivities', while in our terms Ingarden's 'schematized aspects' are best described as discourse features triggering schemata in the reader.

What is inspiring in Ingarden's work, however, is its attempt, for all its many omissions and obscurities, to present a balanced and holistic view of the literary work, which neither excludes the individual reader, nor denies the text⁷. His arguments against both extremes are as valid today as they were fifty years ago. Like schema theory, with which they have a good deal in common, these arguments have undergone a long period of eclipse, before resurfacing again in recent decades. There is not space here to explore contemporary versions of these theories in full, but we recognize here the similarity of the endeavour, and the following words of Ingarden's sum up very well the kind of approach to which we adhere in the next two chapters:

> only a detailed analysis of both the individual strata and the kind of connection arising from them can disclose the peculiar structure of the literary work (op.cit 33)

7.4.2 Schemata,'Alternativity' and 'Super-coherence': de Beaugrande (1987).

We have presented the theories of Roman Ingarden and subsequent work in reception theory which derives from them as essentially compatible with an approach to literature combining schema theory with formal description of discourse, text structure and language. This is true in so far as they recognize that literariness is to be found in the interaction of reader variables with relatively fixed features of language and text. They are

not, however, based upon the same (or even similar) approaches to the description of text and discourse as those we have elaborated in chapters 1-6.

One approach which does make use of such a synthesis is that of de Beaugrande (1987), and we shall give a brief outline of it here in conclusion to this section.

Making explicit use of schema theory, de Beaugrande proposes an approach to literature which combines the individual psychology of readers with formal linguistic and textual description. He argues against the abandoning of the quest for a definition of literariness which has resulted from a general disillusion with the Jakobsonian approach, and proposes two principles which he regards as characteristic of all literature. The first principle is that of 'alternativity'. Literature, he argues, allows us to enter alternative worlds in which alternative schemata, including alternative language and text schemata, are used in processing. These schemata, though similar to those used in the real world, are quite distinct from them. The second principle is that of 'super-coherence'. According to this principle, the details of a literary work all fit together and are components of the schemata which interpret them in a way which is quite unlike the real world. Everything in a literary work is significant. (The paradigm case, he suggests, is the use of detail in the Sherlock Holmes stories.) It may be, he suggests, that the literary text thus compensates for the illogicality, lack of connection and disorder of the real world. This view echoes Tomashevsky's view that certain motifs (6.3.6) (and Barthes' view that certain functions) must all contribute to the overall theme (6.4.5 and Chapter 6, note 12). As Chekov put it: there is no point in having a loaded gun on stage unless it is going to go off.

7.5 Conclusion.

In this chapter we have discussed Jakobson's attempt to characterize literariness as linguistic patterning and deviation, and the adaptation of those ideas by stylistics. By analysing an advertisement which fits this Jakobsonian definition and a poem which does not, we have attempted to highlight some of the limitations of the approach. The analyses suggest that linguistic deviation and patterning is no guarantee of literariness but must be taken in conjunction with their effect on the schemata of the

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reader. We have briefly looked at attempts to relate 'literariness' to readers, and drawn a distinction between reader approaches which reject formal descriptions of language and text, and those which try to incorporate them. The theories of Ingarden and reception theories are of this latter kind, though they employ different methods from those of linguistics, discourse analysis and AI. De Beaugrande does use these methods, and provides the useful concepts of alternativity and super-coherence.

In the following two chapters we hope to demonstrate further how schema theory can reconcile reader variability with formal description of the text and language of literature, showing how a particular kind of interaction between the two is a frequent characteristic of literature.

Notes to Chapter Seven.
1. Throughout this period, there is a growing attention to discoursal as well as linguistic features. Thus, for example, though Leech and Short (1981:1) has in its own words "the same aim" as Leech 1969, it takes more account of discourse and language context.
2. For discussions of the merits of the two approaches see Fillmore (1989); Cowie (1989).
3. In Hallidayan terms, see 2.3.4.
4. Making a positive use of the term used so disparagingly by Wimsatt ([1949] 1954).
5. It is this process, which in Ingarden's view leads to a "characteristically pulsating mode of experiencing" literature (op.cit.: 269), "as one reads, objects appear vividly only from time to time in momentarily actualised aspects".(op.cit.: 268)
6. 'The horizon of expectations' also derives from Gadamer (see 2.2, and Holub (1984:58-63)).
7. "Here we see once again that a literary work is a schematic formation. In order to see this, however, it is necessary to apprehend the work in its schematized nature and not confuse it with the individual concretization that arise in individual readings." (op.cit.:265)

Chapter Eight.
A theory of discourse deviation 1: schema disruption and refreshment;
a function of cognitive change.

8.0 Introduction: the argument so far.

In the preceding chapters we have attempted to suggest a number of inter-relations between three fields: discourse analysis, schema theory and literary theory. In the second and third chapters, on discourse analysis, we examined approaches to establishing the causes of coherence in discourse in general, while simultaneously observing some of the inadequacies of these approaches to the characterization of one type of discourse, namely literature. In the fourth chapter we described in detail one version of schema theory and the contribution it can make to a description of coherence. In chapter five, by demonstrating this contribution in the detailed analysis of two texts (the opening of Crime and Punishment and an advertisement for Gore-Tex fabric), we suggested that a difference between these two discourse types may reside in the types of schemata they evoke and the kinds of relationships between them. Using the schema types described in SPGU, we showed that, while the advertisement achieved coherence through the interconnection of schemata containing catalogues of specific physical entities (scripts), the literary discourse focussed much more on the plans and goals of characters'. Another difference was that the advertisement relied on well-established schemata which it did not seek to change, while the literary discourse necessitated changes to schematic organization. However, as we have been at pains to point out, there are two important provisos to these observations. Firstly, they derive from two texts only, and while highly suggestive, cannot necessarily be generalized to other examples of these two broad discourse types. Secondly, they are dependent upon the acceptance of the processing schemata which we propose.   These schemata do not necessarily hold for all readers, and, as introspection can mislead, they may not even be the most important schemata used by the present writer.

In chapters six and seven we examined some of the approaches to the characterization of literary discourse which are now commonly grouped under the heading of 'modern literary theory'. In particular we described

the Russian formalist notion of literature as defamiliarization resulting from a deviation from reader expectation at various levels. The three main levels at which this defamiliarization may take place are those of language, discourse and sense perception. The Russian formalists concentrated most of their attention on discourse. Bringing different terminologies together, these levels at which defamiliarization may take place correspond to those of language schemata, text schemata and world schemata (though the last of these may be derived from discourse as well as perception.) We described the post-formalist 'scientific' approach to literary discourse as dividing into two, with each direction concentrating upon one level of the literary work in isolation. The structuralist approach concentrates upon conformities and deviations from postulated text structures, without reference to reader variation or linguistic realization. It also treats discourses as products rather than processes. The Jakobsonian approach, concentrating upon linguistic form below the sentence, attempts to characterize literariness as patterning and deviation at this level only, again without reference to reader variation. In chapter 7, by again analysing two texts, one literary (First World War Poets) and one an advertisement (Elizabeth Taylor's Passion), we attempted to demonstrate the weaknesses of the Jakobsonian approach in isolation, and the greater power of a linguistic description working in concert with a description related to certain reader-specific schemata. Despite these limitations, however, formalism, structuralism and Jakobsonian stylistics do present examples and working definitions of 'text structural deviation' and 'language deviation', and we shall make use of these terms throughout this chapter.

Following our discussion of formalism and its legacy, we briefly described other attempts in literary theory to take more account of the reader, but noted that these are marked either by a rejection of linguistics, discourse analysis and other formal descriptions of text (including, by implication, AI text theory) or by use of some other formal descriptive framework.

In the remaining two chapters, we shall attempt to bring together insights from the various approaches described so far, and to propose a theory of literariness as a dynamic interaction between linguistic and text-structural form on the one hand, and schematic representations of the world on the other. We shall call this dynamic interaction 'discourse

deviation'. Our aim is to use schema theory as a way of taking account of reader variation and non-linguistic knowledge, though without abandoning the insights and descriptive apparatus provided by discourse analysis, formalism, structuralism and Jakobsonian stylistics. In particular, we wish to suggest that in certain types of discourse, change in high-level schemata takes place through linguistic and text-structural deviation, but that (as is notably the case in advertisements) such deviation is no guarantee of such change. This approach, however, of its nature, can never assign the quality of literariness, once and for all, to a given text, but only to a given discourse.

8.1 The need for schema change.

In chapters two and three, we have tried to demonstrate that schemata are an essential element in the establishment of coherence. We need schemata in order to understand discourse. Yet as well as helping understanding, schemata may also hinder and prevent understanding if they are too inflexible. It seems reasonable to say that human beings need to adapt to new situations, to experiment with new possibilities, and that rigid, unchanging schemata would not always be helpful.

In our description of schema theory so far, we have emphasized the role of schemata in creating coherence during the processing of texts. The influence described has been one-way. Schemata have been represented as relatively fixed structures acting upon texts to create discourse. There is, however, another side to this process. Texts may change schemata. The interaction may be not one-way, but reciprocal and dynamic. Our theory is that while any interaction with new experience or text may be of this kind, and effect changes in schemata while simultaneously using them in processing, there may also be experiences and discourses whose primary function[2] is to alter schemata, making the mind better equipped for processing in future. A particular relation between schemata on the one hand, and language and text structure on the other may effect exactly this kind of change. Many works which are regarded as literary may stimulate this kind of relation. Furthermore, it seems reasonable to suppose that discourse which functions in this way should not be intimately concerned with other functions of language such as efficient cooperation in manipulation of the physical world, or the establishment and maintenance of social relationships (see 3.2.3). When these functions are dominant, it

may be better to keep to established patterns rather than experiment with new ones. (Repairing the brakes on a car or greeting an old friend are not times to try out new procedures.) Thus a type of discourse removed from immediate practical and social functions is best suited to changing schemata.

8.2 Theories of schema change.

Before proceeding with our own theory, we shall discuss the approach to schema change in the works of the two major schema theorists, Bartlett (in 8.2.1) and Schank (in 8.2.2), while also noting two important weaknesses in their approach (8.2.3). These weaknesses are: the failure to take account of the effect on schemata of different linguistic and text-structural arrangements of the 'same' conceptual 'content'; the failure to comment on discourse types with the primary function of effecting changes in schemata[3].

8.2.1 'Turning round upon' schemata: Bartlett (1932).

Awareness of a need to describe a dynamic and reciprocal interaction between schemata and new experience, so that both process each other, is present in Bartlett's seminal work Remembering (Bartlett 1932). Though in general concerned to show the role of schemata in the processing of new experience, whether textual or sensory, Bartlett at several points voices an engaging awareness of his theory's need to account for influence in the opposite direction, and of its inadequacy in this respect[4].
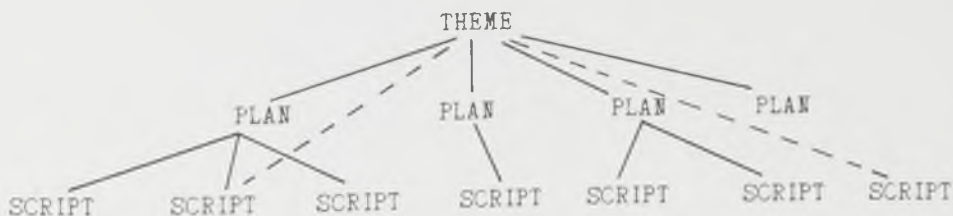
(- - - - = path between schemata)

Figure 20: non-serial connection in a Schankian hierarchy[5].

Drawing together the findings of his research into a 'theory of remembering' (1932:197-215) he voices constant concern about the rigid temporal sequencing of events in schemata as he describes them. (His theory contains no Schankian hierarchy which will enable an intelligence to connect one schema to another through a schema at a higher node, thus jumping over schemata at the same or intermediate levels (see figure 20).) His comments on this type of rigidity, apply to a non-hierarchical schema theory in general, not only to the issue of temporal sequencing. These comments are so much to our present purpose, so emblematic of the concerns we wish to pursue in this chapter, that they are worth quoting here at length:

> In remembering, we appear to be dominated by particular past events which are more or less dated, or placed, in relation to other associated particular events. Thus the active organized setting looks as though it has somehow undergone a change, making it possible for parts of it which are remote in time to have a leading role to play. If only the organism could hit upon a way of turning round upon its own schemata and making them objects of its reactions, something of the sort might perhaps become possible.(op.cit.:202)

> An organism which possesses so many avenues of sensory response as man's, and which lives in intimate social relationship with numberless other organisms of the same kind, must find some way in which it can break up this chronological order and rove more or less at will in any order over the events which have built up its present momentary schemata (....) If we could only understand how an organism achieves this, we should have advanced some way towards solving certain of the problems of memory (...) (op.cit.:203-4)

> A new incoming impulse must become not merely a cue setting up a series of reactions all carried out in a fixed temporal order, but a stimulus which enables us to go direct to that portion of the organized setting of past responses which is most relevant to the needs of the moment. (...) An organism has somehow to acquire the capacity to turn round on upon its own schemata and to construct them afresh. This is a crucial step in organic development. It is where and why consciousness comes in; it is what gives consciousness its most prominent function. I wish I knew exactly how it was done. (op.cit.:206)

> But that orientation must be dominated by the immediately preceding reaction or experience. To break away from this the 'schema' must become, not merely something that works the organism, but something with which the organism can work. (....) its constituents may perhaps begin to be reshuffled on a basis of purely physical or physiological determinants. This method is not radical enough. So the organism discovers how to turn round upon its own schemata, or, in other words, it becomes conscious. It may be that what then emerges is an attitude

towards the massed effects of a series of past reactions. (op.cit.:208)

And he leaves us at the end of this section of his discussion, not only with conclusions, but with a question: "How are our active organized settings, our schemata, developed?" (op.cit.:212)

8.2.2 The theory of dynamic memory: Schank (1982).

To some extent an answer to this open question of Bartlett's is suggested by Schank in further developments of the theory of schemata types advanced by SPGU (Schank and Abelson 1977, described in chapter 4). These new ideas are stated most fully in the book Dynamic Memory (DM) (Schank 1982), though their origin is in an earlier paper (Schank 1980). During the 1980s, the ideas of SPGU have been developed and applied in a number of other areas too: for example, to teaching reading (Schank 1982b); to translation (Lytenin and Schank 1982); to news analysis (Schank and Burstein 1985). Explanation Patterns (EP) (Schank 1986) deals with the ways in which the task of explaining unusual events can both develop intelligence, and demonstrate it. As such it is perhaps over-concerned with refuting arguments against AI (see 4.1.2). It is DM, however, which is at the heart of the developments of the theory, and most pertinent to our concerns. Where SPGU centred very much upon text processing, DM deals more with experience in general. As in Bartlett's work, conclusions are presumed to apply in a similar way both to direct experience and to textual experience. This is in our view a weakness, but we shall return to this point in 8.2.3.

SPGU, as we have seen, is an explanation of how various types of schema may be applied in text processing. DM deals with the reverse of this process and describes how schemata may be constructed and changed. Schank's starting point is the observation that the phenomenon of being reminded of one experience by another, though frequent and important in people's lives, is inadequately and rarely dealt with in the psychological literature (DM:19). He suggests that an investigation of the connections which evidently exist between apparently disparate experiences may help in the understanding of memory and schematic knowledge (DM:19-36).

Schank gives many examples from his own life of odd instances of reminding (see for example DM:47). These illustrate how connections are

made between quite disparate scripts or plans by reference to a common goal or theme (see figure 20). Schank's approach is, like Ingarden's, heavily phenomenological, in that he is prepared to admit introspection into his own mental life as evidence. The fact that our own experience of reminding is similar to Schank's bears out, in our view, the validity of this approach. (Our general acceptance of this method is already apparent in our use of introspection to describe the schemata used in processing a given discourse (see 5.2., 5.3, 7.2, 7.3)). Rather than repeat one of Schank's many examples, in illustration of the connections between schemata suggested by reminding, we shall give a similar one of our own. (It seems sensible here to abandon the more academic 'we' for 'I'.) While hurriedly leaving work recently to start on a long car journey, and dealing with some last-minute business in the general office of the university department where I work, I noticed that someone had left a letter addressed to a student lying on the counter of the office, in a place where the student would be unlikely to find it. Three hours later, while driving in dark and rain on an empty stretch of a major road in Scotland, I saw a plank in the road in front of me, which, not having time to avoid, I drove over. The plank reminded me of the letter! The 'low level' explanation that they were both rectangular objects lying on a surface is not convincing. The world is full of such objects and I had already encountered many of them in the intervening period - a briefcase on the back seat of a car, a sandwich on a plate - without being reminded of the letter. An explanation of the reminding is provided more convincingly (through a combination of introspection and Schank's theory) at a 'higher level'. This is that both objects evoked in me a common theme and plan. The theme is to act in a socially responsible manner. This theme would instigate a suspension of more self-centred plans - to leave work quickly, to reach my destination - and the substitution of more altruistic plans. In the first case this would have involved putting the letter in the right place, in the second, stopping the car, going back and removing the plank. (As it happens, I did neither.)

According to Schank, such strange remindings provide us with a glimpse of connections through higher levels of schemata. In EP he suggests that the task of explaining unusual events - whether to others or to oneself - may provide us with similar glimpses. Reminding and explanation reveal the kind of connections which provide the basis for changing and

reconnecting schemata. Like Bartlett, Schank is aware that schemata cannot be too rigid. They must change and re-form. On this basis he proposes modifications of the 1977 theory. These changes are not so great, however, as to invalidate our own analyses in chapter 4, or our own modification of it (in 5.4) which we use in chapter 9. The basic hierarchy of scripts, plans and themes remains. We shall not therefore go into the theory in the same detail as we did with SPGU. It will be enough simply to highlight those features which enable the basic Schankian hierarchy to cope with the idea of a reciprocal interaction between schemata and text.

There are two fundamentally new ideas in DM. The first is that re-membered experiences are dis-membered in the mind, and the parts stored separately (our pun here is significant!). DM suggests that dismembered parts are stored in a new category of schema: Memory Organization Packets (MOPs). These are very much like the goals and named plans of SPGU. They generalize memories as much as possible into broad categories. Each MOP contains a number of 'scenes' (defined as "physical settings that serve(s) as the basis for reconstruction" (DM:15)) connected to goals. Scripts are then reconstructed by bringing together several MOPs. Usually three types of MOP are needed to construct a script: one concerned with personal needs, one concerned with social interaction and one concerned with physical entities. MOPs are thus not themselves text-processing schemata, but a means of constructing text-processing schemata. Schank suggests, for example, that the schema used for a visit to the doctor is composed of three MOPs: one containing scenes about Health Protection (personal) , one containing scenes about a Professional Office Visit (physical, abbreviated to 'POV') and one containing scenes about making a contract (social) . Each of these contains ordering rules for its own scenes. Brought together, these three MOPs yield a sequence of scenes which when read horizontally are very much like a script as described in SPGU (see figure 21).

