

DISCOURSE ANALYSIS FOR SUMMARIZATION

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ABSTRACT

Summarization is an activity which language students are frequently called upon to perform, often without any explicit guidance. In a wider sense, it might be said that all learning, whether of language or anything else, involves the ability to distinguish what is important from what is not, and to incorporate it into existing schematic knowledge. In this respect, summarization can be seen as central to education in general as well as language education in particular.

This thesis is an attempt to gain insights into the essential criteria for summarization. After the first chapter has outlined the scope and methodology of the enquiry, chapters 2 to 5 review a number of models of text analysis and discourse processing which, on the face of it, promise to provide a systematic basis for the identification of "main ideas" in written texts. It reviews a number of models of text analysis and discourse processing which, on the face of it, promise to provide a systematic basis for the identification of "main ideas" in written texts. These include the analysis of thematic structure associated with the work of Halliday and the Prague School, the Macrostructures proposed by van Dijk and Kintsch, and Meyer's studies of rhetorical structure. A critical investigation of these models leads to a consideration of a very different approach which focuses not on the text itself as product but on the reader's reaction to it in the process of interpretation. This emerges from the empirical analysis of student summaries and accounts in chapter 6, and is further discussed in the last chapter.

In general, the thesis considers the theoretical validity of these different approaches to text description and their practical utility as points of reference for summarization. It surveys applied work based on them, relates them empirically to the analysis of summaries and accounts elicited from advanced Austrian students of English at university level, and works its way towards a set of principles and procedures which might be made operational in language pedagogy.

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Since the so-called Invisible College is often so invisible as to seem non-existent, the author would be very glad if you could share your ideas with her: B.S.

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CHAPTER 1

OPENING SUMMARY: SETTING THE SCENE

For us, significant language always depends on the felt context of our own limited experience. We are biologically finite in what we can attend to meaningfully. When we pay attention to the significance of something, we cannot proceed at the computer's breakneck pace. We have to ponder, reflect, contemplate.

Infomania erodes our capacity for significance.
(Heim 1990:306)

This thesis is an enquiry into the process of summarizing. The process is a familiar one, and it might seem perverse to make an issue of it. But what is familiar and taken for granted as common behaviour frequently, perhaps usually, turns out to be complex on closer investigation. This is the case, for example, as the ethnomethodologists have demonstrated, with the familiar phenomenon of ordinary conversation. And so it is with summary. At one level, the notion is easy to understand. This, for instance, is the entry in the COBUILD Dictionary:

A summary is a short written or spoken account of something, which gives the important points but not the details.

Here are two more definitions, one from a textbook, the other from an applied linguistics article:

A summary is a shorter version of a text, report, book or similar piece of writing. It can also be called a précis, a resumé or a synopsis, and in the case of a book, an abridgement or abridged version. (McArthur 1984:21)

Traditionally, a summary is a brief statement that represents the condensation of information accessible to a subject and reflects the gist (central ideas or essence) of the discourse. (Hidi & Anderson 1986:473)

All this seems straightforward enough. But what constitutes "central ideas", or "importance"? It is obviously not something that resides in a text as an absolute. What is important for one person may not be so for another, so importance is clearly a relative matter. But relative to what? To the intentions of the writer, or the purpose of the reader? How is it made accessible? How short is short? And apart from these questions about the definition of importance, how is it textually realized? What are the linguistic features which signal it? Summary for all its familiarity is, on closer scrutiny, not so straightforward after all.

And yet the importance of summary itself can hardly be exaggerated. Due to the rapid and ever-accelerating development in information technology we are inundated with an immense amount of information input. Photocopying, mailshots, faxes, computer printouts, portable telephones, electronic mail, desktop-published material and satellite television have led to a kind of "information inflation" which makes the ability to distinguish between important and unimportant information an essential survival skill. (cf Heim 1990: "Infomania") It is established convention in the academic world, for example, that people produce abstracts for conference presentations and articles, and there are a number of abstracting journals. So abstracting is a major scholastic enterprise. By the same token, students in schools and universities are confronted with vast amounts of data, and they have to use their discrimination as to what they consider important and feasible to remember. In examination answers, they are expected to reproduce those parts of their knowledge which they judge to be more relevant than others. In a way, all

of education is a matter of distinguishing what is important from what is peripheral, and by extension all learning is summarizing for oneself. As van Dijk (1979:123) puts it, "learning, in general, is a function of assigned relevance structure". This is also reflected in the fact that in language teaching it has long been the practice to do summaries; the whole tradition of the *précis* is well-established and still very much with us (cf. Lucisano & Kadar-Fülöp 1988). Even Umberto Eco has written a eulogy of summary in an Italian weekly (1982). In assessment, summarizing tasks are used across the curriculum as a means of checking comprehension. Thus Pincas (1982:105):

Many examinations still require *précis*, or summary writing, on the grounds that it is useful for note-taking, forces close attention to the thread of an argument, and helps separate essential from non-essential details. Whatever one's views on these matters, compression does involve a recognition of main points and *b* the use of paraphrase... Both are important skills in writing.

Summarization, then, clearly is educationally crucial; in terms of pedagogy it is a very common exercise. This makes it all the more surprising that little research has been done which indicates just how people might learn to summarize most efficiently. The assumption seems to be that people somehow pick it up as they go along.

Familiarity breeds contempt, perhaps. Since summary is so common and commonsensical a notion, it is often assumed that it does not need to be expressly taught in reference to any explicit consideration of the nature of the process. Again, one might make the same point about conversation, and about communication in general. But there has been an abundance of research on these familiar phenomena over the

past twenty years, and this is recognized as relevant to the practical business of language teaching.

Of course it would be untrue to claim that summarization has hitherto been totally neglected by researchers and teachers. There is a host of publications that address this topic in varying degrees of explicitness. A first, very general, bibliographical search covering journals in the disciplines of linguistics, education and psychology yielded the picture represented in the chart below. (The purpose of this survey is not to provide a comprehensive bibliography, but to give a general, impressionistic picture of the state of affairs.)

Kirkland + Saunders 1991
 Brown, Campione + Day 1981
 Brown 1981 + 1978
 Baker + Brown 1980
 Anderson + Glover 1981
 Schunk + Rice 1987
 Squire 1983
 Simpson et al. 1988
 Oakhill + Garnham 1988
 Jacobowitz 1988
 Hidi 1984 b
 Faw + Waller 1976
 Dee-Lucas + Di Vesta 1980
 Brown + Smiley 1977
 Anderson + Armbruster 1984
 King et al 1984
 etc.

Axelrod 1975
 Alexander 1976; Hare + Borhardt 1984
 Guido + Colwell 1987
 Garner 1985; Urquhart 1988
 Bean + Steenwyk 1984
 Lucisano + Kádár-Fülöp 1988
 Baumann 1984 + 1986 etc.

Kintsch + Kozminsky 1977; Doctorow et al. 1978
 Mavrogenes 1983; Meyer et al. 1980
 Johnston 1981; Clewell + Haidemos 1983
 etc.

Van Dijk 1979
 Fløttum 1985; Johns 1985 + 1988; Hoey 1983;
 Jordan 1984; Stubbs 1986b; Widdowson 1984 b
 Johns + Mayes 1990 etc.

COMPREHENSION PROCESSES

GENUINE APPLICATIONS

Kintsch + Yarbrough 1982; Carrell 1983, 1984, 1985;
 Kurzon 1985; Meyer + Rice 1982; O'Hear et al. 1987
 Garner + Mc Caleb 1985; Armbruster 1984
 Scarcella 1984; Ashton et al 1985
 Braddock 1974; etc.

DIRECT INSTRUCTION

TEXTUAL FEATURES

Kintsch, Mandel + Kozminsky 1977
 Carrell 1987 + 1983; Rumelhart 1977 + 1980
 Steffensen + Colker 1982; Steffensen 1986
 Reiser et al. 1985; etc.

'MAP OF SUMMARIZATION'

(as reflected in journal articles)

KNOWLEDGE-BASED APPROACHES

STRATEGIES

Meyer + Freedle 1984; Reder + Anderson 1980
 Meyer 1975; Connor 1984; Garner 1982; etc.

Van Dijk 1982
 Kieras 1981 + 1982
 Vipond 1980
 Van den Broek + Trabasso 1986
 Kintsch + Van Dijk 1975

RECALL

Van Dijk + Kintsch 1978 etc.

STUDY SKILLS

Taylor, K. 1983; Winograd 1984; Cohen 1988
 Hidi 1984 a + 1985; Hahn + Goldmann 1983;
 Garner, Belcher, Winfield + Smith 1985
 etc.

CROSS-SECTIONAL



DEVELOPMENTAL

Taylor B. 1982; Taylor K. 1986; Brown + Day 1983;
 Johnson 1983 ; Brown, Day + Jones 1983;
 etc.

PROFESSIONAL APPLICATIONS

Hutchins 1978; Geiselman - Samet 1980
 Ladas 1980 etc.

COGNITIVE PSYCHOLOGY

Hidi + Baird 1986
 Hidi + Anderson 1986

ON-LINE

Lorch + Lorch 1986
 Lehnert 1984
 Lorch, Lorch + Mogan 1987, etc.

EDUCATION

TEACHING PRACTICE

APPLIED LINGUISTICS

COGNITIVE PSYCHOLOGY

Starting from the 'little theory' side, which could be called pedagogy-driven, there is a vast number of publications on students' summarizing abilities as an indicator of their intellectual development. These comprise developmental and cross-sectional studies of (mainly young) children's and students' summarization ability. In the developmental studies, judgements as to what constitutes a good summary are largely intuitive, the emphasis being on the children's cognitive capacities in general. A few of the cross-sectional studies are very similar to this, but there are also some more linguistically-oriented ones that make at least some reference to linguistic factors such as text type or the notion of reading strategies.

Closely related to these, but with a very practical bias, are the next two groups, study skills and direct instruction. The study skills group is the largest one and considers summarization in combination or in contrast with other study aids (such as note-taking) or other factors contributing to academic success, such as metacognition, which has to do with task-awareness. The main purpose here is to optimize learning from text, and these studies are very much classroom-based with little or no theoretical framework. Direct instruction really falls into three subgroups: one is 'tricks of the trade', with very short and practical advice to teachers as how to go about teaching main ideas. (This group looks small on the diagram because I was not particularly interested in it, but there must be dozens of these around in various teachers' magazines.) The second subgroup consists of studies into the effect and usefulness of certain teaching strategies with a strong empirical emphasis; and the third one considers some broader educational implications of certain summarization

tasks and how they are represented in various language teaching curricula.

The first group in which theory (mainly schemata) becomes more readily perceptible is the one comprising a few fairly general studies of the educational side of **comprehension processes**, and how summarization fits in as an aid to comprehension and as a vehicle for testing comprehension.

The most interesting but, alas, not very large group is (actual and potential) **genuine applications** of some linguistic theory to aspects of summarization. Some of these look at processes for arriving at summaries (though the degree of explicitness and detail of reference to summarization varies greatly) - these are Hoey, Stubbs, van Dijk and Widdowson. Others analyze the products (e.g. Brown & Day, Fløttum, Johns & Mayes).

Textual features is a very mixed bag indeed, and one that I feel is extremely important to summarization, although very few explicit references to this activity are actually made. This group deals with certain signalling devices such as deixis, titles and topic sentences, cues such as typeface and underlining, as well as with the broader aspects of the role of rhetorical structure in text comprehension. Whereas this group is text-based, the next one could, very generally, be called **knowledge-based approaches** to comprehension, the knowledge being schematic/cultural. Some articles in this group really represent a transition to the huge cognitive psychology block, which has three subcategories with different emphases: *recall* articles investigate the effect of certain selected factors (such as discourse type of L1-L2) on memory for text, thus allowing

conclusions about the perceptions of saliency. The subgroup most amenable to interaction with linguistics seems to be the one dealing with *strategies* (micro- and macroprocesses) used by readers for forming cognitive representations of texts (van Dijk, etc.). The third subgroup is more of the 'rats-in-the-maze' type, consisting of *on-line* studies of cognitive operations in discourse processing.

A refreshingly tangible counterpart of this is a small number of articles dealing with **professional applications** of summarizing in fields as diverse as librarianship and the military.

The overall impression of all this is very much that of two giants, **education** (little or no theory) and **cognitive psychology** (mostly theory) crushing the dwarfish **applied linguistics** between them. This means that publications either address themselves directly to summarization as a practical activity without much theory, or they address themselves to theory without much consideration of how this might be operational in summarization. The exception is 'genuine applications', which make use of semantics/pragmatics, macrostructures, clause relations and discourse analysis. What seems to be missing is a systematic consideration of certain crucial textual surface signals for determining what is 'important' in a text, and procedures derived from this for generating summaries.

Since summarization is essentially a linguistic activity involving the comprehension and production of discourse, applied linguistics, and especially discourse analysis, should be able to provide some indication as to how readers

arrive at summaries and how they learn to do this. (By the same token, although students are required to produce summaries right across the curriculum, language classes are the most obvious place for teaching this skill.) What I am hoping to do, then, is to build a bridge by approaching the summarization process from a linguistic angle while at the same time drawing on insights in cognitive and educational psychology as well as language pedagogy.

Among existing models of discourse analysis (in the widest sense of the word) there are at least two in which notions crop up that are closely related to my idea of summary.

The first is the work of the **ethnomethodologists**. This is primarily concerned with spoken discourse and deals with interactional procedures called formulations. These formulations "lead to a reduction of the message to its basic essentials" (Widdowson 1984:117). Garfinkel and Sacks describe these processes as follows:

A member may treat some part of the conversation as an occasion to describe that conversation, to explain it, or characterize it, or explicate, or translate, or summarize, or furnish the gist of it, or take note of its accordance with the rules, or remark on its departure from rules. That is to say, a member may use some part of the conversation as an occasion to *formulate* the conversation. (Garfinkel & Sacks 1970:350 qu. in Widdowson 1984:117)

Elaborating on this notion of formulation, Heritage and Watson make a distinction between two kinds of formulation: gists and upshots. The former can be said to recapitulate propositional meaning (the main points) and the latter illocutionary intent (the purpose of the interaction). Clearly, then, these two kinds of formulation represent a

sort of in-text summary fulfilling various communicative purposes, such as summarizing what has happened in the interaction so far, and preparing the ground for what is to come next by selecting what seems relevant and/or expedient in terms of the continuation of the conversation.

Of course, the ethnomethodologists focus on the overtly interactive functions of gist and upshot as procedures for the negotiation of meaning in ongoing, face-to-face encounters whereas I am mainly concerned with written language and *ex post facto* summaries. However, there are obviously points of common interest in the process of summarizing in general. The conversational phenomena of gist and upshot, for example, clearly have their analogues in written language use. But what is of particular interest from the point of view of the present enquiry is that the ethnomethodologists take a participant or 'member' perspective on the process of interaction. They are concerned with how participants infer meaning in ongoing communication.

The second model is different in that it focuses more on the text as product, dealing with ways in which language users identify salient information. This is Kintsch's and van Dijk's theory of **macrostructures**, which is the approach most frequently used for explaining summarization in the publications described above. According to this model,

a summary is a type of discourse providing (a personal variant of) the macrostructure of the discourse it summarizes. (van Dijk 1977b:157)

Macrostructures are defined as the global semantic representations of texts that readers form during the

comprehension process by applying the techniques of deletion, generalization and construction (cf. van Dijk & Kintsch 1983:190). It is claimed that the function of these macrostructures is to organize the information in memory, to define which information is relatively important, and to serve as retrieval cues for subsequent recall.

As opposed to the ethnomethodological analysis of conversation, the macrostructure model deals with written language. However, there are a number of more interesting differences between the two approaches whose exploration is bound to be relevant to a proper understanding of summarization processes. The most important one of these lies in the perspective from which discourses are analyzed: whereas the ethnomethodologists take very much an inside view by assuming the stance of participant observers actually involved in the interaction, Kintsch and van Dijk are detached analysts assuming one typical, idealized, representative reader.

Clearly, then, with ethnomethodological work taking little account of linguistics and the very 'technical' psycholinguistic approach exemplified by Kintsch and van Dijk taking little account of interactants' actual experience, quite a lot of bridge-building needs to be done between the two in order to achieve a fuller understanding of discourse and communicative activities such as summarizing.

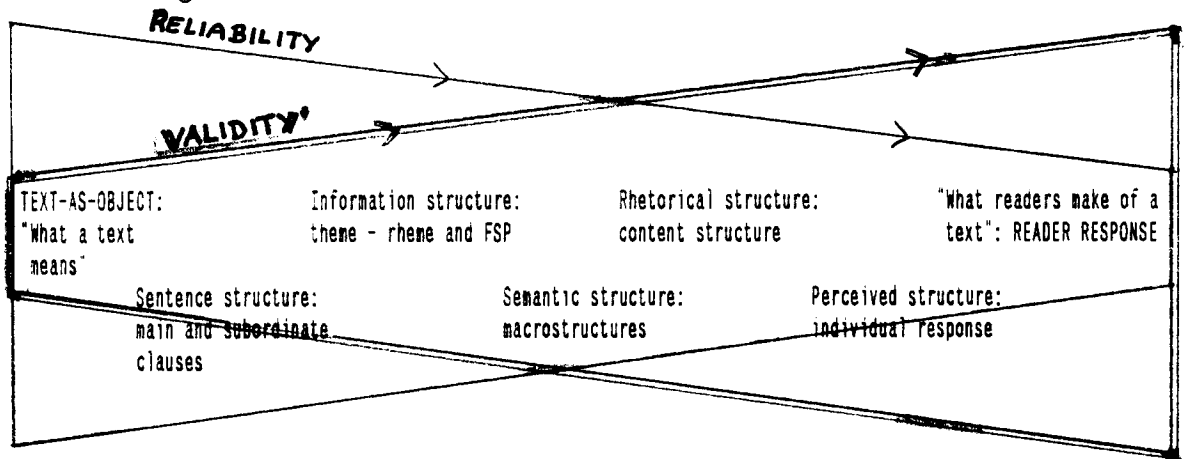
Since all models of text linguistics or discourse analysis are concerned with the manner in which text or discourse is organized, it seems to be reasonable to suppose that they should provide us with some means of determining the

hierarchy of information in a particular text, that is, give us some indication as to how we can distinguish between what is central and what is peripheral, which in turn corresponds to offering some insight into the nature of summarization. What I intend to do then is to pass under critical review a number of models of discourse analysis which carry with them the explicit or implicit claim that they provide some explanation of the nature of summarization.

In reference to the differences that I just hinted at between the concepts of gist/upshot formulations as procedural and participant operations on the one hand and the analytic identification of macrostructures in text products on the other, I shall arrange the selected models on a continuum ranging from, at one extreme, the notion that meaning is essentially incorporated within the text and therefore unequivocally signalled by the language, and at the other extreme the notion that meanings are not signalled by the text but are a function of the reaction of the reader. The two poles could be dubbed **text-as-object** and **reader response**.

Van Dijk and Kintsch are not the only scholars, of course, who have followed a text-as-object approach. There are two other models relevant to the inquiry and which can be said to set the scene for the consideration of Kintsch and van Dijk. Both are concerned with the structuring of information. One of them focuses on subordination and the hierarchical arrangement of clauses, and the other on information distribution in terms of theme and rheme.

My agenda, therefore, might be set out in the figure below. It should be noticed that as we proceed along the continuum, we encounter models of decreasing reliability in the sense that they provide less and less objective evidence from the textual signals themselves. At the same time it can be said that this corresponds with increasing validity in that the models to the right come closer to the actual experience of interpretation by allowing for the normal variation of reader response. I shall examine the following models:



The idea is to examine these models one by one, to use them to analyze a particular text -the same one for all models- (cf Appendix 3: *The Dilemmas of Childlessness*) in order to clarify what it is that these approaches can or cannot yield in terms of an explanation as to what it means to summarize, what controls what is included and what is left out in a summary, and how people actually learn to summarize.

This critical analysis of various approaches to discourse analysis is to be understood as a kind of discovery procedure: by identifying the (sometimes obvious) deficiencies of these models I am hoping to focus my mind

specifically on the issues that I am interested in. The important thing is not to establish whether a particular solution does or does not work, but to discover just what is wrong with it; it is by asking the question *why* something does not work that specific aspects to be enquired should become apparent.

After having tried out the selected models, the next stage will be to see how people (in this case, Austrian students of English, and perhaps some native speakers) have *actually* summarized the same text, and to try and find out whether there is any indication that they were using strategies that are in some way related to the analyses, whether their largely intuitive summarization is correlatable to the actual models of analysis I am dealing with.

At the end of all this exploration I am hoping to be able to draw out implications for the pedagogy of summarization. Inevitably, the scope of this enterprise has to be limited in a number of respects.

Firstly, I am only dealing with expository texts. This, of course, raises the question as to what *expository* means. There are whole volumes which are dedicated to exploring this issue (e.g. Britton & Black 1985, Otto & White 1982). Britton & Black, in their subtitle, equate *expository* with *explanatory*. Kintsch (1982:97) paraphrases it with *nonliterary*. Graesser & Goodman (1985:142) point out that prose is usually divided into four categories: narrative, expository, persuasive, and descriptive. The consensus so far seems thus to be that expository texts are:

- non-literary (and thus prose, not poetry or drama)
- non-narrative.

Graesser and Goodman complicate the matter by adding *persuasive* and *descriptive*, but on the same page they then embark on a detailed comparison (as is often done) between expository and narrative texts, thus implying that this is the main distinction. It seems to me that a pragmatic solution is called for, one which is sufficiently broad to allow for the inclusion of persuasive and descriptive writing - obviously, pure forms are very rare in real texts and different mixes will be found in different texts. Slater & Graves (1989) offer a definition which, apart from the doubtful value judgement ("good" expository text) looks workable to me, and which describes the actual text I shall be dealing with:

... [G]ood expository text is prose in which an author presents information to a reader. Good expository text is explanatory in that the author provides the necessary explanations to enable readers to understand the information being presented. Good expository text is also directive in that the author actively engages readers in a dialogue that highlights information and tells readers what is and is not important. Finally, much good expository text incorporates narrative elements to give life to the prose and to portray people in a more compelling and comprehensible manner. (Slater & Graves 1989:144)

The reasons why I decided for expository prose is that, first of all, this is the kind of text which lends itself to summarization, and which tends to get summarized in normal language use (see above). It is also the kind of text which people refer to when they talk about "learning from texts". Thus Black (1985:249):

Expository texts are the meat and potatoes of the textual world, because expository texts are the ones that convey new information and explain new topics to people.

The second *a priori* limitation concerns not the kind of language use, but the kind of language code I deal with. My empirical study involves students summarizing in English as a foreign language. I should make it clear, however, that this thesis is not an exercise in contrastive analysis of English and German texts. Rather, what I am seeking to do is to gain some insights into the processes my students have used in reference to models of text description, and what they need to be able to do. Thus my main purpose, in the thesis as a whole as in the empirical study, is to illuminate the phenomenon of summarization, it is emphatically not to say 'how well do my students do in comparison to some (assumed or empirically established) 'native speaker' norm?'

Illuminative is the operative word. Parlett & Hamilton (1977) talk about illumination in reference to the ongoing evaluation of what goes on in actual classrooms. They describe their approach as follows:

Characteristically in illuminative evaluation there are three stages: investigators observe, inquire further, and then seek to explain. (Parlett & Hamilton 1977:17)

I too, in this thesis, go through the processes of observation and enquiry, and seek to explain. But whereas Parlett & Hamilton apply these processes to the empirical evaluation of actual classroom operations, my own research perspective is that of a conceptual evaluation, whereby ideas are appraised and their relevance in principle established. I accept, of course, that it is possible (and, as far as Parlett & Hamilton are concerned, preferable) to proceed in the opposite direction, that is, to work principles out from actual classroom practice. In my

thesis, however, I have preferred to proceed through the analysis of ideas and theoretical models to principles for subsequent application. In both cases the objective is an understanding of what is involved in learning. My own view is that there is a need for a prior conceptual framework to serve as a point of reference for actual practice: before one can effectively carry out empirical evaluation (or empirical research in general), one needs some bearings. Teaching, after all, is not simply an expedient reaction to circumstances but a proactive projection of principles, and it is these principles, rather than the precise technicalities of their implementation, that I am trying to establish.

CHAPTER 2

SENTENCE STRUCTURE: MAIN AND SUBORDINATE CLAUSES

The general principle is this: Put the important parts of your message in an independent clause and the supporting or collateral parts in subordinate elements.

(Glorfeld, Lauerman, and Stageberg 1977:107, qu. in Tomlin 1985:87)

2.0. INTRODUCTION

Advice such as this is not uncommon in writing manuals and textbooks, and indeed the correlation *main information-main clauses, subordinate information-subordinate clauses* has considerable intuitive appeal and carries some commonsensical conviction. It provides writers with a very clear-cut criterion for signalling the relative importance of the elements in their writing. Moreover, if this general rule is followed in discourse production, it also has important consequences for comprehension. Clearly, if the evidence of relative importance assigned by the writer is explicitly marked in the text, it could be an unequivocal, quasi-mechanical, foolproof method for sorting important from unimportant information and extracting main ideas - in other words, an algorithm for summary. If writers follow Glorfeld et al.'s "general principle", then all that readers have to do in order to sort the "important parts of the message" from the "supporting or collateral parts" is to retain the independent clauses and discard the "subordinate elements". But apart from the question of terminological vagueness (How are supporting parts distinguished from collateral? Are elements the same as clauses?), what is the basis for assertions such as

Glorfeld et al.'s, in other words, what linguistic evidence is there for a correlation between clause types and importance of information?

2.1. CLAUSE TYPES AND FOREGROUND/BACKGROUND INFORMATION: TOMLIN

Tomlin (1985), following, as he points out, the line of Chafe (1980) and Longacre (1976), sets up the hypothesis that independent clauses code foreground information and dependent clauses code background information. Foreground information is "information which is more important, or significant, or central to the narrative" (p.87), background information "serves to elaborate or enrich foreground information" (ibid.). He points out that the terms *foreground* and *background* information do not denote a dichotomy, but a continuum on which individual propositions can be ranked with respect to their centrality to the discourse theme. However, for the purposes of his study Tomlin does define three discrete levels of information value:

Pivotal information: Propositions which describe the most important events in the narrative.

Foreground information: Propositions which describe successive events in the narrative

Background information: Propositions which elaborate pivotal or foreground propositions, or which perform any other function in the narrative. (p.90)¹

In order to test his hypothesis, Tomlin devises a syntax-independent method of identifying information value: he uses a short, videotaped cartoon which is silent, so there is no possibility of using linguistic relevance clues and therefore the danger of circularity is avoided. Tomlin

divides this cartoon into 36 discrete events, whose boundaries are defined as either a video cut (the shift from one visual image to another), or the loss or gain of characters. These events are then divided into 14 significant and 22 non-significant ones, based on judgements by 15 independent subjects, which Tomlin formalizes as involving "either a major change in scene or a thematic crisis" (p.93). These judgements of event significance are used to check the validity of Tomlin's own analysis into foreground and background propositions. Having thus conducted a language-independent analysis of event importance, Tomlin elicits his linguistic data by getting a group of English native speakers to watch the video and to give either oral or written retellings of the film. These narratives are then analyzed in terms of independent/dependent clauses according to "traditional linguistic practice" (p.94) and correlated with Tomlin's information level analysis (foreground/background information). The results show that information level is indeed related to clause type: over 80% of all dependent clauses in the retellings express background propositions. Tomlin's conclusion is that dependent clauses do code background information, and independent clauses do code foreground information.

It would seem, then, that Tomlin provides us with sufficient evidence to warrant an approach to summarization based on syntactic criteria: retaining main clauses and discarding subordinate clauses might be a useful first step in text condensation.

On the whole, Tomlin's study is a very thorough one and his main achievement lies in the fact that he attempts to set

up language-independent criteria for assessing information value. However, there are several issues emerging from this study which need to be looked at more carefully, and which may call into question the generalizability of his findings:

To begin with, Tomlin defines foreground information as "more central or salient or important to the development of the discourse theme" (p.89), "more important, or significant, or central to the narrative" (p.87), and he achieves a certain degree of intersubjectivity through judgements of event significance from 15 informants indicating "which events they believed to be more important to the video" (p.93), but ultimately it is he who decides just what the discourse theme is, and hence what is central, or important, to its development. Therefore it is difficult to see how he can claim that his identification of foreground-background information is not dependent on introspection.

The next point to be made is that Tomlin's study is limited to narrative, and to a very specific type of narrative at that, but he points out that his characterization of foreground-background information is intended as a genre-independent definition (cf.p.89). However, the analysis of his data prompts him to concede that it might prove problematic to extrapolate from his results to other genres since his findings are based on the narration of actions occurring in the cartoon, and anything other than such narration (e.g. metacomments, evaluation) is classed as background information:

It is probably better to think of foregrounding as a process which ranks propositions according to importance *with respect to some particular rhetorical purpose and its associated theme*. (p.119, original emphasis)

This limitation does not prevent Tomlin from stating in his summary conclusions that

Simply put, the results of the present study confirm the hypothesis in (1): Foreground-background information is coded by clause type in English. Dependent clauses do code background information; independent clauses do code pivotal or foreground information. (p.118, emphasis added)

He thus claims that his hypothesis holds for the English language in general, irrespective of genre. But it does seem to raise questions about its validity in respect to the present study, which tries to establish criteria for the summarization of expository discourse.

Tomlin elicits his narrative data using four different production conditions: on-line oral, oral delayed, written delayed, and written-edited. Obviously, these four differ in the amount of planning that has gone into the production of the narratives. The number of dependent clauses is highest in the written-delayed condition, but as to the correlation between dependent clauses and background information, Tomlin is satisfied that this is constant across the four production conditions (cf. p.103) (though it is worth noting that the mean proportion of dependent clauses with background propositions is lower in the written conditions than in the oral ones, which suggests that mode and conditions of production do have an effect). Interestingly, two thirds of Tomlin's exceptions in which background information is coded by independent rather than dependent clauses are non-narrative in nature, namely meta-

comments ("Okay, here comes the picture") and evaluations ("The fish is frantic"). As to exceptions in the opposite direction, i.e. foreground information expressed by dependent clauses, half of these are either instances in which a non-significant event is linked to a significant event (e.g. by temporal clause introduced by *as*), a phenomenon particularly frequent in the written-edited condition, and generalization, in which a foreground proposition is subordinated either to a meta-comment or to an evaluation as described above. It is important to note that whereas these exceptions "represent noise in the collected data" (p.120) for Tomlin, they are the very stuff that expository/argumentative prose (typically produced in the written-edited condition) is made of. All this suggests that a sound analysis of discourse type is an absolutely essential prerequisite for the decision as to what constitutes foreground or background information in any given genre, and more empirical work needs to be done to test Tomlin's hypothesis for discourse types other than narrative. Most importantly, the question arises as to what the 'chunks' of expository prose might be that correspond to Tomlin's events in narrative, which are so crucial to the definition of significance and information level.

2.2. DEFINITIONS OF SUBORDINATION AND SIGNIFICANCE

My last reservation regarding Tomlin's study, which I share with Péry-Woodley (1989:137), has to do with his definition of dependent and independent clauses "according to traditional linguistic practice" (p.94). In order to demonstrate, however, what the problems with such a definition are, it seems expedient to try out his syntactic criteria by applying them to the *Childlessness* - text. Let

us say, then, that despite the criticisms raised above Tomlin has made a sufficiently strong case for the correlation between clause type and information value to warrant further consideration in connection with summarization.

According to Tomlin,

Dependent clauses include all participial and infinitive clauses, whether embedded or not; those finite clauses which are embedded as sentential complements or introduced by subordinating conjunctions such as *while* and *although*; all relative clauses, both restrictive and non-restrictive; and all adverbial clauses. (1985:94)

This definition basically covers the same categories as Quirk et al.'s (1972)². But it seems that their criteria, namely formal indicators of subordination (11.8 ff.) are easier to apply systematically to an actual text than Tomlin's since he uses both formal as well as functional tables (Quirk et al. 1972:11.13 ff.). The Quirk et al categories are as follows:

1. Subordinating conjunctions
2. *Wh*-elements
3. The relative pronoun *that*
4. Subject-operator inversion
5. Absence of a finite verb form

In addition, they list three types of subordinate clause that contain no marker within themselves of subordinate status:

6. Nominal *that*-clauses from which *that* has been omitted
7. Comment clauses of the type "You're right, *I suppose*."
8. *zero* relative clauses

According to Quirk et al., categories 1 to 8 constitute an exhaustive list of possible formal representations of subordinate clauses.