There are several advantages in this description over that in SPGU. It is at once more economical and more fluid. It explains why it is that people may remember a part of a script without generating the whole (for example that something happened in a waiting room, but not which waiting room) and also why some experiences remind us of others (they are organized in the same MOPs). It also remedies a number of the problems

created by the large and rigid nature of scripts, enabling the construction of new ones and more leeway in the ordering of events. MOP's are in Schank's view very much like the goals and plans of SPGU. In fact he seems to suggest that goals and plans are so similar as to be conflated into this one new category (we have already noted the difficulty of distinguishing goals and plans in 5.4). The greatest change then is in the conception of scripts. Although the possibility of large ready-made scripts is still accepted, the idea is far more that the majority are assembled as needed. Corresponding to the demotion of large rigid scripts, is a far greater emphasis on goals and plans.
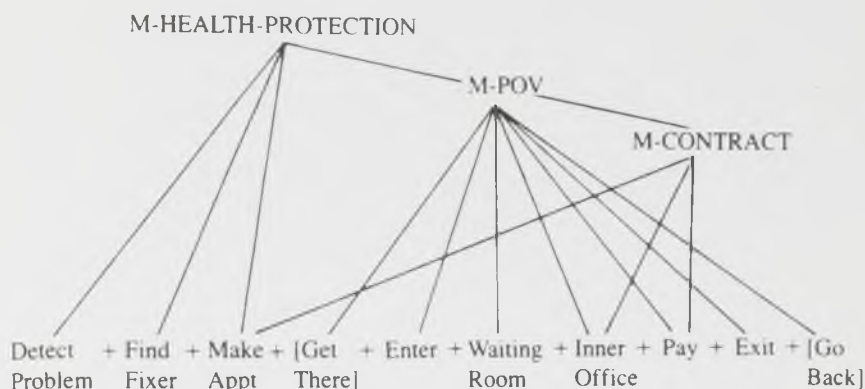

M-HEALTH-PROTECTION

M-POV

M-CONTRACT

Detect + Find + Make + [Get + Enter + Waiting + Inner + Pay + Exit + [Go
Problem Fixer   Appt   There]   Room   Office   Back]

Figure 21: Construction of script through MOPs (DM:89).

The second important innovation of DM concerns the lowest element of its modified hierarchy: scenes. Here, Schank is much more specific about the construction of new schemata and the rearrangement of old ones. Again the smaller units allow for greater fluidity. Changes do not have so many repercussions on other elements of the script (which are stored elsewhere). A scene in this new formulation is a single location or process associated with a goal (MOPs are collections of scenes which share the same goal). Buying a ticket is, for example, a scene associated with the goal (or plan) TRAVEL; boarding a bus is another such scene. Both would belong to the same MOP. Two similar experiences are 'mushed' together into the same scene. We may remember, for example, that something happened while we were boarding a bus[6], but not - if we have

done this many times - on which specific occasion. Significant departures from the expectations generated by a scene - for example 'the time I boarded a bus but it broke down' - are retained together with the scene. These are 'failures' of the predictions generated by the scene. When the same failure occurs twice, a new scene is generated. In our example here, this new scene would be a 'bus break-down scene'. Elements which this new scene has in common may then link up (we do not pretend to explain quite how) with the same element in another scene or MOP. In our example this might be a MOP containing scenes of frustration or scenes of mechanical failure. Similar links are manifested by the mental phenomenon of being reminded.

In Schank's view, schemata and memory are one and the same thing. The general picture of memory in DM - as the title suggests - is one of schemata in constant flux: schemata which are used in processing but also changed by processing. Each new experience creates new scene combinations through the bringing together of MOPs, but this very process creates new scenes which are then filed away under new MOPs. One scene may of course belong to several MOPs - a fact which explains many odd instances of reminding, like the one described above. The elements of schemata are constantly being broken down and reformed into new schemata. Introspection into instances of reminding affords us glimpses of the kind of process this is. Connections are achieved very much by reference to goals and plans, though these, as Schank emphasizes, are often mysterious and the subject of speculation rather than certainty. This is because the goals and plans and specific experiences of individuals vary widely. There can therefore be no final description of the processing of a given experience or of its effect on the schemata used in that processing. There can only be descriptions valid for particular individuals and even then there is an inevitable uncertainty.

In the context of Schank's theory of reminding, it is interesting to note that our analyses of literary and advertising discourse have suggested that connections between schemata in literary discourse are at higher levels, whereas in advertisements connections are established through one prop (the product) at the lowest level. If the theory in DM is correct, connections at higher levels provide the greatest potential for schema change.

8.2.3 A weakness in schema theory.

Both Bartlett and Schank recognize the need for human beings to change and reorganize schemata. Schank provides a substantial account of how this may be done. Yet neither theorist pays much attention to the role of language and text structure in this process. Both have a tendency to treat direct sense experience of the world and experience of a (real or fictional) world through language as the same. For Schank in particular, the building blocks of schemata are conceptual dependency representions, and the linguistic or text structural origin of those representations is abandoned once it has been 'translated' into the new language. Thus, though there are times when he recognizes the role of a lexical choice in creating a link (DM:25, 111) or of the role of schema theory in disambiguating anaphoric reference (SPGU:38-41) or even of text structure (in discussing why West Side Story reminds people of Romeo and Juliet (DM:33)), Schank does not develop the role of language or text structure in any detail. This tendency remains in EP, where 'sentences' are treated as equivalent to 'facts'. Significantly, though he several times refers to jokes as manifesting strange connections between schemata (DM:25,32-37; EP:16,20), none of the jokes which he cites in evidence rely heavily upon wordplay or linguistic innovation. Similarly, on a text-structural level, all the stories used by both Bartlett and Schank have, in formalist terms, unmarked syuzhet. Their ordering of event, in other words, is that of their fabula (see 6.3.4).

Related to this is the two theorists' attitude to the discourses they adduce in evidence: myths in Bartlett's theory, jokes and anecdotes in Schank's. Both note that these discourses effect schema change, yet neither suggest that this change may be the primary function of such discourses[7].

In the remainder of this chapter, and in chapter 9, we shall develop and apply a description of how deviation at the linguistic and text-structural level may be linked to changes in schemata, creating an overall effect of discourse deviation.

8.3 A third function of discourse: cognitive change.

In the Schankian view, the ability to break down existing schemata, reassemble new ones and draw new connections is synonymous with intelligence and adaptability. Yet in the picture he draws of this

constant and dynamic interaction, the process of renewal is viewed as a consequence not a motivation of experience. The experiences he describes are still primarily sought out for social and material ends. Any change they may effect in schemata exists as a side product. He does not consider the possibility of there being experiences whose primary and perhaps unique function for the individual is to effect changes in schematic organization. This oversight is connected to Schank's failure to draw a distinction between linguistic and direct sensory experience (see 8.2.3.). Direct interaction with the world or with other people does not always allow the maximum and most creative degree of play. Its consequences are too important and affect the individual too closely. For these reasons change is best effected through a kind of linguistic experience which, though it may describe interaction with other people or the environment, is not itself part of that interaction.

Linguistic experience which is written[e], rather than spoken and performed, enables the individual to withdraw from social interaction, and this too may ensure greater freedom and experimentation. Though there are institutionalized events which allow people to come together to experience such playful uses of language communally – comedy shows, plays, performances of songs[9] – the act of reading to oneself, by its very nature, is private[10]. The mass literacy which has come to Europe in the last two hundred years (Hobsbawm 1975:191-192) has thus changed the nature of discourse processing, diminishing the stature of the communal experience and raising that of private experience. Comedy and song have largely been demoted to the status of sub-culture; poetry is increasingly treated as written rather than spoken text; the novel – once a junior branch – has been canonized (see 6.3.3); the popularity of drama has waned. Television and film can in this respect be regarded as either communal or private. Many people watch television alone, often as a substitute for company, and film (in the cinema, not on videotape), though it involves the gathering of crowds, is – because of its non-reciprocal nature, and because it is experienced in the dark – essentially private: more like reading a book than going to a play.

Taking all of this into account, in what follows we deal mainly with written discourse, read silently. With this qualification, let us return to the issue of the difference between linguistic and sensory experience.

Experience may be divided into three types: that which is perceived directly without the mediation of language (though it may also include language); that which comes to us entirely through language, but we believe represents an independent reality; and that which exists only through language, with no accessible corresponding reality in the world, though it creates an illusion of one. Much literary discourse is of the last type. This is not only true of fiction. Even literary discourse derived from and representing independent 'facts' is unlikely to have the same immediate impact upon the reader as a discourse reporting a situation which directly affects the reader, or in which the reader can intervene. The boundaries here are fuzzy. Some discourses apparently derived from an independent reality (a memorandum, for example, or a summons to court) may directly involve their reader, while others (for example, newspaper reports), though also representing reality, may be so far beyond the reader's control or experience, that they are to all intents and purposes of the same status as the illusory world of a literary discourse. We must also bear in mind the post-modernist notion of the retrospective effect of discourse in creating 'facts' from which they apparently derive, the reversal of cause and effect (discussed in 6.1.).

Despite this fuzziness and complexity, and the issue of the differences between communal and private experiences of discourse, it seems reasonable to identify a group of texts of no immediate practical or social consequence. We propose that the illusory experience offered by such texts provides the individual with the opportunity to reorganize schemata without the fear of unpleasant practical or social consequence.

In this definition, it is important to stress the word immediate. The reorganization of schemata may have eventual social and practical consequences. Crime and Punishment may change our attitude to various phenomena in the world: to the murder of old women for money, to religion, to prostitution, or to poverty. It may also change our attitude to language and discourse: to detective novels, narrative viewpoint or the structure of the clause''. But its effect on future action is delayed. One can read a literary work in order to solve an immediate problem, of course, but arguably, in our definition, that would not be to read it as a literary work.

We shall treat changes in schemata as having three aspects (see figure 22). Existing shemata may be destroyed. New ones may be constructed.
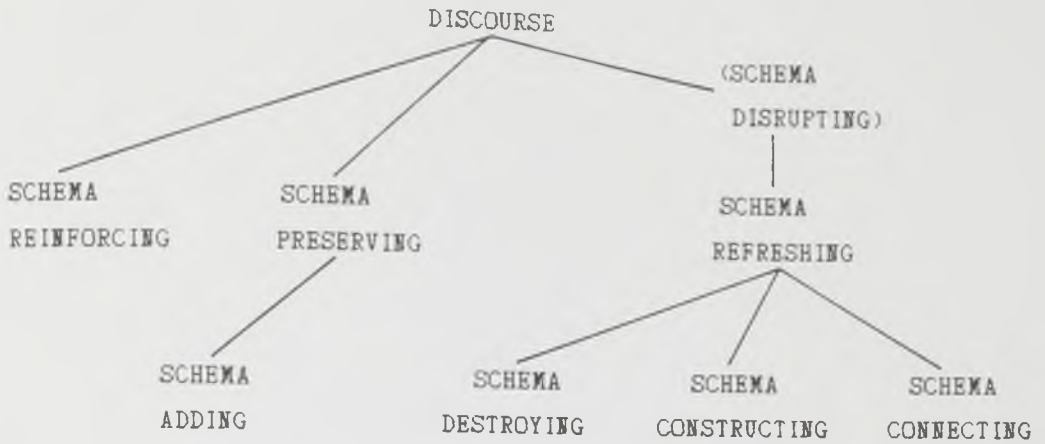
Figure 22. Discourse effects on schemata.

New connections may be established between existing schemata. (This last phenomenon is referred to by Schank as 'multiple indexing' and described as "One source of our intelligence and ability to learn" (DM:122).) We shall refer to these three processes as 'schema refreshment'. (We shall also use the term 'schema disruption' to describe a general effect on existing schemata. Disruption is a pre-requisite of refreshment.)

   Our claim is that the primary function of certain discourses is to effect a change in the schemata of their readers. Sensations of pleasure, escape, profundity and elevation are conceivably offshoots of this function. So too is the high social esteem afforded to discourse with no other apparent social or practical function. Conversely, it seems that discourses attempting this function but failing (for a given individual) are not simply ignored, but often violently attacked by those individuals and dismissed as boring or even harmful. (Consider the opprobrium and vitriol attracted by a 'bad joke' or 'unsuccessful novel'. The Edward Bond poem analysed in 7.3, for example, attracts very strong disapproval from some people.) The degree of schematic change, and thus the assignment of esteem, will depend upon the schemata which the reader employs in interpretation, and on his or her own receptiveness, and ability or wish to change. There are discourses rejected because they seek to cause too sudden and too drastic a change: hence the frequently negative initial reception of revolutionary art which is later elevated to a very high status. There are of course times when people have good cause to resist

changes suggested by a particular discourse. Though change in general may be desirable, there is nothing inherently commendable in accepting a particular change. For these reasons our claim that certain discourses are 'schema refreshing' can never specify the quality in particular texts. The quality of schema refreshment is reader-dependent. Nevertheless, a given text may possess this quality for a large number of people. We are referring to discourses possessed of this quality as schema refreshing. We may contrast schema-refreshing discourse with discourse which is 'schema preserving' and discourse which is 'schema reinforcing'. Sometimes discourse may simply add to existing schemata, while preserving their basic structure intact. This is the case with the addition of Gore-tex fabric as a new prop in scriptlike schemata representing Scotland or holidays in 5.2.

The category of schema-refreshing discourse, whose primary function is to effect change in schemata, will include many of those discourses described as literary. This is not to say, however, that all literature is schema refreshing nor that all schema-refreshing discourse is literature. The borders of the two types are not absolutely co-terminous. (Nor for that matter are they precise.) Certainly, there are many discourses, which are not generally accepted into the canon of literature, but whose primary value is the disruption of schemata. These perhaps may be divided into two types. Those which disrupt schemata through conventional (even 'ready-made') text and language structures, and those whose disruption of world schemata is matched by deviant text and language structures[2].

The former category will include, among other instances, scientific and journalistic prose which disrupts rigid and strongly-held schemata. (In connectionist terms (see chapter one, note 5 and 4.1), this will mean schemata held in neural connections with exceptionally strong weightings[3].) Consider, for example, the following passage from a serious work of popular science:

> At first, I believed that disorder would decrease when the universe recollapsed. This was because I thought that the universe had to return to a smooth and ordered state when it became small again. This would mean that the contracting phase would be like the time-reverse of the expanding phase. People in the contracting phase would live their lives backward: they would die before they were born and get younger as the universe contracted. From A Brief History of Time (Hawking 1988:150)

Here we seem to have extreme schema disruption: a serious and learnèd suggestion that time can go backwards. Yet it is apparently expressed in the most unremarkable, lucid and 'transparent' prose, in a book with a very conventional text structure. (It is in fact the interaction of the serious genre with its conceptual content which makes this book schema disrupting. In science fiction, such ideas are already banal.) It is worth noting, however, that the apparent separation between disruptive content and disruptive form is not as simple as it seems. Firstly, the expression of new scientific ideas often leads to innovative uses of language. Examples are phrases like 'cosmic soup', used to describe the early stages of the universe, 'cosmic censorship' to describe the inaccessability of information in a black hole, the attribution of 'charm' to particles with particular properties. The passage above in fact contains such an innovation in the phrase 'the time-reverse'. Secondly, the 'weird' findings of modern science are often verbalizations in natural language of findings originally expressed in formal languages.

The latter category of non-literary schema-disrupting discourse includes many jokes, comedy routines, graffiti and possibly some advertisements. The exclusion of these discourse types from the literary canon may be attributed to a number of causes (Cook 1990b). Firstly, though they share many features with literary discourse, they often have a dominant function considered alien to literature, for example to establish group identity or give voice to taboo. Secondly, they are often concerned with communal rather than individual creative identity, which, in a literate culture, is often regarded as inferior. Thirdly, they are often disruptive of language and text schemata, while preserving or reinforcing world schemata. This last feature, as we have seen in 5.2 and 7.2, is particularly true of advertisements. Our two analyses of advertisements have highlighted subsentential patterning and deviation, but there is also, on occasion, deviation from expected text structure. If, for example, the expected text structure of a television commercial reflects the 'rule' that it begins, runs continuously for approximately twenty five-seconds and ends, then a number of advertisements are text-structurally deviant. In 1989-1990, for example, British television carried an advertisement for Gold Blend coffee, telling a story in instalments. Completion was continuously delayed. (In formalist terms this canonizes the junior branch of advertisement, making it closer to the senior branch, in television

terms, of soap opera.) A building society ran parallel advertisements - one 'gloomy' version, one 'cheerful version - on two commercial channels simultaneously, advising viewers to switch channels according to preference. In the USA, a firm ran a series of parody advertisements for spurious products, interrupting each one with a cartoon rabbit advertising its own product[14]. We shall make use of these examples in the next section.

Conversely, there are arguably discourses within the literary canon which are far from 'schema refreshing'. It might be said, for example, that the novels of Jane Austen evoke, maintain and indeed reinforce quite rigid schemata about acceptable and desirable behaviour. On the other hand, it might validly be claimed that this view is retrospective; we have only to compare Jane Austen's depiction of the behaviour of the rural middle and upper classes in say, Emma (published in 1816) with Fielding's depiction of the same classes in say Tom Jones six decades earlier (1749) to appreciate how 'schema breaking' the world of her novels may have been in its own time. Literary discourses which were once schema refreshing become schema reinforcing. This applies as much to text schemata and language schemata as it does to world schemata. Thus Lyrical Ballads, which once disrupted schemata of poetic language and subject matter, rapidly became the stereotype of poetry. In our own century, departure from conventional punctuation in poetry, though once innovative, has become banal. This lack of a perfect fit between the literary canon and the category of 'schema-refreshing discourse' is hardly surprising, as the canon tends to be defined, not for specific readers, but for - and by - a dominant social group speaking in institutions at a particular time in history. The concept of schema-refreshing discourse, on the other hand, must be related to as many variations as there are between epochs, individuals and social groups. (That is why what we have just said about Jane Austen is highly personal and disputable, and can never have the status of a fact.) Educational institutions, however, have a tendency to be a step behind. They canonize what was once (and exclude what is currently) schema refreshing. Yet despite the emasculating effects on literature of institutions, time, and fame, the literary canon does provide many examples of schema-refreshing discourse, and we shall treat it as the major source of such discourse.

This feature of literature - that it is often primarily schema refreshing - accounts for the inability of many approaches to discourse analysis to cope well with the coherence of literary discourse. Accounts of coherence at the linguistic or text-structural level are only partial. Pragmatics, adopted in discourse analysis to remedy this inadequacy, works best with the discourse of 'the bulge': civil exchanges between acquaintances whose relations are neither too intimate nor too disparate in power (see 3.2.1.2). There is thus a tendency to interpret the primary functions of all discourse as either co-operative (manipulating the environment together with others) or polite (creating and maintaining social relations) (see 3.2). The function of schema refreshment comes under neither of these headings. Added to these two, it effects a third major function of discourse (as already suggested in 3.2.3).

To some extent it is true that any discourse alters schemata. A discourse which did not would be both totally superfluous and utterly boring, realizing the most catastrophic misjudgement of the interlocutor[15]. There are two apparent qualifications to this general truth. Firstly, there is the paradox that statement of the obvious arouses a particular kind of interest. Encountered in the surreal dialogues of the Theatre of the Absurd, for example, it stimulates a search for the goals behind such extreme failure of communication. The second qualification concerns the deliberate re-processing of a discourse. People re-read a favourite book or poem, watch a film that they have seen many times before. It might be argued that in these cases there can be no further change of schemata, as whatever changes the discourse may encourage have already taken place. It is more likely, however, that each repetition yields a new interpretation, especially as an individual reader changes between readings. Alternatively, subsequent readings may yield the same changes as the first reading, but serve to reinforce them. If the reader likes the changes, this may be seen as desirable. (In connectionist terms this last effect is equivalent to increasing the 'weightings' of connections.)

Yet, although most discourse effects some change in schemata, there are differences of degree. Looking back over the texts we have analysed in earlier chapters, we may see, for example, that the biography of Ernest Hemingway provides (for its projected reader) a good deal of new information about its subject. It adds to the scriptlike 'Ernest Hemingway schema' which we may presume any educated English-speaking adult to have

available. It may also add (through 'double inclusion', see 5.2.3, 5.3.2) to schemata concerning reporters, the First World War, Italy and so on. Similarly, the advertisements for Elizabeth Taylor's Passion, and for Gore-Tex may provide new information about Elizabeth Taylor and Scotland[16], or about what to wear when we wish to be attractive, comfortable or stylish. Yet they effect no radical change in schemata. These discourses are instances of schema addition rather than refreshment. They affect the level of scriptlike schemata, but not of plans or themes. The advertisements confirm the unremarkable facts that most men and women wish to be attractive and comfortable. Similarly, the Hemingway biography only confirms our expectation that writers are independent people who lead varied and exciting lives. In contrast, the description of Raskolnikov, even in the opening paragraphs of <u>Crime and Punishment</u>, demands reorganization of assumptions about human behaviour and motivation. It begins to build new schemata which are incomplete, mainly because the themes and plans behind them are unknown. The Edward Bond poem stands or falls by its challenge to deeply ingrained high-level assumptions about poetry, poets and the war dead. (Many would say it falls, but it is worth noting that it may do so in two ways: either because it fails to evoke acceptance of the changes it advocates, or because its attempt to demolish and rebuild schemata is not perceived - in which case it is simply considered to be bad poetry or insensitive.)

All the examples are perhaps extremes. The Hemingway passage is a plain presentation of biographical facts, the advertisements embody rigid unquestioned values. <u>Crime and Punishment</u>, by contrast, is for many people, one of the most rewardingly disturbing discourses of all. The Bond poem attempts to overturn sacred assumptions. Such examples have been chosen deliberately. In general, we might expect the distinction between schema-refreshing discourse, and discourses which are schema preserving or reinforcing to be more 'fuzzy', and best represented by a cline. In terms of prototype theory (see 4.4.1), <u>Crime and Punishment</u> is prototypical of schema-refreshing discourse, as are the three literary texts analysed in the next chapter.

In all that we have said so far, both in our analysis of approaches to discourse analysis, and in our summary of literary theory, we have acknowledged the existence of three major levels in discourse (whether literary or non- literary). These, in the broadest terms, are the levels

of language, text structure and knowledge. We may relate these to the approaches described as in table 6. In this table, cohesion, being both sub- and super-sentential belongs to both levels 2 and 3. For the sake of completeness, we have included grammar as a level of discourse, though in our summary of discourse analysis in chapters 2 and 3, we only touched upon it directly in our description of parallelism (in 2.3.1) and FSP (in 3.6.2). The equation of the role of knowledge (in discourse analysis) with that of the reader (in literary theory) may seem strange, but is valid on the grounds that - in a sense - the sum of a person's schemata is that person, and, conversely, schemata are as variable as readers.

SCHEMA THEORY	DISCOURSE ANALYSIS	LITERARY THEORY
1. (World) Schemata	Knowledge	The Reader
2. Text schemata	Functional Structure (defined pragmatically)	Structure (defined intertextually)
	Formal links (cohesion)	
3. Language schemata	Grammar	Message (*pace* Jakobson: i.e. linguistic form)

Table 6. Correlation of levels in schema theory, discourse analysis and literary theory.

We have stressed an understandable but regrettable tendency in various approaches to focus on one of these levels to the detriment of the others. This is most evident in literary theories where the legacy of formalism has fragmented into an exclusive emphasis on language (Jakobson) on text structure (structuralism) and on the reader (in those reader-response theories which deny an autonomous text). Literary theorists of these schools have tried vainly to identify literariness in terms of deviation and conformity at one and only one of these levels. In discourse analysis this atomizing approach is less in evidence. The inability of purely formal and textual approaches to cope with coherence has been recognized. Discourse analysis could indeed be defined as the attempt to bring together knowledge, text structure and language. Yet it is also true that in discourse analysis the schematic organization of knowledge has often been regarded as fixed. Schemata are brought to bear upon the

interpretation of discourse rather than affected by it. For this reason pragmatic and text-structural approaches to discourse, though they work well for discourse primarily motivated by the politeness and co-operative principles, are weak in dealing with literary discourse. AI text theory , on the other hand, falls into the opposite trap from structuralism and Jakobsonian stylistics. While it pays attention to knowledge, it has a tendency to ignore the complexities created by differences in linguistic and the text-structural form.

8.4 Discourse deviation.

If it is the primary function of a particular category of discourse to effect the refreshment of schemata, it seems likely that that refreshment will take place, not at one of the three levels discussed above, but in the relation between them. The 'world' of a literary work, whether or not it originates in or relates to some external world, is an illusion brought into being through the language and text structure. It is reasonable therefore to suppose that the schemata it evokes through these two levels may also be refreshed through these two levels. Literary theoretical approaches concentrating on deviation and patterning at the linguistic and text-structural levels, and the Schankian approach concentrating on the schematic level, all fail to show how patterning and deviation at one level affect patterning and deviation at another. Just as discourse and its quality of coherence can be described only as the interplay of levels and not at any level in isolation, so can the elusive quality of 'literariness'. Where there is deviation at one or both of the linguistic and text structural levels, and this deviation interacts with a reader's existing schemata to cause schema refreshment, there exists a phenomenon which we shall term 'discourse deviation'.

This definition is complicated by the fact that schemata, in the broadest sense, include not only schemata of the world but also schemata representing text structures and the language itself ('text schemata' and 'language schemata' respectively.) The highest level, in other words, contains the other two. It is thus feasible that schema refresh ment, effected through language and text structure, may on occasion be refreshment of schemata of language and text structure. In other words we may come away from a discourse with our mental representation of the

language altered (as the first readers of Jabberwocky came away with the word 'burble') or with some new notion of text structure (as the first readers of The Mysteries of Udolpho came away with the genre of the Gothic novel, or the first readers of Freud with the genre of the psychoanalytic case study (Foucault [1969] 1988:206)). These new linguistic and text structural schemata will in turn have effects upon representations of the world. A further complication is that the deviations at the linguistic and text structural levels effecting schema refreshment may not be deviations at that level only but rather in their choices at that level in relation to one of the others. Thus The Rape of the Lock is an instance of discourse deviation not for its structure and linguistic form in isolation, nor in schematic representation of the events it describes in isolation, but in the mismatch between the two. Deviation, moreover, whether defined at one level or as an interaction between levels is never absolute, but always relative to the expectations of a specified reader. Literature students, for example, who commonly have no direct experience of the epic form which mock-epic parodies, do not initially find The Rape of the Lock either disturbing or amusing. The same is true for Northanger Abbey (another favourite on literature courses) when readers have no experience of the Gothic novel.

The texts we have analysed reveal the futility of analysis at one level only. The sub-sentential patterns and deviations of the perfume advertisement neither cause, nor derive from, any schema refreshment. In the Bond poem it is the lack of sub-sentential patterning and deviation, interacting with a degree of stereotypical poetic text structure and combined with an attempt at schema refreshment, which constitute discourse deviations.

The task of a theory of discourse deviation must therefore be to show how schema refreshment is effected through language and text structure, to relate linguistic and text-structural features to particular changes in schemata. There are reasons why a complete description of these relations is impossible. The quantity of relations would clearly be vast, a multiplication of whatever complexities might be described at one level in isolation. Limitations, moreover, are not only quantitative but qualitative. Firstly, the description must involve a description of the relevant pre-existing schemata of a specified reader. As such the description remains speculative and open-ended (the number of potential

readers, or of schemata employed by any particular reader, being virtually infinite and inaccessible). Secondly, it is in the nature of the literary beast to be unpredictable. Predictions are schematic. Schemata are predictive. The relevant effect is schema disruption. What could be predicted would not be disruptive.

Nevertheless we may speculate both about the effects in general of the interaction of linguistic and text-structural deviation with schemata, and also about particular interactions in given literary texts. In the remainder of this chapter we shall undertake the first of these tasks. The final chapter is devoted to the analysis in terms of discourse deviation of three well-known and frequently analysed literary texts.

8.4.1 Possibilities of interaction.

Let us start in a simplified way and discuss the possible interactions of deviation and normality at the three major levels. If we represent these levels with the letters S for schemata evoked by the discourse (a notion which is elaborated below), T for text structure, and L for language, and follow each with + for norm and - for deviation (where 'norm' means "conformity to schematic expectation" and 'deviation' means "difference from schematic expectation"), we have the possible combinations listed in table 7 (next page).

A number of points need to be made in glossary of each of the combinations and examples.

1) The biographical sketch adds new defaults to schemata, but there is no fundamental rearrangement. Stereotypes of writers are reinforced.

2) The combination of 'poetic' language and lineation with the schemata evoked by an advertisement may once have been itself schema refreshing. (There is a paradox here: that the means of schema refreshement, deviant language, when combined with an absence of schema refreshment, was - in the early days of advertising - itself odd and therefore schema refreshing. In a given context, in other words, the absence of schema refreshment is itself schema refreshing. This may be one of the reasons that advertisements on occasion evoke such hostility. They set up an expectation of schema refreshement by adopting its means. But the promise is unfulfilled!

3) This and similar text-structurally deviant advertisements were discussed above. Now that people are perhaps immured to word play in

Schema re-inforcement/ preservation   Schema refreshment

1)	S+	T+	L+		5) S-	T+	L+
2)	S+	T+	L-		6) S-	T+	L-
3)	S+	T-	L+		7) S-	T-	L+
4)	S+	T-	L-		8) S-	T-	L-

These may be related to texts we have analysed as follows:

1)	S+	T+	L+	is exemplified by:	Ernest Hemingway biography (in 3.6.2)		
2)	S+	T+	L-	" " "	Elizabeth Taylor's Passion	("	7.2)
3)	S+	T-	L+	" " "	Gold Blend advertisement	("	8.3)
4)	S+	T-	L-	" " "	NO EXAMPLE		
5)	S-	T+	L+	" " "	World War One Poets	("	7.3)
6)	S-	T+	L-	" " "	The Tyger	("	9.1)
7)	S-	T-	L+	" " "	The Turn of the Screw	("	9.2)
8)	S-	T-	L-	" " "	The Windhover	("	9.3)

Table 7. World, text and language schemata.

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advertisements, such text-structural devices are an effective option. (This change is reflected in a move from linguistic to discoursal concerns in analyses of advertising. Compare, for example, Leech (1966) with Vestergaard and Schrøder (1985).)

4) The difficulty of providing an example suggests a causal connection between the combination of linguistic and text-structural deviation and change to world schemata.

5) This example is complex. The contrast of 'ordinary language' with a conventional poetic layout and iconoclastic sentiments is potentially deviant, but only in the combination of these features. The poem presents the opposite paradox to (2). It is the absence of text structural and linguistic deviation which, combined with the expectations set up by poetic form, 'represents' the schema refreshment advocated by the poem. Another example which might be relevant here is the extract from A Brief

History of Time discussed in 8.3. This scientific example is, as we have already noted, not as straightforward as it seems. Paradigm-breaking scientific prose may employ more linguistic innovation than popularly believed. These severe qualifications, and the general difficulty of finding an example to fit this category, suggests (like the absence of an example in (4)) that there is a connection between formal deviation and changes to schemata.

(6), (7) and (8) are dealt with in detail in chapter 9.

This relatively simple model may be made more complex in a number of ways. If we accept the existence of the three schemata types: world schemata, text schemata and language schemata (represented respectively by: $S(W)$, $S(T)$, $S(L)$) we can assume that all of these are present in the mind of any reader. A reader's feeling that the text structure or linguistic choices of a given discourse are normal or deviant derives from a comparison of its text structure (T) and its language (L) with the reader's pre-existing text schemata $S(T)$ and language schemata $S(L)$. The interaction of these interactions creates the illusion of a 'world' in the discourse (W), which can then be compared with the world schemata of the reader, yielding a judgement as to the normality or deviance of that illusory world. Judgements about the normality or deviation at any of the three levels in the discourse are not, then, as simple as table 7 suggests. They arise from the comparison of the schemata at each level in the reader with the three levels of the text. The 'world' of the discourse, however, can only come into being through the interaction of its language and text structure with the language schemata, text schemata and world schemata in the reader. Let us represent this stage by stage (though without any implication that these stages are chronologically the stages of interpretation).

Each reader possesses schemata at each level ($S(W)$ $S(T)$ $S(L)$). A given discourse has language and text structures (L, T) . (We have already discussed our view of the relationships between the language of a text and its structures, and the degree to which they are autonomous or reader dependent, in chapters 2 and 3. Accordingly, we shall talk about text as autonomous and separate from the reader in the sense defined in 2.1). None of these levels are discrete; they interact with each other as in figure 23. As in linguistic analysis, description of them must 'shunt' (see 4.1).
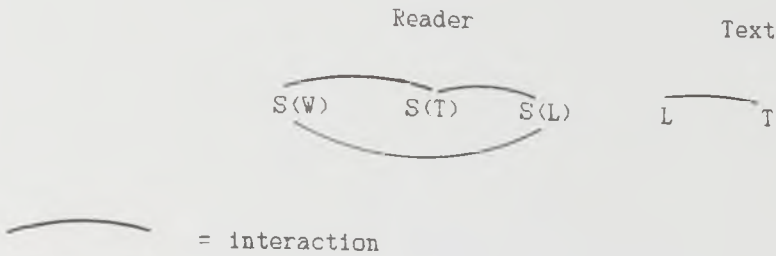
Reader   Text

S(W)   S(T)   S(L)   L   T

```
_____
```
= interaction

Figure 23. Schemata, text and language (1).

The comparison of the language of the discourse with the language schemata
of the reader, and of the text structure with the text schemata of the
reader, yield judgements concerning the deviance or normality of the
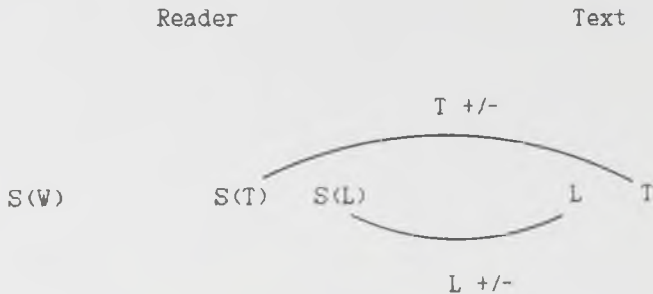language and text structure , as in figure 24.

Reader   Text

T +/-

S(W)   S(T)   S(L)   L   T

L +/-

Figure 24. Schemata, text and language (2).

These judgements, however, and the extensions of them described below,
are of course not final for a whole discourse. They will change with each
stage in the process of reading (see 3.5, 7.4) and be different at
different 'places' in the product of reading (see 3.4, 6.4). Also, they
may describe any feature of the language or text structure and any
possible combinations. They will also change on re-reading and within and
between readers.   Deviation and normality, moreover, are not absolute
conditions, and clearly there can be degrees of either. Bearing all this
in mind, the possible permutations of the descriptions provided here are
clearly immense.

The interaction of world schemata S(W) with the interaction of S(T),
S(L), L and T produces an (illusory) world (W) (which may change or add
to existing schemata or yield new ones) as in figure 25.   (Each figure
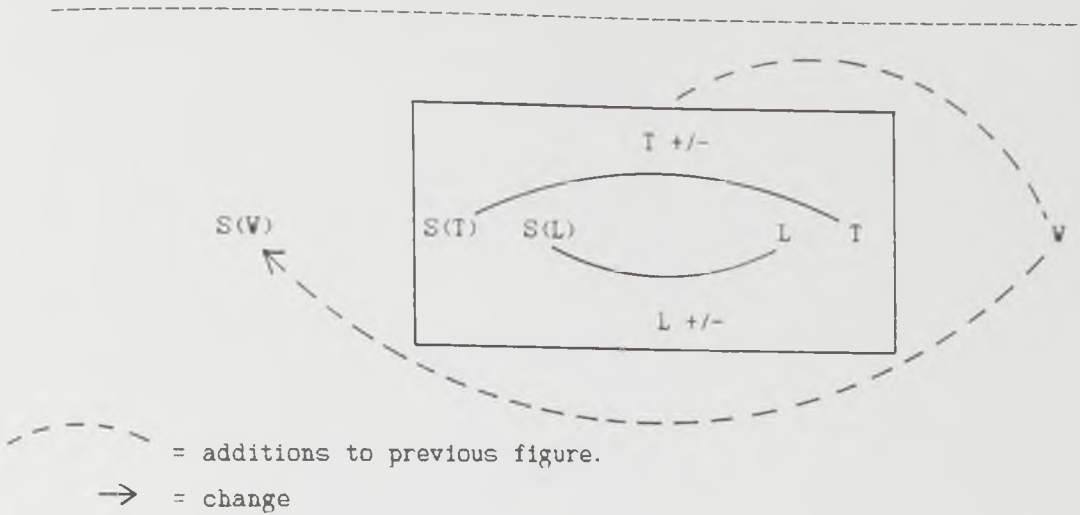adds to the previous one.)

= additions to previous figure.
= change

Figure 25. Schemata, text and language (3).

This world in the discourse is compared with the reader's world schemata
S(W), allowing a judgement of the deviance or normality of the world of
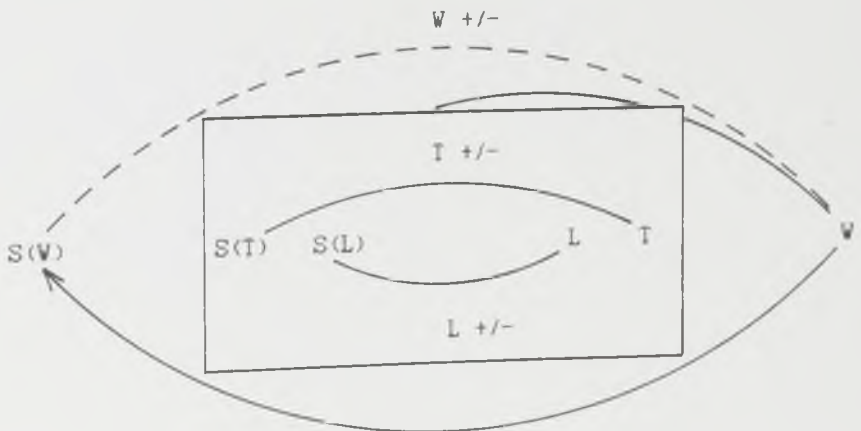the discourse, as in figure 26.

Figure 26. Schemata, text and language (4).