In order to test the idea that one way of condensing texts might be to eliminate dependent clauses, Quirk et al.'s criteria were used to identify subordinate clauses in the *Childlessness* text (cf. Appendix 3) and to mark them for deletion by printing a dash through them: ³

1 [P1] Babies seem to be everywhere these days.
 2 Current movie fare offers *Three Men and a Baby*, *Baby Boom* and *She's Having a Baby*.
 3 Even television commercials are using giggling, gurgling newborns ~~to shill for grownup products such as carpets,~~
 4 ~~insurance and automobile tires.~~
 5 ?Yet despite the highly visible new crop of infants, not all Americans are sure ~~they want to help fuel the baby mania.~~
 6 Observes UCLA Psychologist Jacqueline Goodchilds: "Many people are questioning the assumption ~~that fulfillment for a~~
 7 ~~woman is having children."~~
 8 [P2] By and large, the baby busters are female college graduates of the late '60s and early '70s ~~who questioned the~~
 9 ~~moral imperative to reproduce and instead forged ahead in the male-dominated workforce.~~
 10 Many, of course, have had children, but in far fewer numbers ~~than their mothers.~~
 11 In the 1950s, 9% of women of childbearing age had no children; now 25% of college-educated working women between 35
 12 and 45 are childless.
 13 ~~If their younger sisters, now between 25 and 35, also decide not to give birth, the childless rate is likely to remain~~
 14 ~~unusually high.~~
 15 Moreover, the younger women's ambivalence is reinforced by economic realities.
 16 "In the 1950s a single breadwinner could support a family of five," says Public Opinion Expert Daniel Yankelovich.
 17 "Now it takes two breadwinners ~~to support a family of four."~~
 18 [P3] Those ~~who choose not to have children~~ tend to be well educated, live in urban areas, marry late and work
 19 outside the home; as a group, they are not actively religious.
 20 They fall into two categories: the deliberate types and the postponers.
 21 In general, the former make their decision early in life, ~~often after perceiving their own mothers' lives as~~
 22 ~~restrictive and unfulfilling.~~
 23 A disproportionate number are only children or firstborns ~~who had to care for younger brothers and sisters.~~
 24 [P4] Consider Susan Peters, 36, a Los Angeles TV producer ~~who has been married for ten years.~~
 25 ?Half jokingly, she speculates ~~that her decision not to have children stems from her childhood play with Barbie dolls.~~
 26 "Barbie had a house, a car and a boyfriend, period," she notes.
 27 Peters has not been swayed by close friends ~~who have babies.~~
 28 ?"They spend the first three months ~~staring at the baby.~~
 29 I won't give my life over to that.
 30 The Smurfs become your life."
 31 Feminist Gloria Steinem, 54, also made a deliberate choice.
 32 "I either gave birth to someone else," she explains, "or I gave birth to myself."
 33 [P5] The postponers refuse to make a decision, ~~allowing relationships, professional commitments and finally nature~~
 34 ~~to make the choice for them.~~
 35 Dr Karen Rohde, 41, a suburban Chicago obstetrician, has some regrets ~~about not having had kids,~~ but is devoted to
 36 medicine and her second marriage to a man with grown children.
 37 "Time got away from me," explains Rohde.
 38 "I never made a firm commitment ~~to say no to having children.~~

- 39 Now I've decided ~~it is not going to happen.~~
- 40 ~~*Whenever I see a particularly sweet looking baby, I just think of what they're like when you take them home.~~
- 41 ~~*Then I'm glad I'm not the one who has to lose sleep taking care of them."~~
- 42 [P6] ~~*Steinem believes women want men to share the burdens of parenting.~~
- 43 ~~*Women are on baby strike.~~
- 44 ~~They have said, 'I'm not doing this myself.'~~
- 45 ~~*Certainly, many men still want to have children; but most are content to leave child raising to their wives.~~
- 46 ~~Still, some men are opting for childlessness too.~~
- 47 ~~Ed McCrary, 41, a recovering alcoholic who works for a rehab center in Charlotte, N.C., and his wife, also a~~
- 48 ~~recovering alcoholic, have decided against having children because the "chances are too high" that the baby too would~~
- 49 ~~become an alcoholic.~~
- 50 [P7] ~~The childless have found ways to satisfy their nurturing instincts.~~
- 51 ~~Jon Wilkman, 45, a Los Angeles filmmaker, advocates "uncle empowerment," which enables him to take his nephews to~~
- 52 ~~concerts and plays.~~
- 53 ~~*Toni Moore, 47, a schoolteacher from Charlotte who has been married eight years and has chosen not to have children,~~
- 54 ~~helps pay tuition fees for her niece and nephew and takes them along on special vacations.~~
- 55 ~~New York City-based Joni Evans, 45, publisher of Random House trade books, openly mothers her authors and colleagues~~
- 56 ~~and feels no societal pressure to have children.~~
- 57 ~~("People ask, Are you a child person or not? You're not? O.K.")~~
- 58 ~~As for fears of growing old without children, Psychologist Goodchilds explains, "For many, not having children removes~~
- 59 ~~the concern of being a burden to your children in old age."~~
- 60 ~~However, outright regret is not unusual.~~
- 61 ~~Despite three nephews, a golden retriever and a cat, Suzanne Childs, 45, a twice-divorced Los Angeles lawyer, says,~~
- 62 ~~"Knowing what I know now, I would have married someone different and had a child."~~
- 63 [P8] ~~Other women feel the same way.~~
- 64 ~~New York Psychologist Felice Gans regularly hears "anticipatory regret" from female patients in their early thirties.~~
- 65 ~~Says Gans: "They ask, 'Will I regret this? What is wrong with me that I didn't want a baby all along?'"~~
- 66 ~~*She notes, however, that she also counsels many women who regret having had children.)~~
- 67 ~~Some discontented women blame feminism for encouraging their childless state.~~
- 68 ~~Feminist Author Betty Friedan, who relishes her role as the mother of two children, sharply disagrees.~~
- 69 ~~*She insists that feminists are addressing the problems of working mothers.~~
- 70 ~~"Half the women who are childless at forty are not childless by real choice," says Friedan.~~
- 71 ~~"They have not had children because they are in male structured jobs with no good day care available."~~
- 72 [P9] ~~A backlash of sorts against childlessness may have already begun: *the birth rate among college-educated women~~
- 73 ~~20 to 24 years old is beginning to climb.~~
- 74 ~~Nonetheless, the decision to have or not to have children is a profound one.~~
- 75 ~~Says Yankelovich: *Society is accepting childlessness, but some women question whether they have violated a~~
- 76 ~~biological law."~~
- 77 ~~Most childless adults who have deliberately made the choice enjoy their freedom with few misgivings.~~
- 78 ~~But some of those who find themselves sitting on the fence may have already made a decision they did not intend to~~
- 79 ~~make.~~

Obviously, deleting the subordinate clauses from a text results in some sort of reduction (the extent of which is quite considerable in this particular text); however, a closer look at the product of this deletion procedure points to a number of problems:

Regarding subordinate constituents as expressing subordinate information would suggest that there are only

two versions with respect to summarization: the original (main information + subordinate information) and the summary (main information only). However, what emerges from the actual application of this formula to the text is that there are various degrees of 'deletability' of subordinate clauses and hence also various degrees of 'mainness' of independent clauses. Compare, for instance, the last four subordinate clauses in paragraph 8: whereas the (non-defining) relative clause in line 68 is dispensable, this is not true of the (defining) one in line 70. Leaving out the clause of reason in line 71 means deleting the part of the sentence which carries the greatest semantic weight, and eliminating the *that*-clause in line 69 results in a sentence of doubtful grammatical acceptability and very doubtful meaning. Moreover, the fact that certain subordinate clauses belong to the same category in Quirk et al.'s list does not mean that they are equally necessary or dispensable. For instance, the clauses introduced by subordinating conjunctions could be positioned on a cline of 'deletability': at one end of the scale there are sentences where the main clause makes sense without the subordinate clause, as in Ed McCrary...and his wife...have decided against having children ~~because the "chances are too high" that the baby too would become an alcoholic~~ (11. 47-49) and if ~~their younger sisters...also decide not to give birth,~~ the childless rate is likely to remain unusually high (11. 13-14). At the other end of the scale there are sentences where deletion of the subordinate clause results in either a main clause that is grammatically odd (?) if not ill-formed (*), as in ?Half jokingly, she speculates ~~that her decision...stems from her childhood play with Barbie dolls~~ (1. 25) and *She notes, however, ~~that she also counsels many women who...~~ (1. 66), or a main clause that is quite meaningless when the wider context is taken into account, such as ("Half the women who are childless at forty are not childless by real choice," says Friedan.)~~They have not had children because they are in male-structured jobs with no good day care available.~~ (11. 70-71)

Conversely, there is also the problem that an analysis based on formal indicators of subordination, because its domain is the clause, leaves intact pieces of text which are obviously no more important than the ones it excludes. For instance, it allows premodifying elements such as adjectives to stay in while postmodifying elements such as relative clauses, whether defining or not, are eliminated. Consider, for instance, lines 3 f.: Even television commercials are using ~~giggling, gurgling newborns to snill for grownup products...~~, where the premodifiers *giggling, gurgling* can be said to be purely decorative and therefore at least as deletable as, say, the subsequent infinitival adverbial clause.⁴ Similarly, verbless appositives such as *Susan Peters, 36, a Los Angeles TV producer* (1.24) are not deleted by such a procedure.

Obviously, the very diversity of reasons just cited for the 'deletability' or 'non-deletability' of these subordinate clauses indicates that using purely formal, syntactic criteria is not an adequate method for identifying important information.

Of course it could be that Quirk et al.'s formal indicators of subordination simply are too crude a criterion. For instance, applying them results in treating restrictive and non-restrictive postmodification as equally 'deletable'. This raises the question whether clauses belonging to the same syntactic class necessarily fulfill the same function in the discourse, and a look at, for example, two relative clauses from the above text clearly shows that this is not the case:

restrictive

Those who choose not to have children tend to be well educated, live in urban areas, marry late and work outside the home (1.18-19)

non-restrictive

Feminist Author Betty Friedan, who relishes her role as the mother of two children, sharply disagrees. (1. 68)

According to Quirk's criteria, both these dependent clauses are introduced by a *wh*-element and therefore belong to the same grammatical class, namely relative clause.

Syntactically speaking, not only is the non-restrictive clause an optional constituent, but so also is the restrictive one: if it is deleted, the remaining sentence is perfectly acceptable - that is, it is well-formed as an isolated sentence. In reference to other formal criteria, of course, the clauses are different in type, the non-restrictive being a parenthetical version, so to speak, of co-ordination. And in the context of the surrounding discourse, they are radically different in terms of the signals they give to the reader. In the case of the particular sentences cited above, for example, the demonstrative pronoun *those* without postmodification looks like an anaphoric one, pointing the reader to the preceding text for realizing its referential function. In this particular case, this would result in the following sequence

Now it takes two breadwinners to support a family of four. Those tend to be well educated, live in urban areas, marry late and work outside the home

where *those* would be taken to refer to *breadwinners*, thus turning the meaning of this extract upside down. This example illustrates the difference between grammatical class (relative clause) and discourse function (reference),

and it brings us back to the question whether more differentiated criteria for 'subordination' than those provided by Quirk and Tomlin might yield a better tool for distinguishing between 'main' and 'subordinate' information.

One possibility which might be expected to resolve the problems brought up by using syntactic subordination as a means of isolating 'subordinate information' is ^{to} shift the formal criteria from surface features of overt subordination to a 'deeper' level, that of nuclear vs. non-nuclear constituents of the sentence. Again, the definition of these terms is not a straightforward matter. For instance, the following explanation given by Lyons (1968:334) hinges on what exactly the predicate is assumed to comprise.

...we will say that the subject and the predicate together form the *nucleus* of the sentence. The subject and the predicate are therefore nuclear, and adjuncts *extranuclear* constituents.

Brown and Miller (1980:72) create a similar problem with their definition:

Nuclear constituents of the sentence are NP + VP and all that is immediately dominated by VP

because what is regarded to be immediately dominated by NP depends on the analyst's interpretation of the sentence.

In order to determine which constituents are "immediately dominated by VP" the most fully developed theory seems to be that of verb valency, which aims to make explicit the relationship between (deep) semantic cases and surface structure, and which is reflected in the verb patterns

provided in dictionaries.

For the following analysis, the verb patterns of the *Longman Dictionary of Contemporary English* were used for deciding which constituents of a sentence are nuclear, i.e. required by the verb; non-nuclear constituents were marked for deletion by printing a dash through them. It should be noted that such an analysis seeks to determine **which positions** (such as subject, object, etc.) a particular verb requires to be filled, irrespective of how this position is filled. For instance, if the subject position is filled by multiple heads, i.e. coordinated noun phrases, the entire subject as it appears in the sentence is regarded as a nuclear constituent. Deletion of parts of the text in reference to valency considerations of this kind results in the following:

[P1] Babies seem to be everywhere ~~these days.~~

1 Current movie fare offers *Three Men and a Baby*, *Baby Boom* and *She's Having a Baby*. ~~Even~~ television commercials are
2 using giggling, gurgling newborns ~~to shill for grownup products such as carpets, insurance and automobile tires.~~
3 ~~Yet despite the highly visible new crop of infants,~~ not all Americans are sure they want to help fuel the baby mania.
4 Observes UCLA Psychologist Jacqueline Goodchilds: "Many people are questioning the assumption that fulfillment for a
5 woman is having children."

6 [P2] ~~By and large,~~ the baby busters are female college graduates of the late '60s and early '70s who questioned the
7 moral imperative to reproduce and instead forged ahead in the male-dominated workforce.

8 ~~Many, of course,~~ have had children, but in far fewer numbers than their mothers.

9 ~~In the 1950s, 9%~~ of women of childbearing age had no children; ~~now~~ 25% of college-educated working women between 35
10 and 45 are childless.

11 ~~If their younger sisters, now between 25 and 35, also decide not to give birth,~~ the childless rate is likely to remain
12 unusually high.

13 ~~Moreover,~~ the younger women's ambivalence is reinforced by economic realities.

14 ~~"In the 1950s~~ a single breadwinner could support a family of five," says Public Opinion Expert Daniel Yankelovich.

15 ~~"Now~~ it takes two breadwinners to support a family of four."

16 [P3] Those who choose not to have children tend to be well educated, live in urban areas, marry late and work
17 outside the home; ~~as a group,~~ they are not actively religious.

18 They fall into two categories: the deliberate types and the postponers.

19 ~~In general,~~ the former make their decision early in life, ~~often after perceiving their own mothers' lives as~~
20 ~~restrictive and unfulfilling.~~

21 A disproportionate number are only children or firstborns who had to care for younger brothers and sisters.

22 [P4] Consider Susan Peters, 36, a Los Angeles TV producer who has been married for ten years.

23 ~~Half jokingly,~~ she speculates that her decision not to have children stems from her childhood play with Barbie dolls.

24 "Barbie had a house, a car and a boyfriend, ~~period,~~" she notes.

25 Peters has not been swayed by close friends who have babies.

26 ~~"They spend the first three months staring at the baby.~~

27 I won't give my life over to that.
 28 The Smurfs become your life."
 29 Feminist Gloria Steinem, 54, ~~also~~ made a deliberate choice.
 30 "I ~~either~~ gave birth to someone else," she explains, "or I gave birth to myself."
 31 [P5] The postponers refuse to make a decision, ~~allowing relationships, professional commitments and finally nature~~
 32 ~~to make the choice for them.~~
 33 Dr Karen Rohde, 41, a suburban Chicago obstetrician, has some regrets about not having had kids, ~~but~~ is devoted to
 34 medicine and her second marriage to a man with grown children.
 35 "Time got away ~~from me~~," explains Rohde.
 36 "I never made a firm commitment to say no to having children.
 37 Now I've decided it is not going to happen.
 38 ~~Whenever I see a particularly sweet looking baby, I just think of what they're like when you take them home.~~
 39 ~~Then I'm glad I'm not the one who has to lose sleep taking care of them."~~
 40 [P6] Steinem believes women want men to share the burdens of parenting.
 41 "Women are on baby strike.
 42 They have said, 'I'm not doing this myself.'
 43 ~~Certainly, many men still want to have children; but most are content to leave child raising to their wives.~~
 44 ~~Still, some men are opting for childlessness too.~~
 45 Ed McCrary, 41, a recovering alcoholic who works for a rehab center in Charlotte, N.C., and his wife, also a
 46 recovering alcoholic, have decided against having children ~~because the "chances are too high" that the baby too would~~
 47 ~~become an alcoholic.~~
 48 [P7] The childless have found ways to satisfy their nurturing instincts.
 49 Jon Wilkman, 45, a Los Angeles filmmaker, advocates "uncle empowerment" which enables him to take his nephews to
 50 concerts and plays.
 51 Toni Moore, 47, a schoolteacher from Charlotte who has been married eight years and has chosen not to have children,
 52 helps pay tuition fees for her niece and nephew and takes them along ~~on special vacations.~~
 53 New York City-based Joni Evans, 45, publisher of Random House trade books, ~~openly~~ mothers her authors and colleagues
 54 and feels no societal pressure to have children.
 55 ("People ask, Are you a child person or not? You're not? O.K.")
 56 ~~As for fears of growing old without children, Psychologist Goodchilds explains, "For many, not having children removes~~
 57 ~~the concern of being a burden to your children in old age."~~
 58 ~~However, outright regret is not unusual.~~
 59 ~~Despite three nephews, a golden retriever and a cat, Suzanne Childs, 45, a twice-divorced Los Angeles lawyer, says,~~
 60 ~~"Knowing what I know now, I would have married someone different and had a child."~~
 61 [P8] Other women feel the same way.
 62 New York Psychologist Felice Gans ~~regularly~~ hears "anticipatory regret" ~~from female patients in their early thirties.~~
 63 Says Gans: "They ask, 'Will I regret this? What is wrong with me that I didn't want a baby all along?'"
 64 (She notes, ~~however,~~ that she also counsels many women who regret having had children.)
 65 Some discontented women blame feminism ~~for encouraging their childless state.~~
 66 Feminist Author Betty Friedan, who relishes her role as the mother of two children, ~~sharply~~ disagrees. She insists
 67 that feminists are addressing the problems of working mothers.
 68 "Half the women who are childless at forty are not childless ~~by real choice,~~" says Friedan.
 69 "They have not had children ~~because they are in male structured jobs with no good day care available."~~
 70 [P9] A backlash of sorts against childlessness may have ~~already~~ begun: the birth rate among college-educated women
 71 20 to 24 years old is beginning to climb.
 72 ~~Nonetheless,~~ the decision to have or not to have children is a profound one.
 73 Says Yankelovich: "Society is accepting childlessness, ~~but some women question whether they have violated a~~
 74 ~~biological law."~~
 75 Most childless adults who have deliberately made the choice enjoy their freedom ~~with few misgivings.~~
 76 But some of those who find themselves sitting on the fence may have ~~already~~ made a decision they did not intend to
 77 make.

The 'nuclear constituents' version (i.e. the text portions not marked for deletion) makes more sense as a text than

the 'main clauses' version, but this is due primarily to the fact that quite simply a smaller portion of the text has been deleted. Indeed, since the aim of the above exercise was just to decide which constituent positions are required by a particular verb, it did not really yield what Brown and Miller call nuclear sentences:

Nuclear sentences are the most 'basic', simplest, sentence types in the language (1980:72)

Of course, it would be possible to arrive at these by reducing the individual constituents of sentences to their bare minimum, for instance by dispensing with all modifications and qualifications in noun phrases and only leaving the head (and determiner if necessary).

However, the crucial problem with using syntactic criteria for text condensation, and the reason why these exercises are quite unsatisfactory procedures, is the fact that while it is very well possible to have a theoretical construct of a 'minimal' sentence, it is not possible to identify how clause elements function in text simply by reference to how they function in sentences. What one needs is an analysis which goes beyond syntactic relations, surface or deep, and looks at how the structures actually function as communicative units in context.

2.3. GRAMMATICAL STRUCTURE AND DISCOURSE ORGANIZATION: MATTHIESSEN & THOMPSON

This is precisely the focus of a study by Matthiessen and Thompson (1988), which argues that

it is not possible to define or even characterize 'subordinate clause' in strictly sentence-level terms. In other words, in order to characterize what it is that distinguishes a 'subordinate' from a 'main' clause, one must appeal to the discourse context in which the clause in question appears. (p.275)

In order to establish this link between grammatical structure and discourse organization, Matthiessen and Thompson proceed in two steps: first, they make a distinction between *embedding* and *hypotaxis* and second, they draw an analogy between *hypotaxis* and the rhetorical organization of discourse. Our primary concern here is to investigate what bearings their insights have on the claim that main clauses code main information and dependent clauses code subordinate information.

First, embedding and hypotaxis. Following the Hallidayan view of grammatical functions, and in particular the relationships holding between clauses, Matthiessen and Thompson demonstrate that what many grammars subsume under the term *subordination* are really dependent clauses of two very different kinds, namely instances of embedding on the one hand and hypotactic clause combining on the other. The difference between the two is that in embedding, one clause functions as a constituent within another clause, whereas in clause combinations "two or more clauses combine without being constituent parts of one another" (p.282). The two examples which Matthiessen and Thompson give to clarify the distinction are also a good illustration of the fact that formal criteria alone would not reveal the (functional) difference between them: according to Quirk et al., they would simply both fall within the category of clauses introduced by the subordinating conjunction *before*. Matthiessen and Thompson explain that in

the happy days before the Magistrate had been invited (p.284),
 the *before*-clause is embedded in a noun phrase and
 functions as a postmodifier of the head noun *days*, whereas
 in

Before he left Krishnapur, the Collector took a strange decision (ibid.)

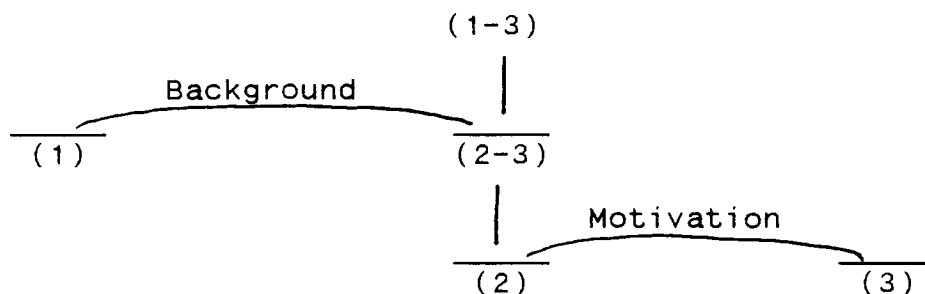
a temporal relation holds between the two clauses, but
 "there is no sense in which one is part of the other"
 (p.283). The *before*-clause here is part of a hypotactic
 clause combination.⁵

The second, and main, purpose of Matthiessen & Thompson's
 study is to demonstrate that the grammar of clause
 combining reflects discourse organization, or more
 specifically, that *hypotaxis* can be viewed as a
 grammaticalization of the hierarchical structure of
 discourse. Matthiessen & Thompson start from the assumption
 that discourse comprehension is based on a general
 cognitive tendency to perceive texts in hierarchically
 organized groups of units, or 'chunks', and that "all text
 can be described in terms of such hierarchical relations
 among its various parts" (p.289) Their analysis of
 expository English has yielded about 20 such continually
 recurring relations. Here is an example of a short text
 (broken down into units which roughly correspond to what
 are traditionally called clauses) comprising two different
 rhetorical relations:

1. Someone left a coffee cup in my office over the weekend.
2. Would the owner please come and get it
3. as I think things are starting to grow? (p.293)

This text can be seen as a request (to come and get the
 coffee cup; unit 2), preceded by background (unit 1) and

followed by motivation (unit 3). The hierarchical nature of this grouping can best be represented like this:



In Matthiessen & Thompson's terminology, unit 2, the request, is **nuclear** to both the background and the motivation **satellites**. What is of particular interest to us here is Matthiessen & Thompson's observation that the nucleus-satellite distinction is a text-organizing device to be found in all the texts they analyzed. They

take it to reflect the fact that in any multi-unit text, certain portions realize the *central goals* of the writer, while others realize *goals which are supplementary* or ancillary to the central goals. (p.289, original emphasis)

It follows from this that analyzing a text in terms of the nucleus-satellite distinction could be a very useful technique for identifying the 'central', or 'nuclear' ideas on which a summary of that text could be based.

But what do these rhetorical relations have to do with the concern of this section, namely the distribution of information in dependent and independent clauses, or as Matthiessen & Thompson put it, "how is a clause combination like a text" (p.300)? The answer lies in a fundamental analogy between clause combining and the rhetorical organization of discourse:

the relationships among the units coded by clauses in clause combinations in our texts are of exactly the same type as those among the higher-level rhetorically defined text spans. This suggests that the principles of clause combining should not be thought of as different from those governing the way texts in general are organized. (p.300)

This means that nucleus-satellite relations tend to be grammatically coded as hypotaxis, with the nucleus expressed by the independent (primary) clause and the satellite by the dependent (secondary) clause. For instance, in our 'coffee-cup' example above units (2) and (3) form a clause combination where unit (2), the independent clause, is the nucleus and unit (3), the dependent clause introduced by *as*, is the satellite. As far as the structure of the example as a whole is concerned, units (2+3) form the nucleus and unit (1) the satellite. This means that the nucleus - satellite relation is an organizing feature of the entire example as well as within the hypotactic clause combination. Without going into detail here about the criteria on which Matthiessen & Thompson base this analogy, the important point is that they provide discourse-oriented terms with reference to which the secondary clauses in hypotactic clause combinations can be characterized as 'subordinate' to, 'dependent' on, or 'less important' than their main clauses. In other words, it is its subordinate role with respect to the nucleus which makes the hypotactic, or satellite, clause 'subordinate'.

This brings us back to the definition of dependent clauses, and to the criticism levelled at Tomlin's study in this respect on above. We are now in a position to improve on his definition of 'subordination' by introducing Matthiessen & Thompson's distinction between hypotaxis and

embedding: in order to exclude 'less important' information, we can delete all secondary (i.e. dependent) clauses in hypotactic clause combinations, which are satellites in discourse terms. As to those dependent clauses which are instances of embedding,

the use of the embedded clause depends on what it is embedded as, for example whether it is embedded as subject (in which case it is affected by the same constraints as subjects in general) or as a post-modifier in a noun phrase (in which it is grammatically optional, as post-modifiers generally are). (Matthiessen & Thompson 1988: 303)

Hence the very fact that embedding is a purely intra-sentential phenomenon with no direct relation to discourse function disqualifies it as a means of identifying 'subordinate' and 'central' information.

This leaves us with hypotaxis as the only grammatical coding of 'subordinate' information. So let us return to the *Childlessness* text and see whether Matthiessen & Thompson's refinement of the syntactic criteria can help solve the problems that arose from Tomlin's definition. Of the 46 dependent clauses occurring in the text, 27 are instances of embedding and 19 are the secondary, or dependent, members of hypotactic clause combinations. Going back to the different degrees of 'deletability' discussed above, viewing rhetorical satellites as 'subordinate' and hence non-essential does go some way towards explaining why some clauses are deletable and others are not:

The 19 hypotactic clause combinations in the *Childlessness* text are of three different kinds (for an overview of the terms used, see endnote 5):

In terms of logico-semantic relations between clauses,

there is **enhancing** hypotaxis (which is the sub-type that Matthiessen & Thompson discuss), and **elaborating** hypotaxis, exemplified by non-restrictive relative clauses. Both these are sub-groups of what Halliday calls **expansion**, and they are radically different from the second kind of logico-semantic relationship between clauses, which is **projection** (indirect speech in traditional terms). Instances of indirect speech are the third kind of hypotaxis in the *Childlessness* text.

Starting with this kind, what becomes clear instantly is that Matthiessen & Thompson's hypothesis, which is restricted to enhancing hypotaxis, cannot be extended to projection. All eight instances of indirect speech lose the core of their message if the dependent clause is deleted. What is more, all except one also become grammatically unacceptable or doubtful, for example

?Half jokingly, she speculates ~~that her decision not to have children stems from her childhood play with Barbie dolls.~~(l. 25)

? Yet despite the highly visible new crop of infants, not all Americans are sure ~~they want to help fuel the baby mania.~~(l. 5)

This leaves us with elaborating and enhancing clause combinations, which are sub-groups of expanding hypotaxis (cf. endnote 5).

Non-restrictive relative clauses are the secondary clauses in **elaborating** hypotaxis. They function "as a kind of descriptive gloss to the primary clause" (Halliday 1985:204), hence no essential information is lost when they are deleted:

John Wilkman, 45, a Los Angeles filmmaker, advocates "uncle empowerment", ~~which enables him to take his nephews to concerts and plays~~(l. 51-52)

Feminist Author Betty Friedan, ~~who relishes her role as the mother of two children~~, sharply disagrees. (l. 68)

As to the second sub-group of expansion, **enhancing** hypotactic clause combinations, there are 9 instances of it in our text. This is the kind that Matthiessen & Thompson deal with as grammatical encoding of rhetorical nucleus-satellite relations, which means that we should be able to delete their secondary (dependent) clauses without losing vital information. With eight out of these nine clauses this is the case, for example

~~If their younger sisters, now between 25 and 35, also decide not to give birth~~, the childless rate is likely to remain unusually high. (l. 11-14)

In general, the former make their decision early in life, ~~often after perceiving their own mothers' lives as restrictive and unfulfilling~~.(l. 21-22)

~~Whenever I see a particularly sweet looking baby~~, I just think of what they're like when you take them home. (l. 40)

~~Knowing what I know now~~, I would have married someone different and had a child. (l. 61-62)

However, the same is not true at all of the following example, where the context reveals that the *because*-clause is by no means redundant:

("Half the women who are childless at forty are not childless by real choice," says Friedan.) "They have not had children ~~because they are in male structured jobs with no good day care available~~.(l. 70-71)

This example contradicts the 'secondary hypotactic clause = satellite' equation in that the *because*-clause actually represents the nucleus of the Reason-relation expressed by the clause combination. Matthiessen & Thompson themselves

(1988:308) quote the following analogous excerpt from a narrative as a counter-example to their hypothesis:

Towards the finish, however, we must have held rather too independent a line, for we lost the hounds, and found ourselves plodding aimlessly along miles away from anywhere. It was fairly exasperating, and my temper was beginning to let itself go by inches, *when* on pushing our way through an accommodating hedge we were *gladdened by the sight of hounds in full cry in a hollow just beneath us.*

Here the hypotactic *when*-clause represents the nucleus rather than the satellite in the clause combination beginning with *my temper*.... Matthiessen and Thompson comment on this by stressing that the grammatical coding of nucleus-satellite relations by hypotactic clauses is a tendency, not a categorical rule:

...there are some instances of hypotaxis which do not reflect Nucleus-Satellite relations and vice-versa.

...

...when such relations are grammatically coded, they are often, *but not always*, coded as hypotaxis. (p.308, original emphasis)

The question which is raised by the above 'exceptional' examples is of course the one of the rhematic as opposed to thematic status of adverbial clauses (in Prague School terms) and how this interacts with sentence (initial/final) position.⁶ This issue of information structure is one I shall take up in the next chapter, but it does not have any direct bearing on the purpose of the present section, which is to investigate whether dependent clauses, irrespective of their position in the sentence, tend to code less important information than independent ones.

2.4. CONCLUSIONS: THE LIMITATIONS OF SYNTACTIC SIGNALLING

The conclusion we can draw from all the attempts discussed above which seek to establish some correlation between syntax and information value is that this cannot be done with any reliability if we restrict ourselves to sentence-level criteria.⁷ In that sense, there is little point in the exercise as such: after all, what made this approach potentially attractive for summarization in the first place was its apparent quasi-mechanical, algorithmic nature.

It seems, then, that there is no point in trying to refine definitions of grammatical categories such as 'subordination' in order to make them into useful means of extracting 'main information' from texts. Discourses are not simply strings of orthographic sentences which in turn consist of dependent and independent clauses: even if there is a tendency for central information to be expressed in main clauses and less important information in dependent clauses, there are still different degrees of 'mainness' and 'subordination', and we are still left with the task of deciding which main clauses are 'mainer' than others. And to be able to do this we need to make reference to criteria which lie well beyond the domain of sentence-level grammar.⁸ The crucial problem with using syntactic criteria for text condensation, and the reason why this exercise is an unsatisfactory procedure, is the fact that while it is very well possible to distinguish between 'main' and 'subordinate' parts in sentences, they do not necessarily correspond to 'main' and 'subordinate' utterances in instances of actual discourse. The result of such purely formal procedures is meaningless, or rather, the sentences still have

meaning as instances of usage, they express propositions by combining words into structures in accordance with grammatical rules (Widdowson 1978:11).

This kind of meaning is termed **signification** by Widdowson (ibid.). But what is lost in those syntactic condensation procedures is the value the utterances have as instances of use (cf. Widdowson 1978: ch. 1).

To come back to Matthiessen & Thompson: the reasons why their model is superior after all (from my point of view) to Tomlin's do not lie in more sophisticated categories, but precisely in the insight that 'subordinate clauses' cannot be defined in strictly sentence-level terms, and that the discourse context always has to be taken into account. Also, as Péry-Woodley (1989:147) points out, the particular strength of their model lies in the fact that

it is much better able to account for the hierarchical complexity of discourse, with for instance satellites at one level of analysis being part of a nucleus at another level.

Another advantage of Matthiessen & Thompson's approach as far as the present study is concerned is that they deal with expository discourse - albeit only "small written expository texts" (p.287) - and that their conception of rhetorical relations as pervasive organizing devices suggests an answer to the question brought up in the discussion of Tomlin (1985) above, namely what the 'chunks' of expository prose might be that correspond to his *events* in narrative: Matthiessen & Thompson maintain that

the perception of texts in terms of *hierarchically organized groups of units* is a linguistic reflex of a general cognitive tendency (p.289).

These groups of units are their rhetorical relations (such as request, justification, elaboration, background, etc.), and it is on these that they build their Rhetorical Structure Theory (cf Mann & Thompson (1986) and (1988)) . These relations are in some respects similar to Meyer's (1975) categories, which I shall be discussing in chapter 4.

Matthiessen and Thompson's concept of clause relations hinges on their observation (as already quoted above) that

in any multi-unit text, certain portions realize the *central goals* of the writer, while others realize *goals which are supplementary* or ancillary to the central goals. (Matthiessen and Thompson 1988:289, original emphasis)

However, one problem which they do not manage to solve (and which was already mentioned in the discussion of Tomlin's paper above) is that of the *heuristic circularity* of the definition of what is central, or important, in a text. Let us look at the example with reference to which they themselves elaborate on this issue:

(from Language Sciences, April, 1969)

1. Sanga-Saby-Kursgard, Sweden, will be the site of the 1969 International Conference on Computational Linguistics, September 1-4.

2. It is expected that some 250 linguists will attend from Asia, West Europe, East Europe including Russia, and the United States.

3. The conference will be concerned with the application of mathematical and computer techniques to the study of natural languages, the development of computer programs as tools for linguistic research, and the application of linguistics to the development of man-machine communication systems.

This text can be seen as a general claim (Unit 1), followed by two pieces of detail elaborating on this claim (Units 2-3). (Matthiessen and Thompson 1988:287)

They go on to analyse the above text as consisting of a nucleus (Unit 1) and a satellite (Units 2 -3), with an *Elaboration* relation holding between nucleus and satellite. However, it seems to me that since there is nothing in the text as such which signals its rhetorical structure, one can only decide that Unit 1 is the nucleus when one has 'understood' that the main purpose of the text is to make the announcement expressed in Unit 1, and vice versa. Matthiessen and Thompson comment on this example further on in their paper like this:

in the 'Computational Linguistics' text ... the analysis claims that Unit 1 is the nucleus of this text, with Units 2 and 3 providing supplementary, elaborating, material. This nuclear - satellite distinction reflects the fact that the central goal for the writer of the text, as perceived by readers, is to convey information that a particular computational linguistics conference will be held.