So far, however, the interaction is one way. Schemata are applied to text, creating discourse. An experience of deviation, however, will rebound upon the schemata which were used to establish it in the first place. A deviant text structure, for example, will alter a reader's text schemata, as in figure 27.
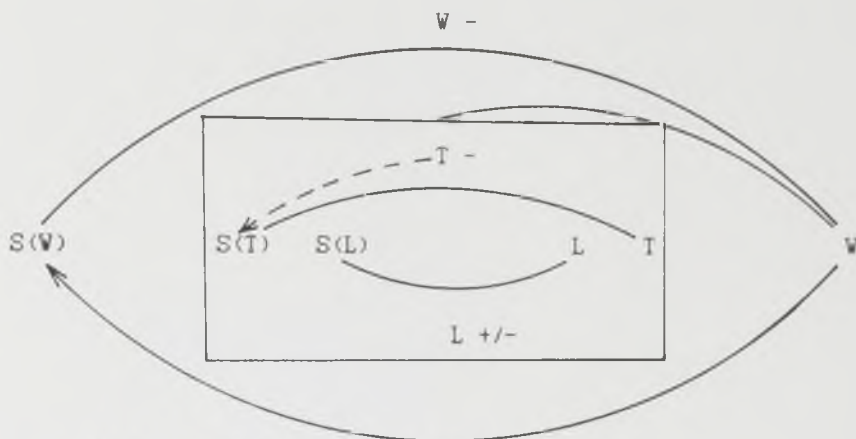
Figure 27. Schemata, text and language (5).

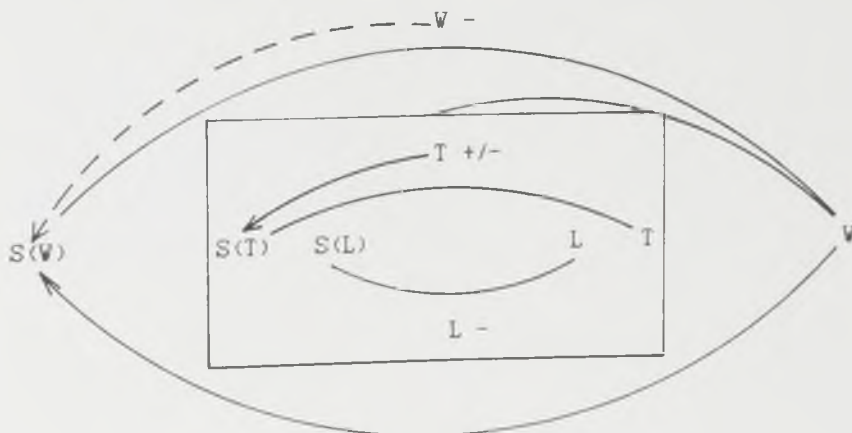Deviant language may change language schemata. A deviant world may change world schemata (figure 28).

Figure 28. Schemata, text and language (6).

There will also, we believe, be instances in which a deviant text structure or use of language will directly affect the world schemata of the reader, as in figure 29. This is discussed further in chapter 9.
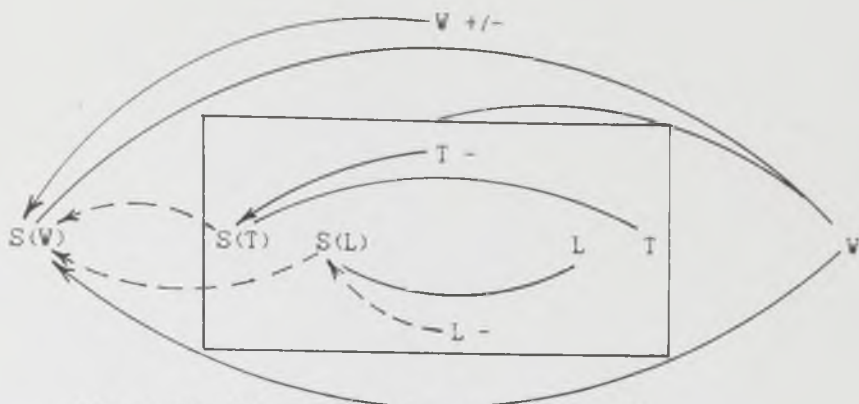

Figure 29. Schemata, text and language (7).

In fact, as the 'world' of a discourse comes into being only through language and text structure, it may be that in discourse (as opposed to direct experience) only by altering text and language schemata can we alter world schemata. That is to say: the overall interaction of all elements will yield an effect of deviation from expectation and consequent schema change. It is this phenomenon which is discourse deviation, and we hope to illustrate it in the next chapter. Our analyses of advertisements on the other hand illustrate that textual and language deviation is no guarantee of discourse deviation. The process we are describing diagrammatically, in other words, does not go beyond figure 26. The potential for discourse deviation can only begin after that point.

The process we are describing is dynamic, as when schemata change, the whole process begins again with the newly formed schemata. This may explain the phenomenon of re-reading which we discussed in 8.3.
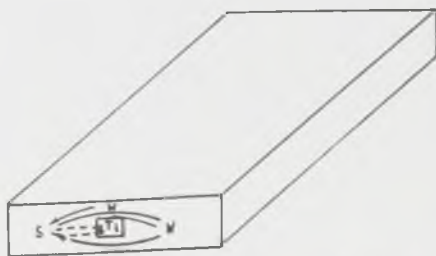

Figure 30: Interactions in time.

As these relations apply at any stage in a reading, they would be more truly represented in three dimensions (figure 30).

The suggestion that changes in text and language schemata can affect world schemata, or that world schemata can change text and language schemata, implies a degree of belief in linguistic relativity (see 4.4.5), in that it sees S(W)s as being potentially affected by language and text, and vice versa. This seems to us reasonable. Lastly we might say that it is through the interaction of existing schemata and text which creates discourse that the reader infers the world schemata of the discourse. These are usually attributed to the author or narrator.

Reader   Text   Author/Narrator

Figure 31. Schemata, text and language (8).

Introduction of further distinctions within the levels world, text structure and language would proliferate the possible combinations and interactions. We might, for example, distinguish S(W)s which are scriptlike schemata, plans and themes. In the next chapter, we shall attempt to illustrate some possible interactions through the analysis of three literary discourses.

8.5 Defamiliarization revisited.

The idea of 'schema refreshment' through discourse deviation is essentially the Russian formalist concept of defamiliarization restated in the light of AI and discourse analysis. From AI it borrows the idea of schemata, and from discourse analysis the idea that discourse is a reader-variable process of relating knowledge, text structure and language, rather than any of these in isolation. Formalism, discourse analysis and AI all have contributions to make to each other.

Although the formalists had taken the idea of a defamiliarization of reality and direct sense perception as their starting point (see 6.3), they soon moved away from this approach to deal with defamiliarization only at the level of text structure and linguistic form. If the idea of the defamiliarization of the non-linguistic perception persisted in formalist theory at all, it did so only as a metaphor of the defamiliarization of text structure and language. To all extents and purposes description of this aspect of defamiliarization was abandoned as a matter of principle. Having narrowed the field by inflicting this exclusion upon themselves, the formalists were further limited, as Bakhtin points out, by the lack of a rigorous theory of language (Bakhtin [Voloshinov] [1929] 1973:78; Bakhtin [Medvedev] [1928] 1978)[17]. In addition they sought to exclude both author and reader, the sender and receiver of the literary message, whose presences - as we have seen in the chapters 2 and 3 - are so essential for any satisfactory explanation of coherence. For these reasons, the formalists tended - or intended - to concentrate upon text structure (see 6.3). Yet much of their work, ironically, far from being about the impersonal objective form of autonomous texts, does describe the interaction of text structure and reader, pointing the way towards resulting changes in a reader's representations of the world. (Here, we treat the world and representations of the world as the same.) Thus an inconsistency between formalist theory and practice produced some of their best work and ideas.

It is in fact difficult to see how the concept of defamiliarization can exclude the reader, and refer to a quality of text rather than to a quality of discourse. Ironically, this central weakness in the theory is suggested by the word itself. (These points are as true of the Russian word 'ostranyenie' as they are of its English translation.) Though a neologism,

the word 'defamiliarization' may be regarded as a nominalization of a verb. This verb would be transitive and always predicate an object, with an optional adjunct "for x". The text defamiliarizes something for someone. The 'something' is the world (though in a sense which includes texts and language) and the 'someone' must be the reader. The use of the nominal, however, enables the formalists to avoid both implications. Defamiliarization is in fact reader-dependent: a relationship between a reader and an object of perception (even if that object of perception is another text or the language itself). This is why many of the formalist devices can only be identified for specific readers. Canonization of the junior branch, for example, assumes a point in history; what is junior for one generation of readers is not so for the next. Skaz relies on the notion of a narrator different in identity or attitude from the reader. Impeded form would be better described as 'impeding form', for it impedes the perception of the reader, which in turn depends upon the reader's experiences: familiarity with a particular language or genre will surely result in easier processing. Bared form is bared to, and dependent upon perception by, the reader.

We are brought back to the Bakhtinian adage:

> Meaning does not reside in the word or in the soul of the speaker or in the soul of the listener. Meaning is the effect of interaction between speaker and listener produced via the material of a particular sound complex. It is like an electric spark that occurs only when two different terminals are hooked together. Those who ignore theme (which is accessible only to active, responsive understanding) and who, in attempting to define the meaning of a word, approach its lower, stable, self-identical limit, want, in effect, to turn on a light bulb after having switched off the current.
> (Bakhtin [Voloshinov] [1929] 1973:102-103)

In his own practice, Bakhtin went on to examine the effect on readers of text-structural and linguistic devices and their role in discourse. He never separated his analyses from historical periods and particular readers, a particular state of the world. In this sense he was not a 'formalist', and disavowed the term. Unlike the formalists, who were forced mostly into minor editorial and philological work (Terras 1985:60,407,480), Bakhtin, with considerable mental agility and acumen, managed to keep on producing theoretical writings throughout the Stalin period, even successfully defending a doctorate implying criticism of hegemonous and monolithic ideology (Clark and Holquist 1984:263,295-

320)¹ª.   It is impossible to tell how the relationship between Bakhtinian and formalist criticism might have matured and developed in different circumstances. The friendship which developed between Bakhtin and Shklovsky in their old age in the *early 1970s* may be some indication of the potential for reconciliation and mutual benefit between the two trains of thought (see Shklovsky 1966:298; Clark and Holquist 1984:340-343).

The irony of the situation then is that while the formalists had rejected the relationship of literature to the world as naive, and also avoided the issue of the reader-dependency of literary effect, they left behind them an impressive body of analyses and a theoretical framework describing exactly this interaction of world and reader through unfamiliar form. Concepts like skaz, syuzhet, canonization, bared form are already a stage beyond text-structural deviation, as they begin to relate textual features to readers. It is but a short step further to describe (as we attempt to demonstrate in the next chapter) how this interaction changes readers' schematic representations of the world (including schematic representations of texts and language). In a similar way, Jakobson's work on literary language provides an unrivalled descriptive framework, but fails - for reasons which can only be described as dogmatic - to take the next step, and describe the effect on readers, allowing for all the possible variations which that step involves. The formalists' and Jakobson's insistence on 'defamiliarization' as an aspect of form alone restricted them. They describe the means of defamiliarization but not its result. Nevertheless, their descriptions of these means remain as potent as ever.

Our thesis is that schema theory provides a way of attempting at least a partial description of readers. The idea that certain discourses have a primary function of refreshing schemata reaffirms, in new and potentially more precise terms, the formalist concept of defamiliarization. It rescues the concept from some of its own internal contradictions and remedies its narrow focus. No-one, however, should belittle the genius of the original concept of defamiliarization. It is more like the culmination of research into discourse, schemata and literary language, than an idea advanced before all the major work in these fields in this century had been undertaken. It is perhaps another case of cause and effect reversed. It is the genius of the idea that it came first, like a conclusion based on evidence which had yet to be gathered.

Notes to Chapter Eight.

1. As these analyses were carried out in the terms of SPGU, we shall continue to use the terms 'scripts', 'plans' and 'goals' when referring to them, though we have suggested our own levels of schemata in 5.4.

2. 'Function' is again used primarily in the sense of "effect on the receiver" rather than "intention of the sender" (see also chapter one, note 2).

3. Edwards and Middleton (1987) point out that Bartlett frequently uses conversation as evidence but fails to pay direct attention to conversation as a discourse type. The same could be said of Schank's use of jokes.

4. Though writing before Popper, he is, in his frank admission of this weakness, a model of Popperian rigour.

5. Here again we use the terms of SPGU, but this makes no difference to the point we are making, as what matters is the hierarchical arrangement.

6. This is our own example. Transportation in Schank's examples is invariably by rented car or aeroplane.

7. Bartlett's and Schank's choices of texts are perhaps significant. Some myths and jokes, like advertisements, serve to reinforce schemata rather than disrupt them. In EP (124-134) Schank deals at length with proverbs, which perform a similar function.

8. Or at least heard in private.

9. Recording can make listening to songs a private experience too.

10. In the modern world, we take reading to ourselves for granted. In antiquity it was not so. St. Augustine is reported to be the first person to have read silently to himself. For further comment on the effects of literacy on experience of discourse see Steiner (1972); Buchan (1972); Halliday (1985:xxiii-xxv); Ellis and Beattie (1986: 231, 248-249.)

11. Dostoevsky frequently appears to change view in mid-clause, often through the insertion of a parenthesis. This is an effect which can survive translation, as in the following:

> The aged General Ivan Drozdov, a former friend and fellow-officer of the late General Stavrogin, a most worthy man (in his own way of course), a man we all know to be extremely stubborn and irritable.. (The Devils translated Magarshak : 38)

12. For discussion of ready-made units in language see Bolinger (1974) and Cowie (1990).

13. This comment assumes that connectionism is a psychological as well as a computational theory.

14. The series of US advertisements were shown in the BBC television programme Saturday Night Clive in November 1989.

15. For discussion of an AI view of what makes discourse interesting, and the role of a reader's attention focus in processing, see Schank et al. (1982), Grosz (1986).

16. This information is in fact misleading. It is unlikely that Elizabeth Taylor wears such a cheap perfume, and the picture in the Gore-Tex advertisement is not a picture of Rannoch Moor (see chapter 5, note 9).

17. Similar criticisms of the formalists, for attempting to limit their concerns to the textual level, were made by Ingarden (Grabwicz 1973:lxv-lxvii). Bakhtin also criticized Saussurean linguistics for isolating language from its users and encouraging a dualist view. In this, he predates similar views in modern discourse analysis by forty years.

18. Bakhtin's thesis, 'F. Rable v istorii realizma', on carnival culture of the Middle Ages was later expanded and published as a book Rabelais and his World [1965] 1968. While expressing orthodox Marxist-Leninist views

in its eulogy of folk culture and condemnation of the Roman Catholic Church, its championing of humour and parody against a monolithic and humourless authority could be interpreted allegorically as a criticism of Stalinism.

Chapter Nine.

Application of the theory: discourse deviation in three literary texts.

9.0 Introduction.

In the previous chapter, we have advanced a theory of discourse deviation and schema refreshment. The description has, however, been made in the most general terms. This generality is inevitable, both for reasons of quantity - the possible interconnections of formal features and schemata being virtually infinite - and for reasons of quality - the essential feature of discourse deviation being its defamiliarizing unpredictability.

The theory, however, cannot remain so hypothetical. In this chapter, we shall apply it to three texts, hypothesizing about the relations between formal features and schemata. The overall effect of these relations is discourse deviation and their outcome is schema refreshment. These analyses are intended to show examples of the kinds of interconnection which may exist. They make no attempt to be exhaustive descriptions, either of discourse deviation or of the texts themselves.

The three texts chosen are all notorious as battlegrounds of interpretative disagreement. They have each been analysed many times over, according to the tenets of very different critical approaches. The disagreement is in our view an advantage. First of all it suggests the richness of the texts themselves, their ability to affect in different ways a wide variety of readers. Secondly, it provides an opportunity to contrast our way of reading with others we have described before.

The texts chosen are:

1) The Tyger by William Blake,

2) The Turn of the Screw by Henry James,

3) The Windhover by Gerard Manley Hopkins.

In each of our interpretations, it is important to emphasize the reader-dependency of interpretative schemata, of new schemata or schematic connections generated by the reading, and of judgements of linguistic and text-structural deviation. They hold true for one reader (the present writer) and assume successful intuitive conscious access to schemata. Differences among readers will produce new readings. Nevertheless, it

seems likely that the readings here will hold true for other readers whose experience of language and the world is sufficiently similar.

9.1 TEXT SEVEN: The Tyger.

The text of the poem is as follows:

THE TYGER

Tyger! Tyger! burning bright
In the forests of the night,
What immortal hand or eye
Could frame thy fearful symmetry?

In what distant deeps or skies
Burnt the fire of thine eyes?
On what wings dare he aspire?
What the hand dare seize the fire?

And what shoulder, & what art
Could twist the sinews of thy heart?
And when thy heart began to beat,
What dread hand? & what dread feet?

What the hammer? what the chain?
In what furnace was thy brain?
What the anvil? what dread grasp
Dare its deadly terrors clasp?

When the stars threw down their spears,
And water'd heaven with their tears,
Did he smile his work to see?
Did he who made the Lamb make thee?

Tyger! Tyger! burning bright
In the forests of the night,
What immortal hand or eye,
Dare frame thy fearful symmetry?

9.1.1 Earlier controversy.

In an eloquent plea for the reader-dependency of interpretation and the inability of any one interpretation to be absolute, Stanley Fish (1980:339) has mockingly listed some of the rival interpretations which this poem has generated over the last few decades. Thus Raine (1954), adducing obscure cabbalistic writings in evidence, concluded that the tiger is 'Evil' and the answer to the final question a decisive 'No'. Hirsch (1964) in contrast saw the tiger as 'holiness' because:

Forests suggests tall straight forms, a world that for all its terror
has the orderliness of the tiger's stripes and Blake's perfectly balanced
verses. (op. cit.: 247, quoted by Fish 1980:339)

Taking up this refrain, other critics have regarded the tiger as both good
and evil; others still as beyond good and evil. Hobsbaum (1964) regarded
the tiger as a mystery; Doxey (1970)[1], citing biographical evidence that
Blake was apprenticed to an engraver who made engravings for astronomers,
thought the tiger must be a stellar constellation. Stevenson (1969), in a
New Critical vein[2] decides that the tiger is the poem itself, and the
answer to the last question therefore 'the poet', Blake. Sardonically, Fish
points to the foolish finality of all these readings, observing simply that
they cannot all be true. Amusingly, he picks out the presence of some
dogmatic phrase such as 'there is no doubt' in each reading, at exactly the
point where the critic is being most speculative and presenting the
critic's own view as a final truth, elevated above all others. Thus

> "The answer to the question is beyond all possible doubt. No." (Hirsch)
> "There can be no doubt that The Tyger ... is a poem that celebrates the
> holiness of tigerness." (Raine)
> "It is quite evident that the critics are not trying to understand the
> poem at all." (Hobsbaum)
> (All quoted by Fish op.cit.: 340; our underlining.)

Ironically, and possibly self-consciously, Fish also uses such a phrase in
pointing this out:

> Whenever a critic prefaces an assertion with a phrase such as 'without
> doubt' or 'there can be no doubt', you can be sure you are within hailing
> distance of the interpretative principles which produce the facts he
> presents as obvious. (ibid.) (our underlining.)

Jokingly, he observes that the subject of the poem might as well be
interpreted as 'indigestion' caused by eating tiger meat instead of
lamb(op.cit. 348). Each reading in his view is true only for one reader or
a group of readers who share values and interpretative strategies: an
interpretative community. In a sense, all the interpretations above are
those of one such community. They all share a belief in the possibility
of a single interpretation supported by evidence.

Fish's attack on the readings listed above, is from our point of view,
more easily accepted than the attack he makes in another essay (Fish
1980:246-267) on the stylistic analysis of the poem by Epstein (1975).