Judgments about what is nuclear and what is supplementary, then, are made by readers as part of a general tendency ... to impose structure reflecting 'central' and 'less central' on certain types of perceptual input. For texts, these judgments are based on our perceptions, as ordinary readers, of what the text is designed to accomplish. Such judgments turn out, in general, to be easy to make, though there may be problematic cases; the analysis of texts into hierarchically organized nuclear and satellite parts reflects the fact that readers consistently make such judgments as part of their comprehension of texts, and writers construct texts expecting them to be able to do so. (p.290, emphasis added)

I do agree in general with Matthiessen and Thompson's representation of the essential interaction between writer and reader in the sense that each relies on the cooperation of the other, takes into account expectations, makes assumptions about shared knowledge, and so on. However, the problem which arises from the above quotation is what the role of the analyst is in relation to the writer-reader

interaction. Thus, when they say "the analysis claims ...", this analysis is based on the analyst's (or analysts') judgement of importance, not on that of "ordinary readers". So how can we be sure that the analyst's analysis captures the readers' reading, and why should we expect all readers' readings to be the same, anyway? If we cannot, is there a model of discourse analysis that would allow for variable responses while at the same time ensuring **some** sort of consensus? And, taking the writer's intentions as a starting point, are there any objectively identifiable linguistic means by which s/he can signal relative importance/salience?

This last question is really the one which this chapter started from, and one potential answer to which it has sought to explore, namely that syntactic status might be a clear indicator of importance of information. The problems that arise from the application of purely syntactic criteria for establishing information value indicate that this procedure is neither valid nor reliable, but the identification of these problems has brought into focus several issues which clearly warrant further investigation.

One such issue, which Matthiessen and Thompson mention only in passing, but which provides a pointer to possibly more valid approaches to notions of salience, is that of **different kinds of importance:**

It is worth pointing out that 'important' is not the same as 'main', 'principal', or 'nuclear'. 'Subordinate', 'appended', or 'satellite' information may also be important for the success of a text. (p.312)

This distinction between "important" in the sense of

"principal" on the one hand and "important for the success of a text", i.e. for a successful interaction between writer and reader on the other, ties in with Tomlin's categories of *foreground* and *background* information: foreground information is "information which is more important, or significant, or central to the narrative", background information "serves to elaborate or enrich foreground information." (1988:87)

It seems that both Matthiessen and Thompson's as well as Tomlin's distinctions, in that they allude to the different functions which elements fulfill in discourse, correspond to Widdowson's *focal* and *enabling acts*:

we should be able to distinguish between two principal types of act that the writer performs. The first type, which I will call *focal* acts, have as their purpose the expression of the facts, ideas, views, and so on which the writer wishes to convey and which represent his initial purpose in writing. The second type, which I will call *enabling* acts, serve to facilitate this conveyance. The focal acts relate to the writer's role as addresser: their function is to express his message. The enabling acts relate to his role as addressee: their function is to anticipate reactions from the prospective reader which might interfere with the transmission of the message. (Widdowson 1984:49)

What we are concerned with here is the rhetorical operation of different linguistic forms, a matter which will be forced on our attention increasingly as we proceed in our enquiry. These notions of Matthiessen and Thompson, therefore, move us along the continuum outlined in chapter 1 towards a more functional analysis.

NOTES chapter 2

1. This definition of information levels and the functions which foreground and background propositions perform is reminiscent of Widdowson's *focal* and *enabling* acts (e.g. 1984:49); see further below about how these relate to the concern of this chapter.

2. Tomlin does not disclose which grammar(s), if any, he consulted for his definition of dependent clauses. I chose to use Quirk et al. (1972) here because it is a very widely used grammar which is compatible with, but more explicit than, Tomlin's criteria and which would have been available to him at the time of conducting his study (whereas Quirk et al. (1985) would almost certainly not have been).

3. The decision as to which elements should be marked for deletion was based on purely formal considerations. Where this procedure resulted in grammatically ill-formed (*) or doubtful (?) sentences, these were marked accordingly. However, despite Quirk et al.'s detailed list of formal markers of subordination, there are several constructions whose inclusion in the category of subordinate clauses is up to the analyst's interpretation of Quirk's criteria. The two most frequent of these are: a) the combination of reporting clauses plus direct speech, which is considered one entity here and therefore classed as comprising one main clause, and b) postmodifying appositive constructions, which are classed as subordinate clauses when containing a verbal element, as in *fears of growing old*, but which are not regarded as subordinate clauses when they are verbless, as in *his wife, also a recovering alcoholic*.

4. These adjectives point to the phenomenon of different kinds of importance: of course, when the prime objective is to impart factual knowledge, *giggling*, *gurgling* can be said to be clearly superfluous. However, looking for information is not always the main purpose of reading. Affective and interpersonal features may be at least as important in achieving the desired effect on the reader: they draw the addressee into the reading of the text, they elicit a certain emotional response. This is precisely what *giggling*, *gurgling* do in our example: they are not just descriptive, but persuasive - or rather, they echo the intended persuasive effect the 'cute' babies are intended to have on the viewers targetted by the TV commercials described in the article. I take up the question of the effect of texts and reader reaction in chapters 6 and 7.

5. According to Halliday (e.g. 1985:ch.7), two types of relationship hold between the clauses in a clause complex (or clause combination in Matthiessen and Thompson's terms): interdependency (parataxis or hypotaxis) and logico-semantic relations (expansion and projection). The clearest way to

represent the ways these interrelate is in the following diagram, adapted from Halliday (1985:197):

LOGICO-SEMANTIC RELATIONSHIP		INTERDEPENDENCY	
		paratactic	hypotactic
e x p a n s i o n	elaboration	John didn't wait, he ran away.	John ran away, which surprised everyone
	extension	John ran away, and Fred stayed behind.	John ran away, whereas Fred stayed behind.
	enhancement	John was scared, so he ran away.	John ran away, because he was scared.
p r o j e c t i o n	locution	John said: "I'm running away."	John said he was running away.
	idea	John thought to himself: "I'll run away."	John thought he would run away.

The first clause in each clause combination is called **primary**, the second, **secondary** clause.

Matthiessen and Thompson actually only investigate one subgroup of expansion, enhancement, with regard to its discourse function, but the important point which holds irrespective of logico-semantic relation is the fact that hypotaxis and embedding need to be kept apart.

6. For instance, Giora (1983:159) observes that "syntactic subordination ... is informationally subordinate only in sentence initial position. In sentence final position, syntactically subordinate clauses may have a foreground reading." Péry-Woodley (1989:138f.), in comparing Giora (1983) and Tomlin (1985) comes to the conclusion that "the apparent contradiction between Tomlin and Giora stems from the fact that they are not 'talking about the same thing', they are not concerned with the same domain of salience." According to Péry-Woodley, Giora is concerned with *local salience* (foregrounding of an element in the sentence) whereas Tomlin is concerned with *discourse salience* (foregrounding in the discourse). While I agree with Péry-Woodley about the different domains of salience, this does not alter my conclusion that syntactic criteria are a very unreliable means of determining information value.

7. This is also an observation that Péry-Woodley (1989) makes in her discussion of the relationship between subordination and information packaging (pp.121ff): "It is...in a very rough way indeed that one can expect degree of syntactic complexity to be related to topic selection...there is not...a direct relation between a particular syntactic form and an information packaging function." (p.127)

8. There seems to be a certain degree of ambivalence in Matthiessen & Thompson (1988) as to what domain they are concerned with. Acting as intermediaries as it were between grammar and discourse they often resort to a double option, namely "discourse (text)", as if leaving the choice to the reader, for example in "Before we turn to the nature of discourse (text) organization, we will explore..." (p.278); "First we will draw an analogy between the organization of clause combinations and of discourse (text) in general." (p.299)

CHAPTER 3

INFORMATION STRUCTURE: THEME-RHEME AND FSP

The ... principle is this:
Express at the end of a sentence the least predictable, the newest, the most important, the most significant information, the information you almost certainly want to emphasize. (Williams 1985:34)

3.0. INTRODUCTION

If such a principle were universally followed, there would be no problem about summarization (and no need for the present enquiry). But is it?

In the last chapter I sought to demonstrate why syntax (the distinction between dependent and independent clauses) is not an adequate criterion for discriminating between levels of importance in discourse. Throughout that chapter, references to an alternative way of looking at the distribution of information within sentences kept cropping up (implicitly in the fact that Matthiessen & Thompson base much of their concept of rhetorical relations on Halliday's work, and explicitly in the mention of the rhematic as opposed to the thematic status of adverbial clauses): this, of course, is the notion of thematic structure and the numerous concepts associated with it, such as functional sentence perspective (FSP), communicative dynamism (CD), given vs. new information, theme - rheme structure, etc.¹ These approaches are concerned with the way information is distributed over segments of sentences -or, some claim, even larger textual units.

3.1. FUNCTIONAL SENTENCE PERSPECTIVE

Indeed, there are several linguists who argue that FSP, although its origin and primary concern is within the domain of the sentence, is relevant to the analysis of texts:

Vande Kopple (1986), after discussing several formulations of FSP and their terminological distinctions, singles out the distribution of GIVEN and NEW information as the one most amenable to practical text analysis. He adopts a view of given information as that

which centers on elements that have been mentioned prior to a particular point in a text or that are recoverable from the text or the extralinguistic situation. New information includes the elements not meeting these criteria. (Vande Kopple 1986:79)

Vande Kopple points out that much of the experimental evidence supporting the hypothesis that the segment expressing given information should precede the segment conveying new information (e.g., Clark & Haviland's (1977) given-new contract) is based on tests involving only individual sentences or pairs of sentences. To remedy this, Vande Kopple conducted experiments with expository paragraphs and came to the conclusion that paragraphs following the given-before-new order are significantly more readable and memorable than their variants. Vande Kopple then goes on to review some work touching upon the relationship between the distribution of given and new information and the structures of texts (van Dijk (1977, 1979, 1981), Givón (1983a), Witte (1983)) and calls for more research into the question

whether we can more precisely and explicitly relate expressions of given information in sentences in a

text to the overall topic or gist of that text.
(op.cit.:106)

This, of course, is precisely the question I am concerned with here.

Another writer who is optimistic about the application of FSP to text analysis is Evangelisti Allori (1988). Using Halliday's concept of thematic structure, she seeks to establish

the relevance of thematic structure to the identification and recovery of [the] hierarchical concatenation of concepts in whole texts. ...whether and how the local structural organization relates to the overall plan of the text, and whether relationships of logical dependency can be recovered from it. (Evangelisti Allori 1988:23)

Evangelisti Allori conducts a very thorough analysis of thematic progression in a substantial argumentative text and identifies topical, marked and structural themes. She suggests that the thematic organization of clauses reveals the

main line of information development as structured by the writer,... the 'backbone' of information structure in the overall development of the text (op.cit.:50).

If we accept her conclusions, then Evangelisti Allori provides us with further evidence of the possibility of extrapolating from sentence themes to discourse.

While Evangelisti Allori deals with reading, Bloor & Bloor (1987) apply FSP to the analysis of EFL students' writing. They claim that "certain infelicities can be explained in terms of a failure to grasp the principles of thematic organisation" and go on to show "how FSP explains what goes

wrong and offers indications for the correction or avoidance of such errors". Although they do not make any reference to summarization as such, they are mentioned here because they point out the usefulness of FSP for the analysis of such aspects as information structure and the signalling of salience in longer stretches of text, viz. student essays. So with respect to language pedagogy they seem to agree with Vande Kopple, who says that

if we help students identify [thematic] progressions in natural texts and help them practice with the syntactic devices in English that allow us to move information around in sentences ..., we might be able to help them recognize a major source of text connectedness and write texts that facilitate readers' processing. (Vande Kopple 1986:91f)

Firbas himself emphasizes

the significance of the theory of FSP for composition research, even though the theory seems to be preoccupied with sentences. ... Whereas the theory of FSP begins with the sentence and moves on to larger units, composition research may well choose to move in the opposite direction, taking the entire text as its starting point. (Firbas 1986:67)

Connor & Farmer (1990), building on Lautamatti's (1978) work, suggest ESL writers use "topical structure analysis" for understanding the relationship between sentence topics and discourse topic. They recommend using this method for achieving coherence in the revision of essays.

There is, then, considerable support for the idea of applying the principles of FSP and its variants to the analysis not only of sentences, but of entire texts, and this is where FSP becomes potentially relevant to the concerns of the present study: if the notions of thematic structure, FSP, etc. also apply for whole texts, then they

hold the promise of providing a means of distinguishing between different levels of importance, or salience, expressed in those texts. And if they 'keep' that promise, they might offer a solution to my problem of finding an objectifiable procedure for identifying important information in texts in order to summarize those texts. In order to be able to judge the applicability of FSP for my purposes, and considering the proliferation of terminology in this area, it seems expedient to state the basic concepts that probably all functional perspectivists would agree upon. Palková & Palek (1977) make reference to five components, which can be regarded as the common denominator of FSP, four of which are relevant for writing²:

- a) The idea that it is possible to draw a distinction between segments in a sentence which present information already known (from the context or the situation) and segments conveying new information which cannot be inferred by the listener.
- b) The idea that it is possible to distinguish segments which are context dependent, i.e. which are connected with segments of another sentence of the same text.
- c) The idea that it is possible to distinguish in a sentence segments which are of greater or lesser communicative importance; this importance is first and foremost a question of the speaker's purpose.
- d) The idea that in communication there is a certain favoured order of saying something (y) about something (x), which is mapped in the sentence and wherein x usually precedes y.
(Palková & Palek 1978:213, emphasis added)

Of these four ideas, the third one, which is concerned with communicative importance, obviously is the one most central to the present concerns. The crucial question is how it relates to the other three, in other words, whether it is possible to determine the relative degrees of importance of

the constituent parts of a particular sentence through an analysis of the thematic structure of that sentence. If there is some way of identifying what is communicatively important in FSP in reference to these other factors (a, b and d), this might yield some kind of calculus for working out an absolute communicative value of different constituents.

3.2. THEMATIC STRUCTURE: SENTENCE TO TEXT

In order to establish the relevance and applicability of FSP to summarization, the next question to ask is how the communicative value of the constituents on the local sentence level relates to the textual level. In other words, is it possible to extrapolate from degrees of importance reflected by thematic structure in sentences to degrees of importance in larger units such as paragraphs and texts?

In principle, it seems that the answer to the first question above is given by statement c) above, which asserts that it is possible to distinguish between segments of greater or lesser importance in a sentence. The question that interests me, however, is whether this constitutes a systematic and reliable discovery procedure, across different texts and different readers. So, when deconstructing statement c) a little further, the following issues arise from it: Who does the *distinguishing* - Writers? Readers? Analysts? And according to which criteria? How are the relevant *sentence segments* defined? What is meant by *communicative importance*?

Perhaps it is best to turn to actual examples of texts used by the proponents of FSP in order to see what this approach

reveals about degrees of importance. I should like to home in on the three most prominent scholars in the area of FSP - Halliday, Danes, and Firbas - and, after the briefest possible sketch of their concepts³, see how they apply these to texts. The point of the exercise is to establish which insights for distinguishing between different degrees of communicative importance can be gleaned from their methods of analysis, and how these can be made operational in the procedure of summarization.

3.2.1. Theme as point of departure: Halliday

In Halliday's systemic grammar, THEMATIC STRUCTURE concerns the internal organization of the "clause as message" into THEME and RHEME:

...the theme [in English] is indicated by position in the clause. In speaking or writing English we signal that an item has thematic status by putting it first. ... As a message structure...a clause consists of a Theme accompanied by a Rheme; and the structure is expressed by order - whatever is chosen as the Theme is put first. (Halliday 1985:38, emphasis added)

The writer's or speaker's choice as to which elements are thematized in a passage strongly influence the kind of model the hearer or reader will construct during comprehension. This is demonstrated by Brown & Yule (1983:128ff), who also point to some limitations of thematic structure analysis. Halliday's identification of theme⁴ "as that element which comes in first position in the clause" (1985:39) may be a convenient tool for comparing thematic structures across texts and even across languages. What it does not provide, however, is any guidance for summarization. Consider, for instance, an example of journalistic prose:

Due in bookshops soon from Faber and Faber is a small paperback which reveals more about the way British television drama is really produced than all the weekend symposiums and university gabfests I've attended in the last ten years. It consists of seven chunks, one each from ... The title, *Ah Mischief*, comes from Hare's contribution. He tells of going nervously to visit ... (qu. in Brown & Yule 1983:143f)

Here the succession of the themes *Due in the bookshops*, *It*, *The title*, *He* does not do more than give us the vague idea that this passage might have something to do with a book. Basically Halliday regards thematic structure as a phenomenon within the clause. Jones (1977) is interested in theme in discourse; her concerns are therefore close to mine, and I agree with her criticism of this limitation to clause level :

By describing the theme system as a structural system, and by limiting structure to sentences or lower constructions, Halliday has implicitly limited himself to only studying theme in clauses and sentences. Consequently, I am rather uncomfortable with his describing the theme system as a type of text system, since he doesn't analyze theme in terms of text at all. (Jones 1977:86, original emphasis)

Jones is referring to Halliday's publications up to 1970. 14 years on, in his *Introduction to Functional Grammar*, Halliday does not diverge significantly from this view; there is only one short reference to units above and beyond the clause:

...we find thematic organization appearing in different guises throughout the system of the language, with manifestations both above the clause and below it. ... Above the clause, the same principle lies behind the organization of paragraphs in written discourse; the 'topic sentence' of a paragraph is nothing other than its Theme. (Halliday 1985:56)

Quite apart from the fact that the concept of *topic sentence* is problematic (and will need to be discussed elsewhere), this analogy between the clausal and the

textual level is not discussed nor, save for one example, demonstrated.

3.2.2. Thematic progression: Danes

Danes (1974:106), following Mathesius (1942), defines THEME as something "that is being spoken about in a sentence" - which is not really specific enough for identifying themes in actual sentences. In his discussion of theme he also agrees with Hausenblas (1969), who regards theme as

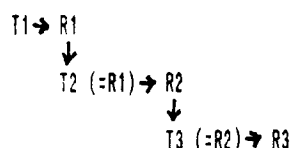
what has been posited to the fore, into the focus of the field of vision and, at the same time, what presents a foundation to be developed (elaborated) in the subsequent discourse. (Hausenblas 1969:7, qu. [and transl.?] by Danes 1974:112f)

Although Danes' definition of theme refers to the sentence, he is the only major representative of the Prague School who has always been interested in THEMATIC PROGRESSION across sentences. His definition of this term raises high hopes for someone concerned with tracing main ideas in texts:

Our basic assumption is that text connexity is represented, *inter alia*, by thematic progression (TP). By this term we mean the choice and ordering of utterance themes, their mutual concatenation and hierarchy, as well as their relationship to the hyperthemes of the superior text units (such as paragraph, chapter, ...), to the whole text, and to the situation. Thematic progression might be viewed as the skeleton of the plot. (Danes 1974:114, emphasis (bold) added)

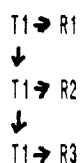
Could one not say that summarizing is precisely the rendering of that "skeleton of the plot"? Let us look at Danes' presentation of the main types of thematic progression (1974:118ff):

Type 1 is simple linear progression, in which "each R [rheme] becomes the T [theme] of the next utterance":



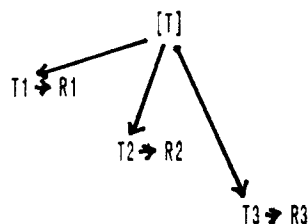
example: The first of the antibiotics was discovered by Sir Alexander Fleming in 1928. He was busy at the time investigating a certain species of germ which is responsible for boils and other troubles.

Type 2 is thematic progression with a continuous (constant) theme, in which "the same T appears in a series of utterances ..., to which different R's are linked up":



example: The Rousseauist especially feels an inner kinship with Prometheus and other Titans. He is fascinated by any form of insurgency... He must show an elementary energy in his explosion against the established order and at the same time a boundless sympathy for the victims of it... Further the Rousseauist is ever ready to discover beauty of soul in anyone who is under reprobation of society.

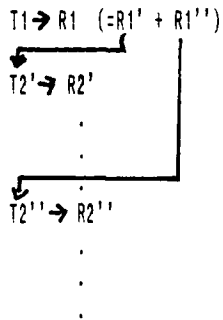
Type 3 is thematic progression with derived themes, in which "the particular utterance themes are derived from a "hypertheme"":



example: New Jersey is flat along the coast and southern portion; the northwestern region is mountainous. The coastal climate is mild, but there is considerable cold in the mountain areas during the winter months. Summers are fairly hot. The leading industrial production includes chemicals, processed food, coal, petroleum, metals and electrical equipment. The most important cities are Newark, Jersey City, Paterson, Trenton, Camden. Vacation districts include Asbury Park, Lakewood, Cape May, and others.

Danes adds to these a fourth type, which is a frequently occurring combination of types 1 and 2. This he calls "the exposition of a split rheme", in which the constituent

parts of a split rheme (R', R'', etc.) become the themes of successive thematic progressions:



example: All substances can be divided into two classes: elementary substances and compounds. An elementary substance is a substance which consists of atoms of only one kind... A compound is a substance which consists of atoms of two or more different kinds...

Danes adds that

TP's are often complicated by various insertions (supplements, explanatory notes) or asides. They may also occur in an incomplete or somewhat modified form. (p.121)

The question now is whether recognizing such a type of thematic progression and being able to follow it through a given text could be used as an instrument for summarization, by revealing the "skeleton of the plot". Since it is the progression of **themes** that Danes is concerned with, it is presumably the themes in a text on which one would have to base the summary. In the example of type 1, the skeleton would consist of *the first of the antibiotics ... he*, and in type 2, of *the Rousseauist ... he ... he ... (further?) the Rousseauist*. Type 3 would yield *New Jersey ... The coastal climate ... summers ... the leading industrial production ... the most important cities ... vacation districts*, and the fourth type *all substances ... an elementary substance ... a compound substance*.

This procedure gives rise to a number of questions and observations. To start with, there are problems with the

application of the procedure as such: a definition of theme as vague as "what is being spoken about in a sentence" does not make for a reliable identification of themes, since it is up to the analyst to decide just what that is. In all probability most analysts would, consciously or unconsciously, be taking into account Halliday's criterion for identifying themes, namely that of sentence-initial position. This implies that the thematic analysis of type 3, for instance, would look quite different if the last two sentences of that example started with the proper names instead of *the most important cities and vacation districts*.

This brings us to the next point, which is that the illustrative texts Danes uses are quite appropriate for the clarification of his concept of thematic progression, but should not mislead one to expect that they are in any way typical: in fact they are extremely homogeneous and cohesive. In this respect I agree wholly with Péry-Woodley's criticism that

this representation is highly idealized. Without denying its intrinsic interest and its ability to account for progression in certain texts, I cannot accept its implicit tenet that all texts are cohesive and that cohesion from sentence to sentence is the fundamental principle of coherence. (Péry-Woodley 1989:149)

Furthermore, it is not clear just what exactly Danes takes the term *sentence* to comprise: does he mean orthographic sentence, or clause (independent and dependent), or T-unit, which Hunt (1970:4) defines as "one main clause plus any subordinate clause or nonclausal structure that is attached to or embedded in it"? The clarification of this issue is

crucial because it determines what counts as theme and thus also what the thematic progression of a given passage is like. I shall come back to this problem in my discussion of Firbas below.

Another question, and a central one for summarization, is what it means to say that the thematic progression might be viewed as the skeleton of the plot. Going back to the themes isolated from the texts illustrating types 1 - 4 above, it is clear that just listing the themes does not get us very far generally, but seems to be more meaningful in types 3 and 4 than in 1 and 2. This is because in 3 and 4, the thematic progression reflects the hierarchical structure of these texts, with a superordinate theme at the top, from which the subsequent themes are derived. What remains unexplained, of course, are the processes that lead to the identification of super- and subordinate themes in the first place: the entire pragmatic side of comprehension, for instance such processes as discrimination and generalization, are not accounted for.

The analysis of thematic progressions, then, yields the structural skeleton of texts: it may be a good pointer to discourse structure, but it reveals little about the propositional contents of a text, which clearly is crucial for summarization.

So where do we look for this content in the framework of FSP? Having dealt with theme, the only obvious candidate left is the non-theme, which is commonly termed RHEME. Danes, again based on Mathesius (1942), defines it as

what the speaker states about, or in regard to, the starting point [=theme] of the utterance" (op.cit.:106).

Later on in the same paper, Danes actually draws a distinction between theme and rheme which emphasizes the different functions the two parts perform in functional sentence perspective:

the rheme...represents the core of the utterance (the message proper)...from the point of view of text organization, it is the theme that plays an important constructional role. The rheme shows its significance as the conveyor of the "new", actual information, while the theme, being informatively insignificant, will be employed as a relevant means of construction. (op.cit.:113)

It is enlightening to compare Halliday (1985:42), where it is stated that "...in a Theme-Rheme structure it is the Theme that is the prominent element". This would seem to indicate that prominence (Halliday's theme) and significance (Danes' rheme) appear somehow to be in opposition, or at least to be quite distinctive. The phenomenon that Danes describes in the above quotation is COMMUNICATIVE DYNAMISM, a term introduced by Firbas to reflect

...the fact that linguistic communication is not a static, but a dynamic phenomenon. By CD I understand a property of communication, displayed in the course of the information to be conveyed and consisting in advancing this development. By degree of CD carried by a linguistic element, I understand the extent to which the element contributes to the development of the communication, to which, as it were, it pushes the communication forward. (Firbas 1972:78)

3.2.3. Communicative dynamism: Firbas

According to Firbas, the lowest degree of CD is carried by the theme, and the highest by the rheme⁵. The rheme is therefore the element with the greatest communicative importance. Since in a summary one would aim to retain all the important elements and discard the unimportant ones, it would follow that any summary could be based on all the rhemes identified in a given passage. Now if rheme were linearly defined, along Halliday's lines, in terms of position in the sentence, we would have here a perfectly reliable, automatic discovery procedure for identifying communicative importance. However, this is not the case; for Firbas, linearity is only one factor contributing to the development of communication in a sentence, and it does so by entering into an interplay with two other factors which in fact carry more weight as far as CD is concerned: these are context and semantic structure. Of these three factors, it is the context that plays the dominant role in this interplay. According to Firbas (1986:44f), the immediate context denotes the "immediately relevant preceding verbal context and/or the immediately relevant situational context", and an element expressing known information, i.e. information retrievable from that immediate context, is communicatively less important than an element expressing new, non-retrievable, information - irrespective of the position the element occupies in a sentence. Thus CONTEXT-DEPENDENCE is a criterion hierarchically superior to LINEAR MODIFICATION. It is also superior to SEMANTIC STRUCTURE, which is dependent on what Firbas calls the *dynamic semantic functions* performed by the sentence elements, such as, for instance, *Setting*, *Appearance/Existence*, *Phenomenon appearing/existing on the*

scene, etc. Assuming that they are context-independent, these can all be located on a scale representing a gradual rise in CD (cf. Firbas 1986:47ff for details, which are not relevant here).

Having introduced these three factors contributing to the distribution of CD - that is, to FSP - and their hierarchical order *context > semantic structure > linear modification*, we come to a concept which is central to Firbas' view of FSP, that of INTERPRETATIVE ARRANGEMENT. Firbas uses this term in opposition to linear arrangement to denote "the [underlying] arrangement of the sentence elements according to the gradual rise in CD irrespective of the positions they occupy in the [actual] sentence" (1986:47). The aspect which interests me in this regard is the word *interpretative*, because it points to the problem which Firbas' method of analysis poses in terms of reliability: valid as his (rather complex) conceptualization of FSP may be, it is highly dependent on interpretation, which makes it more subjective and difficult to apply. Let us look at an actual text analyzed by Firbas (1986:58ff):

(1) A heavy dew had fallen. (2) The grass was blue. (3) Big drops hung on the bushes (4) and just did not fall; (5) the silvery fluffy toi-toi was limp on its long stalks, (6) and all the marigolds and the pinks in the bungalow gardens wre bowed to the earth with wetness. (7) Drenched were the cold fuchsias, (8) round pearls of dew lay on the flat nasturtium leaves. (Collected Stories of Katherine Mansfield, London, Constable, 1945, p.205)

Based on judgements of context-dependence, semantic structure and linearity, Firbas identifies the rhematic layer of this extract as follows: (1) *a heavy dew*, (2) *blue*, (3) *big drops*, (4) *not fall*, (5) *limp*, (6) *to the earth with wetness*, (7) *drenched*, (8) *round pearls of dew*. Thus Firbas demonstrates that this rhematic layer

shows a high degree of semantic homogeneity. The first rhematic element ... introduces the notion of "a heavy dew" into the narration, and all the remaining rhematic elements express the various forms of wetness and the effects it has produced. (Firbas 1986:59)

While this is certainly a valid observation (and not surprising, since it would probably be in accordance with most readers' intuitions), I would take issue with an interpretation of that rhematic layer as representing the gist (in the sense of "main point or general meaning" (OALDCE)). This is a claim that Firbas makes not about this particular extract, but about another text he analyzes, and which I presume he would regard as true in general: "the gist of the speech is presented within the rhematic layer of the passage" (1986:64). I would object to this claim for the following reasons:

a) Firbas himself admits that his method of analysis is not reliable, in the sense that different readers would arrive at the same results. He points out that units 3 and 8 allow a different reading, which would result in the elements *big drops* and *round pearls* being placed in the thematic, rather than in the rhematic, layer, which of course would result in "reduc[ing] the high degrees of homogeneity which the thematic and the rhematic layers display" (p.61) and thus in defeating Firbas' main argument. It seems to me that this particular example points to a general problem in Firbas' framework, which is that the analysis of context-dependence and semantic structure requires pragmatic intervention and thus is always open to different interpretations.

b) It is difficult to see how the rhematic layer, which after all only consists of an enumeration of rhemes, can be said to express the gist of any discourse at all. To my mind, this has to do with the notion of *gist* implying an essentially different level of discourse processing which can hardly be reflected in the enumeration of elements taken directly from the text. Since this is an observation relevant to the discussion of FSP in general, I shall come back to it in the concluding remarks below.

c) Another problem, and one which poses itself with virtually every FSP analysis of genuine texts, is that of the domain of functional sentence perspective, the unit over which certain degrees of communicative dynamism are distributed. As is evident from the analysis of the Mansfield-passage above, Firbas deals with grammatical sentences, i.e. clauses, rather than orthographic sentences or T-units. Consequently, with every new grammatical unit there is a new distribution of information, which results in rhemes all appearing to be on the same level, which they are not. Consider, for example, the first three orthographic sentences of the Mansfield-extract: while the first and second consist of one clause each, the third one comprises four. However, in the ensuing enumeration of rhemes this stylistic aspect is obscured, the choice the writer made is 'neutralized'. That Firbas chooses to proceed in this way is particularly surprising in view of the fact that he himself emphasizes the significance of the writer's communicative purpose (pp.56f), and actually even quotes Katherine Mansfield as saying "I choose not only the length of every sentence, but even the sound of every sentence." (p.61, emphasis added). Generally speaking, it seems to me that the only way of taking into account, or

respecting, a writer's motivation for organizing information in orthographic sentences is not to dissect these any further into units which may be relevant for a grammatical analysis, but not for studying the distribution of information in texts.

Connected with this is another problem which arises when FSP is applied to genuine texts and relates the discussion to the previous chapter: that of **sentence complexity**. Péry-Woodley points out that

Complex syntax can ... be seen as creating a hierarchy of topics, facilitating the reader's task of sorting major topics from sub-topics in the construction of a topic at discourse level. (Péry-Woodley 1989:192)

Unfortunately, this potential for signalling a hierarchy of topics is left untapped by FSP. Wherever illustrative examples are used for demonstrating the principles of FSP, these tend to be simple sentences: the short texts used by Danes and Firbas which were presented above do not contain any subordinate clauses (hypotaxis or embedding); Brown & Yule (1983:4.3), Quirk et al (1972:14.10) explicitly exclude dependent clauses in their discussion of theme, and Vande Kopple (1986:73, 77) points out that functional perspectivists usually equate *sentence* with *independent clause*. Firbas (1986:62ff) does tackle a text with a lot of subordination, and it is here that the problems become most apparent. Firbas maintains that

irrespective of its place within the network of subordination, a subordinate clause or semiclauses serves as a unit within its superordinate structure, at the same time providing a distributional subfield of CD. (Firbas 1986:61f)

It would seem to me that if one is interested in the distribution of CD in the entire text, the crucial question is what kind of "unit within [the] superordinate structure" a subordinate clause represents. In other words, what is the relationship between units on different grammatical levels? Unfortunately this question is left unanswered by Firbas, for while he does analyze the thematic structure of both independent and dependent clauses, he does so in two subsequent, separate 'runs', which leaves us with two different sets of analyses. For instance, the first sentence of the text is first analyzed as follows:

India will solve the Punjab problem without	}
yielding to "separatist ideologies and to the	} ...Rheme
cult of violence,"	}

Mr Rajiv Gandhi, the Prime Minister,

...Theme

has told

...Transition

the nation

...Rheme

Then the direct speech, which is one of the two rhemes in this sentence, is further analyzed into

India

...Theme

will solve

...Transition

the Punjab problem

...Rheme

without yielding to "separatist ideologies and

to the cult of violence"

...Rheme

We have here rhemes on different levels: two in the first analysis, of which the first one, which constitutes the direct speech, is analyzed further into theme + transition + 2 rhemes. What is left unexplained by such an analysis is just what the relationship is between those different rhemes, how each contributes to the development of the communication, what importance is attributed to each of them in relation to the others - in short, those aspects that allow a distinction between different levels of salience, or importance, thus making summarization possible.

3.3. EVALUATION AND CONCLUSION

Having looked at the three main formulations of FSP and their applicability to the procedure of identifying salient information, the main difference between them could be expressed in terms of the reliability - validity scale mentioned in chapter 1: at the one extreme we have Halliday, who provides us with a kind of automatic discovery procedure for theme in that theme is simply indicated by clause-initial position, which makes the

analysis of thematic structure perfectly reliable and easy to apply, but practically worthless for summarization. In the middle there is Danes, whose thematic progressions reach beyond sentence boundaries and thus are more valid in terms of textual analysis; on the other hand, the lack of a clear definition of theme reduces the reliability of his approach. At the other end of the scale there is Firbas, whose definition of theme and rheme in terms of communicative dynamism promises more for determining degrees of salience; however, the very characteristics which make his procedures more valid - viz. judgements of context-dependence, interpretation of semantic structure - also make it ultimately subjective and thus extremely unreliable. In this sense, the differences between Halliday and Firbas encapsulate the concern of this entire part of the thesis, which is to explore the reliability and validity of various models of text analysis in their application to summarization. What seems to be emerging is a kind of trade-off between these two criteria, whereby a decrease of reliability is the price to pay for an increase in validity.