This is because Epstein makes use of the supposedly rigorous and scientific approach to the language of the poem as text which we have so far taken for granted in our approach to both discourse analysis and literary theory. In contrast to Epstein's method, the other readings listed above, seem from our point of view arbitrary and intuitive. Fish, however, dismisses this linguistic approach for being quite as arbitrary as any other: the reading of one more interpretative community, presented, quite wrongly, as fact.

Epstein catalogues a number of deviant linguistic features, which in his view create the ambiguity of the poem and its power to generate so many rival interpretations (op.cit.:63-69). Thus he points to the uncertain grammatical analysis of a number of phrases in the poem. (We shall present Epstein's analyses using our own grammatical notation system.) In the first stanza, "burning bright", for example, may be read in three ways. "Bright" may be an adverb modifying the participial adjective "burning" which post-modifies the noun "tyger". This reading is equivalent to an analysis of the noun phrase as

(Tyger, tyger [(who) (is burning) (brightly)]).

Alternatively, by analogy with such phrases as 'boiling hot' and 'hopping mad', the word "bright" may be read as an adjective post-modifying the noun "tyger". The adjective is itself modified by the participle "burning". In this reading the meaning is equivalent to

((burning bright) tyger)

OR   (Tyger, tyger [(who) (is) (burning bright)])

A third, subtly different reading, is made by analogy with such clauses as

'the candle was burning blue' and 'the moon was shining bright'

Here the candle/ moon is burning and becoming bright because of it. The verb phrases are, in Epstein's words, 'quasi-predicative':

(the tyger) (is burning) (bright)

A similar ambiguity exists in the phrase:

(in (the forests (of (the night)))).

Here "in" may mean either "within/ as an integral part of" (as in 'there is hydrogen in water') or "contained in but not part of" (as in 'there are fish in the water'). "Forests of the night" may be read to mean that the tiger is burning in the night which possesses forests. Alternatively, by analogy with phrases such as 'ye of little faith', 'the knight of the woeful

countenance' or 'the lady of the lake', it may be read to mean that the tiger is burning in the forests which have the quality of the night. The first reading might mean something like "in the thick tangled night", the second something like "in the dark forests". A combination of the threefold interpretation of "burning bright" with the double interpretation of the "forests of the night" yields six possible readings. In terms of discourse analysis we might add to this the observation that there is no disambiguating context for the poem.

Having made these linguistic points, Epstein continues to make a discoursal one (op.cit.:69-74). He explains the power and disturbing quality of the poem's questions by relating them to an analysis and typology of English questions, showing how the form of questions is dependent on the shared knowledge of questioner and answerer. Distinguishing 'yes/no' questions, which ask for an assertion of the truth of the whole proposition, from 'wh' questions, in which an interrogative word replaces the unknown element of the clause, he goes on to point out three levels of the latter category, distinguished by what he describes as the 'ignorance factor'. By way of exemplification he asks us to imagine the following dialogue:

Q1	What do I press?	PRIMARY QUESTION
A1	The button.	
Q2	What button?	SECONDARY QUESTION
A2	The red button.	
Q3	What red button?	TERTIARY QUESTION
A3	The red button marked 'start'.	

This sequence is a co-operative 'homing in' on the required information, the increasing specificity of the noun phrase gradually pin-pointing the required answer. (In this respect it is reminiscent of the given/new structure of discourse described in 3.6.2.) The questions of The Tyger are, as Epstein observes, of a secondary and tertiary kind. They disconcert because they assume the primary sequence and a degree of shared knowledge which the reader does not have.

On what wings dare he aspire?
What the hand dare seize the fire?

More interesting than the immediate answers to these questions would be
knowledge of the primary questions and answers from which they derive.
More interesting still would be to know who is talking to whom.

9.1.2 Applying the theory.

Fish's attack on Epstein reflects an unfortunate parting of the ways
between formal description of a literary text and a pluralist
acknowledgement of reader variation. The two need not be mutually
exclusive. Relatively stable formal features interacting with varying
knowledge and preconceptions will yield as many valid interpretations as
Fish could desire. In this section, we shall attempt to describe a
possible interaction of the poem with a reader's schemata, and the way in
which changes in these schemata may be effected through the poem's formal
features. In this we shall, unlike Fish, accept the linguistic and
pragmatic analysis of Epstein as valid for all speakers, but, unlike
Epstein, we shall attempt to show some ways in which these features create
interpretations. To do this we need first to speculate about the schemata
evoked by the poem.

What follows then is not an interpretation, in the literary critical
sense, but a description of how such interpretations may be produced.
Interpretations derive from the interaction of schematic predictions -
about language and text structure as well as the world - with the
specific linguistic and text structure of this poem. **Different**
interpretations derive from differences in schemata (or possibly from
slight differences in text and language schemata[3]). The power of the poem
lies in its openness to interpretation through different initial schematic
assumptions. If, for example, we assume that many people, perhaps the
majority, regard the poem as being in some way about cosmic creation and
destruction and the forces of good and evil, then in our judgement the
poem will not exclude people with widely different schemata of these
forces and events, reflecting differences in religious beliefs and
knowledge. This does not in any way imply anything about Blake's
schemata. He might, for example, have had a very literal idea of creation,
believing that God made animals in the sky, but if so, neither this, nor
any other specific religious assumption, is so precisely present in the
poem that it would exclude a reader with different schemata about

creation. We might compare, for example, the poem with the creed in the Anglican Book of Common Prayer, which contains such lines as:

I believe in God the Father Almighty maker of heaven and earth and in Jesus Christ his only Son our Lord. ... I believe in ... the Holy Catholick Church; the Communion of Saints.

This statement is too explicit to be accommodated into Moslem, Jewish or atheist schemata, or even into the schemata of other Christian sects. This is not true of 'The Tyger'⁴.

9.1.3 A reader's interpreting schemata.

Let us postulate the following, scriptlike schemata ($S), and list under each $S name the words and phrases from the poem referring to defaults, and the relationship they have to the main concept. Words listed under each S$ are all 'headers in the text' in the sense used in 5.4. Following our decisions in 5.4 we no longer list default elements under each of the headings, as in Schank's description of scripts. The important feature of a scriptlike schema is only that it contains quite specific defaults. In the contents of the scriptlike schemata described below there is a dominance of qualities and attributes (IS) and actions (event). It is often shared attributes and actions which create a metaphoric link from one schema to another. Furnaces, stars and eyes are all bright. Spears and starlight both move fast and straight.

```
1. $S TIGER.
Props : Locations "forests".
        HAS "heart", "sinews", "brain", "eyes" .
                              $S EYES: ARE "bright".
IS  "deadly", "fearful".
Results : "deadly terrors".

2. $S FORESTS.
Prop: HAS "tyger" .
IS   dark .

3. $S NIGHT.
IS dark.
IS like "deeps".
Props:  HAS "skies".
        HAS "stars"
                   $S STARLIGHT: MOVES.
                              IS "bright".
```

4.$S BLACKSMITH .
Props: HAS/ MOVES "hand" "eye" "shoulders" "sinews".
          Instruments: "hammer","chain", "furnace", "anvil" "fire".
                                                    $S FIRE : IS "bright".
Events: "grasp", "beat", "clasp".
Result: "work".

5. $S ARTIST   .
Props: HAS/ MOVES "hand", "eye".
Results: "symmetry", "art", "work"   .

6. $S GOD.
IS "immortal", "dread", "fearful".
RESULTS: "deadly terrors".
                              TRACK: $S PAGAN GODS.
                              ARE "stars".
                              INSTANCE: Thor/ Zeus .
                                         IS blacksmith (see $S BLACKSMITH).
                                         Prop: Instrument: bolts   .
                                         Event: throws .
                              SUB SCRIPT: Greek gods.

7. $S SPEAR THROWER.
Instrument: "spears".
Event: throws.

8. $S TEARS.

9.1.4 Plans and themes.

   The above scriptlike schemata fall into two groups. The schemata for
tigers, forests and night may each contain the other two (a case of double
inclusion, see 5.4).   This group, however, has no immediate connection to
the remainder, the schemata for blacksmith, artist, God, spear thrower,
tears.   In terms of the higher-level schemata proposed in SPGU and DM we
may suppose that, for many readers, these lower-level schemata associate
with each other in various ways through a common plan or theme of a
character, or of the reader. Thus schemata of a blacksmith, an artist and
God all share the common theme of creation (and perhaps the use of fire);
the tiger and certain manifestations of God share the theme of
destruction. Tiger, forests, the night, god and spear throwers can all be
frightening and may invoke in the reader a theme of self-preservation,
executed through a plan of escape.

9.1.5 Schema connections

Each of the lower-level schemata will include elements which find no mention in the poem. (Blacksmiths work on horses for example). The contents evoked in the poem however yield a number of cross-references. Thus both the tiger and the blacksmith have sinews. The tiger's eyes are like fire, which a blacksmith uses, and, being points of light, like stars. Forests are dark like the night which contains stars which are associated with the gods. One of the gods (Zeus or Thor) was a blacksmith who threw thunderbolts. Starlight, which is part of the night, is like the throwing of spears. And so on.... The fact that some of these connections may be peculiar to this reader does not invalidate the principle of this kind of connection.

The overall effect of the poem then, is to bring together these schemata either by choosing elements which they already have in common, or through establishing new links between them. The result is the creation of a new and unique composite schema, drawing together elements of the original ones. (It is tempting to use the poem's own imagery of the forge - but this is perhaps too near to interpretation.)

This interweaving is not only, however, achieved through the choice of items shared by the different schemata, nor through their linear mixing, nor through the evocation of shared higher-level schemata (plans and goals) of either characters or readers. It is also effected through the use of ambiguous 'deviant' linguistic structures of the kind observed by Epstein, writing, we may observe, in the stylistics tradition which derives from the formal approach to literary language of Roman Jakobson (see 7.1). Thus, for example, the opening lines:

> Tyger! Tyger! burning bright
> in the forests of the night.

bring together into a single noun phrase words which evoke three scriptlike schemata, and which can later be linked to a god and the blacksmith. They also, through the formal ambiguities described by Epstein, allow various hierarchical connections between those schemata. Thus, if we read "in" as "within" (i.e. an integral part of) we may regard the tiger as part of $S FOREST or $S NIGHT; if we read it as "in, but not part of" ("among") we may treat it as a separate schema. The two readings of "forests of the night" will allow night to be a part of $S FORESTS or forests to be a part of $S NIGHT. The same holds true of the second

stanza. Here "the fire of thine eyes" allows fire to be part of eyes, or eyes to be part of fire, and it is this second option which seems to be taken up in the final line, where the image of a fire that may be seized triggers $S BLACKSMITH. Whether or not these comments hold true for a significant number of readers, we might suppose that the kind of Jakobsonian detail catalogued by Epstein effects some degree of schema refreshment along these or similar lines.

Nor is this linking effected only through grammatical ambiguity or lexis shared by different schemata. Sound effects such as rhyme, alliteration assonance and consonance will create links between words which reinforce or contradict their semantic connections. Thus "bright" connects with "night", "frame" with "fearful", "skies" with "eyes" and so on.

9.1.6 The adjectival presence of God.

One strange feature of the poem, which might with reason be used against our analysis, is that there is no lexical item referring to three of the major scriptlike schemata we have proposed $S BLACKSMITH, $S ARTIST, $S GOD. The same is true of the scriptlike schemata which depend on them: $S PAGAN GODS, $S SPEAR-THROWER. These are evoked, not by a lexical item referring directly to them, but by reference to elements of the schema. For example, "hammer", "furnace", "anvil" evoke $S BLACKSMITH. In the case of $S GOD the evocation is even less direct, effected through adjectives which commonly collocate with God: "immortal", "dread", "fearful" and effects which God produces "deadly terrors". The dependent schemata are evoked through association with other schemata: Thor/ Zeus was a blacksmith, using an anvil, associated with the stars from which he threw spears/bolts.

This merely implied presence need not however weaken our claim for the validity of these schemata. (It was in any case never an absolute claim but supposed true for certain readers.) The absence of a word referring to these scripts as a whole might be taken as leaving their contents floating free for recombination. In addition their presence through implication makes them both more powerful and more mysterious. Again, we may make use of Epstein's stylistics analysis, though this time of its pragmatic rather than its linguistic aspects. Just as the use of secondary and tertiary questions makes the primary questions from which they derive, and the identity of questioner and questioned, more remote, so

too does this evocation of parts of schemata without reference to their unifying concept. It is this vagueness which gives the poem the power to yield many interpretations, and which underlines the uncertainty and reader-dependency of the schemata we have tentatively advanced.

9.1.7 Text structure and text schemata.

For speakers of a given language, textual schemata are perhaps more reader-variable than either (world) schemata or language schemata. They depend very much upon experience of other texts, and this, we hypothesize, is more likely to vary between individuals than experience of the world or of the language. A given text, for example, may appear highly unoriginal to a particular individual but highly original to another, if the former has experience of other texts with the same structure, while the latter has no such experience.

The Tyger is no exception to these general principles. It is one of a series of poems, the Songs of Innocence and Experience, and also a poem which is (like many advertisements) presented together with a picture. To a reader who knows the series of poems, or the picture, its meaning will be effected by interaction. Arguably, this effect on meaning is part of its text structure, for the poem itself is part of a larger whole, and takes on meaning through its relation to other parts of that whole.

The poem may also take on meaning through its relation to other known and relevant text structures. It is presented as a 'song', and its structure may be compared to that of a song. Its first and last stanzas, through their repetitions, are like refrains, and they frame the intermediate stanzas in way which is often found in ballads (Buchan 1972:chapters 6-8). The questions too are also 'ballad like'. (Another possible parallel is with the unanswered questions of The Book of Job (Epstein 1975:63).) Here however, we cannot examine the text-structural level in isolation from the language level. For the questioning is conveyed by the interrogative clause structure. The refrain is not exactly a refrain: "Could" has become "Dare". Significantly, this difference between first and last stanzas, was made by Blake at a late stage in the drafting of the poem (Abrams [1962] 1986:2489-2490). If it is significant, and if the ballad or song is a relevant text structure, then it is worth noting that such attention to precise linguistic choice would not be available to the balladeer in a pre-literate culture. In such a

tradition, despite modern assumptions about verbatim memory, the words were most likely never repeated exactly (Ellis and Beatty 1986:248-251; see also discussion in 8.4 above). There is a tension between Blake's use of features of song and ballad form and   his precise attention to linguistic detail, evidenced by a comparison of the final and earlier drafts. The ballad form was a genre whose social status diminished with the coming of literacy. As a pre-literate genre at a time on the verge of an explosion of literacy it was also doomed to change and die (Buchan 1972). Blake both exploits the form, changes it and elevates it[5]. It is a classic case of the formalist device 'canonization of the junior branch'. It is genre defamiliarization.

Thus we hypothesize that for certain readers a text schema is evoked for ballad or song. By varying the refrain and leaving questions unanswered the poem deviates from the expectations created by this schema. This schema is thus refreshed. The deviation at text-structural level in turn suggests or points to deviation at the level of (world) schemata. We might even suggest that if some new (world) schemata have come into being through the first five stanzas in ways which we have been at pains to describe above then the virtual repetition of the first stanza may highlight how the schemata it evoked the first time round have radically changed by the time it recurs.

Paradoxically, the above comments, while they may have been true of readings by Blake's contemporaries, or of literature specialists today, are not likely to hold true for the majority of readers. Blake's poetry - and this poem in particular - is so widely anthologized and known that it has itself become a model, a stereotype and a source of a text-structural schema. By contrast, the ballads and the Book of Job are less well known. The poem's ability to defamiliarize through evoking and departing from text-structural expectations is thus weakened - if not destroyed. This only illustrates a degree of reader dependency in discourse deviation. To some extent, it is at the mercy of reader variation.

9.2 TEXT EIGHT: The Turn of the Screw: Introduction.

Superficially, Henry James' novella The Turn of the Screw and William Blake's The Tyger are very different kinds of text. The former is an extended piece of narrative prose, whose grammar, though elaborate, could be described as 'non-deviant', while the latter is a short lyric poem, in rhymed rhythmic verse, containing linguistic deviations of the kind outlined in 9.1.1. In Bakhtinian terms, the former has the many narrative voices of the novel, the latter the single narrative voice of the short lyric poem. Despite these differences they are both classed as literary, both are widely read and studied, and both have attracted a great deal of critical attention, resulting in bitter dispute and widely different interpretation. These differences of form, and similarities of response, make them a useful contrast from our point of view. In our analysis, they are both instances of discourse deviation, though the schemata they 'refresh' and the formal means they use to effect this are rather different (though not perhaps so different as might at first appear).

9.2.1 Skaz and schemata.

It is a truism that any author who opts for an exclusively first person narrative accepts the inevitable limitation of the single point of view. Within the terms of the fiction, no events can be related which are not known, either first or second hand, to the narrator. Yet the first person narrative also involves an unstated contract with the reader: that the story-teller will, in Gricean terms, be co-operative: clear, true, relevant and as brief as necessary (see 3.2.1). Departure from this contract is perceived as 'deviant' and defamiliarizing. The obscurity of narratives such as those in Beckett's trilogy is viewed as remarkable. The same deviation is perceived when narrators' assumptions and knowledge lead them to state the obvious at great and defamiliarizing length. This is the point made in Shklovsky's formalist analysis of Tolstoy's story Kholstomer (Shklovsky [1917] 1965), where the narrator is a horse who explains as new the nature of human institutions and behaviour already coated with "the glass armour of the familiar" for any human reader (Shklovsky [1940] 1974:68, see 6.3). (Other examples of such unusual narrators and their defamiliarizing effect have already been cited in 6.3.5 above.) Above all, perhaps, within the fictional world, the narrator is assumed to be

truthful. Though a fictional world is of its nature in one sense untrue, nevertheless it is possible for a narrator to tell untruths within that world, to withold a fact, mislead or give contradictory reports (Short 1989). That is why Agatha Christie's The Murder of Roger Ackroyd (a detective story whose first person narrator does not confide in the reader that he is the murderer) has such a defamiliarizing effect: it makes us examine again our schematic assumptions about the reliability of narrators. We assume that the narrator has told us not only the truth, but the whole truth. (Again we are here generalizing from our own response in the belief that it is shared by others.)

In general, this reliability of narrators is overruled only where the demands of the co-operative principle are outweighed by those of the politeness principle (cf 3.2.2), in particular when narrators feel it incumbent upon them to be modest and withhold information concerning, for example, their own attractiveness or honesty. In this case, however, the reader may resort to the view of other characters expressed within the narrative. A good example of this is Nick Carraway, the narrator of The Great Gatsby, who, though extremely self-depreciating, has his reliability established by the confidence he evokes in both Gatsby and Daisy, and his attractiveness attested by the attentions of Jordan Baker. This is a kind of parallax, the fixing of an object by observation from two points of view at once: a relativist scientific notion significantly mused upon at length by Bloom in Joyce's Ulysses[6]. Where the narrating voice is to be doubted, we resort to that of a character. In a first person narrative, this is of course an illusion, because the evidence for the apparently withheld truth is in fact presented by the voice which appears to withhold it. It is, however, a convention which works. Information is also withheld to create suspense, though in this case, the deprivation is only temporary. A more difficult kind of unreliable narrative is that of the person who, while being our only source of truth, is yet untrustworthy. There are many examples of such narrators in literature, some of whom we have already mentioned. The first narrator in the The Sound and the Fury, for example, is mentally deficient, another narrator in the same novel is a racist. Faithful Ruslan is told by an aggressive and violent guard dog. From a certain sexist point of view - very common among readers - the narrator of the main part of The Turn of the Screw, being a young and unmarried woman, is in this category of unreliable narrators!

Yet the reader who does not totally question her reliability (and therefore her representation of other characters), may rely to some extent upon parallax: the viewpoints of other characters.

The Turn of the Screw is a concentric narrative of the kind analysed in 6.4.2 above. As such, for many readers, it conforms to a known text schema and sets up certain expectations. The degree of embedding - the number of narratives within narratives - is, however, unusual. The book is written by Henry James but adopts a first person narrative 'I' (though he begins, significantly, by talking about 'us': a group of people assembled together on Christmas Eve). Within this narrative is a further narrator 'Douglas' who gives an account of how he came by the journal of a young woman. This journal is then presented in its entirety, and forms by far the greater part of the novella - 114 pages of 121 in the Penguin edition. Within the first person narrative of the journal, are the narratives of other characters. Miles, the little boy, gives an account of his school; Mrs Grose, the housekeeper, relates various facts and opinions of her own. (This structure is presented diagrammatically in figure 32.) The novella finishes with the end of the journal. There is no return to the narrative of 'Douglas' nor the 'I' of the opening pages. In this respect it is the same kind of incomplete concentric narrative as Notes from the Dead House (see 6.4.2).

The journal itself is the young woman's account of how she was employed by a "person ... in Harley Street" (p.11[7]) to act as governess for his two children, Miles and Flora. The governess recounts how she became aware of the presence in the house of the ghosts of two servants, Quint and Miss Jessel, how the children were also aware of their presence, and indeed possessed by them. The governess tells of her struggle with the ghosts for possession of the children and of her efforts to convince the housekeeper Mrs. Grose of the ghosts' existence. The story ends with the death by heart failure of the boy Miles in his governess' arms as she struggles to persuade him not to look at the ghost of Quint.

In addition to being, quite literally, a number of voices inside other voices, each layer of the narrative differs in discourse type and medium from the layer above and below. It is a journal inside a ghost story inside a novel. As such it is writing presented through speech presented through writing. Moreover, and significantly in terms of the

preconceptions of many readers, it is the voice of an emotional and hasty young woman inside that of a reticent and serious middle-aged man.

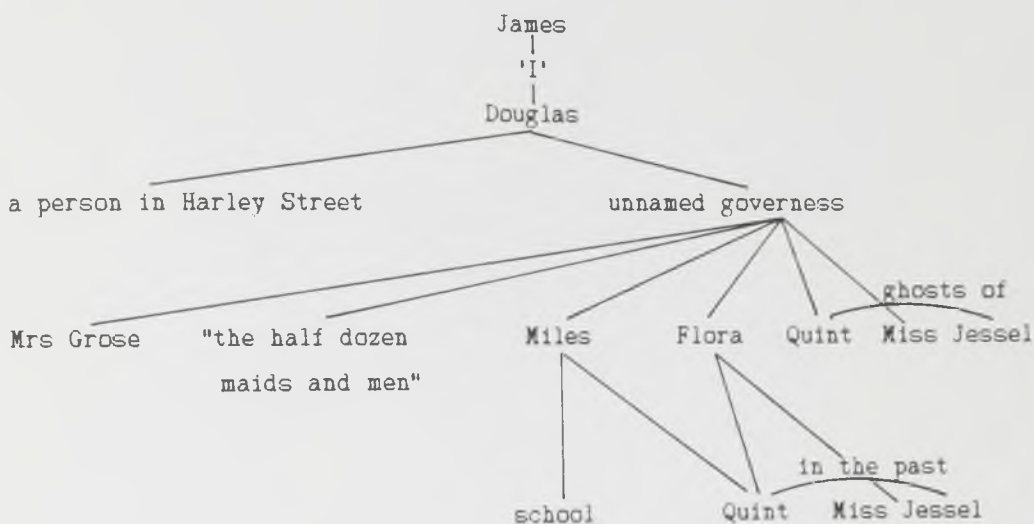| discourse type:	medium:	voice:	pronoun used
novel	WRITING	author/narrator	'we'/ 'I'
ghost story	SPEECH	man	'I'
journal	WRITING	woman	'I'
speech (of characters)	SPEECH	characters	'we'

Table 8: Layers of narrative in The Turn of the Screw.

Figure 32: narrators and characters in The Turn of the Screw

9.2.2 The hearsay principle.

The Turn of the Screw, like The Tyger, has attracted a good deal of critical controversy. Rival interpretations centre mostly, with a quite startling naivety, on the question of whether the ghosts exist! Edmund Wilson ([1934] 1960), for example, with dogmatic certainty, expounded an argument, citing various pieces of evidence from her narrative, that the governess is suffering from a neurosis inspired by the suppression of her sexual feelings towards her employer, that the ghosts are a figment of her imagination and the death of the children her doing. Forty years later, Sheppard (1974) is at passionate pains to refute the argument detail by detail, insisting that the ghosts are real and the children evil. The

fifteen studies in Willen's (1960) anthology of critical essays on the story, and the twenty one in Scura's (1979) anthology, almost all debate the issue in the same terms. Quite apart from the primitive assumption of the reality of the fictional world, such readings ignore the embedded narrative structure, and the consequent uncertainty created by the interplay of levels: an interplay which makes the interpretation doubtful even if we treat this fictional world as real (which it is not). Just as the linguistic structure of The Tyger prevents a decisive interpretation, so does the text structure of The Turn of the Screw (Culler 1975b:137). Such a view is perhaps reflected - though the author's view carries no more authority than any other - in James' own frequently quoted description of the work as an "irresponsible little fiction.... a piece of ingenuity pure and simple" (Sheppard 1974:5).

The futility of attempts to give a definitive judgement on the truth of the embedded narrative is a result of what we shall call 'the hearsay principle'. This we explain by analogy with the approach to the truth of narratives in court. It is a well-known legal principle that while a witness is bound to tell the truth, on pain of prosecution for perjury, that witness's evidence about somebody else's evidence is unreliable, even if the witness believes it to be true. It is hearsay evidence and inadmissible. The witness may be honestly reporting the account he or she heard, but that account may itself have been untrue. If this is so at one remove, for every further remove the uncertainty increases. In The Turn of the Screw we have a narrative inside a narrative inside a narrative inside a narrative: evidence about evidence about evidence about evidence. At so far a remove, even if we treat the account as one of fact instead of fiction, it is quite impossible to be sure of anything. The reliability of any one narrator in the chain may be undermined by the unreliability of any other. For the story to be true, it must be true at every level. Ironically, many readers may feel that in this insubstantial quicksand of voices, the most reliable voice is that of the character Mrs. Grose the housekeeper, a "stout simple plain clean wholesome woman" (p.15): a down-to-earth, matter-of-factual, common sensical person whose views are to be trusted far more than those of the self-indulgent, more impressionable governess, influenced by her own romantic readings and preconceptions. (In the terms of schema theory, such readers might say that the governess's schemata lead her to expect ghosts in an old house by

default.)   Reliance on Mrs. Grose's testimony, however, quite inverts the removes of the narrative. For her voice exists only within and through the voice of the governess. Everything she says is hearsay at the furthest remove. The most reliable voice, and the one we can hold most accountable, must be the closest to us. Our judgement should rely most heavily on the outer narrative, the 'I' with which the novel opens, speaking confidently for 'us', or - if he is unavailable - perhaps 'Douglas'.   (Interestingly, in Wuthering Heights, a similarly stereotypically reliable housekeeper is to be found in one of the outer levels.)   Yet the end of The Turn of the Screw offers no return voyage back through the circles of this narrative solar system. The tale finishes abruptly with the death of Miles. We are offered neither the opinion of the narrator, nor Douglas - nor even of Mrs. Grose.

9.2.3 The Turn of the Screw as discourse deviation.

In our view, for the reasons outlined above, there can be no solution to the problem of the veracity or sanity of the governess' narration. Like The Tyger it is the form of the text which, in interaction with reader schemata, will create differing interpretations. And as in The Tyger, it is a form which may interact with widely different schemata, causing their disruption and refreshment. (As always we preserve the tentative modal 'may', for who knows how frozen and familiar any text may become for us or future readers.) The defamiliarizing effect of The Turn of the Screw is far more a question of the interplay of (world) schemata with text schemata and the skaz of the various narrators, than is the case in The Tyger where deviation relies far more on lexical combinations and grammatically ambiguous sub-sentential structures. The Turn of the Screw leads to the disruption of schemata about the very act of story-telling itself.

Let us hypothesize that in reading The Turn of the Screw a number of relevant processing schemata will be activated, from the very inception of the framing narrative. (It may well be that schemata activated in the opening of a discourse have a tendency to persist throughout.) The book begins:

> The story had held us, round the fire, sufficiently breathless, but except the obvious remark that it was gruesome, as, on Christmas eve in an old house, a strange tale should essentially be, I remember no comment uttered till somebody happened to say that it was the only case

he had met in which such a visitation had fallen on a child. The case,
I may mention, was that of an apparition in just such an old house as
had gathered us for the occasion - an appearance, of a dreadful kind, to
a little boy sleeping in the room with his mother and waking her up in
the terror of it; waking her not to dissipate his dread and soothe him
to sleep again, but to encounter also, herself, before she had succeeded
in doing so, the same sight that had shaken him. It was this
observation that drew from Douglas - not immediately, but later in the
evening - a reply that had the interesting consequence to which I call
attention. Someone else told a story not particularly effective, which I
saw he was not following. This I took for a sign that he had himself
something to produce and that we should only have to wait. We waited
in fact till two nights later; but that same evening, before we
scattered, he brought out what was on his mind. ([1898] 1969: 7)

Let us suppose that this opening activates schemata (among others)
concerning: Ghost stories, Ghosts, Narrations, Men. The following pages
relate how Douglas goes on to produce the journal of the young woman,
which he then reads to the assembled company. (Bear in mind that the
fact that Douglas' 'tale' is written may - though not necessarily - make it
seem more reliable as a true account of the governess' words than a mere
verbal report. Note also that the initial use of 'we' in the outer
narrative suggests plurality and consensus, contrasting with the singular
and correspondingly isolated 'I' of the journal. The fact that there are
two children, leads to a further contrast of 'I' and 'we'.) The journal
begins:

I remember the whole beginning as a succession of flights and drops, a
little see-saw of the right throbs and the wrong. After rising, in town,
to meet his appeal, I had at all events a couple of very bad days -
found myself doubtful again, felt indeed sure I had made a mistake. In
this state of mind I spent the long hours of bumping, swinging coach
that carried me to the stopping-place at which I was to be met by a
vehicle from the house. This convenience, I was told, had been ordered,
and I found, towards the end of the June afternoon, a commodious fly in
waiting for me. Driving at that hour, on a lovely day, through the
country to which the summer sweetness seemed to offer me a friendly
welcome, my fortitude mounted afresh and, as we turned into the avenue,
encountered a reprieve that was probably but a proof of the point to
which I had sunk. I suppose I had expected, or had dreaded, something
so melancholy that what greeted me was a good surprise. ([1898] 1969:14)

Let us suppose that this opening activates schemata concerning: Journals,
Governesses/Young Women, Summer. Arrival by a young woman at a country
house may also evoke text schemata derived from the conventions of the
Gothic novel[3]. The schemata evoked, and their contents will of course
vary considerably between individuals. But supposing that those listed

here are possible, indeed likely, we may observe that they fall into three main categories: schemata about the world and schemata about narrators and schemata about discourse types. (We shall refer to schemata about discourse type as text schemata'°; we shall also, in what follows, treat schemata about narrators as world schemata.) There are also schematic connections between the categories: ghost stories are told on Christmas Eve for example. Relevant schemata are:

```
(World) schemata:
$S GHOSTS              (relevant plans: π R/C SEEK EVIDENCE)
$S CHRISTMAS EVE       (relevant plan : π A/C ENTERTAIN)
$S SUMMER

$S MEN              (relevant plans: π C JUDGE, π C ADVISE)
$S GOVERNESS   (relevant plans: π C PROTECT CHILDREN, π C PERFORM DUTY)

Text schemata:
$S GHOST STORIES       (realizing  plans : π ENTERTAIN, π FRIGHTEN)
$S NARRATION           (realizing  plans : π INFORM/ π ENTERTAIN)
$S JOURNALS            (realizing  plans : π REMIND/ π RECORD FACT)
```

Within this framework the potential for interplay, contradiction and variation is quite immense. The contents of a (World) schema $S GHOSTS, for example, varies widely. For some people, who do not believe in ghosts, $S GHOSTS can only exist as part of $S GHOST STORIES. Gender stereotypes cause similar divergence. For some people $S YOUNG WOMAN will contain such default attributes as 'unreliable', 'romantic', 'credulous', and $S MAN will contain their opposites. Other people will not share these preconceptions.

Each schema about narrators and discourse types will contain a default attribution of reliability. The combination of schemata in The Turn of the Screw, however, leads to contradiction: writing is more reliable than speech - but journals are more reliable than ghost stories - but middle-aged men are often considered more reliable than young women.

Knowledge of what types of evidence are reliable is of crucial importance to an individual. To call assumptions into question is to undermine the basis of all knwoledge. Given the particular combinations of these elements in The Turn of the Screw it is quite simply impossible to maintain all the relevant schemata intact. One or another must be wrong. If the journal is more reliable than the ghost story, then the

	Governess		Douglas	
DISCOURSE TYPE:	journal	R+	ghost story	R-
NARRATOR:	young woman	R-	middle aged man	R+
MEDIUM:	writing	R+	speech	R-
TEXT SCHEMA :	inner narrative	R-	outer narrative	R+
GOAL:	truth	R+	entertainment	R-
WORLD :	ghosts exist	OR	ghosts don't exist	

(R+ = a schema default of reliability;
R- = a schema default of unreliability.)

Table 9: Reliability associated with schemata.

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young woman is more reliable than the man. Let us look at the contradictions which exist between the pointers to reliability in Douglas' narrative and the governess's narrative as set out in table 9.

One relatively simple effect of this is to disrupt schemata attributing unreliability to young women or non-existence to ghosts. Readers have to choose between world and textual schemata. (Edmund Wilson, revealing more about himself and his time than the story, chose to treat the telling of a ghost story as fact and a journal as untrue, but preserve a schema in which young women are unreliable.) The doubt resulting from the irreconcilable demands of different schemata might perhaps be referred finally to the *author-ity* of the author (the pun is significant) or the parallax views of characters, especially Mrs Grose. It is the story's refusal to conform to the text schema for concentric narratives, setting up an expectation that doubt will be resolved through a return to the outer narrative, which makes schema disruption inevitable and irresolvable. Figure 33 attempts to describe the relationships between schemata and the inevitable circularity of a reader's attempts to solve the question of whether the ghosts exist.

In The Turn of the Screw world schemata and text schemata are in a dynamic interaction. Each disrupts the other. The only way to solve the problem is to change one set of schemata or another. Without this refreshment of existing schemata, the problem must remain unsolved: and that too would violate a schema, for it is surely a default of a puzzle, that it must have a solution! As discourse is the totality of text and communicative situation, this kind of instability can more justly be described as discourse deviation than formal deviation.

FIGURE 33: INTERACTION OF A READER'S SCHEMATA IN THE TURN OF THE SCREW
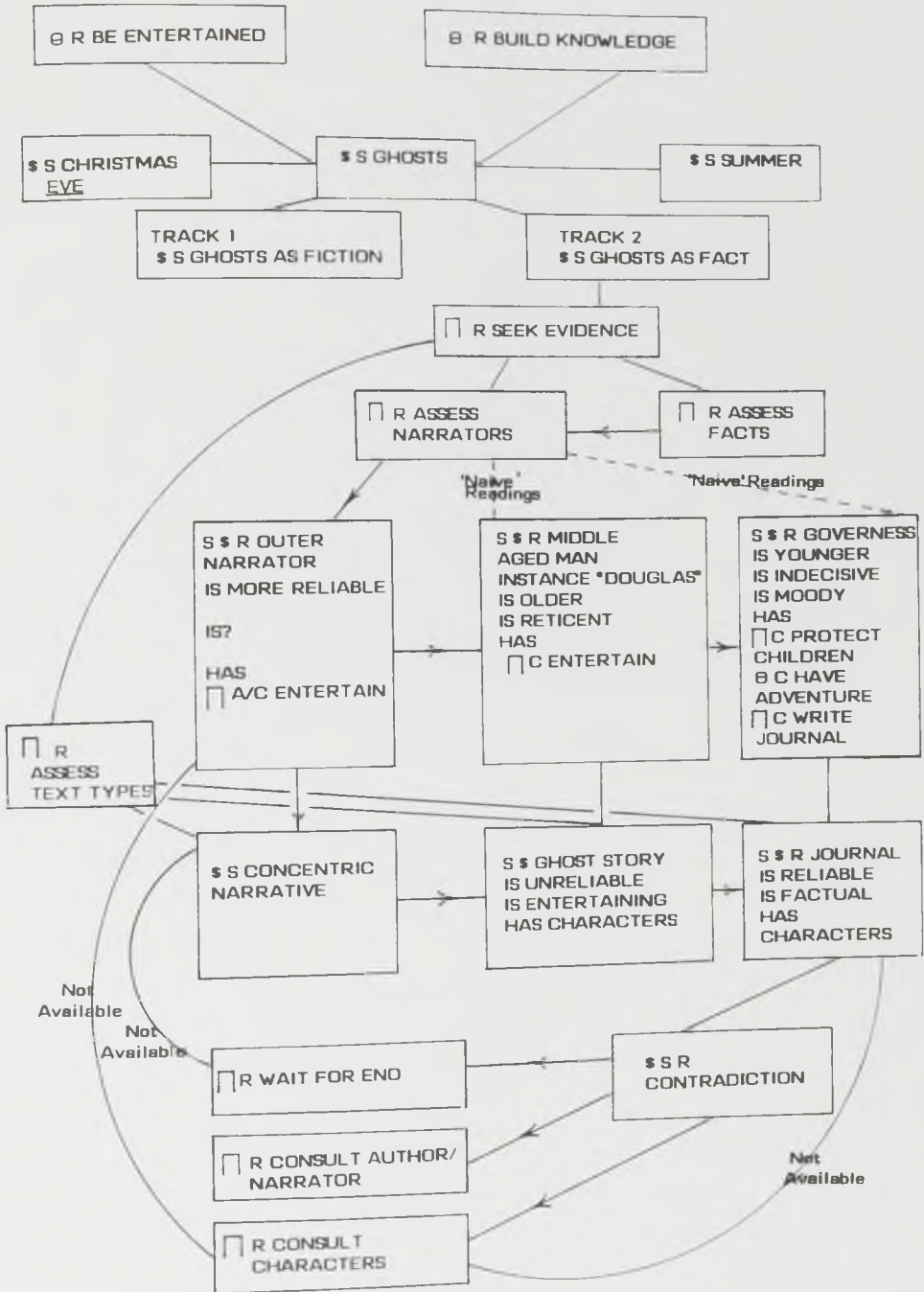
9.3. TEXT NINE: The Windhover.

The Windhover
To Christ our Lord

I CAUGHT this morning morning's minion, king-
  dom of daylight's dauphin, dapple-dawn-drawn Falcon, in
    his riding
  Of the rolling level underneath him steady air, and striding
High there, how he rung upon the rein of a wimpling wing
In his ecstasy! then off, off forth on swing,   5
  As a skate's heel sweeps smooth on a bow-bend: the hurl and
      gliding
  Rebuffed the big wind. My heart in hiding
Stirred for a bird,- the achieve of, the mastery of the thing!