Irrespective of the differences between the various proponents of FSP, the main reason why the notions of thematic structure, communicative dynamism, thematic progression, etc. have a very limited potential for summarization lies in the kind of discourse processing they address: they are basically devices for immediate on-line processing, whereas what is required, above all, for summary is a retrospective formulation of gist. This means that of the two levels involved in comprehension and interpretation, thematic structure can only deal with the assimilating, but not with the discriminating one: although

it may reach across sentences, or may be overridden by factors such as context, it is essentially a linear phenomenon, instrumental for on-line processing⁶. Consequently, what is signalled by communicative dynamism is not, as the definition of the term (pushing the communication forward) might suggest, global but local significance, that is, it only reflects significance in the immediate contiguity. It seems reasonable, therefore, to draw a distinction between different kinds of salience: local salience, an essentially linear phenomenon, whose scope is basically the sentence, and which is picked up by the reader during on-line processing for assimilating information, and global salience, whose scope is the text, and which is worked out by the reader retrospectively, after processing the whole text (or at least extended passages of it) and discriminating between different local levels of importance.

This distinction between different kinds of salience is also addressed by Péry-Woodley (1989):

At the level of the discourse, or discourse-segment, the salient elements are those that carry over from sentence to sentence, or that embrace several sentences. Discourse salience is attached to elements which make it possible for the reader/hearer to determine what the text is about, it has to do with high-level relevance, i.e. relevance across sentences or paragraphs; ... Local salience is attached to elements which are new, unpredictable, which make the text 'move forward', but are limited in impact to the sentence in which they appear (Péry-Woodley 1989:144f)

It is clear from this quotation that Péry-Woodley regards Firbas' communicative dynamism as addressing only local salience. Taken together with her criticism of Danes' thematic progressions, which is that they represent a bottom-up view of texts and can therefore not be related to

the notion of discourse topic (cf.p.150), her evaluation of FSP and thematic structure is consonant with mine, namely that this approach cannot account for the signalling and perception of global salience.

This is also the conclusion that van Dijk (1981) reaches when exploring the issue as to whether sentential topics are related to textual topics. He argues against positing any direct relationship between *sentence topic* and *discourse topic* on the basis that

...the two notions are theoretically different. At the level of the sentence, a topic is a specific function assigned to some part of a (possibly compound) proposition and indicates the way information is *linearly distributed*, whereas a textual topic indicates how information is *globally organized*. In the first case, the topic is the link, between given information and new information, for each sentence in the discourse, whereas the textual topic is the hierarchical organization of the whole of information in all sentences, taken 'at the same time'. (van Dijk 1981:190, original emphasis)

3.4. SAMPLE ANALYSIS OF THE *Childlessness*-TEXT

This analysis is meant to be illustrative rather than exhaustive; it is intended to focus the discussion on particular problems by applying FSP analysis to the article from *Time Magazine* which was also used in the previous chapter. Only the first paragraph will be analyzed here:

Title: The Dilemmas of Childlessness

Careers and indecision are leading many to bypass parenthood

Babies seem to be everywhere these days. Current movie fare offers *Three Men and a Baby*, *Baby Boom* and *She's Having a Baby*. Even television commercials are using giggling, gurgling newborns to sell for grownup products such as carpets, insurance and automobile tires. Yet despite the highly visible new crop of infants, not all Americans are sure they

want to help fuel the baby mania. Observes UCLA Psychologist Jacqueline Goodchilds: "Many people are questioning the assumption that fulfillment for a woman is having children."

For an analysis à la Firbas, everything depends on our judgements of context-dependence and of the semantic structure of the sentence, i.e. "the semantic contents of the elements and the semantic relations in which they enter" (Firbas 1972:79). The first sentence of the article is a good illustration of the kind of interpretative decisions that need to be made:

Babies seem to be everywhere these days.

If we regard the beginning of the text as a fresh start, independent of what has gone before in the title and headline, then *babies* is context independent, and the whole sentence is an implementation of what Firbas calls the *Existential Scale*. In this interpretation, and using Firbas' (1986:48ff) terminology, *babies* is a "Phenomenon appearing/existing on the scene", *seem to be* is the verbal group expressing appearance/existence, and *everywhere* is the "Setting". In this case, the sentence is, to use Firbas' term, "Ph[enomenon]-oriented", which means that *babies* carries the greatest communicative dynamism, it is the rheme. *Seem to be* is the transition, and *everywhere* is the theme. However, a decision to take the title and headline into account and to regard the beginning of the text as a continuation would change the whole picture: in this case, *babies* is context-dependent, and the sentence is an implementation of what Firbas (1986:49) calls the "Quality Scale": this makes *babies* the "Quality Bearer", the verbal elements perform the function of expressing a quality, and *everywhere* is a "Specification" conveying new

information. It follows that the sentence is Sp[ecification]-oriented, which means that *everywhere* is the rheme, and *babies* the theme, i.e. the element with the lowest degree of communicative dynamism. Considering that the title and headlines are certainly intended to be read before the beginning of the main body of the text, and also the fact that were one to read the sentence aloud the nuclear stress would most probably fall on *everywhere*, I would argue for the second interpretation, i.e. that with *everywhere* as rheme. Linear arrangement (according to which the degree of CD gradually increases towards the end of the sentence) does not help in the decision, since the last element, *these days*, seems fairly obviously not to be the most important one.

Similar problems come into play in the next sentence:

Current movie fare offers Three Men and a Baby, Baby Boom and She's Having a Baby.

Again, the decision as to whether we class this sentence as an implementation of the Existential Scale or the Quality Scale depends on whether we consider *current movie fare* context dependent or independent - but since the only possible 'contextual antecedent' for *current movie fare* is *everywhere* in the preceding sentence, I would tend to regard that as too broad, and opt for an interpretation in which *current movie fare* is newly introduced in the discourse as a "Phenomenon appearing/existing on the scene". This makes the whole sentence Ph-oriented, which means that *current movie fare* is the rheme, and the titles of the three films constitute the theme. This interpretation is supported by the fact that the film

titles all have the word *baby* in them, which is given information retrievable from the first sentence.

The next sentence is more straightforward:

Even television commercials are using giggling, gurgling newborns to shill for grownup products such as carpets, insurance and automobile tires.

Here everything except the non-finite purpose clause starting with *to shill* is context dependent; hence the infinitival clause constitutes the rheme. Incidentally, a link suggests itself here with observations made in the previous chapter, which deals with the the relationship between syntactic status and levels of importance: Firbas (1986:69 n.14) points out that syntactic subordination, such as the one in the sentence above, "does not necessarily entail a fall in CD. On the contrary, it is frequently linked with a rise in CD".

Sentence number 4 also contains a dependent clause:

Yet despite the highly visible new crop of infants, not all Americans are sure they want to help fuel the baby mania.

Clearly, *the highly visible new crop of infants* is context dependent; by analogy with Firbas' own analyses (1986:58ff) it represents the "Setting", and therefore a theme, in this Quality Scale. *Not all Americans* also expresses known information, according to Firbas' definition of context, which is "the immediately relevant preceding verbal context and/or the immediately relevant situational context" (Firbas 1986:44): although (*not all*) *Americans* are not mentioned explicitly before, they are clearly evoked situationally, or rather culturally, by the fact that *Time*

magazine is an American weekly, that the films and TV commercials which are mentioned are known to an American audience, and hence the people which the article is about are Americans.

Are sure, in Firbas' terms, is the transition to the rheme containing the new information, which is expressed by the asyndetic dependent clause starting with *they want....*⁷ Now, as Firbas point out "a subordinate clause ...serves as a unit within its superordinate structure, at the same time providing a distributional subfield of CD" (Firbas 1986:61f). So what is the distribution of CD in our dependent clause? Clearly, *they* and *the baby mania* are context dependent and therefore themes. The highest degree of CD therefore resides in the main verb *fuel*, possibly together with its modal modification (*want to help*) which therefore constitutes the rheme. The main problem which arises in the analysis of this particular sentence is that we end up with several themes, and two 'nested' rhemes, but the analysis does not say anything about the (presumably hierarchical) relationship between all the members of the respective categories. One might conjecture that *fuel* is the element with the highest degree of CD in the entire orthographic sentence, because it is as it were the rheme of the rheme, but Firbas does not enlighten us on this issue. As I pointed out above, this inability to account for the relationships (or hierarchies of CD) among different rhemes seems to be one of the main weaknesses of Firbas' approach, and one which becomes particularly apparent when one tries to make his model operational for summarization.

The last sentence of the first paragraph of the *Childlessness* text runs as follows:

Observes UCLA Psychologist Jacqueline Goodchilds: "Many people are questioning the assumption that fulfillment for a woman is having children."

Leaving aside the problems of the relationship between reporting sentence and direct speech on the one hand and between independent and dependent clause within the direct speech on the other (because they are essentially the same as in the preceding sentence), let us consider the dependent clause *that fulfillment for a woman is having children*. Since *for a woman* and *having children* are both context dependent (the former contextually, the latter co-textually), *fulfillment* is the rheme. This means that the interpretative arrangement here runs counter to the linear arrangement, since it is usual for CD to increase gradually towards the end of the clause. As Firbas emphasizes, linear arrangement can be, and often is, overruled by context and semantic structure. Without wanting to go into too much detail here, it seems to me that this possibility of switching the linear arrangement of theme and rheme points to a problem caused by Firbas' claim that every subordinate clause constitutes a distributional subfield of CD in its own right: since the clause in question expresses a kind of equation, 'having children is fulfillment', or vice versa, it simply does not make much sense to dissect it into its component parts because its meaning, as it were, lies in the proposition as a whole. This observation seems to key in with my above criticism of Firbas' insistence on the grammatical rather than the orthographic sentence as his unit of analysis, and it also links up with the concern of

the next chapter, which has to do with the propositional analysis of texts.

In summary, then, it is obvious that FSP in Firbas' framework does not have much to offer in terms of a procedure for distilling salient information from a text. As can be seen from the above sample analysis, decisions as to context dependence and semantic structure can only be taken by reference to one's individual interpretation, which will often vary from one analyst to the other. So in addition to being rather cumbersome, Firbas' method is also unreliable. More specifically, his approach is unable to account for the hierarchical structure of discourse, a feature which is so crucial for summarization. However, despite all these shortcomings, Firbas' model still has the greatest explanatory power of all the approaches to FSP discussed here, since it gives rise to such important considerations as those of context and the semantic roles of the elements involved. As such his model may have valuable contributions to make to language pedagogy. In particular, pointing learners to such notions as orientation towards a particular semantic role, linear vs. interpretative arrangement, and sensitivity to both verbal and situational context can certainly increase their insight into their own reading processes.

We can deal with Danes and Halliday much more briefly.

Of all the types of thematic progression which Danes offers us, our paragraph seems to fit best (if not completely) into Type 3 presented above, in which the themes of individual sentences are derived from a "hypertheme". This hypertheme is *babies*. The subsequent sentences take us

through a sequence of different themes (*current movie fare, television commercials*). With sentence number four we run into problems which are due to Danes' lack of precision in his definition of theme: Is *yet* the theme, or part of the theme? What about the *despite*-phrase? Or is (*not all*) *Americans* the theme? The next sentence is even more difficult to describe, since we do not know whether *observes* is a possible candidate for 'themehood' in Danes' framework, nor do we know how to analyze the relationship between reporting clause and direct speech and between independent and dependent clause within the direct speech.

All these problems illustrate the fact that it is extremely difficult to apply Danes' types of thematic progression to actual texts, that they are, as he says himself, "to be considered as abstract principles, models, or constructs" (Danes 1974:121).

In contrast, Halliday's model is easy to apply, mainly because he is very precise in his description of theme, or rather, multiple themes: textual, interpersonal and topical (cf. Halliday 1985:53ff.) In the notation used by Halliday (1985:64), which lists the three metafunctional components *textual, interpersonal and topical*, the thematic interpretation of our paragraph looks like this:

Theme:	Textual	Interpersonal	Topical
			<i>Babies</i>
			<i>current movie fare</i>
		<i>even</i>	<i>television commercials</i>
	<i>yet despite</i>		<i>the highly visible new crop of infants</i>
			<i>not all Americans</i>
			<i>observes</i>
			<i>many people</i>
	<i>that</i>		<i>fulfillment</i>

What is missing in this chart is an indication as to the syntactic status of the clause themes. This is represented in the other method Halliday uses (1985:66):

paragraph Theme⁸ (from clause 1)	<i>babies</i>
clause Themes:	
independent clause	<i>current movie fare</i>
independent clause	<i>even + television commercials</i>
prepositional phrase (marked)	<i>yet despite the highly visible new crop of infants</i>
displaced Theme ⁹	<i>not all Americans</i>
independent clause (marked)	<i>observes</i>
independent clause	<i>many people</i>

Halliday claims that the thematic organization of the clauses as analyzed above "expresses, and so reveals, the

method of development of the text". It should be noted, however, that it is the thematic development that he is referring to, and that there are other aspects to texts than themes. Of course Halliday does not deny this, but, as Virgilio (1983:209) points out,

Halliday does not systematically relate his system of Theme to those of 'mood' (ie grammar) and 'transitivity' (ie semantics), and hence does not touch upon the issue of the implementation of information structure in writing.

As far as language in use is concerned, discourse comprehension in general and summarization in particular, a more important criticism seems to me to be Evangelisti Allori's:

What an analysis of thematic organization cannot do is to account for implicit logico-semantic links holding between subsequent chunks of information. It seems that, in order to recover these, a reader has to activate a great deal of information based on cognitive, rather than linguistic, knowledge. (Evangelisti Allori 1988:51)

It is precisely these logico-semantic links which need to be clear to a reader intending to summarize, or reformulate the gist of, a particular message. What also needs to be clear is what those "chunks of information" are which are connected by the logico-semantic links. These links hold together larger units of discourse processing, or macrostructures. This takes us further along the continuum to another model, which will be the subject of the next chapter.

NOTES chapter 3

1. These terms are just the most common, but by no means the only ones. What I intend to do in this section is to look at the concept of thematic structure in its broadest sense, hence there will be no attempt at clarifying terminology beyond the immediate requirements of the general argument. The terms *thematic structure* and *FSP* will be used as the most general ones to denote the concepts in question.

2. The fifth one has to do with emphasis in phonic realization, and is therefore not relevant for written language.

3. Because of this necessary brevity, the subsequent introduction of certain key terms (such as *theme*, etc.) may seem a little abrupt at times. For ease of reading, these terms are therefore printed in CAPITALS when they are first mentioned.

4. Halliday stresses that "First position in the clause is not what defines Theme; it is the means whereby the function of Theme is realized, in the grammar of English." (1985:39, original emphasis)

5. For Firbas, the non-theme actually consists of two components: the rheme and the transition. The latter consists of elements performing a linking function between theme and rheme.

6. This is also reflected in the fact that ease of processing is often described as a desirable outcome of understanding thematic structure: for instance, Brown and Yule (1983) repeatedly stress that

"it is possible, though it would need to be demonstrated, that less clearly marked structure is more difficult for a recipient to process". (p.142)

Ease of (immediate) processing is also Vandekopple's (1986) main concern in his experiments, in which he tests for

"cognitive benefits" in terms of how easily readers read the texts and retained information from them. (p.81)

7. To make matters even more complicated (but perhaps also more valid), one could presumably divide *not all Americans* further into *Americans* (given) and *not all* (new), and combine the polarity expressed by the new part with *are sure* to form a rheme in its own right.

8. Although Halliday uses the term *paragraph theme* in his analysis (1985:66), he does not discuss the notion in any detail apart from stating that "the 'topic sentence' of a

paragraph is nothing other than its Theme". Leaving aside the (quite common) problem of paragraphs that do not have a topic sentence, I use the notion of *paragraph theme* here in analogy with his analysis.

9. According to Halliday (1985:67), a "displaced Theme is a topical element which would be unmarked theme (in the ensuing clause) if the existing marked topical theme was reworded as a dependent clause". - in our example, as e.g. *although they produce a highly visible new crop of infants*.

CHAPTER 4

SEMANTIC STRUCTURE: MACROSTRUCTURES

Longacre and Levinsohn (197[8]) mention a language that apparently uses macrostructure markers in the surface structure: in Cubeo, a South American Indian language, certain sentences contain a particular particle; stringing together the sentences of a text that are marked by this particle results in an abstract or summary of the text. (Kintsch & van Dijk 1978:374 n.3)

4.0. INTRODUCTION

Unfortunately other languages do not seem to have the convenient simplicity of Cubeo. In the last chapter I sought to demonstrate why thematic structure is not an adequate indicator of discourse salience, and thus cannot be used as a pointer as to which elements of a text should be preserved when producing a summary of it. The main reason for rejecting thematic structure was that it only helps determine local, but not global, salience. Among the scholars I quoted in support of this argument was van Dijk (1981), who discusses the concepts of *sentence topic* and *discourse topic* and comes to the conclusion that

the two notions are theoretically different. At the level of the sentence, a topic is a specific function assigned to some part of a (possibly compound) proposition and indicates the way information is linearly distributed, whereas a textual topic indicates how information is globally organized.(van Dijk 1981:190, original emphasis)

This insight, of course, while it seems to point in the right direction, still leaves us with the problem as to how this crucial concept of *discourse topic* might be pinned

down, that is, how discourse topics are recognizable as such to readers trying to summarize a text. Van Dijk also offers a lead with respect to this question:

we may assume that the intuitive notion of discourse topic may theoretically be made explicit in terms of semantic macro-structures. (op.cit.:187)

What we have established so far, then, are links between the global organization of discourse and the notion of discourse topic, and between discourse topic and macro-structures. But what of summary? Van Dijk also connects this notion to the other two by stating that

a summary of a discourse is based on the so-called *macro-structure* of the discourse. (ibid., original emphasis)

This is then the first time in this part of the thesis, which represents an exploration of theoretical models that might help explain summarization, that we come across a direct connection between such a theoretical model and summary. Therefore it is not surprising that the macrostructure model, unlike any other discourse model, has been used extensively for the purpose of studying summarization from various points of view: psychological, linguistic, educational.

In this chapter I shall therefore attempt to do the following:

1. give a short overview of the main components and postulates of the macrostructure model in order to make explicit the claims this model makes with respect to describing both the process of summarization and the relationship between source texts and their summaries;

2. give a survey of how the macrostructure model has been operationalized in summarization studies for a wide range of purposes and in a variety of settings;
3. apply the macrostructure model to the *Childlessness* text used in the previous chapters, and
4. evaluate the reliability and the validity of this model.

4.1. MACROSTRUCTURES: THEORY

The above quotations from van Dijk (1981) deal with the connection between the notions of *discourse topic*, *macrostructure*, and *summary*. However, all that can be inferred from them as they stand is a fairly vague association between these terms: what does it mean, for example, to say that discourse topics "are made explicit" in terms of macrostructures, and that a summary "is based" on the macrostructure of the discourse? Who are the agents in these processes, who performs and who perceives these links?

The macrostructure model is a cognitive model of discourse processing with a long and varied history which could be said to go as far back as Bartlett's *Remembering* (1932) (see van Dijk & Kintsch (1978) for a short historical survey). The mainstream publications, however, appeared between the late 1970's and mid-1980's, and among these Kintsch & van Dijk (1978) and van Dijk & Kintsch (1983) have become the most influential.

In the following I shall try to give a very brief outline of the main components and claims of the model in order to

introduce the most important concepts and terms. The purpose of this outline is thus to render what I understand the authors to be saying in order to establish how the various component parts relate to each other, i.e. the extent to which they present a coherent theoretical model. Such a conceptual evaluation is a prerequisite for any subsequent empirical validation which would aim at evaluating the actual operational potential of the model in terms of applying it to data.

Kintsch & van Dijk (1978), a 30-page article entitled *Toward a Model of Text Comprehension and Production*, could be said to describe the prototype of the model. Its main goal is

to describe the system of mental operations that underlie the processes occurring in text comprehension and in the production of recall and summarization protocols. (op.cit.:363)

In order to do this, three kinds of operations have to be considered: the organization of the elements of the text into a coherent whole, the condensation of this text base into its gist, and the generation of a new text. These operations involve a number of elements and sub-processes: the *micropropositions* underlying the sequence of sentences of the text constitute the *microstructure* of the discourse, also termed the *text base*. This microstructure is the input for the *macrorules*, or *macro-operators*¹, which are semantic mapping rules that reduce and organize the detailed information of the microstructure into *macropropositions*, which in turn form a *macrostructure* representing the gist of the text. The macro-operators function under the control of two kinds of *schema*: *schematic structures* characterizing conventional text types such as stories or research

reports, and schemata representing the reader's *goals*. Schemata are extremely important because they determine which propositions are relevant and which irrelevant. These schemata, (which I shall have to come back to presently) as well as knowledge of the world (e.g. about the normal ordering of events) also guide the *production* of recall or summarization protocols. Production is conceived of as reproduction and as reconstruction. The *reproduction* process begins at the propositional level (both micro- and macropropositions), which, together with other perceptual, linguistic and contextual memory traces, forms the text base from which the language user derives the output protocol. *Reconstruction* may take place when micro- or macroinformation is no longer directly retrievable; it draws on world knowledge and involves the application of rules of inference to information still available. In addition to reproduction and reconstruction, the language user may also make various kinds of *metacomments* on the structure, the content, or the schema of the text.

Before going on to a more detailed discussion of macrorules, which are the elements of the model which are central to summarization processes, I should like to have a closer look at Kintsch & van Dijk's presentation of schemata. The reasons for this are twofold: firstly, schemata are clearly a crucial component of the model, since they function as a kind of control mechanism for determining relevance and thus for the operation of macrorules. And secondly, the way Kintsch & van Dijk treat schemata seems to me to be typical of the manner in which they put forward their model in general, symptomatic of their line of reasoning.

As has just been pointed out, schemata play a central role in Kintsch & van Dijk's processing model. All the more desirable would it be to have a clear statement as to the concepts involved and the terms used to refer to them. Unfortunately, however, quite a lot is left unexplained and open to interpretation. For instance, there is no clear distinction made between those schemata which are in principle stable and shared, such as conventional text structures, and those schemata which are presumably idiosyncratic, such as individuals' purposes in reading. Kintsch & van Dijk mention both these kinds of schema as well as a third one, knowledge of the world, without pointing out the relationships among them. The main problem seems to be that they never make explicit what exactly is included in their notion of schema, if it is to be understood as a technical term and if so, what it includes and what it excludes. The first time *schema* is referred to (p.366), it seems to denote world knowledge, which in turn is equated with frame knowledge in Minsky's (1975) sense. Further on on the same page, we are told that *schematic structures of discourse* are features of conventional text types such as stories or psychological reports. This so far leaves us with two kinds of schema, which have to do with world knowledge on the one hand and genre on the other. But then, still under the same heading of *schematic structures*, another aspect is introduced:

Furthermore, schematic structures play an important control function in the processing model to be described below, where they are used not only in connection with conventional texts but also to represent idiosyncratic personal processing goals. (op.cit.:366f, emphasis added)

Kintsch & van Dijk thus add a third notion which they call schema, namely the reader's goals. In their more detailed discussion of the model, the authors actually seem to attribute this kind of schema the greatest importance in processing. Under the heading *Role of the Schema* they say:

The reader's goals in reading control the application of the macro-operators. The formal representation of these goals is the *schema*. The schema determines which micropropositions or generalizations of micropropositions are relevant and, thus, which parts of the text will form the gist. (op.cit.:373, original emphasis)

So is this to say that it is the reader's goals alone that are called schema and determine relevance? The above quotation seems to say just that. But when we read on, we find that conventional text structures come in again by the back door as it were:

It is assumed that text comprehension is always controlled by a specific schema. However, in some situations, the controlling schema may not be detailed, nor predictable. If a reader's goals are vague, and the text that he or she reads lacks a conventional structure, different schemata might be set up by different readers...(op.cit.:373, emphasis added).

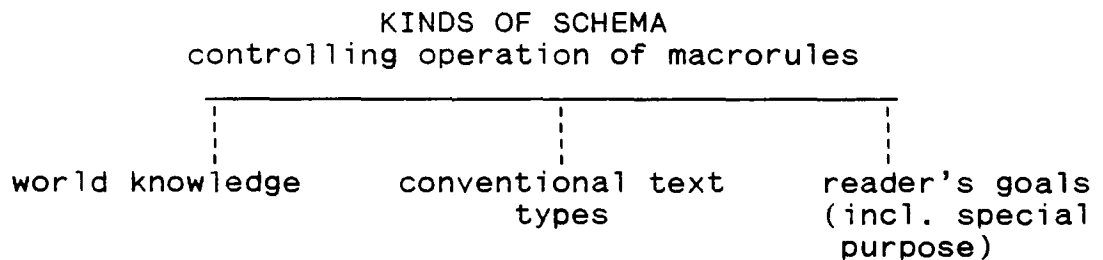
The authors go on to say that research on comprehension should concentrate on those cases where readers share clear goals in reading particular texts, and they mention two kinds of situation which fulfil this requirement: highly conventional text types and special purpose in reading. The former are said to

specify both the schematic categories of texts (e.g., a research report is supposed to contain introduction, method, results, and discussion sections), as well as what information in each section is relevant to the macrostructure (e.g., the introduction of a research report must specify the purpose of the study).(ibid.)

So it is not just reader's goals which determine relevance, but also schematic structures. And what about special purpose in reading? Is this the same as reader's goals, or a subcategory of these, or something different altogether? We are never told the answer to these questions, which is particularly disconcerting since we learn that

the special purpose overrides whatever text structure there is. For instance, one may read a story with the processing controlled not by the usual story schema but by some special-purpose schema established by task instructions, special interests, or the like. (ibid.)

To sum up the results of my endeavour to understand what Kintsch & van Dijk understand by *schema*, the following picture emerges, based partly on actual statements in the text, partly on my own inferences:



[importance for determining textual relevance increasing from left to right]

I hope that it becomes clear from this short discussion of Kintsch & van Dijk's treatment of the notion of schema - and indeed of any other terms they introduce - that it is not the validity of the individual components that I would want to argue with, but the lack of clarity in the presentation of their terminology, and above all their failure to identify the relationships holding among the concepts that make up their theoretical framework.

To come back to summarization as described in this model, it is conceptualized as the reduction and organization of the microstructure of a text into a macrostructure. As pointed out above, this process is carried out by macro-operators, alias macrorules, which now need to be discussed in more detail. Kintsch & van Dijk (p.366) mention three possibilities²:

deletion: each proposition that is neither a direct or an indirect interpretation condition of a subsequent proposition may be deleted.

example: Mary played with a ball. The ball was blue-> Mary played with a ball.

generalization: Each sequence of propositions may be substituted by the general proposition denoting an immediate superset.

example: Mary played with a doll. Mary played with blocks-> Mary played with toys.

construction: Each sequence of propositions may be substituted by a proposition denoting a global fact of which the facts denoted by the microstructure are normal conditions, components, or consequences.

example: They bought bricks. They dug foundations. They built walls...->They built a house.

As mentioned above, these macrorules are described as semantic mapping rules, and indeed for two of these rules, generalization and construction, Kintsch & van Dijk seem to be invoking formal semantic properties of the language as a basis for summarization, namely sense relations. Obviously structural semantics deals with lexical items and the above macrorules with propositions, but the kinds of relationship holding between the elements involved appear to be the same: the "supersets" mentioned in the definition of

generalization seem to equal semantic superordinates in hyponymy relations, and the relationships between "normal conditions, components, or consequences" and "global facts" are strongly reminiscent of part-whole relationships in lexical semantics (cf Lyons 1977:ch.9). If it is indeed the case that the macrorules allow readers to "map", for instance, hyperonyms onto hyponyms, then Kintsch & van Dijk are talking about unambiguous signals in the text as a basis for summary. There seem to be parallels here with the quest discussed in the previous chapters, an effort to find something fixed, some clear formal signals which will enable readers to deduce summaries in an algorithmic way - the difference being that instead of syntactic signals we are here talking about semantic ones.

As far as their scope is concerned, generalization and construction are quite different from deletion, which cannot be reduced to fixed semantic relations. Van Dijk (1977b:11) points out that

DELETION deletes full propositions from a given text base. It is difficult to formulate the precise conditions for the application of this rule. Its intuitive idea is that 'irrelevant' information may be deleted.

A proposition can be regarded as irrelevant, van Dijk continues, if it is not a condition for the interpretation of another proposition, if "it is not a condition for understanding the rest of the discourse" (ibid.) Quite clearly, we have moved from the fairly local scope of the generalization and construction rules, which operate on adjacent propositions, to the one of global relevance: in order to be able to decide whether a proposition will be necessary for the understanding of the rest of the discourse, the reader needs to have established an idea of

the gist of that discourse already, with reference to which the importance of that proposition can be determined. Van Dijk confirms this by saying that "the deletion rule can apply only if we already have macro-structures of previous parts of the sequence" (ibid.). Deletion, then, operates both retrospectively (because it requires macro-structures of previous text parts) and prospectively (because it requires knowledge of the rest of the discourse). This, of course, has implications for assumptions about the kinds of processing which these rules can form part of. Whereas those macrorules which operate locally can be performed on-line, for the assimilation of information, the global deletion rule can only be applied with any confidence when based on a fair amount of knowledge about the gist of the whole text; that is to say, it is also concerned with discrimination.

Macrorules are recursive, which means that they can be applied again and again in several cycles, to organize global meanings into still higher-level global meaning. The level of generality and thus the stringency of the criteria of relevance will depend on task demands.

What is claimed to be a major revision and expansion of this model is presented in van Dijk & Kintsch's 1983 book *Strategies of Discourse Comprehension*. According to the authors,

the model presented in this book should be considered both as a further extension of [the] earlier work as well as a new direction in the cognitive modeling of discourse processing. Whereas our earlier model could still be characterized as predominantly *structural*, we now propose a more dynamic, process-oriented, on-line model, an approach we want to call *strategical*. (op.cit.:4, original emphasis)

It is not made clear what exactly is meant by *structural*, but the implication is that it contrasts with the *strategical* approach, (which is based on a string of "basic assumptions" (pp.4ff.))

While retaining basically the same goals, components and terms as the 1978 model, the main modification concerns the way knowledge is used in discourse comprehension. Whereas the earlier model deals with this issue abstractly, by way of formal rules and statistical approximations, the 1983 book focuses on what van Dijk and Kintsch call the "strategic assumption" of the model (p.6), which reflects the fact that language users are capable of making use of various kinds of information in a flexible way. This means that comprehension does not take place *in vacuo*, but embedded in complex situations and social contexts. This assumption has several implications, such as that mental representations of discourse are constructed by drawing on textual, contextual and cognitive (beliefs, attitude) data³, that this happens on-line (i.e. as soon as possible and with partial information), that the information which is processed may be incomplete and may be processed in several possible orders. The main objective of this process is to be as effective as possible in the construction of the mental representation.

The part of the model which is most central to summarization is now termed *macrostrategies*.⁴

Whereas the definitions of the three macrorules of deletion, generalization and construction remain basically unchanged, van Dijk & Kintsch (1983:192) point out that the

1978 model "was still predominantly static or structural" in its ideas about the organization of discourse in memory and the characteristics of recall and summarization. In contrast, they claim that the modifications of 1983 yield a "more dynamic or strategic approach" specifying the precise processes by which macrostructures are derived from text and knowledge. They also promise a discussion of the textual and contextual cues used by the comprehender as well as a more adequate account of individual differences and differences in tasks, goals or interests in the formation of macrostructures.

The following quotation seems to me to sum up the claims regarding the differences between the two versions of the model. In addition, it can also be regarded as a description of the progression I am trying to outline in this part of the thesis towards increasingly valid methods and descriptions:

Strategic processes contrast with algorithmic, rule-governed processes. An example of the latter is a generative grammar, which produces a structural description of a sentence by syntactic parsing rules. This process may be complex, long, and tedious, but it guarantees success as long as the rules are correct and are applied correctly. In a strategic process, there is no such guaranteed success and no unique representation of the text. The strategies applied are like effective working hypotheses about the correct structure and meaning of a text fragment, and these may be disconfirmed by further processing. Also, strategic analysis depends not only on textual characteristics, but also on characteristics of the language user, such as his or her goals or world knowledge. This may mean that a reader of a text will try to reconstruct not only the intended meaning of the text - as signaled by the writer in various ways in the text or context - but also a meaning that is most relevant to his or her own interests and goals. (van Dijk & Kintsch 1983:11)

Van Dijk & Kintsch are making very extensive promises here, which if fulfilled could reconcile the two opposing, seemingly contradictory requirements of specifying the general principles followed by all language users in understanding the global meanings of discourse while at the same time allowing enough flexibility for variable factors such as individual cognitive sets (knowledge, opinions, interests, goals) and different contexts. What remains to be seen, of course, is how the various strategies which constitute the main concern of this model (cf. title *Strategies...*) operate in unison, in actual operation for the understanding of text.

What lies at the heart of this new dynamic approach, then, is the question as to how language users actually infer the macropropositions, or the gist, of a text. They do this by the step-by-step application of macrostrategies. Van Dijk & Kintsch (1983:196ff) distinguish between two different kinds of macrostrategy which operate hand in hand: contextual and textual. Speaking very generally, the former involve readers' world knowledge and serve to set up expectations about possible topics, while the latter involve readers' text knowledge and serve to derive actual topics from the surface features of the text. Although both these kinds of strategy are discussed side by side, they are presented in quite different ways: contextual macrostrategies are formulated as a rather closed set of procedures for readers, whereas under *textual strategies* we are presented with a somewhat looser list of linguistic signalling devices upon which comprehension strategies can hinge, and which a writer can use to point to intended macropropositions. The following table presents the

contextual macrostrategies as they appear on pp.200f. and sums up the textual macrostrategies (pp.201ff):

MACROSTRATEGIES:

CONTEXTUAL

I: GENERAL CONTEXT DEPENDENCE

Limit semantic searches to the general cultural context of the speaker.

II: ACTUAL SITUATION DEPENDENCE

Limit topic search to the general properties of the actual situation.

III: INTERACTION DEPENDENCE

Decide which topics are directly functional for the actualization of the interactional and pragmatic goals of the speaker.

IV: DISCOURSE TYPE

Decide which topics are characteristic for the discourse type(s) expected in this interactional context.

V: REFERENTIAL FREEDOM

Given I-IV, decide what objects or events can be talked about by whom in a given speech act and discourse type.

TEXTUAL

I: STRUCTURAL SIGNALS

topical/thematic expressions with specific surface features, e.g. beginning or end position, independent sentences, etc.

II: SYNTACTIC STRATEGIES

topic-comment structure; usually indicates only local importance, but indirectly also global via sequential topics.

III: TOPIC CHANGE MARKERS

at the beginning of new episodes, i.e. sentence sequences dominated by a macroproposition; e.g. paragraph indentation, change of possible world, time, place, participants; sentence-initial macroconnectives such as *but*, *however*, etc.

IV: SEMANTIC STRATEGIES

inferences about topics from meanings of initial words, phrases and sentences.

V: SCHEMATIC STRATEGIES

use of superstructural information in the derivation of macropropositions, e.g. expectation of normal or canonical ordering

Macrostrategies are the ones central to the concerns of the present enquiry because they aim at the derivation of gist, but they interact with a number of both lower-level and higher-level strategies: on the local level, there are propositional strategies, which serve the construction of propositions on the basis of word meanings and syntactic structures of clauses (cf. op.cit.:ch.4, esp. p.133), and local coherence strategies⁵, which establish coherence locally by the interpretation of connections between successive sentences (e.g. pronoun understanding, cf. op.cit.:ch.5). On the global level, macrostrategies are accompanied by schematic strategies (cf. op.cit.:ch.7), which consist in the assignment of relevant superstructure categories to each macroproposition, or sequences of

macroproposition, and thus are a powerful top-down processing device.

The position of macrostrategies in the cline of local-global processing strategies can be represented as follows:

GLOBAL	schematic strategies
	macrostrategies
	local coherence strategies
LOCAL	propositional strategies

While it is outside the scope of this study to go into any more detail about local strategies, I do think that the higher-level strategies for the assignment of macrostructures and schematic structures warrant further comments. In particular, there are three issues which need to be investigated rather thoroughly if we want to understand the processes whereby readers actually arrive at a formulation of gist of texts. These are

- the distinction between macrostructures and superstructures,
- the relationship between on-line processing on the one hand and the inferring of the larger overall structure on the other; and, most importantly,
- the assumption of an "objective" analysis as opposed to variability of interpretation.

As to the first of these, macrostructures and superstructures, they both are what van Dijk & Kintsch call *global structures of discourse* (cf.p.189) - so how do they differ?

Macrostructures "were designed to capture the intuitive notion of "gist" of a discourse" (op.cit.:52) and hence

represent the global semantic content of texts.

Superstructures, on the other hand, are "schemata for conventional text forms" and hence represent what van Dijk and Kintsch call "the overall syntax for the global meaning, the macrostructure" (p.16). For instance, the best researched type of superstructure is the narrative schema (cf. story grammars, e.g. Rumelhart (1975), Thorndyke (1977), Stein & Glenn (1979)); the type which features most prominently in van Dijk's more recent work is the news schema (e.g. van Dijk (1985), (1986)). One could say that the relationship between macrostructures and superstructures is that of 'slots' and 'fillers':

Macrostructures, then, are the semantic content for the terminal categories of these superstructural schemata. (op.cit.:189)

Van Dijk and Kintsch point out that the understanding of macrostructures and superstructures is an integrated process (though they discuss them separately): the superstructural schema guides the formation of the macrostructure(s):

if...a language user infers a macroproposition from the first sentence(s) of the discourse, the next strategic step will be the assignment of the specific superstructure function of that macroproposition. If the first sentences of a story describe the time, place, participants or, in general, a situation, then the first macroproposition(s) may be assigned to the setting category. (op.cit.:240)

Macrostructures and superstructures are, of course, reminiscent of another terminological pair from the literature on reading comprehension, namely *content schemata* and *formal schemata* (cf. Carrell & Eisterhold 1987). Let us juxtapose their definitions:

van Dijk & Kintsch

MACROSTRUCTURE(S)

the conceptual global meaning assigned to a discourse (cf van Dijk & Kintsch 1983:194); provide an abstract semantic description of the global content (ibid.:189)

SUPERSTRUCTURE(S)

conventional, and hence culturally variable, schematic structure, an overall form that organizes the global content of the text. (ibid.:16)

Carrell & Eisterhold

CONTENT SCHEMATA

background knowledge of the content area of a text (Carrell & Eisterhold 1987:79)

FORMAL SCHEMATA

background knowledge of the formal, rhetorical organizational structures of different types of a text (ibid.)

As can be seen from these definitions, macrostructures and content schemata have to do with semantic content, whereas superstructures and formal schemata have to do with formal types of text, rhetorical organization, with genre. The difference, however, between the left side and the right side is that while van Dijk & Kintsch talk about characteristics of texts, or assigned to texts, Carrell & Eisterhold refer to characteristics of the reader, to his/her background knowledge.

It is true that van Dijk & Kintsch point out that

it is more appropriate to account for meanings, and hence also for global meanings, as being *assigned* to a discourse by language users (p.193).

But they also assert that "macrostructures are structures of the discourse itself"⁶ (p.195). Carrell & Eisterhold are firmly committed to the view that

much of the meaning understood from a text is really not actually in the text, per se, but in the reader, in the background or schematic knowledge of the reader. (Carrell & Eisterhold 1987:79).

This observation inevitably brings us to the next issue raised above, that of **objective analysis vs. variability of interpretation**. Obviously enough, we enter here the important if familiar area between writer intention and reader interpretation, which has long been haunted with such questions as 'Is there meaning in the text or is it inferred by the reader?' 'Is the reader a free agent and to what extent?' 'Are there conventional linguistic indicators which one can fairly confidently regard as signals of writer intention?' and many more. Quite apart from the myriad of publications in cognitive discourse processing, one only needs to look at volumes such as Carrell, Devine & Eskey (1988) to have ample evidence of the fact that the notion of interactivity in reading - both in the sense of the reader's interaction with the text, and of the interaction between the writer and the reader - is generally accepted in applied linguistics and language pedagogy (though I would not want to claim that it is being acted upon in all classrooms). The common consensus is probably expressed most clearly and succinctly by Widdowson:

...there is no possibility of recovering complete meaning from a text. It is never there in the first place. The act of encoding is best thought of, I suggest, not as the formulation of messages, in principle complete and self-contained, but as the devising of a set of directions. These directions indicate to the decoder where he must look in the conceptual world of his knowledge and experience for the encoder's meaning. The encoder, then, relies on the active participation of the decoder and the decoder is successful in his comprehension to the extent that he understands the directions and is capable of carrying them out.

In this view, reading is regarded not as reaction to a text but as *interaction* between writer and reader mediated through the text. (1979:174, original emphasis)

There are, then, no absolutes, or constants, in the reading process, only variables, and the outcome will depend not on one or the other factor, but on all factors - but to differing degrees in different situations.

Of course, agreeing on this principle in theory is one thing, but acting upon it in practice is quite another matter - in the domain of language teaching as well as in that of cognitive-psychological model building. The crucial question seems to be whether, or how, this vital element of interactivity, and thus of variable response in discourse, can be accounted for and made operational in a specific model of discourse processing.

It seems reasonable to assume that the interactive nature of discourse would become particularly apparent in a process which by definition requires the enactment of both the reader's and the writer's roles, namely summarization. Since summaries, in Kintsch and van Dijk's model, are based on the macrostructure of texts, the question that interests us here, then, is whether or to what extent this model is able to do justice to this crucial quality of the comprehension process.

Van Dijk in particular has in fact long been aware of the tension between the conflicting requirements of a generally valid model on the one hand and flexibility to allow for individual differences on the other, but he never seems to have dealt with this in any satisfactory way. In fact, one could say that through all his earlier writings on macrostructures (e.g. 1977, 1980) there runs a kind of split: on the one hand, the workings of macrorules are presented as predictable, fixed, logically necessary

procedures that will inevitably yield the semantic essence of a particular text; on the other hand, parallel to the postulation of these macroprocesses, relativizing remarks, or disclaimers, keep appearing at regular intervals, to the effect that what readers will regard as the gist of a text will always depend on individual factors such as their "cognitive sets" (beliefs, opinions, purposes, interests, etc.), which by definition are not predictable or generalizable. However, these concessions do not seem to have any effect on the model as such: they remain isolated and marginalized instances of lip-service to these crucial aspects of discourse comprehension. Here are two examples:

In a cognitive process model...we therefore would postulate processes in which certain propositions are deleted and n-tuples of propositions replaced by other propositions. The operations would maintain the semantic 'core' of a certain passage by representing the most 'important' information in that passage.

...

In all these processes there are very complicated sets of specific factors determining comprehension, organization and recall, e.g. the specific FAMILIARITY of the topics, the structural COMPLEXITY of the linguistic or non-linguistic overall structure of the discourse, cognitive and PERSONAL properties of the subjects, the kind of TASKS and the task CONTEXTS (cues, motivation, etc.) involved, DELAYS in reproduction, the presence of (similar) semantic or narrative structures and the experience of processing them, etc. These aspects of processing cannot be dealt with here. (van Dijk 1977b: 156 and 158, emphasis added)

As usual we do as if discourse 'has' a conventional meaning, instead of being 'assigned' such a meaning in actual processes of comprehension. (van Dijk 1980:28)

In order to demonstrate how 'the' reader applies these macrorules van Dijk resorts to representing that reader himself, thus reducing the infinite variety of possible actual readers to the smallest common denominator of an

idealized reader to whom he assigns a certain, preselected cognitive set.⁷

As for the 1983 revision of their model, van Dijk and Kintsch claim that it provides

a more dynamic and strategic approach, in which the precise processes are specified by which a macrostructure is actually inferred from text and knowledge. (van Dijk & Kintsch 1983:192, emphasis added)

This sounds very promising, and indeed, references to individual differences and the interaction between speaker/writer and listener/reader keep cropping up throughout the book. Nevertheless, the above-mentioned split resulting from the acknowledgement of the importance of these aspects on the one hand and the inability of the model to deal with them on the other is just as striking as before, and remains an inherent characteristic of this approach.

For instance, in their outline of the basic assumptions underlying their revised model (pp.4ff.), the authors attribute great importance to the *presuppositional* assumption, which provides for the activation of internal, cognitive information in the processing of external data, and to the *interactionist* assumption, which allows for the consideration of interactants' motivations, purposes and intentions. However, van Dijk and Kintsch conclude this section with the usual disclaimer:

...understanding is no longer a mere passive construction of a representation of a verbal object, but part of an interactive process in which a listener interprets, actively, the actions of a speaker.

It will not be our main task to investigate the nature of the representations and the interpretation

processes of such contextual information, but we will take them into account when formulating the processes of discourse understanding. (op.cit.:8)

What is more, in their remarks on the limitations of their model which immediately follow the presentation of their basic assumptions, the authors point out that they will not take account of differences between language users (knowledge, beliefs, opinions, social roles, etc.). Since one would expect these differences to have to do with the presuppositional and the interactionist assumptions mentioned above, this of course raises the question as to how basic these assumptions are if the limitations can apparently disregard them.

When comparing the earlier and later versions of their model, van Dijk and Kintsch call their 1978 article an

abstract, structural description of macrounderstanding [which] could hardly provide a sound explication of individual differences and differences in tasks, goals, or interests in the formation of macrostructures. (op.cit.:192)

This resulted in a text, which was regarded as nonambiguous, being assigned a single macrostructure. In contrast, a cognitive model of discourse processing should be able to allow for the fact that

depending on different interpretation strategies, different knowledge, beliefs, opinions, attitudes, interests, or goals, each language user will assign his or her own macrostructure to a discourse. Different readers will find different meanings prominent, relevant, or interesting, and will assign different topics or gist to the discourse. (op.cit.:193)

However, the authors go on to say, even a cognitive model

will not specify how John and Mary understand a discourse, but try to formulate general principles. Similarly, adequate verbal communication is possible only if language users have meanings and knowledge in common. Therefore, an adequate cognitive model of macrostructures should specify the general principles followed by all language users in understanding the global meanings of discourse, and show how individual differences presuppose sufficient common information to make communication adequate. (op.cit.:193, emphasis added)

It is precisely this claim of being able to specify general principles followed by all language users that I would wish to contest: while it is certainly necessary for a theory of comprehension to be informed by general principles, it does not follow that this theory could allow for, let alone predict, any general principles that all language users will follow in practice. Every language user is a John or a Mary; as soon as discourse takes place and, in Widdowson's terms, symbols are converted into indices, we are not into generalities but into the particulars of meanings created by individual readers with different "cognitive sets" and different schematic points of reference.⁸

In fact, this problem is vividly demonstrated by van Dijk & Kintsch's sample analysis of an article from *Newsweek* magazine: they claim to outline an "average reader's" (p.209) "plausible processing sequence illustrating the strategic derivation of the macrostructure" (p.210, emphasis added) for the text, dealing with the strategies as if they were not problematic. In order to demonstrate why I do not regard this way of proceeding as quite as straightforward, let us have a look at their analysis of the first paragraph:

GUATEMALA: NO CHOICES

Compared with the relative shades of gray in El Salvador, Guatemala is a study in black and white. On the left is a collection of extreme Marxist-Leninist groups led by what one diplomat calls "a pretty faceless bunch of people." On the right is an entrenched elite that has dominated Central America's most populous country since a CIA-backed coup deposed the reformist government of Col. Jacobo Arbenz Guzmán in 1954. Moderates of the political center, embattled but alive in El Salvador, have virtually disappeared in Guatemala—joining more than 30,000 victims of terror over the last fifteen years. "The situation in Guatemala is much more serious than in El Salvador," declares one Latin American diplomat. "The oligarchy is that much more reactionary, and the choices are far fewer."

Macrostrategies in the Comprehension of the *Newsweek* Text

Propositional input as expressed by sentences	Provisional macro-operation	A. Provisional macroproposition(s)	Specific macrocues	B. Knowledge, beliefs, opinions, attitudes
Title: GUATEMALA: NO CHOICES	ZERO (SELECTION)	There are no (political) choices in G. (1) There is no solution to the problems in G. (Overall macroproposition)	Title/Headline First position Bold, large type	1. POLITICS frame 2. Guatemala frame 3. Central America episodic model 4. Guatemala ep. model 5. US foreign policy ep. model 6. Att.: PRO US-policy or AGAINST US-policy
S ₁	GENERALIZATION or ZERO	(Metaphorical interpr.) The political situation in G. is more extreme than in ES (2)	First sentence Mention of important referents (G., ES)	Specify B.3,4
S ₂	DELETION GENERALIZATION	There are unorganized communists on the left (3)	Opinion diplomat is irrelevant	7. Specify B1 and B5: COMMUNISM frame
S ₃	DELETION	On the right is an elite who has the power and who was helped by US (4)	History and specif. names are irr.	8. Epis. knowl: history of G. 9. CIA frame
S ₄	DELETION GENERALIZATION	Political center has been murdered by regime in G., but still exists in ES (5)	Specifics irr. (30,000 victims)	10. B1 specified: FASCIST frame Mass murders 11. Spec. B3: sit. in ES 12. Opinion: typical fascist actions
S ₅	ZERO DELETION	= (2)	Opinion diplomat irrelevant	
S ₆	ZERO	= (4) and (1)	REPETITION End of paragraph	

(op. cit.: 211)

Moving from left to right through the five columns in the chart above, van Dijk and Kintsch take us through the *Newsweek* article sentence by sentence, deciding in each case which macro-operation to apply, which macropropositions result from this operation, which macrocues are used as evidence, and which knowledge,

beliefs, opinions and attitudes are invoked and brought to bear on the interpretation of the text.

Starting with the first sentence, the authors apply the macro-operation of "GENERALIZATION or ZERO" to it, and through a "metaphorical interpretation" arrive at the macroproposition "The political situation in Guatemala is more extreme than in El Salvador". But how do we know that this sentence is to be interpreted metaphorically?

Certainly the macrocues mentioned do not help us here, since neither "first sentence" nor "mention of important referents" point to a metaphor; and all we are told in the last column is that the "Central America episodic model"⁹ and the "Guatemala episodic model" are specified.

Presumably, the fact that this article is placed in the political section of the magazine, rather than in one where we would expect to find articles about, say, art or the climate or geology, points to the fact that the reference to shades of grey is not to be taken literally. But this is not made explicit.

As for the macrocue "first sentence", paragraph-initial position is not necessarily an indicator of macrorelevance. As is clear from the literature on "topic sentences" (cf. Braddock 1974), this way of proceeding is highly unreliable (a point made also in chapters 3 and 5 of this thesis). And how do we know that Guatemala and El Salvador are "important referents", except with hindsight?

About the next sentence we are told that its first part is generalized to "there are unorganized communists on the left", whereas the postmodifying participle clause ("led by...") is deleted. Again, there remain open questions:

What, for instance, explains the inference that the communists are "unorganized"? And how do we know that "opinion diplomat is irrelevant"? Is it the premodifier *one* ("...what one diplomat calls..."? If so, this needs to be spelt out.

Deletion is also performed on sentence 3, in which "history and specific names" are regarded as irrelevant. The question, again, is how we know at this stage in the unfolding of the text that this is the case. One could argue that the juxtaposition achieved by the parallel beginnings of sentences 2 and 3 ("On the left is..., On the right is..."), i.e. thematization in Halliday's sense, is a pointer to macrorelevance, but there is no mention of any textual signals in the chart.

In sentence 5 van Dijk & Kintsch list the same macrocue as in sentence 2, "diplomat's opinion irrelevant", and basically this raises the same questions as before. Contrary to the previous occurrence, though, the function of what the diplomat says is itself important: it is a formulation of the gist of the entire first paragraph, i.e. that the political situation in Guatemala is more extreme than in El Salvador. However, this is not reflected in the analysis.

The conclusion that I would draw from this brief look at van Dijk & Kintsch's analysis is that the "processing sequence" they present is, in their own words, "plausible" enough. The summaries they offer at the end (p.218) closely correspond to my own idea of what the main points of this article are. However, what I do find very problematic indeed is the nature of the evidence that they adduce: they

fail to demonstrate on what basis the on-line processing strategies which are brought to bear on the text necessarily yield particular macropropositions. They say that the macrostructure which they derive is

only one possible macrostructure, derived from our analysis of the text with an **objective** attitude, that tries to be faithful to the intentions of the author" (p.219, emphasis added).

I would argue that what they in fact demonstrate is precisely the opposite, namely an analysis based on an (inevitably) subjective attitude, which fails to fully exploit all the textual signals that could be read as signals of author intention.

We are, then, faced with one out of a number of possible subjective analyses which claims to be objective. It would seem to me that what lies at the heart of this problem is, as Widdowson (1984:77) points out, "[the] assumption...that the analyst's reduction matches that of the participant". By postulating an idealized, representative reader, whom they guide on a quest to recover the meaning intended by the author, van Dijk and Kintsch conflate the roles of analyst and participant, thus disregarding the interactive nature of the reading process in which the reader's reduction

yields not the underlying macro-structure of the writer's original formulation (so far as this is recoverable by analysis) but whatever conceptual content corresponds with the reader's state of knowledge and his purpose in reading" (Widdowson 1984:79).

Of course, the reconstruction of a "plausible processing sequence" can itself be a very useful analytical tool: it

enables us to describe after the event what happened in individual cases of interpretation, and thus helps us make explicit the relationship between source text and a particular summary. Applying van Dijk & Kintsch's macrostrategies analysis with reference to the first paragraph of the *Childlessness* text which has served as a sample text throughout this chapter, we come up with the following columns:

Propositional input as expressed by sentences	Provisional macrooperation	A. Provisional macroproposition	Specific macrocues	B. Knowledge, beliefs, opinions, attitudes
Title: THE DILEMMAS OF CHILDLESSNESS	ZERO (SELECTION)	Childlessness causes dilemmas	Title; bold, large type	1. Society frame 2. Parenthood frame
Subtitle: Careers and indecision are leading many to bypass parenthood	ZERO (SELECTION)	as in input sentence (1)	Subtitle; large print,	3. Female emancipation frame, etc.
S1: Babies seem to be everywhere these days.	GENERALIZATION or ZERO	Babies are v.much in the public eye these days (2)	First sentence important referents (babies)	
S2: Current movie fare offers <i>Three Men and a Baby</i> , etc.	DELETION	=(2)	examples irrelevant	
S3: Even TV commercials are using giggling, gurgling newborns to shill for grownup products such as carpets, insurance and automobile tires.	DELETION	=(2)	examples irrelevant	
S4: Yet despite the highly visible new crop of infants, not all Americans are sure they want to help fuel the baby mania.	DELETION & ZERO (SEL.)	not all Americans want children (3)	Yet	
S5: Observes UCLA Psychologist J.G.: "Many people are questioning the assumption that fulfillment for a woman is having children."	DELETION	=(3)	opinion psychologist irrelevant	

This chart replicates the van Dijk & Kintsch procedure. Its *ex post facto* and non-predictive nature is clear from the fact that I could not do otherwise than produce a one-sentence summary of the paragraph and then reconstruct the process by means of macrooperations. That is to say, there was no way in which I could go through the text sentence by

sentence, deciding in each case whether to select, delete, or construct to a macroproposition without recourse to my understanding of the entire text. In other words, van Dijk & Kintsch's scheme can definitely not be used as a formula for the generation of summaries.

4.2. EVALUATION

After presenting the main concepts and terms of the macrostructure model and after looking at how it has been operationalized, we are now in a position to attempt to evaluate its reliability and its validity.

Reliability first: for a model to be reliable, it would have to be internally consistent and coherent. This would require an explicit clarification of all key concepts and terms involved in order to make clear what their respective functions are and how they are related. It seems to me that the macrostructure model, both in its original and in its revised forms, fails to fulfil these requirements: as I have tried to demonstrate when discussing the main components, the model is riddled with lack of transparency, consistency and coherence. There is a vast proliferation of terminology, but it is not made clear how these terms are related, to be understood with reference to one another. For instance, already the introductory chapter of van Dijk & Kintsch (1983) is a good illustration of these shortcomings: first a number of "basic assumptions" is presented (pp.4ff), but the relationship between them - e.g., how exactly do they differ? how do they depend on or follow each other? - remains unclear. Next (pp.8ff) we are confronted with several "limitations", which seem to have to do with some of the assumptions introduced before, but

how is not worked out. The next step is the introduction of "strategies" (pp.11ff), which must be at the core of the model (cf. title: *Strategies of Discourse Comprehension*). Unfortunately, however, these are not formulated in reference to the "basic assumptions" before, and thus fail to provide us with the kind of coherent overview of the model to be expected from an introductory chapter.

Of course, lack of clarity and coherence is bound to have adverse effects on the validity of the model as well: a model which is not conceptually coherent can hardly be adequate in its application for specific purposes. By validity I understand the suitability of a model for the particular problems and tasks it was devised for, for addressing the questions that arise within its defined scope - in short, the ability to deal adequately with the aspects which are actually relevant in specified circumstances.

Thinking back to the approaches to summarization discussed in the previous chapters based on syntactic status and thematic structure, these were (more or less) reliable in the sense of representing conceptually coherent models, but they left a lot to be desired as to their validity with respect to dealing with the complex issues involved in summarization processes. Now it seems to me that what distinguishes van Dijk & Kintsch's approach is that it attempts to confront these complexities head-on, but this ambitious endeavour is also its undoing: it promises too much and delivers too little. Put simply, it just is not possible to capture everything about discourse processing in one model. As I have tried to make clear in the above discussion of objectivity vs. variability, this problem

becomes most apparent in the way van Dijk & Kintsch try to deal with the tension between general principles followed by all readers and individual, variable factors. It is really around this issue that all the difficulties of this model crystallize: the authors seem to 'smuggle' two perspectives into the same model: one concerns stable, more or less fixed knowledge structures such as conventional text types, which are shared to a high degree and can therefore be invoked without much problem by their representative reader, and the other perspective is that of the individual reader, with individual perceptions and particular knowledges of the world, and personal goals and plans and procedures. Obviously enough, the first of these can be generally modelled, whereas the second cannot; the problem arises from the fact that van Dijk & Kintsch nevertheless treat these two perspectives as if they were on the same level of generality, on the same level of idealization, which of course they are not. This results in a model which is not consistent at a particular level of idealization, and therefore problematic both with respect to reliability (i.e. internal coherence) and validity (i.e. adequacy for a particular application).

One symptom of the ambiguity of the model regarding the two perspectives described above is van Dijk & Kintsch's avoidance of an explicit distinction between **text** and **discourse**, as mentioned in note 5. If they did make use of this distinction, they would have to come clear about which of the two they are talking about in every stage and aspect of their model, whether they are referring to meanings which are in the text as something fixed (and therefore to be recovered by the application of **rules**), or meanings which are derived from a text in terms of a discourse (and

therefore created by the operation of strategies). In fact, my entire attempt to make sense of their model, to establish the meanings of its terms and the relationships between them, can be seen as an effort to disentangle statements about text from statements about discourse.

Van Dijk & Kintsch's approach, then, does not really constitute a coherent model. Indeed, in the epilogue to their 1983 book, they themselves point to the limitations of their undertaking:

...what we have presented is not so much a theory as a framework for a theory. We have tried to define the principles needed to construct a theory, given a particular comprehension situation. (op.cit.:383)

In spite of its shortcomings, however, this approach does provide us with an extremely detailed collection of factors which need to be taken into account for a comprehensive theoretical conceptualization of comprehension and recall processes, and thus ought to have a significant contribution to make to work on the notions of *main idea*, *topic*, or *gist*.

As far as summarization is concerned, I have tried to explain in my critical discussion of the macrostructure model why I do not think that it provides a valid framework for the actual generation of summaries, but only a method of analysis for describing *ex post facto* what happened in particular cases, that is, a terminological 'tool kit' for relating summaries back to their source texts.

This observation takes us from the domain of conceptual evaluation into that of application. Saying that a

particular approach does not constitute a coherent model and therefore is descriptively suspect does not mean that it cannot be useful in its application. Indeed, one might hope that the operationalization of the theoretical concepts would initiate a dialectical process which contributes to the development of the notion of macrostructure, and thus lead to an improvement of the theoretical framework.

4.3. APPLICATION

4.3.1. Preliminaries

Of the handful of linguistic and psycholinguistic approaches that hold some promise of shedding light on the processes involved in summarization, notably Rumelhart's (1977) story grammar for narrative¹⁰ and Meyer's (1975) content-structure analysis for expository texts (to be discussed in the next chapter), the van Dijk & Kintsch model is the one which addresses the question of gist formation most directly. Indeed, one could say that for them comprehension is the process of forming macrostructures and thus of creating summaries (cf. Day 1980:6f.). It is therefore not surprising that the macrostructure model is by far the most popular among applied linguists, psychologists and language teachers interested in summarization from various points of view. Ever since the publication of Kintsch & van Dijk 1978, the model has given rise to a whole host of studies.

In the following, I should like to give an overview of how the macrostructure model has been operationalized in empirical studies and pedagogy. In particular, I shall look at the texts, languages and teaching situations it has been

applied to, the purposes for which it has been used, the conclusions which result from these applications, and above all, whether and how theory and practice interact in these studies. The number of works taken into consideration for this survey is basically arbitrary: about twenty seemed to yield a fairly representative and yet feasible sample; additional titles can be found in the list of references.

In the following survey I have identified the distinctive features of each study in reference to the dimensions of type of experiment, purpose, findings, and use of macrostructures. I have added comments which seek to identify more specifically the way in which the macrostructures model has been used.

MACROSTRUCTURES IN JOURNAL ARTICLES

Article	Subjects	Language	Texts	Purpose	Findings	Use of Macrostructures	Comments
Afflerbach 1990	expert readers (8 doctoral students of chemistry & anthropology)	EMT	expository	to identify the influence of prior knowledge (familiar vs unfamiliar content domains) on the choice of main idea construction strategy (as in Afflerbach & Johnston 1986)	familiar texts: automatic construction and initial hypothesis strategy predominated; unfamiliar texts: listing and draft & revision predominated	not directly (SDC & Kintsch 1986) mainly as 'legitimation device' for theoretical background; rather vague references, either just to "v.d.kk.1983" (p.33) or to introduce otherwise unused terms such as "macroprocess" (p.40)	no interaction between mac theory as such and their study; mac just vaguely taken as given.
Afflerbach & Johnston 1986	expert readers (professors & grad students)	EMT	expos (excerpts from specialist periodicals)	to identify strategies expert readers use for constructing the main idea when it is not explicit (thinking aloud protocols)	strategies identified: (cf. Afflerbach 1990:34): *before reading: hypothesis generation *during reading: crunching (partly automated) *after reading: listing, topic/comment and draft & revise *use of text-based cues (p.58) *knowledge-based cues (p.61) *managing the reading process (monitoring memory space availability) (*influence of affect on main idea construction)	1978, SDC + work based on these, esp. Brown & Day 1983. They build on B&D's finding that construction rule is the hardest; cite macs mainly as legitimation of what they are investigating (pp 49f + 67) + for introducing useful terms, such as "situational model" (p.67)	interesting that although this article contains a part on "Assigning Importance in Text" (p.58ff), they do not quote van Dijk 1979a.
Bereiter & Scardamalia 1987	12 and 16 year-old students	EMT	3 expos. + 1 narr. paragraphs compare maturer + less mature readers' strategies. (protocol studies) tasks: 1. spot illogical element in passage; 2. rearrange scrambled sentences	to gain insights into how immature readers deal with difficult texts, and to compare maturer + less mature readers' strategies. (protocol studies) tasks: 1. spot illogical element in passage; 2. rearrange scrambled sentences	mature readers approach tasks as tasks calling for the construction of a coherent gist or message (virtually a gloss of K&V 1978, cf. p239) immature readers (but try not to define them by absence of mature competence): heavy on detail, light on macrointerpretation; unscrambling: element by element, missing: deep analysis, shared arguments (p240). Both mature + immature readers can handle "what it's about", but only mature can handle "what it says"	do not so much apply macs as assume them as given, the way comprehension works, mainly 1978, but also quote 1980 + 1983	links up with Brown, Day & Jones 1983 good: wide-ranging pedagogic implications bad: no feedback into the theory they use
Brown & Day 1983	5th, 7th + 10th graders, coll. students + "experts"	EMT	expos. (constructed geography texts)	to examine the development of the ability to use macro rules for paraphrasing expos. texts	come up with a kind of developmental hierarchy of macrorules B&D comment that subtle summ. procedures relying on inferential reasoning are not captured by their scoring procedure	from 1978 macrorules, they derive 6 of their own claim that their findings provide evidence for K&V's theory	B&D say that K&V are silent on the differential difficulty of macrorules: interesting pedagog. observations

Article	Subjects	Lang.	Texts	Purpose	Findings	Use of Macrostructures	Comments
Flightum 1985	5 stude 1st year Lycee	FMI	expos. (500 words)	to study how native speakers summarize texts & to compare summaries with their originals	macrorules used most often: deletion, zero, generaliza tion; no construction	for comparing originals & summaries (but also uses propositional analysis (p.301ff) to indicate 'newness' in summaries 1980	F suggests (p.301) that to what extent a summ. actu ally represents what vD understands by it is a moot question, & that there are additional me chanisms (such as changi ng a rhetor. question in to a statem.) not fully covered by macrorules. Also inaccessible to her method: paraphrase & sele ction fr. several parts of the text (cf Schnotz et al 'Grundlung' Good: combine application w. critical evaluation.
Golden, Haslett & Gauntt 1988	8th graders (n=27)	EMI	expos. (science) 1000+ words	1. to develop a data-driven model for analyzing expos. text (integrated system for analyzing both structure & content) 2. to examine qual. differences among summ. written by 8th graders 3. to assess the relationship betw. summaries & input essay	best summaries reflected organizing principles of input essay: identified top- level structure, organized info w. regard to rhetor. predicates, & used a variety of rhetor. predicates: co- variance & analogy, p.156)	1980; combine them w. Meyer's rhetor. predicates & orientat ion & context (p145) and use them for purposes 1.-3. no rules of macrorules as such, use term "mid-level macrostruct ure to label what they regard as "key ideas" (p145)	Good: their system flows fr. the data (p146); very detailed > bound to reveal more than just eg holistic assessmt. Bad: don't say how they judge what is irrelevant info (p147) & how they arrive at "key ideas" (p149); questiona ble assumption (for summ. that more info=better - what about (degrees of) condensation? *telling ex. of how even the most detailed system fails to show how macs are generated fr. input text
Johns 1985	univ. students, adults & "experts"	EMI	expos. (history)	to compare underprepared student' summaries w. those of the other groups + to devise from their protocols a scale for coding replications and distortions of the original	1. underprep. students: omit some macs. basis for her scoring of the main idea units 2. no sig sheet (via Winograd 1984, who uses 1978) plus Kroll's idea idea-unit level reproductions than combinations & macro-pro positions 4. not significantly more distortions + personal comments	her definition of "correct summary: "when what the author of the orig. text probably considers impor tant (determined by judg ments of the expert read ers) is included" (p498)	
Johns & Mayes 1990	university students	ESL (=EFL)	expos. (ESL textbook for busi ness studies)	to compare idea units in high- and low-level summaries	fewer differences than betw. "adept" + "underprepared" native speakers; low: more copying, high: more combi nations across sentences (but not across paragraphs)	1978, 1979 as a basis for their coding scheme (plus Kroll's idea units)	cavalier interpreta tion of macrorules; some terms used quite differe ntly: construction macroproposition
Kieras 1981	university students	EMI	expos.	to investigate the relation ship betw. sentence topics + discourse topics in terms of readers constructing a mac of (i.e. giving a title to) a passage	experiment 1: when there is only a single major referent, the passage mac is built around it; several major referents: further macro-level process ing necessary to construct a higher-level set of macropro positions (pb); experiment 2: if one of the macs proposed referents appeared as discourse topic in the text, sentence topic in the text, sentence	1978, 1979; as theoretical background of mac-building + vD's relevance assignment (1979) + idea of global coherence (1978 (pl) + vD's sequential topics (p2)	