Brute beauty and valour and act, oh, air, pride, plume, here
  Buckle! AND the fire that breaks from thee then, a billion   10
Times told lovelier, more dangerous, O my chevalier!

  No wonder of it: shéer plód makes plough down sillion
Shine, and blue-bleak embers, ah my dear,
  Fall, gall themselves, and gash gold-vermillion.   14

Like The Tyger and The Turn of the Screw, this poem has attracted
considerable critical attention and controversy. Dunne (1976) lists
seventy-three studies devoted exclusively to this poem, and it figures
prominently in general works on Hopkins. Most studies, however, are
mostly concerned with meaning, interpretation and the relationship of the
poem to Hopkins' other works, or to his ideas, rather than upon linguistic
detail (an exception is Milroy 1977: 210-213). Our own analysis
concentrates upon the interaction of the grammar and lexis of the poem
with a reader's interpretative schemata, and a consequent effect of schema
change.

9.3.1 A reader's schemata for The Windhover.

  Let us suppose that this poem triggers scriptlike schemata
representing: Christ, morning, a knight, a falcon, a skater, fire, ploughing.
These seem to be the most prominent schemata in our own reading of the
poem, and as before, we make the assumption that such schemata are likely
to be similar to those of readers with a similar cultural background.
Below we suggest some default elements in these schemata, quoting words
from the poem corresponding to these elements. The assignment of features

to these six schemata is justified in the discussion which follows. As in
The Tyger there are a large number of connections between schemata
through props, attributes and results they have in common.   These
connections are indicated by cross references "see $S X".

$S CHRIST
Header in text: "To Christ our Lord"
IS eldest son, like "dauphin" (see $S KNIGHT)
IS like "dawn" (see $S MORNING)
IS a champion like "chevalier" (see $S KNIGHT)
Events: rose in the "morning" (see S$ MORNING)
        talks of a "kingdom"
        sheds "gall" and blood from "gash"
Results: "kingdom", "ecstasy", "mastery" (see $S KNIGHT), "beauty" (see S$
CHRIST)

$S MORNING
Header in text: "this morning/ morning's"
IS "dapple"
Events: "dawn"
Results: "daylight"

$S KNIGHT
Instance: dauphin (eldest son like Christ: see $S CHRIST)
        : "chevalier"
IS a "minion"
Props: Location: "kingdom"
        "drawn" sword, "plume", "falcon" (see $S FALCON)
Events: "riding","striding", "rung upon the rein"
HAS: "mastery", "valour", "pride"
Results: "gash"

$S FALCON:
Header in text: "Windhover", "Falcon"
Props: Location "air"
        "wing"
IS "high" " a bird" " a thing", "brute"'', "blue-bleak" "gold-vermillion"[12]
HAS "plume"
Events: "gliding", "rebuffs the big wind",
Results: "mastery", "beauty" see ($S CHRIST, $S KNIGHT, $S SKATER)

$S SKATER
Events: "sweeps smooth on a bow bend"

$S FIRE
Results: "embers"
ARE "blue-bleak"
Events: glow "gold-vermillion" (see S$ FALCON) like "gash" (see $S KNIGHT,
$S CHRIST)

```
$S PLOUGHING
Props: "plough", "sillion"¹³
Events "sheer plod"
Results "plough down sillion shine"
```

These schemata may well, before the reading of the poem, be relatively unconnected. Interpretation will be a relationship between them established in the reader. One interpretation, for example, (influenced by knowledge of Hopkins' religious beliefs) is that the ecstasy caused in the narrator by the beauty of the bird gives way to a control over that beauty, a submission to the will of Christ, echoing the control of the bird over its element, air (metaphorically expressed as the control of a knightly rider over a horse), and an acknowledgement of a higher authority (again expressed metaphorically through the knight, though this time referring to his subservient position in the kingdom, as "minion" and "dauphin"). This is the reading which we shall describe here, not in the belief that it is an only reading, but in illustration of possible interactions between linguistic features and schematic representations. The poem foregrounds elements which the schemata we have detailed have in common, thus drawing the different schemata together. Christ, like the knight and the falcon and potentially the narrator, has mastery. Like the knight and potentially the narrator, he submits to a higher authority.

We hope to show that, significantly, these scriptlike schemata also relate through higher-level schemata: life themes of appreciating beauty and serving Christ. New connections effect in the narrator (in this interpretation) a change of the plans which execute these themes, changing them from plans of passive contemplation to plans of work and control. The narrator is no longer content to be mastered by natural beauty, but must master it as a sign of obedience to a higher authority. These changes are expressed through lower- level associations between schemata suggested by lexical and grammatical deviation and ambiguity. Our interest must be in how these different schemata are brought together and how the change of plan is reflected in the process of the poem. As it develops, the poem appears to change the high level schemata which give it coherence.

We shall consider relevant high-level schemata to be:
THEMES: θ SERVE CHRIST ; θ BE MASTERED BY BEAUTY; θ MASTER BEAUTY
PLANS: π REJECT BEAUTY; π WORK HARD; π ATTAIN CONTROL

9.3.2 Phonological and graphological features.

The Windhover, unlike The Tyger, is highly idiosyncratic at every linguistic level: in Hopkins' own words "original, counter, spare, strange"[14]. The rhythm, line lengths and line breaks are unorthodox and though there is a rhyme scheme, the grammatical unit at the end of which the rhyme occurs is constantly changing[15]. There is also marked use of graphological devices, notably capitalization of whole words, hyphenation and stress marks. These, it might be argued are only present when the poem is experienced visually. On the other hand they are clues to stress and emphasis.

As we have said, our major concern will be with the connections between the grammatical features of the poem and changes in the schemata of a reader. Nevertheless, with a poem of such marked phonological and graphological structure, and with such a marked relation between this structure and the grammar, it would clearly be foolish to leave this aspect of the poem out of account. For this reason, we have described it in detail above, and will refer to it where necessary in the following analysis.

The rhythm of the poem is represented below. Stressed syllables are capitalized. In table 10 the overall rhythm is represented line by line [16] with +s (stressed syllables) and -s (unstressed syllables). Table 11 lists some overall patterns.

```
i CAUGHT this MORning MORning's MINion, KING-
        dom of DAYlight's DAUphin, DApple-DAWN-DRAWN FALcon, in
      his RIding
  Of the ROlling LEvel underNEATH him STEAdy AIR, and STRIding
HIGH there, how he RUNG upon the REIN of a WIMpling WING
In his ECstasy! then OFF, OFF FORTH on SWING,
    As a SKATE'S HEEL sweeps SMOOTH on a BOW-bend: the HURL and
        GLIding
  ReBUFFed the BIG WIND. My HEART in HIding
STIRRed for a BIRD, -the achIEVE of, the MAStery of the THING!

BRUTE BEAUty and VAlour and ACT, oh, AIR, PRIDE, PLUME HERE
  BUckle! and the FIRE that BREAKS from thee THEN, a BIllion
TIMES told LOvelier, more DANgerous, O my CHEVaLIer!

  No WONder of it: SHEER PLOD makes PLOUGH down SIllion
SHINE, and BLUE-bleak EMbers, AH my DEAR,
    FALL, GALL themSELves, and GASH GOLD-verMILLion.
```

```
-+-+-+-+-+
--+-+-+-++--
-+-
--+-+---+-+-+-+-
+---+---+--+-+
--+---+++-+
--++-+--++-+-
+-
-+-++-+-+-
+--+--+---+

++--+--+-++++
+---+-+--+-+-
+-+---+--+-+-+

-+---++-+-+-
+-+-+-+-+
++-+--++-+-
```

Table 10: stress patterns in The Windhover

_____

line	syllables	stresses	ellision disrupting	rhyme:	graphological features:
1	10	5	word	A	capitalized word /word break
2	16	7	phrase	B	word break/hyphens capital
3	16	6	clause	B	
4	14	5	clause	A	
5	11	5	clause	A	
6	15	7	clause	B	
7	10	5	clause	B	
8	9 or 10	5	NONE	A	
9	14	8	clause	C	
10	13	5	phrase	D	capitalized word
11	13 or 14	5	NONE	C	
12	12 or 13	5	clause	D	stress marks
13	9	5	clause	C	
14	10	6	NONE	D	

Table 11: orthographic and phonological features of The Windhover
_____

9.3.3 The Windhover as discourse deviation.

It is not intended, nor is it possible, to give an exhaustive account of all the linguistic features of this poem which may result in the disruption and refreshment of the schemata we have hypothesized, or of any others. This poem is so rich and so complex that such an attempt could take up another thesis, while still not doing full justice to the poem's potential to mean. Of necessity we shall select a small number of linguistic features and speculate on their effect upon reading. We shall concentrate most of our attention upon the opening lines. One possible grammatical analysis of these lines is

[(I) (CAUGHT) (this morning) <(morning's minion) (king-dom of daylight's dauphin) ([dapple-dawn-drawn] Falcon (in (his riding (Of (the rolling level underneath him steady air))))) and [[(striding) (High) (there)] (how) (he) (rung) (upon (the rein (of (a wimpling wing)))) (In (his ecstasy))] >]

We must emphasize that this analysis is one of many possibilities. We have, for example, treated "how" as an adverb, initiating the clause "how he rung upon the rein of a wimpling wing in his ecstasy". Yet "how" could also be treated as an exclamation, making this clause an interpolated exclamation. We have treated "striding high there" as embedded within this clause. But it could also be incorporated into the prepositional phrase "in his riding of the rolling level underneath him steady air" as a co-ordinate of "his riding...". (Support for this reading is perhaps given by the semantic and phonological connections between "riding" and "striding", and "underneath" and "high".) There are also many alternative analyses of "dapple-dawn-drawn" and "the rolling level underneath him steady air" which we discuss in detail below.

In the analysis set out above, the predicator "CAUGHT" has four objects: three noun phrases of growing complexity which are in apposition to each other, and one noun clause co-ordinated with these three appositional noun phrases.

```
S     P       A
[ (I) (CAUGHT) (this morning)
```

```
              DIRECT OBJECT 1: (morning's minion)
APPOSITIONAL DIRECT OBJECT 2: (kingdom of daylight's dauphin)
APPOSITIONAL DIRECT OBJECT 3: (dapple-dawn-drawn Falcon in his riding Of
                              the  rolling level underneath him steady air)
                                and
CO-ORDINATED DIRECT OBJECT 4: [[striding High there] how he rung upon the
                              rein of a wimpling wing In his ecstasy]]
```

The final noun clause, describing the bird's action, is treated grammatically in the same way as the noun phrases which precede it, as though it were another appositional noun phrase. What the bird is doing - a process - is treated in the same way as the bird itself. In this sense this fourth clausal object could be treated as another unit in apposition.

A further multiplication (indeed explosion) of valid analyses arises from doubt over the end of the first sentence. In the above analysis, we have treated the exclamation mark after "ecstasy" as the end of this sentence, although there is a case for incorporating all the lines before the first full stop. This would raise a host of new problems. Is "then off" to be interpreted as a new beginning, or in co-ordination with "rung" through an ellipted 'went': i.e. "I CAUGHT... the falcon...and I CAUGHT how he rung upon the rein .... and I CAUGHT how he then went off"? But if we read it in this way, how are we to cope with the potentially autonomous SPOd clause: "the hurl and gliding rebuffed the big wind"? Such syntactic complexities and switches of direction do not yield easily to a grammar designed for more sedate and conventional structures. They are, by the norms of such grammars, deviant. A loose stylistics reading might well claim that they iconically represent both the sudden changes of the bird's activity, the wind, the excitement of the beholder and - eventually - his change of heart.

Let us concentrate our attention on one or two features. The first line exploits lexical ambiguity, syntactic mobility, sound patterning, and a highly unorthodox line break in mid-word, to bring together all of the major schemata we have suggested, and presage the change of heart from unbridled excitement to self-disciplined control which is - in this reading - the poem's central concern. "I" immediately introduces the narrator as a centre of attention. "CAUGHT" exploits the many meanings of the verb: "to catch sight of", "to understand", "to gain control of", but

also "to be infected by". It is thus an action in which the "I" may be
either the agent or the patient, active or passive. The unusual post-
verbal positioning of the adjunct "this morning" allows it to be associated
alliteratively with the following direct object noun phrase - it would, in
final position, otherwise be delayed by the string of appositional
objects[17]. The highly idiosyncratic line break in the middle of the word
"king/dom" allows it to be - for a split second in the process of reading
- the word "king" (for this last point see Widdowson 1987:245). The first
two appositional noun phrases both delay the noun "Falcon", which is the
literal - as opposed to metaphorical - direct object, and while doing so
bring all of the major schemata together. The falcon is the servant of
the morning, and is a prince and eldest son (like Christ), heir to the
kingdom of daylight: and all this has been "CAUGHT" (captured?) by the "I",
or has "CAUGHT" (infected) him. The effect is a fusion of these disparate
schemata, a foregrounding of the elements they have in common, giving each
the potential to disrupt and change the other.

The growing complexity of the noun phrases leading up to the word
"Falcon", with ever longer and longer premodification, followed by a sudden
switch to lengthy post-modification after it, foregrounds this word
syntactically. The grammatical structure may be illustrated as follows:

Modifier type	Pre-modifiers	Head	Post-modifiers
DETERMINER	(this	morning)	
NOUN + 's	((morning) 's	minion)	
NOUN PHRASE + 's	(kingdom (of daylight))'s	dauphin)	
CLAUSE	([dapple-dawn-drawn]*		
		Falcon	
COMPLEX PREPOSITIONAL PHRASE			(in (his riding (of (the rolling level underneath him steady air)))))*

* for alternative analyses see below.

"Falcon" stands out, balanced between eighteen syllables of heavily
premodified appositive noun phrases leading up to it, and seventeen
syllables of complex postmodification after it. If we are to believe the
psycholinguistics claim that left branching is harder to process than
right branching (for this point see Milroy 1977:213), this change will
mark a processing release of tension. The syntactic foregrounding of
"Falcon" is echoed, moreover, in its rhythmic foregrounding (-+-+-+-+-+--

+-+-+-+++---+---+-) and its orthographic foregrounding through the capitalization of its initial letter. There is also a change of rhythm, with a greater mean number of unstressed syllables between beats after the climactic syllable "Fal". It is hard to imagine how more emphasis could fall upon a single word.

The last and most complex of the premodifiers in this introductory succession of noun phrases is "dapple-dawn-drawn". This may be analysed as either

    (dapple- [dawn-drawn] Falcon) or ([(dapple-dawn) -drawn] Falcon)

Where a single hyphen would have disambiguated, the repeated hyphen supports either reading. The fronting of a relative clause to function as a premodifier is, by most grammatical descriptions, deviant [18] ; but it allows the creation of a number of effects for a reader who is open to them, all of which unify the schemata we have suggested. The two analyses above explain how "dapple" may modify either "Falcon" or "dawn". "Drawn", like "CAUGHT", has many meanings, in which the agency of the action is different, and the bird more or less active or passive. It may mean "attracted to" (drawn towards), "pulled by" (drawn out by), "unsheathed" (drawn), "sketched" (drawn against) - this last meaning applies if the bird is visualized in silhouette against the morning light. Had the phrase employed the more normal post-modifying relative clause construction, it would have been difficult to create all these multiple readings together, as the distinguishing prepositional and adverbial particles of the phrasal verbs disappear only when the clause is fronted. Combining this lexical and grammatical ambiguity, we find, when we re-write the premodifying relative clause in a post-modifying position, that it may mean (at least) all or any of the following.

```
(The         falcon [which was drawn towards the dapple dawn])
(The dapple falcon [which was drawn towards the         dawn])
(The         falcon [which was drawn out by the dapple dawn])
(The dapple falcon [which was drawn out by the         dawn])
(The         falcon [which was drawn     by the dapple dawn])
(The dapple falcon [which was drawn     by the         dawn])
(The         falcon [which was drawn against the dapple dawn])
(The dapple falcon [which was drawn against the         dawn])
```

(Here "drawn out" is in the sense of "attracted to"; "drawn", on its own, in the sens of "unsheathed".) This grammatical structure enables the words "dapple-dawn-drawn" to bring together three of the major

interpretative schemata: $S MORNING, $S KNIGHT and $S FALCON. This unity
is reinforced by the sound parallelisms (the alliterative /d/ and the
assonantal /ɔ:/) which are also made possible by this construction. (We
have already mentioned in 2.3.1 that Hopkins himself used the term
'parallelism' in its modern sense (House and Storey 1959:108-114).)

Taken together, these grammatical features of the opening lines create
a unique interconnection of the schemata we have suggested. Our claim is
that they also facilitate changes in the highest levels of schemata.
Firstly, the potential for multiple interpretations creates a general
atmosphere of openness, fluidity and potential for change. More
specifically, particular ambiguities represent particular changes in themes
and plans. The passive and active meanings of "CAUGHT" and "drawn"
represent different and contradictory attitudes to natural beauty. Is it
something to master, or be mastered by? The inclusion of a clause
describing a process (as though in apposition to a series of noun phrases
describing an entity) reflects the fluidity and changeable nature of the
poem's perception. This is a poem about change and interconnection, but
these motifs are present, not only at the most abstracted conceptual level,
but at the level of linguistic detail. It is as though linguistic choice
directly penetrates and changes the highest abstractions - themes and
plans - without any recourse to the intermediate stages of representation
described in schema theory (see chapter 4). The qualities we are
describing are thus functions of particular linguistic choice, NOT (to
borrow one of Hopkins' orthographic devices) of an abstracted
representation in 'another language' like Conceptual Dependency. In this
respect the poem's blurring of the distinction between events and entities
is significant, for this distinction is the basis of CD. The combination
of these linguistic choices with a reader's schemata and a resultant
change in those schemata is an instance of discourse deviation. It is not
linguistic deviation alone (as we encountered it in the advertisement
Elizabeth Taylor's Passion) nor is it conceptual deviation of the kind
which may occur in scientific and other 'factual' writing (see 8.4).

In illustration of this, let us turn our attention to the noun phrase
"rolling level underneath him steady air" which creates in microcosm an
effect of the poem as a whole. We shall analyse this as consisting of
three adjectival premodifiers - "rolling", "level underneath him", "steady"
- and one head word - "air". The second adjectival premodifier consists

of a head word - "level" - which is itself post-modified by a prepositional phrase, "underneath him". Because this analysis is deviant in terms of existing grammars it is difficult to represent using our notation, but our reading is most nearly captured by

(rolling (level (underneath (him))) steady air).

This is also semantically deviant, for how can a single entity, "air", be at once rolling and level and steady. (Such semantic contradiction we may recall (see 2.2) led Rumelhart to rule that the discourse in which a balloon had both burst and not burst was not "well-formed".) One answer to this problem is to say that the three premodifiers represent a process rather than a state: the air changes within the duration of the phrase. The deviation of this is startling, for usually such a change of state would be conveyed with several phrases not within one. This construction disrupts both our schematic expectations about the language AND about narrative voice, for we expect the perception of the narrator to be more certain, rather than changing, as it were, in front of our eyes. (The effect is similar, in this respect, to the simultaneous assertion and denial of Raskolnikov's cowardice in Crime and Punishment, see 5.1.) This change in mid-phrase, however, prepares us for the change of attitude which takes place within the poem as a whole. It is a formal device enabling an apprehension of changing perception within, rather than prior to, the linguistic formulation. This effect could not be rendered in a system such as conceptual dependency. It exists within the interaction between the deviant linguistic form and a schematic preconception: that the situation described by a noun phrase has been analysed and perceived before its description. What happens here creates an illusion of access to the perceptual processes of the narrator, before their verbalization.