Article	Subjects	Language	Texts	Purpose	Findings	Use of Macrostructures	Comments
Kieras 1982	university students	EMT	expos. ages 4 460 w.)	To identify the strategy by which readers abstract main ideas from text + to devise a computer simulation representing this strategy	1. most readers used a sub- suming strategy (p66) for this type of text 2. people can make use of the semantic content (for abstracting main ideas) even though they do not understand the material deeply at all > "only 'shallow semantics' might suffice for a great deal of mac processing" (p80) presumably because of schemata + rhetor conventions, etc.	regards 1978 as its theoretical basis, but does not use macs explicitly in the experiments examines "a relatively simple form of mac building", i.e. abstracting main idea his simulation model (p68ff) of the subsuming strategy is "essentially a production- system version" of macrules	Kieras' texts, though mu shorter, are similarly constructed to my Babies text; useful: qualitativ rating scale of Central to main idea. Related to m.i., Unimportant; pro vides his own critique o his model (p79f); his texts look hardly natural; K. ignores role of rhetor. org. in mac formation
Kintsch, E. 1989	students grades 6+10 + college	EMT	expos. (2 pass ages 4 460 w.)	To investigate how students mental representations of an expos. text + the inferences they use in summarizing vary as a function of text diffi- culty + of differences in the task (written summ. vs oral cued recall)	mental representations of younger + older students are quite different: gradual incre ase of macro-level processing w. age + experience, summaries reveal a hierarchical org. that more closely resembles the author's; in contrast, 6th graders treat summ. much like a recall task	1983 used as a framework for interpreting the patterns of experimental results + as a basis of her 4 categories of inference	better interaction betw. theory + practice/experi ment than in many other articles, but one-way: theory>practice; only very broad (>vague) ref. to underlying theory
Kozminsky & Graetz 1986	40 advanced univ. studs. + 4 univ. teachers	EFL + Hebrew MT	expos. (long sociolo gy texts	to test hypothesis that L2 students' processing is top- down + L1 processing more bottom-up + investigation of interaction betw. processing strategies + activities of underlining, marking + notes	L2 subjects studied texts less efficiently than L1 subjects (1) L2 study activities focused more on word level (< > hypothesis) than L1, which related more to para structure. L2 subjects used fewer of their text-generated activities in the summaries than L1. L2 summ. contained more ab- straction operations, L2 more copy operations	1978; their scheme for scoring information that actually appears in summaries is partly based on macrules (cf pp 8ff)	their premises, methods + conclusions seem to me to be open to criticism; is it sensible only to look what's in the summ. + not what has been dele ted from the source text.
Lorch & Lorch 1986	univ. studs. of psycho logy	EMT	expos.	to examine the influence of importance signals on reading behaviour	(not surprisingly), experienced readers do attend to importance signals under some conditions more detail: p495	do not use macs directly, since their experiments are just about used to support the hypo thesis that macs are formed during reading?	could their findings be used to support the hypo thesis that macs are formed during reading?
Meinhof 1988	univ. studs.	GFL	expos.	main point: focuses on the mismatch accounting for variability amongst different readers, and their actual example + operationalization which "does little more than produce an ideal reader' s construct" (p51) > straddle 2 different kinds of conception: the oretically "open", but operationally "closed" (p52); their assumption of a possible "neutral" reading is simplistic and at odds with their sophisticated claim about the model's potential for generating different readings (p29)	macs used only very indirectly; interesting that they reject all known proce dures for summarizing + rules for shortening sentences(?) resort to intuition to produce the summ. for th tried only by first retrieving experiments the higher-level points	1983 theoretical claim to a flexible strategic model capable of operationalization which "does little more than produce an ideal reader' s construct" (p51) > straddle 2 different kinds of conception: the oretically "open", but operationally "closed" (p52); their assumption of a possible "neutral" reading is simplistic and at odds with their sophisticated claim about the model's potential for generating different readings (p29)	interesting that they reject all known proce dures for summarizing + rules for shortening sentences(?) resort to intuition to produce the summ. for th tried only by first retrieving experiments the higher-level points
Reder & Anderson 1980	undergrad studs. of psycho logy	FMT	expos.	to find out whether orig. texts or their summaries are better remembered	summaries superior in all four experiments (in varying degrees)	macs used only very indirectly; interesting that they reject all known proce dures for summarizing + rules for shortening sentences(?) resort to intuition to produce the summ. for th tried only by first retrieving experiments the higher-level points	interesting that they reject all known proce dures for summarizing + rules for shortening sentences(?) resort to intuition to produce the summ. for th tried only by first retrieving experiments the higher-level points

Article	Subjects	Language	Texts	Purpose	Findings	Use of Macrostructures	Comments
Schnotz et al 1981	10 law students	EMT	expos.	to specify in more detail the encoding + decoding processes in their model, and to clarify whether topic markers facilitate the formation of macs	first summary: horizontal processes (establishing an explicit textbase) prevail, second summ. (of same text): more successful in terms of reduction to essential points (esp. vertical process of selection)	1978; use (modified) macs for comparing summaries + source texts	most thorough application of macs I've seen; important addition to macrotitles: "Bündelung"
Williams 1986	normally achieving children, learning disabled children + adults	EMT	expos. (simple paras)	to investigate which variables affect the comprehension of main ideas in expos. prose + to propose a "categorization model of expos. text processing" that accounts for her findings on children's and adults' main idea comprehension	adults tended to provide broad, general main ideas + attempted to encompass all the info presented + even some that was not presented. Young children tended to pick out a narrow detail that represented a single sentence in the para. Learning disabled children similar to non-disabled children (p81)	macs (1980) basically just cited as legitimization and for labelling (e.g. her definition of main idea is vD's (1980) "specific topic"	claims to provide an "explicit definition of main idea" (p76) which doesn't seem explicit to me, and a "categorization model of expository text processing" which doesn't seem to be a model
Williams 1988	---	(EMT)	---	to give an overview of different linguistic + pedagogic approaches to determining the main idea	points out (p8) that in (teaching + researching) summ. writing, "for the most part, the theoretical issue of what is important is ignored. Rather, the basis for such identification is still the traditional consensual judgment by proficient readers (applies to Day 1980)	says that the aspect of macs in the 1978 model is particularly relevant to the concept of main idea; mentions 1979	
Winograd 1986	8th grade students + adults	EMT	expos.	to use the K&vD model to investigate a) (mis)conceptions about task demands b) sensitivity to importance, and c) ability to apply various macrotitles; all this with good + poor students and adults	a) = no problem even for poor readers; b) good readers more in agreement w. adults about judgments of importance; good readers use textual + contextual clues, poor readers: mainly contextual, lower correlation betw. what they rated as important + what they included in summaries + strong serial position effect	modification of 1978 macrotitles: Reproductions (like selection), +Combination +Run-on Combination (less organized, from several sentences) +Inventions (like construction); unlike vD etc., criterion= only how original was modified to produce summ., no decision at this point about relative importance	seems to have same conception of "importance" as Hare & Borchardt 1984, based on adults' judgments: see criticism of this in Bleich 1988:10f!

ABBREVIATIONS:

mac = macrostructure
K&vD = Kintsch & van Dijk
1978 = Kintsch & van Dijk 1978
1979 = van Dijk 1979
1980 = van Dijk 1980
1983 = SOC = van Dijk & Kintsch 1983

Before I mention any particular papers, there are a couple of general observations I should like to make. It is striking that although more than half of the studies represented in the above chart came out after 1983, and none before 1980, the majority do not actually refer to van Dijk & Kintsch's 1983 book *Strategies of Discourse Comprehension*, nor indeed to van Dijk's 1980 book *Macrostructures*. Instead, most authors content themselves with the framework provided by Kintsch & van Dijk's 1978 article 'Towards a Model of Text Comprehension and Production'. There may be a number of reasons for this. Most obviously, an article of some 30 pages is more accessible and easier to 'handle' than one (or even two) long books. Secondly, van Dijk & Kintsch themselves comment on the relationship between their 1983 book and the earlier article:

The 1978 model can be considered as a specific submodel within the present framework. Essentially, it is not a different model, but rather a simplified version that omits and shortcuts much of what we want to explicate here. ... Indeed, for some purposes the 1978 model might still be quite satisfactory, for example, if one is not concerned with some of the fine grain of the processes, but is content with relatively gross analyses of memory, forgetting, summarizing, and the like. (van Dijk & Kintsch 1983:351)

Thus the 1983 book does not necessarily make the earlier model superfluous. However, it seems to me that whenever researchers refrain from referring to the most recent literature on the particular theoretical model they are using, it would be helpful if they made their reasons for doing so clear - but this is not done in any of the papers discussed here.

In the above quotation van Dijk & Kintsch talk about "relatively gross analyses of...summarizing", and in fact this may be a good way of describing the papers mentioned here. Apart from one or two exceptions (Day 1980, Kieras 1982) macrorules are used as a tool for the ex post facto analysis of summaries produced by a variety of subjects, for assessing those summaries and for comparing them with their source texts. This confirms the observations I made towards the end of my theoretical evaluation of the macrostructure model above.

Here, then, is a brief overview of the articles that make reference to macrostructures. This is intended merely to give a very general impression, and rough classification, of the diversity of studies that have been conducted. The above chart contains more specific details.

4.3.2. Texts, languages, situations

With the exception of Bereiter & Scardamalia (1987), who use both expository and narrative passages, only expository texts are used. These range from simple paragraphs (Williams 1986) through excerpts from specialist periodicals (Afflerbach 1990) to fairly long (over 4000 words) extracts from sociology readers (Kozminsky & Graetz 1986). Some experiments involved the manipulation or construction of texts in order to add specific features (Schnotz et al. 1981: topic markers; Williams 1986: anomalous sentences) or to remove them (Afflerbach & Johnston 1986: topic sentences) or to control variables such as readability directly by constructing different versions of the same text (Kintsch 1989: good/bad microstructure, good/bad macrostructure).

With a few exceptions which investigate (language) learning activities at university level (Fløttum 1985: French L1; Kozminsky & Graetz 1986: Hebrew L1; Meinhof 1988: German L2; Johns & Mayes 1990: English L2; Schnotz et al 1981: German L1) , all studies deal with English L1. The EL1 papers all originate from the United States and cover various teaching contexts and age groups, from 8-12 year-old learning disabled pupils and normal achievers (Williams 1986) to "expert readers", i.e. professors and graduate students (Afflerbach and Johnston 1986).

4.3.3. Purposes and research questions

Apart from a couple of articles which just aim to give an overview of particular approaches to summarization (e.g. Williams 1988), most studies involve either experiments which compare the summarization skills of populations differing with respect to various criteria, such as age/maturity (Brown & Day 1983; Bereiter & Scardamalia 1987; Kintsch 1989), ability (Johns 1985; Day 1980; Winograd 1984) and L1/L2 (Kozminsky & Graetz), or experiments which investigate various aspects of the summarization process itself, such as expert readers' strategies (Afflerbach & Johnston 1986) or the influence of prior knowledge on the choice of main idea construction strategy (Afflerbach 1990).

In addition, there are more linguistically (or text-) oriented studies: Kieras (1981) investigates the relationship between sentence topics and discourse topics in terms of readers constructing a macrostructure of a passage; Schnotz et al. (1981) seek to clarify whether topic markers facilitate the formation of macrostructures,

Fløttum (1985) undertakes a detailed comparison of summaries with their source texts, and Reder and Anderson (1980) try to establish whether original texts or their summaries are better remembered.

4.3.4. Selected findings

Several publications come up with differences between adults and children concerning the assignment of relevance to text elements (Winograd 1984, Williams 1986). Another result is a hierarchy of difficulty as regards the application of macrorules (Brown & Day 1983, Schnotz et al. 1981). These findings are corroborated by other studies which show that summative combinations across sentences are difficult for "underprepared" students (Johns 1985) and for low-level ESL students (Johns & Mayes 1990). Fløttum's (1985) students use the macrorule of deletion most frequently, generalization less so, and construction not at all. Golden et al. (1988) find that maintaining the rhetorical organization of the input essay improves summary quality. Bereiter & Scardamalia (1987) discover a closer fit of Kintsch & van Dijk's comprehension model with the actual gist formation of mature readers than with that of immature readers.

4.3.5. Interaction between theory and practice

The investigation of the (actual and potential) interaction between theory and practice with reference to a particular linguistic/cognitive activity, namely summarization, represents the central concern of this thesis. The macrostructure model and its applications lend themselves particularly to investigating this interaction. As

mentioned above, Kintsch & van Dijk's processing model has strong immediate appeal to scholars and teachers interested in summarization because it directly addresses the question of gist formation and reproduction.

Kintsch & van Dijk's theory has been described in great detail and has been widely accessible for a long time (see the numerous publications by these authors). The theoretical model has subsequently been taken up by a vast number of linguists, applied linguists and language teachers and used for experimentation and pedagogy in a variety of contexts. This has led to a host of publications in both theory and practice and thus opened up the possibility of a real dialogue taking place between theorists and practitioners.

Such a dialogue is all the more desirable since in the most complete exposition of their model to date, van Dijk & Kintsch emphasize that what they present is "not so much a theory as a framework for a theory". They go on to add:

We have tried to define the principles needed to construct a theory, given a particular comprehension situation. There can be no theory of comprehension that is at once specified and general because there is no single, unitary process 'comprehension'. Every time we look at discourse comprehension, it is a little bit different. What one needs to deal with this situation is a framework for studying it, a set of principles and analyses that can be applied to concrete cases. The application will always work out a little differently in each case, but because the same building blocks are used every time, we can go beyond ad hoc, arbitrary miniature models, which might be very simple and even elegant, but which merely serve to deceive us about the real complexity of comprehension processes. (van Dijk & Kintsch 1983:383)

What van Dijk & Kintsch are saying here suggests that they see plenty of room for development within their framework.

and that this development might be achieved by applying their "sets of principles and analyses" to "concrete cases". They are thus addressing the relationship between ideas and their actualization, i.e. between theory and practice.

This to me seems to raise the question as to what kind of relationship this should be, or more specifically, whether this relationship would be a unidirectional or a mutual one: THEORY → PRACTICE, or THEORY ↔ PRACTICE.

Before looking at the way in which the macrostructure theory has actually been used in applied linguistics and language pedagogy, it would be helpful to specify a framework for this enquiry. Such a framework should say something about the questions just raised above, namely the directionality of the relationship, and the way concrete applications might interact with theoretical principles.

Widdowson's *Aspects of Language Teaching* (1990) is a book which provides just such a framework. In it Widdowson proposes a scheme for language teacher education, a "pragmatics of pedagogy", by which he means

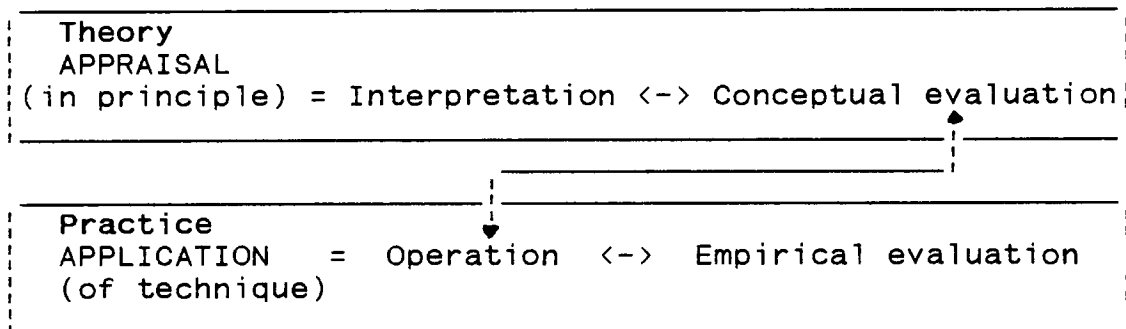
the working out of a reflexive, interdependent relationship between theory and practice, between abstract ideas deriving from various areas of enquiry and their actualization in the achievement of practical outcomes. (Widdowson 1990:30)

Widdowson is primarily concerned with the relevance of research for the activity of teaching (cf. his title), but in principle his model of what he calls the *mediation process* between theory and practice can be applied to any domain in which disciplinary research can inform practice,

and practice in turn realize and improve theoretical ideas. Indeed, Widdowson himself points to the wider context in which his model is to be seen:

The relationship between linguistic theory, the description of a particular language based upon it, and the way that language is actualized as behaviour in contexts of use is analogous to the relationship between a pedagogic theory of language learning, the devising of teaching materials based upon it, and the way that language is most effectively actualized for learning in the contexts of particular classrooms. The relationship is a pragmatic one in both cases: the connection between the ideal and the real needs to be established by mediation. (op.cit.:31)

So how does this mediation work? Widdowson (p.32) provides the following diagram:



Within the domain of theoretical appraisal, then, ideas are interpreted within their own terms of reference, and then conceptually evaluated. In the domain of practical application, ideas are actually put into operation, and then the practical effects of this operationalization are evaluated. Note that mediation is a two-way process, with theory feeding into practice, but also practice feeding back into theory. This means that theoretical ideas are essentially conditional on their practical application, and empirical evaluation may lead to a reappraisal of the original theory.

We can now come back to van Dijk & Kintsch's macrostructures and let Widdowson's model guide our investigation as to whether, and how, theory and practice interact in the specific case of macrostructures.

It seems to me that what one would hope to find in work in applied linguistics and pedagogy is the kind of mediation process represented in the above diagram. According to Widdowson, the task of applied linguists is

to identify ideas of likely relevance and to present argument and evidence for validity in an accessible way. Their business is to propound ideas in such a way that their claimed transfer value is made explicit for the consideration and possible operationalization by the teacher. (Widdowson 1990:33)

In short, then, applied linguists should facilitate mediation and thus contribute both to the advancement of theory and to the professional development of practitioners. This requires that they engage, to use the terms of the mediation model, in both **appraisal** (interpretation and conceptual evaluation of theoretical ideas) and **application** (operation and empirical evaluation of techniques derived from theoretical ideas).

Of course, just like any model, Widdowson's proposal for the mediation process presents an ideal situation with reference to which reality can be assessed. So, to what extent does the reality of macrostructure applications approximate to this ideal?

The 20 titles represented in the chart fall fairly neatly into three groups:

4.3.5.1. appraisal only (*prae hoc*)

This group comprises papers which describe and evaluate the theory of macrostructures, but without applying it. Only two papers do this, namely Meinhof's PhD thesis (1988) and Williams (1988). Meinhof focuses on the mismatch between van Dijk & Kintsch's (1983) theoretical claim to a flexible strategic model capable of accounting for variability among different readers, and the actual examples they present, which do "little more than produce an ideal reader's construct" (Meinhof 1988:51). She goes on to demonstrate that van Dijk & Kintsch thus

straddle two different kinds of conceptions: the 'closed' text version which they demonstrate through their examples of macrostructures, and a more 'open' version which they theoretically claim, but do not seem to be able to articulate or exemplify with their methodology. (op.cit.:52)

Meinhof also points out that van Dijk & Kintsch's assumption of a possible "neutral", singular reading of a text is incompatible with their claim about the model's potential for generating specific readings of actual, given readers in specific situations:

Th[e] basic assumption that a text has a singular meaning, which the most informed reader could activate, but the average reader does not, implicitly juxtaposes a full reading which is neutral with a less full (sketchy) or biased reading. This assumption of neutrality seems rather simplistic and at odds with their sophisticated claims about the model's potential for generating, for example, the different readings of a politically engaged reader, and which they unfortunately refrain from spelling out. (op.cit.:29)

The reason why I cite Meinhof's criticism of van Dijk & Kintsch at such length is that it is consonant with my own, expressed earlier in this chapter.

The purpose of Williams' (1988) article is to give an overview of different linguistic and pedagogic approaches to identifying main ideas. She does not nearly go into as much detail as Meinhof, but at least she does point to certain problems involved in determining importance in text which the macrostructure model cannot solve.

Sherrard (1989) supplements the theoretical literature with a useful survey of some strengths and weaknesses of the macrostructure model.

4.3.5.2. Appraisal and application (*post hoc*)

This is the ideal state of affairs as described in Widdowson's mediation model: the researcher subjects theoretical ideas to close scrutiny and criticism and thus establishes the transfer value of those ideas for subsequent operationalization. From this operationalization can then flow an empirical evaluation, which in turn feeds back into an assessment of both the techniques of application as well as the theoretical principles behind them. Alas, very few of the papers examined here follow this path.

The most thorough of these is Schnotz et al. (1981). They actually anticipate what van Dijk & Kintsch recommend in the epilogue to their 1983 book, namely to use the principles defined by them "to construct a theory [of comprehension], given a particular comprehension situation" (van Dijk & Kintsch 1983:383). Schnotz et al. specify the encoding and decoding processes in their own model and indicate how these relate to processes described in the macrostructure theory. They distinguish between horizontal

and vertical processes; the former basically means, in van Dijk & Kintsch's terms, establishing an explicit text base upon which the latter, the vertical processes, can set to work by applying macrorules in order to reduce this text base to its essential points. Schnotz et al. use and modify the macrostructure model for comparing summaries with their source text and in the process refine the theoretical conceptualization of discourse comprehension they use. For instance, they add a macrorule which involves the extraction of important ideas from different parts of the text ('Bündelung' : 'bundling').

Fløttum (1985) also combines her application of macrorules with a critical evaluation. She points out that macrorules alone are not enough for analyzing summaries and for comparing them with their source texts. Fløttum therefore enriches her method by using two additional analyses, into what she calls semantic-pragmatic chains and semantic/logical propositions. What makes Fløttum's paper interesting is the fact that she is very explicit about her analytical framework and modifies the macrorules model to suit her particular requirements.

To a certain degree this is also true of Brown & Day (1983), in that they derive, from Kintsch & van Dijk's (1978) four macrorules, six rules of their own which, they argue, better capture the summarization procedures they describe. E. Kintsch (1989) uses van Dijk & Kintsch's (1983) framework for interpreting students' mental representations of an expository text and the inferences they draw in summarizing. She accepts van Dijk & Kintsch's processing model as it is, but at least she is explicit as

to which part of their theory she utilizes and how. This is more than can be said for the last group, namely

4.3.5.3. Application only (*ad hoc*)

Unfortunately, the vast majority of papers fall into this category. What they have in common is that they tend to use the macrostructure model not as a framework to try out and improve in the process, but rather as a quarry for handy terms or labels which serve to lend an air of credibility or respectability to their undertaking. Of course this is a rather polemic way of describing these articles, and it must be said that they vary a lot in the degree of uncritical acceptance of the model. Also, I would argue that there is nothing in principle wrong about using a model as a quarry, or stimulus, for exploring certain points further. However, it seems to me to be a necessary prerequisite to subject whatever theory one is using to a certain degree of critical evaluation, or at least to work out in what respects, and to what degree, the given model actually meets one's specific requirements. As Widdowson points out,

The dangers of disregarding, by ignorance or design, the essentially *conditional* nature of abstract models and of making data fit into preconceived categories are well attested in the theoretical domain. The dangers are no less apparent in the practical domain. (Widdowson 1990:31, original emphasis)

My main objection, then, to the papers subsumed in this group is that they take on board elements of van Dijk & Kintsch's model as if they represented the Truth about whatever the respective researchers seek to explore and explain and thereby do a disservice to their own purpose as

well as missing the opportunity of improving theory through practical application.

Day (1980), which is a doctoral thesis and as such could be expected to deal thoroughly with theoretical issues, fails to conceptually evaluate the framework she uses.

Admittedly, her primary objective is to improve summaries written by junior college students, and she does come up with potentially valuable pedagogic ideas. But she also claims "to contribute to our theoretical understanding of the development of summarizing skills" (Day 1980:137), and in this respect her mere review of relevant literature does not probe deep enough. Day does allude to the fact that, due to the difference between her own interests and those of van Dijk & Kintsch, their framework is not an adequate means for explaining how actual subjects go about summarizing texts. (pp.17f.) However, she fails to demonstrate in what respects exactly she finds the macrostructure model lacking, and also why she decides to use it for her own method of teaching despite its shortcomings.

Winograd (1984), though very thorough as a piece of empirical research, also takes the validity of the Kintsch & van Dijk (1978) model for granted. My main criticism of his study is that he defines 'importance' in purely operational terms (based on adults' judgements) and thus circumvents the highly controversial problem as to how this criterion, so crucial for summarization, should be defined theoretically.

Another aspect I find disappointing in a number of papers is their authors' failure to be precise in their references to van Dijk & Kintsch's writing on macrostructures. This

makes it impossible to check up on, and perhaps object to, their interpretation of certain terms and key concepts and gives rise to two suspicions, namely firstly that they did not read the theoretical texts very closely themselves, and secondly that they do not wish their readers to do so, either. Of course there may be quite different motives for not going into detail about the theoretical foundations of basically practical papers, such as limitations of space or assumptions either about a high degree of shared knowledge or about an atheoretically minded readership, but I would argue that even just page numbers in references to certain works or precise definitions of important terms would enhance the potential for interaction between theory and practice.

Afflerbach (1990) is an example of a highly interesting paper whose impact suffers from theoretical vagueness. For instance, he does refer to van Dijk and Kintsch - if only with no more precision than "van Dijk & Kintsch, 1983" (p.33) - and he does use the expression *macrostructure* (p.35), but he does not bring the two together in any way which would unequivocally define his terms. Afflerbach & Johnston (1986) build on Brown & Day's (1983) interpretation of Kintsch & van Dijk (1978) for their very detailed study of expert readers' strategies of main idea construction. Van Dijk & Kintsch (1983) (the title of which, incidentally, is misquoted in their list of references) only get a very perfunctory mention towards the end of their article, which allows them to introduce the term *situational model*, but which does not enable their readers to check up on their use of the term, and is not likely to enhance the theoretical understanding of the concept:

van Dijk and Kintsch (1983) propose that the reader builds a situational model of the text. The model consists of information in the text and knowledge that the reader brings to the text, with which the reader creates the situation in the text. (Afflerbach & Johnston 1986:67)

It would seem to me that the rather offhand rephrasing of the concept of situational models does not really warrant the (vague) reference to van Dijk & Kintsch (1983). On the other hand, Afflerbach & Johnston produce a lengthy section (pp.58-64) in their paper on "Assigning Importance in Text" without any mention of van Dijk's article on the very topic of relevance assignment (1979).

Johns & Mayes (1990) devise a coding scheme partly based on Kintsch & van Dijk (1978) to compare summaries written by high-level and low-level ESL students. They do not explain why, in 1990, they do not take into account van Dijk & Kintsch (1983). Also, by trying to simplify matters for the benefit of their readers, they actually end up with a rather cavalier interpretation of some of Kintsch & van Dijk's concepts on which they base their scoring system. Compare, for instance, Kintsch & van Dijk's definition of the macrorule *construction* with their paraphrase:

Each sequence of propositions may be substituted by a proposition denoting a global fact of which the facts denoted by the microstructure propositions are normal conditions, components, or consequences. (Kintsch & van Dijk 1978:366)

external information is introduced by reader inference (Johns & Mayes 1990:254)

It is true that Kintsch & van Dijk's phrasing of this macrorule is somewhat involved and may be difficult to understand for some readers, but this does not make Johns &

Mayes' alternative formulation legitimate. In fact, they might have found it easier to simplify van Dijk & Kintsch's (1983) definition of *construction* had they consulted that book:

Given a sequence of propositions, replace it by a proposition that is entailed by the joint set of propositions of the sequence. (van Dijk & Kintsch 1983:190)

Another possibility to explain the rule without distorting it would have been to illustrate it by way of an example.

A further inaccuracy is that Johns & Mayes misrepresent Kintsch & van Dijk's idea of *macro-proposition* by restricting the term to products of the construction macrorule rather than using it for any higher-level proposition derived from a text. (cf. Johns & Mayes 1990:156).

The points I raise about the papers above may not have made much difference to the actual findings of the studies concerned, and some criticisms may even seem pedantic. However, I would argue that they get to the very heart of the relationship between theoretical models and their application, for the more immediately appealing, the more seemingly straightforward a concept is and the more relevant it appears to be for a particular purpose, the more people are likely to accept it without too much criticism. If ideas are so obviously applicable, the temptation is not to bother with critical appraisal. This reduces the role of theory to that of provider of terms or labels, which in turn are used as a kind of legitimation device - a typical feature of bandwagon phenomena. (A case in point is the concept of communicative language teaching,

whose very apparent applicability and relevance has dulled many people's critical perception.)

4.4.CONCLUSION

What I have tried to do in this chapter is to subject to appraisal the van Dijk & Kintsch macrostructure model of text analysis to see how far it might serve as a basis for summarization. On the positive side, it does provide the most direct and appealing (psycho)linguistic approach to gist formation and gives the most comprehensive coverage of factors that need to be considered. It does, however, from my point of view, have certain limitations and inconsistencies, and these are carried through into the extensive applications that have been derived from the model, and which bear witness to its value as a source of relevant factors. In particular, I have argued that the model, for all its claims, represents text as a static object and so is open to the usual objections to structuralist analysis. In the next chapter I turn to an approach which appears to promise to remedy this shortcoming by invoking the notion of the emergent structure of text based on the interrelationship of propositional content and rhetorical organization.

NOTES chapter 4

1. The way these terms are used alongside each other is a characteristic example of the rather bewildering proliferation of terminology in the article. When first referring to the processes whereby micropropositions are transformed into macropropositions, the authors introduce the term *macrorules* (p.366). Six pages on, at the next mention of the same processes, these are suddenly called *macro-operators* (p.372), and one has to infer that the two terms denote the same processes from the fact that they are both used to refer to deletion, generalization and construction. To confound matters still further, page 374 offers us the heading 'Macro-operators', under which, however, the term *macro-operations* is used to refer to these processes. It will be obvious that this confused situation enormously complicates the task of disentangling the correlation between terms and concepts.

2. Kintsch & van Dijk (1978) do not give a formal description of macrorules, but refer to van Dijk (1977a) and (1977b) for details. The examples I use here are taken from van Dijk & Kintsch (1978) and Fløttum (1985).

3. Obviously these must have to do with schemata, but again this conceptual relationship is not made explicit. In the more detailed discussion of macrostrategies below it can be seen, for instance, that among the textual strategies are schematic strategies, i.e. recognizing conventional text types; contextual strategies, on the other hand, involve the instantiation of frames in Minsky's (1975) sense.

4. Yet again, the use of terms lacks rigour here: van Dijk & Kintsch use *macrorules* interchangeably with *macrostrategies* despite the fact that they go to great lengths to make clear the crucial difference between rules and strategies (e.g. pp.11 and 67) - the difference, indeed, which could be said to constitute the *raison d'être* for their whole book.

5. The fact that van Dijk and Kintsch talk about local coherence strategies implies at least two possible contrasts that one would wish to be expounded further: that between local and global strategies, and that between coherence and cohesion. It is unfortunate that the terms chosen for these different kinds of strategy do not reflect this contrast: in their discussion of the notion of macrostructure (p.189f) the authors do refer to global coherence strategies: "Global coherence ... characterizes the discourse as a whole, or larger fragments of a discourse. Notions used to describe this kind of overall coherence of discourse include topic, theme, gist, upshot, or point. ... The notion of *macrostructure* has been introduced in order to provide such an abstract semantic description of the global content, and hence of the global coherence of discourse."

The term *cohesion* is not one that van Dijk and Kintsch operate with at all; the only mention it gets is in the following remark: "Sometimes a distinction is made between "coherence" and "cohesion", the latter being used to account for the more specific grammatical manifestations of underlying semantic coherence." (p.149)

6.This quotation very clearly points to the fact that part of the problem with van Dijk & Kintsch's model is that they avoid the distinction between *text* and *discourse*, i.e. the problem of what is in the text as a structure as opposed to what is derivable from a text in terms of a discourse; this distinction becomes particularly pertinent in the discussion below of the issues arising from the differences between Carrell & Eisterhold and van Dijk & Kintsch, namely objective vs. variable interpretation.

7.It may be worth pointing out here that van Dijk might claim to be talking about interpretive communities in the sense of Fish (1980) as discussed in ch.7 below, whose members all share the same basic schemata; however, this claim would require an explicit statement of a coherent concept as to what constitutes interpretive communities - and this van Dijk does not offer.

8.This brings us back to the issue raised in note 6: of course it is impossible to account for every individual's reaction to every text, and this makes a certain level of generalization necessary. The point is, though, that this generalization needs to be made conceptually clear, for instance in terms of interpretive communities (see ch. 7); postulating a representative reader with an "objective attitude" as van Dijk & Kintsch do (cf. their macroanalysis of the *Newsweek* article as discussed below) does not solve this problem.

9.An episodic model, or situation model, is "the cognitive representation of the events, actions, persons, and in general the situation, a text is about" (van Dijk & Kintsch 1983:11f). The relationship between frames and situation models (the two terms which are used in the fifth column representing knowledge, etc.) is this:

After the activation of certain concepts on the basis of some input word or clause, some general knowledge fragment (e.g., of a frame or script) is activated and instantiated with the specific constants (*Peter, Mary*) of the text. This instantiation will in turn activate, and its information be added to, specific episodic memories about the same or similar situations, namely, the situation model. (op.cit.:308)

10.Since the present study is limited to expository prose, it does not include a discussion of Rumelhart's work on narrative structures.

CHAPTER 5

RHETORICAL STRUCTURE: CONTENT STRUCTURE ANALYSIS

Reading educators have been interested in Meyer's approach to prose analysis because it can specify how to find the main idea, the content bound by the top-level structure or superordinate relationships. (Meyer 1985:47)

It is precisely an approach to analysis which specifies the "main idea" that I have been looking for all along.

Perhaps, then, with Meyer, my quest is at an end. Or is it?

5.0. INTRODUCTION

In the discussion of van Dijk & Kintsch's theoretical framework in the preceding chapter, a distinction was made between two different kinds of "global structures of discourse" (van Dijk & Kintsch 1983:189), namely macrostructures and superstructures. These were then related to Carrell & Eisterhold's (1987) content schemata and formal schemata. It was pointed out that macrostructures and content schemata have to do with semantic content, whereas superstructures and formal schemata have to do with rhetorical organization, or textual structure. I have argued that the discourse dimension is left out of account in the macrostructure - superstructure distinction, a fact which, as we shall see, has considerable implications for its validity.

As was pointed out above, van Dijk and Kintsch deal with macrostructures and superstructures separately; in their model, the (formal rhetorical) superstructures can be

thought of as 'slots' for which the (semantic content) macrostructures are the 'fillers':

...the global schema is filled with global content, much as the syntactic structures of a sentence are interpreted as semantic structures. (van Dijk 1986:158)

The "global content" is accounted for by the macrostructure of a text, which therefore forms the basis for a summary of that text:

Summaries are the verbalization of the underlying semantic macrostructure of a text. (op.cit.:160)

Macrostructures, then, play the most crucial role in comprehension and gist formation, but superstructures are also important as the schemata controlling the formation of macrostructures. What is never made quite explicit, however, is just how these two sorts of global structure interact, what their joint function is in the process of comprehension. It might be pointed out, for example, that superstructures cannot simply be seen as in some sense facilitative, or enabling, devices in order to clarify the relative weighting of the propositional content.

Superstructures are themselves signals of the rhetorical structure and have to do with what kind of rhetorical force a particular text has. They are crucial because any faithful summary has to retain the force of the original as well as its propositional meaning. In their 1983 book, van Dijk and Kintsch discuss macrostrategies and schematic strategies separately, in subsequent chapters; they offer a macroanalysis (pp 209ff) and a schematic analysis (pp 242ff) of their sample text, thus presenting in sequence what actually are simultaneous and interactive processes which need to be integrated into one and the same model. It

seems also to be the case that superstructure is only seen as in some way supportive of the macrostructure and it is the macrostructure, i.e. propositional meaning, which is focused upon as being of primary importance.

Ideally, then, an approach modelling summarization would combine both 'slots' and 'fillers' in one hierarchical system, thus allowing semantic and structural information to act as reciprocal clues in the assignment of relative importance to textual elements.

5.1. RHETORICAL STRUCTURE: THEORY

This requirement seems to be fulfilled in the model to be discussed in this chapter, Meyer's approach to prose analysis. But on the face of it it would seem that other models too might fulfil this requirement in that what they claim to do is to identify basic rhetorical functions and the formal elements of the actual text which realize them. Indeed, Meyer herself (1975:ch.3) discusses several approaches for analyzing the organization of information in prose and compares them to her own. In particular, she reviews the schemes developed in Crothers (1972, 1973), Frederiksen (1972) and Spencer (1973). Meyer (1975:60f) points out that the main difference between Crothers' system and her own is that in her model the nature of the hierarchical structure of a passage is determined by the author's organization of information, whereas with Crothers it is based on hierarchies of concepts and logical connectives among these hierarchies of his own devising, without reference to author intention. Crothers' system is also more complicated than Meyer's because it produces two structure graphs per passage, one for the concept

hierarchies and one for the basically logical, "fundamental structure". Frederiksen's approach is even more involved; he generally makes more distinctions and thus produces a more unwieldy scheme for analysis. Meyer's main criticism of his approach is that

in using Frederi[c]ksen's system one gives up the advantages of having one structure to depict the organization of the prose...In contrast, Meyer's system is comprised of only one hierarchical structure which depicts both the logic by which the propositions in the text are organized and the relations composing these propositions. (Meyer 1975:70)

Spencer's (1973) approach looks like a simplification of Meyer's, except that her scheme is not hierarchical but is in a list form, and can really only be used as a system for scoring recall protocols.

Meyer (1985) also reviews de Beaugrande's (1980) *text-world model*, which she praises for the fact that it

applies the same type of relationships to the text as to prior knowledge of readers and attempts to mesh the two (Meyer 1985:33).

However, she also points out that

the system is complex and does not appear to result in dimensions that could be readily used for classifying text. (ibid.)

Lastly, reference might be made to what is perhaps the best known approach in Britain to text organization, that of Hoey (1979, 1983) developed from Winter (e.g. 1971, 1977), who regards this organization as "the product of semantic relations holding between sentences or propositions" (Hoey 1983:17). These relations, called *clause relations*, can be divided into two broad classes, *Logical Sequence* relations

(such as Cause-Consequence, Condition-Consequence, Instrument-Achievement) and *Matching* relations (such as Contrast and Compatibility). As to the organization of whole texts, this is achieved through combinations of relations called *patterns*. The pattern discussed in most detail by Hoey (and, as I understand it, the only 'pure', self-contained one) is Problem-Solution, but there are also various patterns involving Matching, as well as General-Particular patterns (cf Hoey 1983: chs 6 and 7).

The Winter/Hoey approach seems to be focused on very general principles of text organization, and it has developed into a popular way of describing such organization. Since there have also been a number of applications (e.g. Crombie 1985a and 1985b, Jordan 1984), this model might be considered just as well suited as the central one of the present chapter. However, I preferred Meyer as the model for analysis of most relevance to summarization for the following reasons:

- (1) As the quotation at the beginning of this chapter shows, Meyer explicitly claims that her hierarchical system can be used for specifying main ideas in texts;
- (2) Meyer discusses and demonstrates several types of text organization in detail and, like myself, limits herself to expository prose;
- (3) her method of analysis allows the option of scrutinizing only the top levels of the text structure, and she actually recommends this procedure for studying questions of global comprehension;
- (4) Her model has (like that of van Dijk & Kintsch) spawned a wide range of empirical work and pedagogic applications,

both by herself and her colleagues as well as numerous others. It is therefore particularly appropriate for my purposes, since the design of the present study is based on a conceptual evaluation of selected models as well as a critical review of the way they have been applied.

Before going into more detail about how Meyer's analysis is actually conducted, two general points seem worth stating. The first, then, is that Meyer's procedure yields a hierarchically arranged tree structure which she calls the content structure of a passage:

...the structure of a passage will be referred to as the content structure since it shows the *structure of the content* of a passage. (Meyer 1975:23)

So the point is that here we have structure and content combined in one presentation, with meaning and form mutually dependent and influencing each other. Meyer herself compares her approach to Kintsch & van Dijk's and notes that

For Kintsch and van Dijk (1978), the top-level structure is an independent organization overlaying the propositional analysis, rather than an **emergent** structure as in the Meyer system. (Meyer 1985:31, *emphasis added*)

In addition to the advantage of combining formal and semantic criteria in one system, there is an even more important aspect which makes Meyer's approach seem to be of direct relevance and immediate applicability to summarization:

The structure of text from Meyer's theoretical orientation is hierarchical with main ideas located at the top of the structure. ... The structure **shows how some ideas are of central importance to the author's**

message ... while other ideas are shown to be peripheral. (Meyer et al 1989:4, emphasis added)

What would seem to follow from this is a reliable and objective recipe for summarizing any given text: all that needs to be done is to pick the elements from the top of the content structure, which contain the ideas that are "of central importance to the author's message". (Meyer's above description of text structure is also reminiscent of the "propositional tree" which Rumelhart (1977) posits as a constituent structure for stories, and which he has demonstrated to be a very reliable predictor of summaries). But how does one get to that structure in the first place? Texts do not, after all, usually come supplied with tree structures - or do they? In a way Meyer could be interpreted as claiming just that. But before this issue can be addressed, it might be useful to establish the premises and postulates of Meyer's approach.

The most complete presentation of this can be found in Meyer (1975); the most recent treatment and application that I came across is Meyer, Young & Bartlett (1989). However, since the former has been superseded by more recent versions and the latter presents hardly any theoretical background, I shall base my brief exposition of Meyer's model on her lengthy contribution to Britton & Black's (1985) book *Understanding Expository Text*. Meyer's procedure aims at getting from a text to its underlying structure and is based mainly on Fillmore's (1968) case grammar and Grimes' (1975) semantic grammar of propositions.

Meyer (1985:16) points out that her analysis identifies three "primary levels of expository text", and these correspond to levels which are already familiar from the Kintsch & van Dijk model: micropropositions, macropropositions (which was the level investigated in most detail for the purposes of summarization in the preceding chapter), and "top level structure or overall organization of the text as a whole", which relates to Kintsch & van Dijk's superstructures. However, whereas for Kintsch & van Dijk the macropropositional level is the one crucial for modelling summarization, for Meyer, since she combines semantic and formal criteria, it is both the macropropositional one as well as the third one, the top level structure, which she uses for investigating and mapping prose comprehension and its "operational definition", recall (cf. Connor 1984:240).

In order to construct a hierarchical diagram of the text structure, a number of steps have to be followed. These bear a marked resemblance to those proposed in Selinker, Trimble & Trimble's (1978) rhetorical process chart, which similarly identifies a number of levels of text organization and which presupposes the possibility of lower-level units entering into the structure of higher-level ones. Meyer's version of this familiar hierarchical operation consists, from a bottom-up perspective, of the following stages:

- a) on the micropropositional level, individual propositions are analyzed into *predicates* (relations) and their *arguments* (concepts connected by the predicate). The arguments are named according to the semantic functions (*role relationships*) they fulfill, such as agent, patient, benefactive, etc. ¹

b) in order to move up to the macropropositional level, the functions of individual propositions have to be determined in terms of *rhetorical predicates* (collection, causation, response, comparison, description).

c) building on the rhetorical predicates identified in step b, one of these relationships is selected as the top-level structure of the text as a whole. The top-level structure corresponds to its overall organizing principle and is "the relationship that can subsume the greatest amount of text" (Meyer 1985:22).

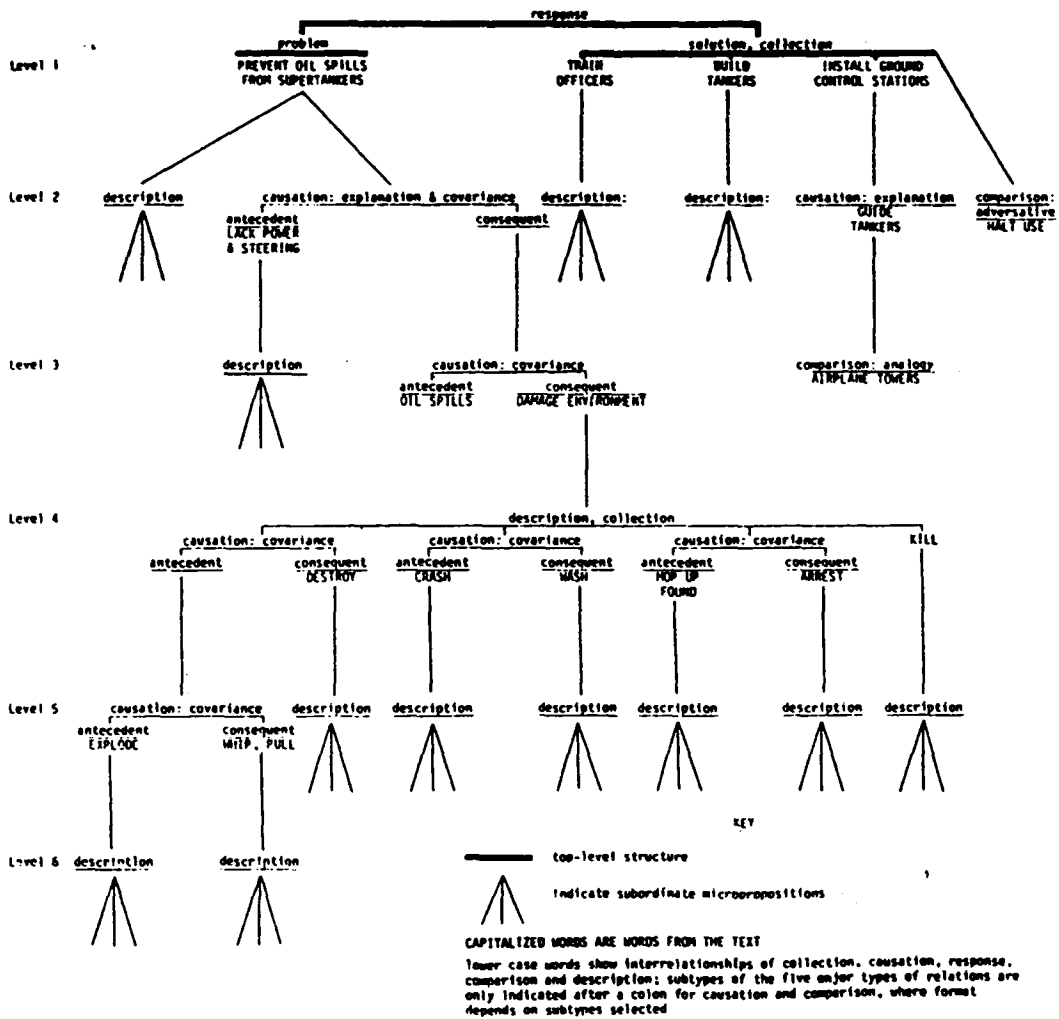
Clearly, then, it is steps b and c which are crucial for establishing the main ideas, or overall message, of a particular passage. According to Meyer (1985:17),

the term macroproposition refers to the level of prose analysis at which gist of portions of the text is central.

The gist statement can be found "in the top third of the content structure" (1985:20). The question, then, is how one is to establish which elements represent the top third of the content structure: since this structure is said to "emerge" from the text, the procedure might be expected to be a gradual building up from micropropositions via macropropositions to the top level structure. However, Meyer surprisingly recommends working in the other direction²:

The content structure is best formed by following a top-down procedure. The passage is first examined for its top-level structure. The top-level structure will be the rhetorical relationship that can interrelate the greatest amount of text. (Meyer 1985:269)

Once this top-level structure is identified, the analyst is to work "downwards" through other, less inclusive rhetorical relationships, until the case grammar level of analysis is reached. Here is an example of a content structure diagram, for a text on oil spills from supertankers, which Meyer has used in nearly all her experiments ever since the early 1970's.



(Meyer et al 1989:5)

But how is the passage to be "examined for its top-level structure"? Meyer (1985) does not give any more details on this. I mentioned above that I find it surprising that Meyer first describes her model in a bottom-up fashion but then suggests a top-down procedure for devising a content structure diagram. Perhaps this requires some further comment. It is true that in various places Meyer says that whether you follow a bottom-up or top-down procedure will depend on the level of detail the analysis is pitched at, and that in cases where only the top levels of organization are required, the top-down one is preferable. But this only accentuates the problem: for Meyer it does not seem to matter in which direction the analysis proceeds, and the decision for one or the other is merely a matter of practical expediency. Now it seems to me that bottom-up and top-down analysis are different in kind, and therefore that the static description of her model runs directly counter to the dynamic operations which are required to activate it, and which are denied in her model. There is a big difference between specifying stages, levels and components of a model simply as a static set, and applying the model by activating relationships between those components and by engaging in a process of inference from one level to the other. In short, for a model to be applied it needs to be activated, it needs to have 'moving parts', and there have to be clear procedural directions as to how to make them move. The problem with the Meyer model is that we are not given any indication how this process of activation actually works, how you get from the static description to the dynamic operation. In other words, the model says something about texts from the analysts's point of view, but nothing about discourse from the participant's.

Meyer (1975) suggests identification of the topics discussed in each paragraph as the first step for getting to the top-level structure. Here she argues that

the chunking of information into paragraphs usually conforms to the organization of the information at levels of the content structure. (Meyer 1975:53)

Meyer does concede that paragraphing may not always follow the organization of the content structure, but she is satisfied that it does often enough to make this a legitimate procedure, and does not offer any alternatives. It must be noted, however, that what Meyer does here is in a sense to give us a replay of two of the really problematic concepts that have been with us since the times of ancient rhetorics, namely the notions of **paragraph** and **topic sentence**. Obviously enough, if one could count on orthographic units marking crucial elements of information in the way Meyer is assuming, the matter would be very straightforward, and summarization would be no problem at all: from a, say, nine-paragraph text one would produce a nine-sentence summary, each (topic) sentence being extracted from the paragraph concerned in an algorithmic operation. If one could rely on paragraphs being consistently used as organizational devices, with one paragraph always encapsulating one, and only one, crucial piece of information, this would not be problematic. However, as Urquhart (1976) points out, orthographic paragraphs are not isomorphic with conceptual units and the identification of their rhetorical function is problematic (cf Widdowson & Urquhart 1976). There simply is no set of consistent conventions for the use of topic sentences and for the use of paragraphs. The criticism I would level at Meyer, then, is that what one would expect from a

rigorously defined model would be some way of clarifying, or at least acknowledging, the confusion and uncertainty that has always surrounded these basic rhetorical concepts - all the more so if these are absolutely crucial elements of the model.

However, there is an important other element in Meyer's system for identifying the top levels of content structure, and this is signalling (Meyer 1975:ch 4). Signalling can be described as textual information which does not add new content, but emphasises certain features of the existing content or points out ways in which this content is structured. Signalling is used by the author of a text to highlight points in a text and thus indicates the author's perspective. Meyer derives the concept of signalling from Halliday's (1968) *theme* and Grimes' (1975) *staging*. It is clear therefore that when Meyer refers to content structure and to perspective, she means the propositional organization of the text and not perspective in terms of the intended effect, or illocutionary force, of such content. Meyer specifies four different categories of signalling:

- a) explicit statement of the structure of relations in the content structure, e.g. *the problem is; two approaches exist...the one...the other*
- b) preview statements, which represent prematurely revealed information abstracted from content occurring later in the text, such as prior enumeration of topics to be discussed later in the text
- c) summary statements, which retrospectively summarize information towards the end of a paragraph or of a whole passage, and

d) pointer words, such as *a crucial aspect is; unfortunately*. This category also comprises underlining, italics, illustrations, questions and similar "adjunct techniques" (cf Meyer 1981:18ff)

The signals mentioned under a), b) and c) seem to refer to propositional content; the pointer words, on the other hand, do seem to carry with them something of author attitude - not just reference, but force, because *crucial* and *unfortunately* are evaluative terms (though Meyer does not make this explicit).

Having established what the main components of Meyer's approach to prose analysis are, the question arises as to what relevance it has for research into summarization. Meyer and her colleagues (e.g. Meyer 1975, Meyer, Brandt & Bluth 1980, Meyer & Rice 1982, Meyer & Freedle 1984) use her model for investigating various aspects of recall of expository passages, and, more recently, for designing training schemes aimed at improving memory for expository text (Meyer, Young & Bartlett 1989). They do not apply her system to summarization. The question arises as to whether her system can be made as relevant to summarization as it is to recall. What, then, is the relationship between these two phenomena?

Clearly, the two concepts have many things in common; but there are also important differences. If we make a distinction between memory and recall, with memory simply denoting the fact that a reader remembers what s/he has read, and recall that s/he also produces some sort of protocol of what is remembered, there are the following similarities and differences between recall and summary: both involve discourse comprehension and production; the

production of a recall/summary protocol requires rendering for the reader of the protocol, who may or may not know the input text, and who may or may not be identical with the writer of the protocol. The production will, to varying degrees, involve both reproduction and reconstruction (cf. Kintsch & van Dijk 1978: 375f). This means that both formal and content schemata play an important role, as they are the basis for reconstructive inferences. Another shared characteristic of recall and summary protocols would seem to be that they usually reflect the generic type of the input text; for instance, protocols rendering a narrative will tend to be narratives themselves. However, this itself raises the question whether and to what extent such protocols capture the force and effect of the original as well as its referential content, or whether indeed recalls and summaries might be distinguished in this respect. As to research into recall and summarization, it is conducted along the same lines in both cases in that the chief source of data usually is the comparison between input texts and protocols, be they spoken or written. Finally, the assumption that the underlying processes are largely identical is underscored by recall and summary often being treated together in work on discourse comprehension and production (eg Kintsch & van Dijk 1978, van Dijk 1979b).

But there are differences. The most crucial one seems to be that summarization by definition involves selection of 'important elements' and thus reduction, whereas recall does not. In the recall experiments I came across, the guiding principle seemed to be 'the more the better', whereas for summaries the 'tell-all' strategy is not desirable. One could say, therefore, that recall is essentially a product of assimilation and succeeds

quantitatively, whereas summary is a product of discrimination and is qualitative.

Another difference which seems important is that producing a summary is more like a real-life activity than recall. In other words, summaries are often written for 'external consumption', i.e. they are frequently a condensation of a particular text for the benefit of a specified reader, even if that reader is the same person as the writer of the summary. On the recall side, however, the more 'natural' state of affairs is that one may remember something of a text, that is, store a representation of it in memory, but this does not necessarily, and not usually, entail producing an actual recall protocol. Thus recall protocols tend to be artefacts for the benefit of psychological experiments, while summaries are often products of genuine activities warranted by a real-life demand for them (eg abstracts, minutes, synopses and reviews of books or films, etc.) and are therefore sociological in character. They are themselves discourses whereas recalls are only elicited responses from experimental subjects. This also means that there is a greater variety of possible, and usually specific, purposes. As to the tasks themselves as they appear in experiments, some minor differences are that subjects producing recall protocols obviously have to do so without looking at the input text, whereas with summarizing, the text is usually, if not always, available while the protocol is being produced. Connected with this is the fact that forgetting/attrition (quite obviously, since it is the opposite of remembering) is a crucial factor in recall experiments, whereas it does not really come into the picture for summarizing. Another consequence of the 'text-absent' vs, 'text-present' condition is that

recall protocols are generally more reconstructive (rather than just reproductive) than summaries (cf. Kintsch & van Dijk 1978:384). As to the intervention required of the recaller/summarizer, in recall the protocol is basically produced by a subject whose function is solely to lend a voice to, and reproduce as faithfully as possible, the input text; producing new ideas would be regarded as intrusions or distortions. In contrast, summarization requires the summarizer to do more mediation work by remodelling a new discourse for the benefit of the addressee of the summary. I shall return to the role(s) required of the summarizer in my concluding discussion in the last chapter.

To formulate my own gist regarding the differences between summary and recall, then, I would say that ideally, the desired outcome of recall is a memory-filtered near-complete version for internal consumption, while the desired product of summarization is a deep-processed brief account³ of the input text geared to a specified addressee.

I said above that summarization, unlike recall, by definition involved selection of higher-level ideas, or macropropositions in Meyer's and van Dijk's terms. However, this distinction applies to the products on the page, but by no means necessarily to the processes of comprehension and production involved. Quite the contrary, the main point about Meyer's theory is that higher-level ideas, ie ideas located towards the top of her content structure, are consistently remembered better than those further down in her hierarchical tree. And this is the point where research on recall and summarization converge, and thus also the

reason why I think it is legitimate and helpful to take Meyer's work on recall into account for investigating summarization. Let us, then, consider how this might be done.

Meyer and her colleagues (e.g. Meyer 1985, Meyer, Brandt & Bluth 1980, Meyer & Rice 1982) have found that skilled comprehenders tend to approach texts with a knowledge of how texts are conventionally organized and use a "structure strategy" exploiting that top-level structure as a framework guiding their encoding into memory and retrieval:

Processing activities for the structure strategy focus on a search for major text-based relationships among propositions. That is, there is a search for organizational plans which can subsume all or large chunks of this information and tie it together into a **summarized comprehensible whole**. Readers employing the structure strategy are hypothesized to approach text looking for patterns that will tie all the propositions together and the **author's primary thesis** which will provide the content to be bound by these schemata. (Meyer & Rice 1982:162, emphasis added)

All this sounds very promising for summarization: a summarized comprehensible whole is exactly what we are looking for, and if this also includes the author's primary thesis so much the better. But how do those skilled comprehenders do it? Which characteristics of a particular text guide their comprehension? Here we come back to two of the cornerstones of Meyer's model, top-level rhetorical relationships and signalling. In their recent book, Meyer, Young & Bartlett (1989) represent these in the following table:

Five Basic Writing Plans [=top-level structures] and Signals that Cue Readers to These Plans

Writing Plan and Definition

Description

Descriptive ideas that give attributes, specifics, or setting information about a topic. The main idea is that attributes of a topic are discussed.

Sequence [previously termed Collection]

Ideas grouped on the basis of order or time. The main idea is the procedure or history related.

Causation

Presents causal or cause and effect-like relationships between ideas. The main ideas are organized into cause and effect parts. The effect comes before the reason (cause) in explanations.

Problem/Solution [previously termed Response]

The main ideas are organized into two parts: a problem part and a solution part that responds to the problem by trying to eliminate it, or a question part and an answer part that respond to the question by trying to answer it.

Comparison

Relates ideas on the basis of differences and similarities. The main idea is organized in parts that provide a comparison, contrast, or alternative perspective on a topic.

Listing can occur with any of the five writing plans. Listing simply groups ideas together. Passages are often organized as a listing of descriptions about a topic. A sequence always contains a listing of ideas, but the ideas are ordered sequentially. A listing can occur when groups of causes are presented, groups of effects are listed, groups of solutions are posited, groups of ideas are contrasted to another idea, and so forth.

Signals and Examples

for example, such as, characteristics are, namely

e.g., a newspaper article describing who, where, when and how

to begin with, as time passed, later, in the first place, more recently

e.g. recipe procedures, history of Civil War battles, growth from birth to 12

as a result, for the purpose of, led to, if/then, so,

e.g. directions: if you want to take good pictures, then you must...

problem, the trouble, need to prevent, question, riddle, solution, answer, response, to set the issue at rest

e.g., scientific articles often first raise a question or problem and then seek to give an answer or solution

on the other hand, however, in contrast, not everyone, in comparison, unlike, have in common, while, although

e.g., political speeches, particularly where one view is clearly favoured over the other

common signals include: and, in addition, also, include, moreover, besides, first, second, furthermore, another, and so forth

(adapted from tables in Meyer, Young & Bartlett 1989:94 & 115f)

What good readers are hypothesized to do, then, is to work both in a bottom-up and top-down fashion, picking up clues

from the signals present in the text as well as letting themselves be guided by the top-level structure. In this process, both signalling and structure are perceived to interpret and confirm each other, leading the reader to construct a representation of the author's message.

Seen in this way, Meyer's content structure analysis can be expected to offer many of the advantages for summarizing which she has demonstrated for recall, in that it offers a framework for the reader for tying textual information into a "summarized comprehensible whole".

In principle, then, the Meyer scheme, though designed for investigating recall, ought to be applicable to summarization. What remains to be done, however, is

- a) an actual analysis of a text along her lines and
- b) an evaluation of her system based on both that practical analysis as well as certain theoretical points

5.2. RHETORICAL STRUCTURE: PRACTICE

Starting with the first of these, I should like to analyze the text I have been using throughout, the *Babies*-article from *Time* magazine (cf Appendix 3), and to follow the procedure described by Meyer (1975:53ff) as faithfully as possible.

As discussed above, Meyer recommends following a top-down procedure. This means that the first step is examining the passage for its top-level structure, i.e. the rhetorical relationship which can interrelate the greatest amount of text. The rhetorical relationships I can choose from are Description, Sequence, Causation, Problem/Solution, and

Comparison, as described in the table above. According to Meyer, the interim step for deciding on the top-level structure is to assume that the author has allotted a separate paragraph to each important sub-topic, and to identify those paragraph topics. The *Babies*-article has 9 paragraphs, for which I would claim the following topics:

P1: introduction: childlessness contrasted with baby mania

P2: social and economic reasons keeping the birthrate down

P3: two groups of childless people: deliberate and postponers

P4: two examples of deliberate types

P5: one example of a postponer

P6: reasons why some men and women do not want children

P7: ways people cope with their childlessness

P8: regrets of childless women

P9: backlash against childlessness (+ summary statement)

Now which top-level structure subsumes all these paragraph topics? They all have to do with childlessness and deal with various aspects of this phenomenon. We are told about reasons for not having children (P2 & P6). There is a distinction drawn between two different types of childless people, and examples given of each group (P3,4,5). Also, we are offered more information about the ways people cope with and think about their childlessness, either positively (P7) or negatively (P8). So really what we are dealing with is a collection of different facets, pros and cons, of childlessness. In terms of top-level structures, the ones that are definitely not applicable are Sequence (because this requires some chronological order), Causation, and Problem/Solution. As far as Comparison is concerned, it is true that there are a few explicit and implicit statements

about similarities and differences made in the text, such as about the different types of childless people. But if we are looking for a top-level structure which really interrelates the entire information in the article, Description seems to be the obvious choice. Description gives "attributes, specifics, or setting information about a topic" (Meyer et al 1989:94), the topic in this case being childlessness. This is corroborated by the title, *The Dilemmas of Childlessness*, for a title, after all, is usually is a statement of the overall topic. As to other types of signalling, the table above mentions *for example*, *such as*, *characteristics are*, and *namely* as typical signals for Description, pointing to specifics, attributes or examples of whatever is being described. It would seem to me that this can be done by explicit signalling, such as saying "for example", or by the way information is presented and arranged sequentially. In Description a typical arrangement is to make a general statement or observation and then to exemplify it with specific instances. This is indeed the most common, recurring organization in the *Babies*-article. For instance, after introducing the notions of "deliberate types" and "postponers" in paragraph 3, the next two paragraphs are devoted to giving examples of those types. In P4 this is explicitly signalled by introducing the example by *consider*:

Consider Susan Peters, 36, a Los Angeles TV producer who...

Paragraph 5 takes up the "postponer" types with a general description of their characteristics and follows this up with a concrete example:

The postponers refuse to make a decision, allowing relationships, professional commitments and finally nature to make the choice for them. Dr. Karen Rohde, 40, a suburban Chicago obstetrician, has some regrets...

The same technique is employed in paragraph 7, which gives a whole list of examples after a general observation, again not signalled by conjunctions but by sequence:

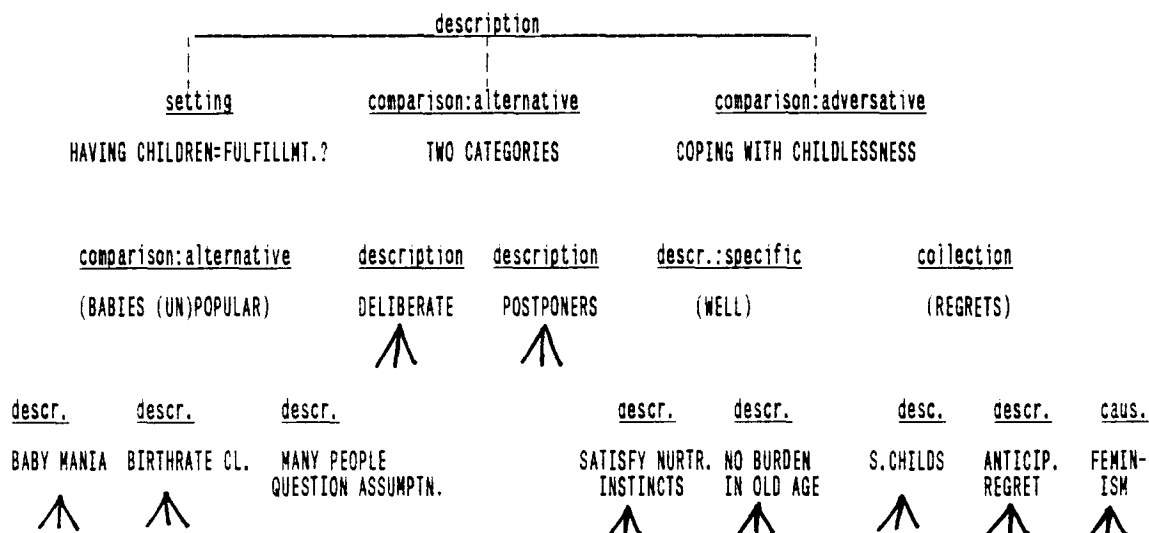
The childless have found ways to satisfy their nurturing instincts. Jon Wilkman, 45, a Los Angeles filmmaker, advocates... Toni Moore, 47, a schoolteacher ... New York City-based Joni Evans, 45, publisher of Random House trade books, openly mothers her authors...

The fact that there are not many explicit signals is not surprising since Description, compared with e.g. Problem/Solution, is one of the least strictly organized structures, cf. Meyer & Freedle (1984)
The last type of signalling I want to mention is the summary statement at the very end of the article:

Most childless adults who have deliberately made the choice enjoy their freedom with few misgivings. But some of those who find themselves sitting on the fence may have already made a decision they did not intend to make.

According to Meyer (1975:79), summary statements repeat information already presented in the passage, either in the same words or paraphrased wording. In our text, the summary statement takes up the theme of the dilemmas of childlessness.

Taking all this into account, we can formulate the content structure for the *Babies* text in a form corresponding to the example above in the following way (leaving out the predicates and arguments within individual propositions, which indicate subordinate micropropositions⁴):



Childlessness text: Description content structure
 capitalized words are words from the text
 capitalized words in brackets are generalizations from
 words in the text

^ indicate subordinate micropropositions

A short summary containing the top-level ideas based on this Description structure could be expected to include the following information: general description of childless people as a group, social and economic reasons for childlessness, more specific characteristics of childless people: deliberate types and postponers, ways of coping with childlessness, and contrast with the fact that babies seem so popular. The information presented at the beginning of the last paragraph, that the birthrate is climbing again, is located on the lowest level of the content structure in the above representation, at the same height as details and examples of individuals on the right side of

the diagram. Since a summary should only contain information from the upper levels of the content structure, this information about the backlash against childlessness would therefore be unlikely to be included, as unlikely as the quoting of individual examples of childless people.

Reflecting for a moment on the process by which I arrived at this content structure, one could say that this was done by following Meyer's suggestions to the letter, identifying paragraph topics, finding the top level structure interrelating all these topics, and checking the passage for signalling devices which point to the rhetorical structure. The way Meyer talks about this process makes it sound very much like a fail-safe algorithm with one, and only one possible and correct result: passages are "examined" for their top level structure, paragraph topics are "identified". This presupposes that every text has one single content structure (one content and one structure), the meaning is there in the text, and any reader equipped with a knowledge of the repertoire of possible rhetorical structures and signalling devices possesses a key which will disclose, reveal that meaning. To a certain extent, of course, this procedure is circular: once a top-level structure has been decided on, the analyst will align everything else in the text to accommodate it, and signals will be interpreted in such a way as to confirm the initial decision. Of course it could be argued, (and I think that Meyer would hold that view) that the primary function of signalling is precisely to as it were objectify the reading process by offering unequivocal signposts for interpreting the author's intended meaning. In some cases signals will certainly work just like that and can be relied upon to steer interpretation in a reliable and predictable way: for

instance, it is difficult -though not impossible- to imagine how anyone could consider the following anything other than a problem-solution structure:

There was a problem X. It was solved by doing Y.

Also the signalling devices in the carefully chosen texts Meyer used for her experiments seem straightforward enough, not least because they function within the framework of particularly clear exemplars of selected top-level structures.

However, things are not always that clear-cut. Meyer's four types of signalling as they are presented in her monograph (1975:ch.4) are open-ended categories, which means that in many cases the decision as to what is regarded as a signal is essentially left to the analyst. The point here is that there is not a comprehensive list of the linguistic realizations of the functions these signals fulfil: Meyer's description of signalling devices is the classic list with an *etc.* at the bottom, which results in the burden of responsibility being shifted to the interpreter of the theory.