The process rendered by the semantic contradiction between the modifiers in this phrase may be rationalized if the reader perceives the air from the bird's point of view. As the kestrel rolls sideways, levels out and comes to a hovering standstill (as kestrels do: see 9.3.4 below), the quality of the air changes for the bird. The narrator thus becomes in this phrase the bird, preluding the more explicit statement of this merger in one reading of "My heart in hiding stirred for a bird" (interpreting "for" to mean "like" and not "on behalf of"). A similar 'bird's eye view' is evident in "sheer plod makes plough down sillion shine" which provokes (at least for this reader) an image of a field seen as though from above.

Voices here merge and the narrator takes on whatever qualities of the bird
may seem relevant to the reader : its mastery of the air and its "pride";
or its obedience to the "Lord" explicit in the dedication, and implicit in
the description of it as "dauphin" or "minion", and in the schema of the
knight.   This ambiguity is emphasized by the double meaning of the
preposition "of" in the phrase "the mastery of the thing". This may mean
either "mastery belonging to the thing" or "mastery over the thing"   by
someone else, presumably the narrator. The surprisingly dismissive and
derogatory tone of "thing", echoed by the negative connotations of "brute"
in the following line, suggest to us the latter reading, and mark a radical
change in attitude to the bird. $S FALCON here changes radically, the
connection is no longer to the human, admirable $S KNIGHT, but to
inanimate objects and inferior animals.

The grammatically simple noun phrases of the first line of the second
stanza are in contrast with the complexity of the opening lines:

Brute beauty and valour and act, oh, air, pride, plume

They evoke (depending on reader schemata) associations with all the major
schemata. "Here" becomes ambiguously either "within the bird" or "within
the narrator's heart"; "buckle" brings together (like "CAUGHT" and "drawn")
a host of relevant meanings. "Buckle" may mean "to collapse under strain",
"come together", "become obedient", or as a nonce verb derived through
class conversion and back formation[19] from the noun 'buckler' (a kind of
shield), "to defend oneself as with a buckler". (The extreme foregrounding
of the word through the ellison and the repeated stresses of "air, pride
plume here buck" make it parallel to the word "Falcon" in the first
stanza.)   All of the meanings of "buckle" may contribute to an
interpretation of the remaining lines as referring to the beauty which
comes from striking opposed surfaces ("the fire that breaks") hard work
("sheer plod makes plough down sillion shine") or from the end of a fire
("blue bleak embers.... fall gall themselves and gash gold vermillion").
This last image contains another - a metaphor within a metaphor - in
which the glowing of the dying fire is described as a wound, in language
evocative of the wounding of Christ on the cross. The verbless "no wonder
of it" which introduces these last lines may be interpreted either as a
comment ("it is not surprising") or as a command to the self "do not
wonder at the bird"). A change of attitude is suggested by the regretful
interjections "oh","O" and "ah my dear". In Bakhtinian terms, what seems to

be happening here, is that the voice of the opening stanza is present in the closing two stanzas, though defeated and regretful. Conversely, the more disciplined, active voice of the second stanza in present in the first, in the active senses of "CAUGHT" and of "the mastery of the thing". The change of voice reflects changes in the schemata through which the beauty of the bird is interpreted, and the plans which this beauty inspires. The original theme of being mastered by beauty has changed to one of mastering beauty. New plans have appeared in fulfilment of the theme of obedience to Christ: to reject ecstasy, to work hard, to control beauty. In this sense the poem deviates from the usual single voice of the lyric poem. Interestingly the interjections in the second stanza are more easily described as features of discourse than grammar, as is the dedication "To Christ our Lord", placed outside the poem as a whole.

The poem as discourse is text interpreted through a reader's schemata. It enters, however, into dynamic interaction with these schemata, both being interpreted through them, and simultaneously disrupting, recombining and refreshing them. The narrator becomes the bird but also rejects the bird, the bird is like Christ but is also opposed to Christ; it is like a knight, who is like Christ. The bird is both controller of the narrator and of its own element, but also controlled, by the morning and finally by the poet. The bird is like a human - a knight, a skater - but also a "thing" of "brute beauty". The whole experience is fluid and changing, both physically in the flight of the bird, and emotionally in the mind of the observer and reader. Linguistic devices, such as those described above, convey the process of perception, itself a deviation from norms of narration. The overall effect of the interaction of these schemata is a disruption of plans and themes. In our reading the relevant plan on perceiving of beauty changes from wonder to control, from desire for mastery to acceptance of submission. The process of this change is effected through low level devices, grammatical deviations, multiple meanings, ambiguities.

What we have attempted to describe is a small part of the process of the formation of an interpretation. We certainly do not propose the above as a fixed reading. Different initial schemata of course will yield different results.

9.3.4 The Windhover: an ornithological schema.

An interesting but neglected aspect of this poem, which well illustrates the dependency of interpretation on the schemata available to a given reader, is its ornithological accuracy. 'Windhover' is a dialect name for 'Kestrel' (Fitter and Richardson 1952:71), a small and common falcon. (Another dialect name is 'Standgale' (Frohawk 1958:252) a word motivated by the species' ability to fly accurately in strong winds.) The most distinguishing behavioural characteristic of this bird is its "habit of protracted hovering" (Peterson, Mountfort and Hollom 1974:99). This is "the best pointer" (Heinzel, Fitter, Parslow 1979:94) to identification, a perceptual trigger in schema terms for the activation of a 'kestrel schema' for an ornithologist. While hovering, the bird hangs virtually stationary with extraordinary control, keeping its position through minute movements of its tail and primary feathers. Between hovers it flies to a higher point, then rolls away before braking to a standstill. In the words of one field guide, (a text whose function is to communicate an appropriate schema of the species to those who do not have it) the kestrel "flies with rapid wing beats, occasional short glides and frequent periods of hovering, head to wind; slants steeply down to catch mice, beetles etc." (Peterson, Mountfort and Hollom 1974:99). The colour of the sexes is different, but the male bird (and Hopkins' bird is a 'he') has "spotted chestnut upper parts, warm buff upper-parts with scattered black spots" (Peterson Mountfort and Hollom 1974:99) and a "blue-grey head and tail" (Fitter and Richardson 1952:71; Heinzel, Fitter, Parslow 1979:94).

The above description gives default and trigger elements of a 'kestrel schema'. The availability of this is, however, far less widespread than the other schemata we have suggested, as it will only be present in those obervers with ornithological knowledge. We presume that Hopkins himself had this schema available. He may wrongly have assumed it to be available to readers. He was an accurate observer of wildlife, including birds, as the many references in his journals and papers make clear (House and Storey 1959). (We reject here the formalist and new critical dogma of making no reference to biography.) The accuracy of the description is moreover unlikely to be coincidence. Hopkins correctly describes the bird as a falcon (in marked contrast to another literary representation of this species, Kes, which wrongly describes it as a 'hawk'). The phrase we

have already analysed "rolling level underneath him steady air" follows the stages of a kestrel's flight pattern, as does "striding high" and "then off, off forth on swing". "Rung upon the rein of a wimpling wing" captures the sudden stopping, the immobility and control of the hover, "wimpling wing" the slight movements of the feathers. The habit of flying into the wind is present in "rebuffed the big wind". Lastly, the colouring of the male bird is evoked by "dapple", by "blue-bleak" and by "gash gold vermillion". These last two compounds - which also refer to the image of the dying embers, and by association with the wounds of Christ - are rather better descriptions of the species colouring than the ornithological descriptions cited above.

The extreme discourse deviation effected through phonological, orthographic, syntactic and lexical innovations with changes in schemata is thus set firmly within a schematic framework which represents an aspect of the world 'as it is': predictable and true to form. The radical disruption of the usual (thematic) response to natural beauty is contrasted and replaced with a new plan - control, hard work and obedience. This major change takes off from this everyday sight. The process of change itself is conveyed through the syntactic choices: disturbingly for those used to a more stable narrative. The default elements of the kestrel schema evoke through association and ambiguity other schemata, interact with them and refresh them. In the terms of SPGU this poem represents the replacement of one life theme with another, but it is the disruption of linguistic norms and a very specific scriptlike world schema which both describe and institute this change.

9.4 Conclusion.

Suppose the black, specific letters on this page were suddenly to shift, each one going off lickety-spit this way or that in its fright, and there wouldn't be a single recognisable word, just a lot of meaningless pi: igh for _fright_, _ty-spi_ for _lickety-spit_. Well, that's just the way the crowd in the street was...
(_We_ by Yevgeny Zamyatin [1924] 1970:198)

In these analyses we have attempted to show how these three complex discourses can disrupt, change, combine and refresh the schemata of a reader. That they do in fact do this, and that the changes they set in motion are both dynamic and self-perpetuating, is witnessed by the

controversy and interest they have all provoked. Though they may represent aspects of the world, and of non-linguistic perception of that world (as The Windhover accurately describes a kestrel), the changes they cause to high level schemata are effected through linguistic and text-structural choices which are beyond expression in any other form. In this, our analyses bear out the formalist and Jakobsonian insistence on the primacy and uniqueness of form. Yet the forms of such discourses as these are most valuable to human beings, not in themselves, but for the effect they may have on schemata: though those schemata may be text or language schemata as well as schemata of the world. It is as though the minutest details of forms of these discourse can reach through the intervening layers of the interpretative hierarchy to change our most fundamental approaches to language and to life. Thus the linguistic and pragmatic ambiguities of The Tyger fuse contradictory views of the cosmos into one, leaving doubt where there was certainty; in The Turn of the Screw, the juxtaposition of text types and the exploitation of a standard narrative sequence disrupt our expectations of other people, of the nature of truth, and of the act of story telling itself; the patterns and multiple meanings of The Windhover can represent and cause a change of 'life theme' from passivity to activity: a change effected through such devices as the dual senses of the verb "CAUGHT" or the modifying phrase "of the thing". In this poem, the very process of change is captured in the altering perspective of a 'deviant' noun phrase: "the rolling level underneath him steady air" which, while accurately describing the bird, also defies both schematic expectations about noun phrases, and schematic expectations about the stability of perception and attitude.

The degree of change caused by such discourse will vary with the schemata which a reader brings to it. Discourse deviation exists in the interaction of form and schemata, rather than in either one in isolation. A combination of schema theory and formalist analysis answers the charges of reader-response criticism against the validity of formal description. Yet the wide popularity and impact of texts such as these suggests that higher level schemata are perhaps not so individual as is sometimes supposed.

As we have tried to show, linguistic and text-structural deviations from expectation are not in themselves any guarantee of schema refreshment. There are discourses which employ them to no greater effect

than the addition of minor props to rigid social stereotypes. There are
others, especially in the contemporary world, which use poetic devices to
reinforce rather than break down the prejudices and preconceptions which
limit our intelligence[20]. For these reasons, a formalist analysis of
discourse needs to hypothesize about effects on schemata, just as much as the
AI approach needs, when dealing with discourse deviation, to take account
of form.

Though intelligence may need schemata to interpret and bring coherence
to the world and the texts it perceives, it must also be capable of change.
And change may be effected through form.

Notes to Chapter Nine.
1. Doxey's interpretation is not cited by Fish, though it is by Epstein
(1975: 66, footnote). It is, however, similar in kind to the literary
critical and scholarly interpretations cited by Fish.
2. Remniscent, for example, of Brooks (1947) analysis of Donne's The
Canonization in her book The Well Wrought Urn in which she suggests that
the poem is itself like the "well wrought urn" which Donne describes as a
better monument than "half-acre tombs". This New Critical principle is in
fact inherited by Epstein (1975) - discussed at length in this chapter -
in the title of his paper: 'The Self-Reflexive Artefact'.
3. The words "dread" and "terror", for example, have shifted their meanings
since the writing of this poem. They no longer collocate so readily with
"God".
4. The Lamb - especially when written with a capital letter - is a Judaeo-
Christian symbol of the Messiah (Isaiah 53:7). (The same symbol is used
in the Edward Bond poem discussed in 7.3.) It is also the title of the
sister poem in the Songs of Innocence. In our view the connotations are
not so specifically Christian or Jewish as to exclude other readings.
5. No patronizing depreciation of the ballad as an art form is intended by
this remark.
6. Ulysses itself provides several examples of parallax. Bloom, on
entering the library is suddenly seen as though by Stephen and Buck
Mulligan, and described as follows: "A patient sillhouette waiting,
listening", "a bowing, dark figure" ([1922] 1960:257).
7. Page references are to the Penguin edition (1969).
8. Significantly, the governess frequently refers to her own life as a
"history" (29, 72) and to her own reading (p.58), imagining hewrself as a
character in a novel.
   Wasn't it just a storybook over which I had fallen a-doze and a-dream?
   No; it was a big, ugly, antique, but convenient house.
   Was there a 'secret' at Bly - a mystery of Udolpho or an insane, an
   unmentionable relative kept in unsuspected confinement (p.28).
Mrs. Grose, on the other hand, is, significantly, illiterate.

9. A convention satirized in _Northanger Abbey_ but employed again in _Jane Eyre_. Comparisons between _The Turn of the Screw_ and _Jane Eyre_ have been frequently drawn. Sheppard (1974:42-61) devotes a whole chapter to the issue.

10. We use the term 'text schema' here for the sake of consistency with our tripartite division of schemata in chapter one. Previously we have reserved the term for schemata representing text structure. We feel, however, that terms such as 'journal' and 'ghost story' should, strictly speaking, be described as 'discourse types' as they must take account of such factors as sender, communicative purpose, context, graphology and physical substance (Cook 1989:95-102). (The discourse type 'road sign' for example must be a metal board placed on the side of a road by an authoritative body with the purpose of informing or warning motorists.) In this we disagree with Dimter (1985) who uses the term 'text types'.

11. The oddity of the words "brute" and "thing" are discussed below.

12. Our reasons for treating "blue-bleak" and "gold-vermillion" as properties of the bird as well as of embers and the "gash" are discussed below in 9.3.4.

13. The choice of a word of French origin (French 'sillon'= furrow) associates it with "chevalier".

14. From the poem _Pied Beauty_.

15. For Hopkins' own comments on rhythm and scansion see Hopkins (ed. Gardener and Mackenzie (1967: 255-6) and House and Storey (1959:100-109, 267-283).

16. The representation in table 11 follows the orthographic lines as they are set out on the page. Table 12 treats the very short orthographic lines as part of the preceding line, following the line numbers in 9.3.

17. For comment on the effect of adverb fronting in another Hopkins' poem _Inversnaid_ see Short and van Peer (1989:54).

18. When the fronted clause is several words not one, as in 'disused mine'. Though in this case 'disused' can be treated as an adjective. So too can 'drawn' in the phrase 'drawn sword'.

19. Word-class conversion in literature is often remarked upon by stylisticians (see for example Widdowson 1975:15).

20. There is a paradox here of course, which may be easily deconstructed. The theory of schema change through formal deviation is itself schematic, and should itself be disrupted and refreshed.

Appendix A: Literary works referred to.

(Works are listed alphabetically, by title. Where the work is discussed in detail, or quoted in full or in part, the edition used is given in the main bibiliography.)

Ah! Sunflower. William Blake.
Alice in Wonderland. Lewis Carroll.
Animal Farm. George Orwell.

The Behaviour of Dogs. Craig Raine.
Bleak House. Charles Dickens.
Bobok. Fyodor Dostoevsky.

Calligrammes. Guillaume Apollinaire.
The Canterbury Tales. Geoffrey Chaucer.
Crime and Punishment. Fyodor Dostoevsky.

The Decameron. Boccaccio.
The Devils. Fyodor Dostoevsky .
Don Quixote. Miguel de Cervantes.
Dulce et Decorum Est. Wilfred Owen.

Easter Wings. George Herbert.
Emma, Jane Austen.
Eyeless in Gaza. Aldous Huxley.

Faithful Ruslan   Georgi Vladimov
Finnegans Wake. James Joyce.
First World War Poets. Edward Bond.
The First Circle. Alexander Solzhenitsyn.
For the Fallen. Laurence Binyon.
For Whom the Bell Tolls. Ernest Hemingway.
Futility. Wilfred Owen.

The Garden of Love. William Blake.
The Great Gatsby. F. Scott FitzGerald.

Hamlet, William Shakespeare.

Heart of Darkness, Joseph Conrad.

Homage to Catalonia, George Orwell.

Huckleberry Finn, Mark Twain.

In Cold Blood, Truman Capote.

The Inheritors, William Golding.

Jane Eyre, Charlotte Bronte.

Kes, Barry Hines.

Kholstomer, Leo Tolstoy.

Kidnapped, Robert Louis Stevenson.

Kim, Rudyard Kipling.

La Peste, Albert Camus.

The Last Enemy, Richard Hillary.

The Long Goodbye, Raymond Chandler.

Lyrical Ballads, Samuel Taylor Coleridge and William Wordsworth .

Macbeth, William Shakespeare.

Madame Bovary, Gustave Flaubert.

Meeting at Night, Robert Browning.

Missing Dates, William Empson.

Moonfleet, J. Meade Falkner.

The Murder of Roger Ackroyd, Agatha Christie.

The Mysteries of Udolpho, Ann Radcliffe.

The Name of the Rose, Umberto Eco.

Northanger Abbey, Jane Austen.

Notes from the Dead House, Fyodor Dostoevsky.

Oscar and Lucinda, Peter Carey.

Other People, Martin Amis.

Pied Beauty, Gerard Manley Hopkins.

Pincher Martin, William Golding.

Playback, Raymond Chandler.
Prayer before Birth, Louis MacNeice.

The Rape of the Lock, Alexander Pope.
Rayuela, Julio Cortazar.
A Red, Red Rose, Robert Burns.
Robinson Crusoe, Daniel Defoe.

The Secret Agent, Joseph Conrad .
Silas Marner, George Eliot.
Sons and Lovers, D.H. Lawrence.
The Sound and the Fury, William Faulkner.

The Tempest, William Shakespeare.
Tess of the D'Urbevilles, Thomas Hardy.
Thérèse Desqueyroux, François Mauriac.
Through the Looking Glass, Lewis Carroll.
Tom Brown's Schooldays, Thomas Hughes.
Tom Jones, Henry Fielding
Tom Sawyer, Mark Twain.
Tristram Shandy, Laurence Sterne.
Treasure Island, Robert Louis Stevenson.
The Tyger, William Blake.

What Maisie Knew, Henry James.
The Windhover, Gerard Manley Hopkins.

The Towers of Silence, Paul Scott.
The Turn of the Screw, Henry James.

Ulysses, James Joyce.
Under Milk Wood, Dylan Thomas.

War and Peace, Leo Tolstoy.
We, Yevgeny Zamyatin.
Wuthering Heights, Emily Bronte.
You fit into me, Margaret Atwood.

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(Dates in square brackets are those of an earlier or first edition than the one used, or, in the case of translations, of the original foreign language edition. Where the work referred to is part of a collection of papers, full details of the collection are given unless it is listed separately, in which case only the editor's name is given. Unless otherwise stated, the date of an article and the collection which contains it are the same.)

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