More importantly, the question arises as how to distinguish between content and non-content, and whether it is in principle possible to make such a distinction at all. Meyer, it will be remembered, defines signalling as

a **non-content** aspect of prose which gives emphasis to certain aspects of the semantic content or points out aspects of the structure of the content. Words of signaling are not included in the content structure since they do not add new content and relations, but simply accent information already contained in the content structure. (Meyer 1975:77, emphasis added)

But I would object to this by pointing out, for instance, that by putting emphasis on certain words in the above quotation, I do think I have added new content and relations by influencing the way this quotation will be read. The reason for this is that I do not consider meaning to be contained in the text, but to be constructed in the process of reading - hence influencing the way something is read is changing its meaning. This of course also brings us to the issue we keep coming back to, that content is the (illocutionary) force as well as the (propositional) reference, and summarizing therefore is a matter of capturing what is essential in respect of the formal schematic elements and not just the identification of the relative importance of propositional meaning. Consequently, the distinction between content and non-content becomes a problematic one. Before going into further implications which these observations lead to, I should like to illustrate the 'signalling problem' by returning to the *Babies*-article. What I hope to demonstrate is that it is impossible to distinguish between content and non-content, that signals are content and content is/are signals, and how paying attention to different features in the text can result in a different reading, and thus in a different content structure.

Let us go through the text again, but with a somewhat different emphasis this time, not just picking up signals as neutral indicators of propositional content and structure as Meyer does, but investigating the implications of the particular linguistic choices that are made, since these also carry meaning which the kind of analysis we conducted the first time round tends to disregard.

To start with the title, the emphasis in my first analysis was on *childlessness*, which emerged as the overall theme when the individual paragraph topics had been considered. But what about *dilemmas*? Consulting OALDCE (1989), we find that a dilemma is a "situation in which one has to choose between two undesirable things or courses of action" (emphasis added). So the connection established between the two nouns in the title means that childlessness is a situation which only leaves undesirable courses of action open, and thus is something undesirable in itself.

Moving down to paragraph 2, we find that the first noun in its first sentence, which presumably could be regarded as its topic sentence, is *baby busters*:

By and large, the baby busters are female college graduates of the late '60s and early '70s who questioned the moral imperative to reproduce and instead forged ahead in the male-dominated work force.

Considering that *to bust* means "break (sth); smash" (OALDCE), *baby busters* is a pretty strong expression. The only entry given in OALDCE for *buster* is "(US infml usu derog) (used as a form of address for a man): *Get lost, buster!*" Since the baby busters in our text are women, this is not very helpful. One reason why this word appears here could be that it is a neologism coined in analogy to the movie title *Ghost Busters*, which was common knowledge in the States at the time the article was written. This explanation is all the more likely since the first paragraph mentions several film titles and thus primes readers for the analogy. What I do find noteworthy, though, is that *baby busters*, being such a forceful and novel expression, is not put between inverted commas. After all, the author of the article uses quotation marks quite

liberally in other cases. This issue I think is interesting when we consider the role of this notational convention: it is often used for unusual, not completely lexicalized expressions, such as "uncle empowerment" in paragraph 7. Another function is distancing, in the sense that the writer makes it clear that what is between inverted commas is not what s/he says, but is quoted as somebody else's words. That is to say, it marks direct and not reported speech, and signals withdrawal, or hedging, of commitment to what is said (cf. Stubbs (1986)). Apart from instances of indirect speech, which are the obvious example, there are also more interesting occurrences of this role of quotation marks in the article, such as in paragraph 6, which I shall return to presently. To come back to the instance of *baby busters*, an unusual coinage without inverted commas, not marked for 'oddity' or for somebody else talking, would seem to suggest that the writer does identify with the expression and what it conveys - in short, to the author of the article, the women in question are baby busters. This conclusion also confirms the message conveyed by the title, with the emphasis on *dilemmas*.

The next point I should like to make is of a completely different nature: it has to do not with words but with figures. In paragraph 2, we are presented with the following demographic information:

In the 1950s, 9% of women of childbearing age had no children; now 25% if college-educated working women between 35 and 45 are childless.

For someone just skimming the article in a cursory manner, the only thing sticking out in the above sentence will probably be the difference in percentages of childless women: 9% in the '50s vs. 25% now, and this may indeed

correspond to what the author intends her readers to remember. However, just a little more attention to what is actually being said makes it clear that we are confronted with a rather slanted, not to say manipulatory, use of numerical evidence: whereas the figure given for the 50s refers to all women of childbearing age, the 25% quoted for 1988 is a percentage of a much more narrowly defined group of women: not just all women of childbearing age, but **college-educated, working, and between 35 and 45**. On top of this, these factors define a group with a traditionally low birth rate, anyway. It seems therefore that by picking such grossly different populations for her number-juggling, the author was pursuing the purpose of exaggerating the impact of her description of the dropping birth rate, possibly in order to insinuate that the decreasing number of births might be an alarming tendency. This ties in with her calling childless women baby busters, and with the association of the word *dilemma* with childlessness in the title.

After the introduction of the distinction between two categories of childless people, the deliberate types and the postponers in paragraph 4, paragraph 5 gives an example of a deliberate type:

Consider Susan Peters, a Los Angeles TV producer who has been married for ten years. Half jokingly, she speculates that her decision not to have children stems from her childhood play with Barbie dolls. "Barbie had a house, a car and a boyfriend, period," she notes.

One could argue that the analogy between a woman choosing to remain childless and a Barbie doll rather trivializes the issue at hand and contributes to presenting a negative image of childless people. Another example of a striking lexical choice occurs in the next paragraph:

The postponers refuse to make a decision, allowing relationships, professional commitments and finally nature to make the choice for them.

It seems to me that *refuse* is an interesting choice here: it appears to imply that someone wants them to make a decision, that the initiative comes from outside as it were (e.g. from expectations of society, or of the author's), otherwise just stating that "postponers do not make a decision" would be quite adequate.

In paragraph 6 we return to the matter of inverted commas and their 'distancing' function as discussed above.

Consider the following extract:

Still, some men are opting for childlessness too. Ed McCrary, 41, a recovering alcoholic who works for a rehab center in Charlotte, N.C., and his wife, also a recovering alcoholic, have decided against having children because the "chances are too high" that the baby too would become an alcoholic.

It seems to me that the quotation marks here fulfill two purposes at once: obviously, they indicate that it is the McCrarys rather than the author speaking; but they are deployed very subtly in such a way that the origin of the two voices gets somewhat mixed up. If we were confronted with the same sentence without quotation marks, it would create the impression that the author of the article accepts the McCrarys' argument that their former alcoholism might put their baby at risk - in fact we would not know any more whose statement this originally was. However, we do have quotation marks here, but they are juxtaposed to the syntax in an interesting way. The unmarked case for me would be to set off the *because*-clause explicitly as indirect speech, e.g. *...because they think (fear, etc.) that the chances are too high...*, or at least to imply this

by including the whole clause in quotation marks:

...*"because the chances are too high that the baby too would become an alcoholic"*. As the sentence stands, however, the author's syntax flows on without interruption, which simultaneously highlights the disruptive influence of the inverted commas. The stylistic effect this device has (on me, at least) is that of making the opinion expressed between the quotation marks stick out like a sore thumb, or rather, like a foreign body - foreign to the author's implicit message that having children is preferable to childlessness.

Paragraph 7 starts like this:

The childless have found ways to satisfy their nurturing instincts.

According to Meyer's categories, this sentence would count as the expression of the paragraph topic introducing a new content node in her hierarchical representation of the text's structure. It would certainly be regarded as 'all-content' and thus not as signalling. However, I would argue that it is a good illustration of the impossibility of keeping content and signalling completely separate.

Consider the expression *the childless*. Of course, one could maintain that this is simply a synonym of, and thus in free variation with, *those who choose not to have children* (P3) (and, of course, also of *baby busters* (P2)). But it could be argued that *the childless* is not simply a neutral, non-loaded term, but that it reveals a great deal about the author's attitude towards childless people. My intuition when first reading the article was that it carried with it at least two features: it describes a class of people rather than individuals, and it does so from the outside as

it were, conveying the impression that the author does not regard herself as a member of this category. But how can this intuitive reaction be explained? In grammatical terms, *the childless* is an adjective used as a noun-phrase head. Why should this be relevant? I would argue that it confirms the impression that reference is being made to a class of people rather than individuals. Adjectives as noun phrase heads have generic reference and take plural concord (cf Quirk et al 1972:5.20). This means that

"the distinctions that are important for count nouns with specific reference between definite and indefinite and between singular and plural disappear with generic reference. This is so because generic reference is used to denote what is normal or typical for members of a class. (Quirk et al 1972:4.28)

It seems to me that the stylistic effect achieved by using an adjective as noun phrase head is to create the impression that "the childless" are a fixed, static category - as if being childless summed them up as a class about whom (which?) there is nothing else to say, as if they were not human beings, real people with all sorts of sides to them, of which not having children is just one.⁵ I think that from this follows the second impression I mentioned, that of the author distancing herself from "the childless" by choosing this form, which makes it clear that she does not include herself in this category. In fact she uses the expression "the childless" as a *non-member category*, to use an ethnomethodological term (Sacks 1979).

The main theme of paragraph 8 is regrets of childless women. But it also introduces a new and important argument against having children, which is that there are many women who regret having had children, and for whom this is such a

problem that they seek help from a psychologist. However, the author makes short work of this aspect by putting it in brackets, without any further comment:

New York Psychologist Felice Gans regularly hears "anticipatory regret" from female patients in their early 30s. Says Gans: "They ask, 'Will I regret this? What is wrong with me that I didn't want a baby all along?'" (She notes, however, that she also counsels many women who regret having had children.) Some discontented women blame feminism for encouraging their childless state.

The last sentence in the above quotation is another illustration of the strong 'signalling' force of lexical choice. But let us look at more co-text first:

Some discontented women blame feminism for encouraging their childless state. Feminist Author Betty Friedan, who relishes her role as the mother of two children, sharply disagrees.

In these two sentences a contrast between childless women and women who have had children is presented, but one could hardly claim that this is done in neutral terms. Consider the words chosen for describing either group:

childless women	women with children
discontented women	mother
blame (feminism)	relishes
childless state	role as the mother of two

To me, the above juxtaposition encapsulates the author's attitude and the technique she uses to express it: overtly, she is simply stating sociological details, but her linguistic choices signal her (more or less) implicit value judgements throughout the text. Childless women are presented as discontented, reduced to blaming others, and they 'are in a state', a childless state, whereas mothers relish the active role they fulfill. Thus *discontented*

women is in league with *baby busters* and *the childless*. The ninth and final paragraph adds to this the rather odd *childless adults: why not childless people or childless couples?* One explanation which occurred to me was that the author might be trying to avoid repetition of these less unusual terms; however, when looking through the article I found that they had not even been used once. So the only reason I can think of is that the writer might, consciously or not, be exploiting some association with other combinations of *attributive adjective + adults* - for instance, *consenting adults*.

When analyzing the article according to Meyer and assigning it a Description top-level structure, I regarded the second half of paragraph 9 as a summary statement which repeats information presented earlier and thus constitutes an instance of signalling:

Most childless adults who have deliberately made the choice enjoy their freedom with few misgivings. But some of those who find themselves sitting on the fence may have already made a decision they did not intend to make.

However, in the light of my second analysis, which aims at revealing the author's implicit disapproval of childlessness, and following from this also a different top-level structure, this conclusion could be regarded as the 'moral of the story', a sombre warning along the following lines: if we, the American people, become too nonchalant in our acceptance of childlessness, we may soon find ourselves without descendants.

But what is the 'moral of the story' as far as this second analysis of the text is concerned? Spending several pages on it may seem like a lot of effort, but it does yield

important insights into how the content and structure of this text might be understood, which would be lost in an analysis which sticks closely to Meyer's characterization of text and her definition of signalling.

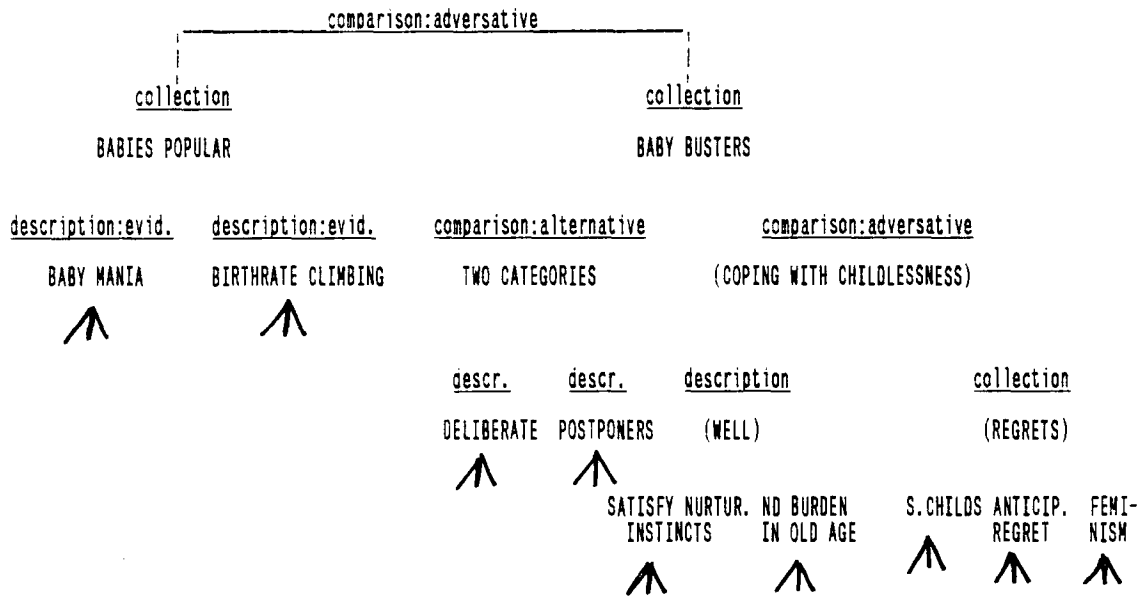
What I have tried to demonstrate is that it is neither feasible nor desirable to draw a sharp line (as Meyer does) separating "content" on the one hand and "signalling" (i.e. non-content) on the other because the two function in a mutually dependent and complementary way. If we broaden the concept of signalling to include such notions as marked and unmarked lexical choice, semantic connotations and notational conventions (e.g. inverted commas), this allows us to conduct our analysis in a fashion whereby bottom-up and top-down processes interact, yielding a greater depth, and delicacy, of analysis.

As to the analysis of the *Babies* article, I claimed at the outset that paying attention and attributing importance to different features in the text will result in a different reading, and thus in a different content structure à la Meyer. Indeed, the picture which emerges from the second, 'critical linguistic' examination of this text is quite different from the seemingly balanced, objective Description pattern resulting from the procedure suggested by Meyer which I used in the first analysis. The more bottom-up, semantically oriented approach points to an interpretation which has at its centre the author's (albeit covert) disapproval of childlessness. Thus childlessness still remains the central theme, as indeed the heading indicates, but instead of a succession of attributes of that theme as is characteristic of a Description structure,

we find a Comparison:adversative top-level structure, which

relates a favored view to [a] less desirable opposing view or relates what did happen to what did not happen (Meyer 1985:273).

Using the same format as for the Description structure above, this Comparison content structure looks like this:



*Childlessness text: Comparison:adversative
content structure*

capitalized words are words from the text
capitalized words in brackets are generalizations from
words in the text

^ denote subordinate micropropositions

Having conducted these analyses, let us come back to the question of the value of Meyer's content structure analysis for summarization. It will be obvious that signalling and assignment of certain top-level structures is bound to have a significant influence on the summary of any given text. For instance, one would expect summaries of the *Babies* article to be different depending on whether that text is read as a Description or as a Comparison:adversative structure: since certain ideas or sub-topics figure high in one content structure and low in the other and summaries should only contain ideas from the higher levels, the

content structure assigned to a text should yield rather different summaries. A case in point is the beginning of the final paragraph:

A backlash of sorts against childlessness may have already begun: the birth rate among college-educated women 20 to 24 years old is beginning to climb.

Whereas this text portion appears fairly low in the Description content structure as just one of several attributes of childlessness and its alternatives, in the Comparison:adversative structure it occupies a crucial position in this representation as the author's preferred state of affairs.

Here then is a juxtaposition of information likely to be contained in short summaries based on the two different content structures:

Description

general statement about childlessness, general description of childless people as a group, social and economic reasons for childlessness, more specific characteristics of childless people: deliberate types and postponers, and ways of coping with childlessness, (possibly reference to the contrast between phenomenon of childlessness and the apparent popularity of babies). The information presented at the beginning of the last paragraph, that the birthrate is climbing again, is located on the lowest level of the content structure in the above representation, at the same height as details and examples of individuals on the right side of the diagram.

Comparison:adversative

general statement about childlessness (possibly contrasted with the popularity of babies), general description of childless people as a group, social and economic reasons for childlessness, and backlash against childlessness (rising birthrate). Obviously, in a comparison of two alternatives of which having children is the favoured one, information about the preferred option will feature prominently. This is also reflected in the level in the content structure which information about having children occupies, namely very close to the top.

The question as to how different content structures influence summary outcome will be pursued further in the chapter discussing the empirical part of the present study. What is still missing from this chapter, however, is an evaluation of Meyer's model based on both the presentation of her theoretical framework as well as on insights gained and problems raised in its practical application.

5.3. EVALUATION

There is a lot to be said for and against Meyer's model, but I shall restrict myself to a brief discussion of those points which are directly relevant for summarization.

To start with the advantages of Meyer's approach, its main strength seems to me to be that it encourages whoever applies it to look beyond the linearity of the text as it appears on the page. Analyzing prose in Meyer's fashion requires careful thinking about the relationships between the ideas involved, for this is the prerequisite for making them manifest in the content structure. The procedure recommended by Meyer is "unpeeling layers of rhetorical relationships in a top-down fashion"(1985:269). This involves identifying the function of information in the text and classifying information serving the same function with the same label (cf Meyer 1975:59). So the analyst basically goes through the text and decides whether any given topic or idea is to be tagged on to an already existing node, or whether a new node needs to be introduced into the content structure. To give a simple example from the *Childlessness* text: in the first and last paragraphs, the article contains information about the popularity of babies, which is contrasted with childlessness. So after

reading the first paragraph a node is opened up which gives details (e.g. movies, television commercials) about the popularity of babies under the label Description:evidence. Now when the analyst gets to the last paragraph relating information about a rise in the birth rate, this same node can be used to integrate this information into the content structure, thereby making explicit that ideas coming from the first and the last paragraphs both function as evidence for the popularity of babies.

Thus what enables the analyst to ignore the linearity of the text is the fact that the decisions leading to the representation of textual organization are taken in a fashion which truly interrelates content and structure and makes the relationships between the two explicit. The advantages of this procedure for summarization are obvious: once a hierarchical content structure of a given text has been designed, all the summarizer needs to do is pick the information from the top of the tree as it were, confident that both semantic and formal criteria are being taken into account.

However, this simple procedure is also rather simplistic. It is based on a number of presuppositions which are open to question. These are

the assumption that 'ordinary' readers will behave like expert analysts

the assumption that meaning is contained in the text and can be teased out given the right tools

the assumption that Meyer's framework is well-defined, valid and reliable

The first of these presuppositions, while limiting the value of Meyer's model for summarizing, does not call into

question the model as such, for Meyer does not really make any claims to be modelling the reading processes of real readers. As Miller points out,

Meyer's system is best viewed as a technique for defining important text elements and relations; it is not really a model of human prose comprehension (1985:224, emphasis added).

However, the question arising from this observation is: important for whom? Meyer's answer to this is unequivocal, namely that her approach is "based strictly on the author's organization of information" and attempts to "identify the function of the ideas in the text as organized by the author" (Meyer 1975:57). In order to be able to do this, a highly skilled expert analyst is required - and this is exactly the kind of person and purpose Meyer's model has been devised for: the researcher conducting a purely product-oriented, *ex post facto* analysis of recall protocols and their input texts. The ability to identify the author's organization implies also that this is unambiguously signalled and that communicative intentions always have an overt textual trace.

Translated into terms of discourse comprehension by real readers, however, this model leaves a lot to be desired. For one thing, it is only valuable in circumstances where it is useful for readers to be conscious analysts on the one hand, and totally submissive readers on the other. I would argue that neither of these is desirable for real life situations, where people usually have their own reasons for reading, their own purpose, as well as time constraints, etc. Of course there are reading purposes for which it is expedient to be submissive to the author's intent (to the extent that this can be identified), and

Meyer's experiments have shown that recall is one of them: readers who can exploit top-level structure as a retrieval cue remember more of a text. However, as has been pointed out above, summarization imposes quite different task demands for which complete submissiveness to the text on the page may be a severe disadvantage. And there is also the problem referred to earlier, that no matter how submissive a reader might wish to be, the writer's intentions to which the reader submits may not be unambiguously signalled in the text.

By discussing submissive reading I have already moved on to the second presupposition mentioned above, that of meaning being contained in the text. This assumption lies at the very heart of Meyer's model and is never called into question; it finds expression in formulations such as

Some ideas from a passage are located at the top levels of the content structure, others are found at middle levels, and still other ideas are found at the bottom levels of the structure. (Meyer 1975:23)

The verb *find* in the above quotation can be taken literally within Meyer's framework: the idea is that the analyst, equipped with knowledge about case roles, rhetorical predicates and signalling, can find the content structure, and thus the meaning, of a text, which the author encoded in it. My objections to this assumption are the same as the ones I raised against van Dijk & Kintsch's (1983) "plausible processing sequence". I hope that my discussion of the notion of interactivity in reading in the preceding chapter, as well as my demonstration of the elusive nature of signalling in the present chapter have made it clear that I cannot agree with such a view of written communication as a one-way process. Rather than repeating

the counter-arguments, I should just like to add another objection. It is the logical problem raised by the meaning-in-text assumption that the reader/ analyst, in trying to distil the author's intended message from a text, willy-nilly has to take recourse to his or her own comprehension processes. That is to say that however submissive a reader may wish to be in trying to recover the author's intention, by definition any comprehension process works via that reader's own schemata. Therefore, in situations in which writer, analyst and reader are not one and the same person, there will always be conscious and unconscious factors at work which make a one-to-one relationship between intended and received meaning impossible. (Ballstaedt, Schnotz & Mandl (1981) mention similar objections in a study investigating the usefulness of hierarchical text structures for the comprehension of difficult textbook passages and draw the conclusion that textual features can only foster memory and learning when exploited in an approach based on reader-text interaction.)

This brings me to the last of the three assumptions mentioned above, which is that Meyer's framework is well-defined, valid and reliable, and which I would also like to challenge. It seems to me that Meyer starts from a solid basis on the micro-level, building on Grimes's notion of rhetorical predication and Fillmore's case relations. However, there is a certain discrepancy between those clearly defined elements on this level and much more fuzzy, intuitive ones on the macro-level, which are equally crucial building-blocks for Meyer's model. As with other models, one is on fairly secure ground when dealing with small elements, but the difficulty is always linking them up to the larger conceptual structures at the top. One

feels that these intuitively capture more of the significance of a passage, but they are much more difficult to pin down. In other words, they have a certain intuitive validity, but they are operationally less reliable. For instance, such notions as "paragraph topic", the idea that one paragraph normally contains one main topic, as well as the neat dichotomy between "content" and "non-content" may be reasonable and workable common sense assumptions, but they are hardly on the same level of theoretical abstraction as the micro-level elements, and are thus open to subjective interpretation. This, of course, is yet another reason why the 'one text = one meaning' assumption is not tenable in practice.

To sum up my evaluation of Meyer's approach to prose analysis, I would say that it seems to be well suited to the purpose it was originally devised for, namely the *ex post facto* analysis of recall protocols and their comparison with the input text. However, upon closer scrutiny any hopes regarding the apparent potential for broadening its scope for facilitating the summarizing process clearly have to be abandoned. This is not so much due to the differences between recall and summarization as to the incompatibility of Meyer's text-as-product view with the discourse-as-process approach which would seem to have more validity, and which informs my enquiry in subsequent chapters. Nevertheless, I believe that certain elements from Meyer's model could very usefully be incorporated into a discourse approach to summarizing, for even the most process-oriented model will have to take into account features of textual products.

5.4. APPLICATIONS

The justification for considering Meyer's approach to prose analysis for summarization is that it has been claimed to be able to specify how to find the main idea, i.e. the content bound by the top-level structure or superordinate relationships (cf quotation at the beginning of this chapter). Operationally speaking, then, one could say that for Meyer and her colleagues, whose primary interest is in recall, the use of a text's top-level structure is a means to an end: top-level ideas are relevant because they are the crucial nodes to which the rest of the textual content can be attached in memory. For summarization, however, the recognition and reproduction of top-level ideas (the author's or the reader's) is the end itself. Apart from this difference, though, and for the reasons discussed above, it would seem reasonable to expect Meyer's approach to be potentially useful for the investigation of both recall and summarization. However, this is not reflected in the number of studies which have utilized the Meyer system: virtually all applications which stick closely to her scheme deal with recall. There are only a few papers concerned with text structure and summarization, and all of these refer to Meyer rather loosely.⁶

RECALL		SUMMARIZATION	
EL1	ESL	EL1	ESL
Barnett 1984	Carrell 1984	Armbruster et al 1987	---
Bartlett 1978	Carrell 1985	Garner & McCaleb 1985	
Mayer et al 1984	Carrell 1987	Hare & Bingham 1986	
McGee 1982	Connor 1984	Mosenthal 1984	
Meyer 1984a	Connor & McCagg 1987	Taylor & Beach 1984	
Meyer et al 1980			
Meyer & Freedle 1984			
Meyer & Rice 1982			
Meyer et al 1989			
Ohlhausen & Roller 1988			

contd...

Richgels et al 1987
 Slater et al 1985
 Spyridakis & Standal 1987
 Yochum 1991

(etc.)

Recall and summarization studies of roughly the last decade applying Meyer's approach (EL1-English as L1)

The above table is intended to give an impression of the kind and number of papers employing the Meyer scheme. With the exception of Hare & Bingham (1986) they are all empirical studies, and apart from Barnett (1978) and Mosenthal (1984), which are PhD dissertations, they have all been published in mainstream journals. The number of titles in the first category, EL1 recall, is vast, and no claims are made here to exhaustiveness. The titles listed are the ones which are quoted most frequently; this is especially true of the publications by Meyer and her colleagues. On the other hand, I have attempted to give complete lists in the other three categories. This means that the difference in numbers between them and the EL1 recall studies is even more marked than is reflected in the chart.

There are several reasons why I list publications investigating recall even though the present study is concerned with summarization. Firstly, as has been pointed out in the above discussion of similarities and differences between recall and summarization, the two activities themselves share many features as far as certain comprehension and (re)production processes are concerned. Secondly, research into the two activities is often conducted along similar lines in that it involves the close scrutiny of protocols produced by subjects, and the

comparison of those protocols with the input texts. Thirdly, most empirical procedures employed in the recall studies are potentially relevant for summarization studies as well; these include the devising of different versions of a text in terms of content structure, adding signalling, comparing the effect of different content structures on comprehension, as well as investigating reader strategies using text structures to guide processing. It seems to me, therefore, that any researcher interested in the interaction of text structure, signalling and summarization will want to take into account how Meyer's approach has been interpreted, criticized and applied in empirical work on recall, and might therefore find the above list a useful starting point.

As for studies applying the Meyer system to summarization, the above table shows that only work on English as a first language is available; it may of course be that the 'spill-over' from EL1 to ESL which happened in recall studies is yet to come. So far, however, all we have is a handful of studies investigating in various ways how text structure and summarization interact. The specific findings of these studies are not directly relevant to my theme because they do not investigate the process of summarization itself. Nevertheless it will be useful to pass them under brief review.

Armbruster, Anderson & Ostertag (1987) base their argument on Meyer in a rather general way. They refer to her work and those of others related to it as the theoretical foundation for their hypothesis that instruction in a particular expository structure would facilitate the formation of a macrostructure for a text with that

structure, and as a source for the description of the problem-solution structure in particular. Their overall argument is this: since the formation of macrostructures is "a prerequisite for success in tasks involving global comprehension and meaningful learning" (p.332) and since there is "evidence for the importance of awareness and use of text structure in macrostructure formation" (p.333), the recognition and use of text structure should have a beneficial effect on children's ability to learn from text.

More specifically, Armbruster et al are interested in whether "text structure/ summarization instruction facilitate learning from expository text" (cf their title). Their subjects are fifth-grade students divided into a "direct instruction" group which received training in recognizing and summarizing a problem/solution text structure, and a control group, which received "traditional training" by reading and discussing answers to questions about social studies passages. Students' performance was then tested by a "main-idea essay question" and by written summaries of two problem-solution passages. Armbruster et al's findings were that "direct instruction of a conventional text structure [i.e. problem-solution] can facilitate formation of a macrostructure for that type of text" (p.345). They found the instruction effective for all ability groups as measured by the essay question, but least effective for the low-ability group when measured by the summarization task.⁷

Garner & McCaleb (1985) investigated how the quality of summaries written by undergraduate students is influenced by three kinds of "text manipulations": cuing, organization

of information, and reduction constraints. They devised twelve versions of a journal article which differed with respect to the following characteristics: Signalling, or cuing consisted of either topic sentences, or topic sentences with additional pointer words such as *important*, or it was absent altogether. Organization of information was either massed, i.e. the four most important points in the first four paragraphs, or spread across seven paragraphs. Reduction constraints required either a three-sentence or a seven-sentence summary. The students' summaries were then assessed for their succinctness and inclusion of important information (with importance ratings based on judgements by fourteen doctoral students). The results indicated that only the cuing manipulation made a substantial difference: significantly more important ideas were included in summaries based on the versions with either of the two kinds of signalling.

Although Garner & McCaleb use terms reminiscent of Meyer's, such as *organization of information* and *cuing* (i.e. signalling), they only refer to Meyer in passing when arguing for the importance of signalling. Indeed, their use of the term *organization of information* is rather misleading since they take it to denote no more than "massed" vs. "widely spaced" important points; thus it has hardly anything to do with Meyer's notion of text structure.

Taylor & Beach (1984) use summarization as a reading study strategy for teaching seventh-grade students about text structure. Like Armbruster et al (1987), they divided their students into groups which then received different treatments: the experimental group had instruction and

practice in a hierarchical summary procedure, the conventional instruction group answered questions after reading, and the control group received no special instruction. Unlike Armbruster et al, however, they did not use summaries for testing their subjects. The hierarchical summary procedure involves generating main idea statements for each section of the 2500-word text, generating topic headings on the margin to connect sections on the same topics, and generating "key ideas" for the entire passage. Taylor & Beach found that this procedure for focusing on text structure was effective in terms of enhancing students' recall for relatively unfamiliar social studies material. In writing, the procedure led to improvements in overall writing quality in terms of hierarchical organization.

Taylor & Beach briefly refer to Meyer, Brandt & Bluth (1980) as a study which indicates that sensitivity to text structure enhances recall, but otherwise there is no mention of Meyer's work. They do not encourage students to use Meyer's 'prefabricated' categories of expository prose, but instead teach them their hierarchical summary procedure as a technique letting the structure of a particular text emerge from it.

Unlike the articles mentioned so far, Hare & Bingham (1986) is not an empirical study based on controlled experiments, but a paper addressed to practitioners which demonstrates the use of text structure for teaching main idea comprehension. Hare & Bingham's central concern is that students are too often provided only practice activities instead of real, step-by-step instruction. They offer an outline of two kinds of lesson they devised, discovery

lessons and direct instruction lessons. Discovery lessons are intended to

lead students to understand hierarchically important information in narratives and to understand main ideas in exposition through the use of text structure cues. (p.179)

They involve helping students to concentrate on the main components of both narratives (setting, characters, plot, ending) and selected expository types (comparison, contrast) by getting them to match text elements to "blueprints" and to select the most important ideas to go into the "importance summary". The direct instruction lessons, on the other hand, "contain information that must be taught directly to students" (p188). They are primarily intended for expository texts and involve such things as activating students' prior knowledge, teaching students to recognize different text structures, and encouraging students to use the intuitive "Aha-So What" test (with "Aha" responses pointing to main ideas and "So What" responses to relatively unimportant ones, cf p189f).

Hare & Bingham, following Bartlett (1980), suggest teaching the expository text structures discussed by Meyer, but apart from a brief mention of Meyer, Brandt & Bluth (1980) for a developmental sequence of text structures, there is no direct reference to Meyer's original work in their paper.

Direct instruction is also the focus of Mosenthal's 1984 PhD dissertation, the last one of the studies on my chart which involve the use of text structure for summarization. This thesis is not available to me at the time of writing, but Carrell (1985:733) gives a detailed account of it:

Mosenthal (1984) trained sixth and eighth grade social studies and physical science students in a purposive reading strategy. This strategy involved identifying the writer's general goal for a text, as well as subtopics, main ideas, and the relationship of main ideas across subtopics and to the writer's general goal. The training relied on formal aspects of expository text (e.g., using the title to identify a main topic and using that topic to infer a writer's general goal, using headings to identify subtopics) ... Data from question-answering tasks and summarizing tasks ... revealed that trained students wrote more structured summaries as a result of the training and in other ways performed better than control students on all comprehension measures.

Unfortunately it is not clear from this description whether Mosenthal used Meyer's scheme as his theoretical framework.

After this brief look at studies which link summarization to text structure, what conclusions can we draw as to how they relate to Meyer's theoretical model? More specifically, do they test her scheme against real data and perhaps, ideally, make a contribution in terms of remedying some of the shortcomings of the model pointed out above?

It seems to me that the answer to these questions has to be in the negative on all counts. As to the relationship between Meyer's theoretical framework and the applications discussed above, this is not really made explicit in any of these studies.⁸ Meyer's scheme is generally presupposed as the obvious background, as a kind of 'legitimation device' furnishing the terms and labels required; in this respect the same observation has to be made as about applications of the macrostructure model discussed in the previous chapter. In those cases where there is any recognizable relationship with Meyer's concepts at all, one could say that these researchers behave like 'submissive' readers:

the general attitude seems to be that Meyer has given them a model and they must match their data to it. The model itself is not regarded as problematic, its explanatory power is never called into question. This is regrettable since there is always the possibility that the trying out of a model might result in interesting ideas which go beyond the model, that is, any application of a particular theory in principle has the potential for improving that theory in the process of applying it. In Widdowson's words, then, these studies do not offer any *appraisal* of the theory, let alone any interaction between appraisal and practice, and therefore no *mediation process* can take place between theory and practice (cf Widdowson (1990:30ff) as discussed in the preceding chapter). So whatever the merits of these articles may be in terms of pedagogy, they do not indicate any development of the ideas to which they refer.

When commenting on the chart above, which lists applications of the Meyer model, I noted the discrepancy between the large number in the recall category and the very few involving summarization. On reflection this discrepancy seems to me to hold a particular significance in that it points to important underlying difference between recall and summarization which I have already touched upon earlier, but which may be worth dwelling upon a little longer. The obvious reason for the majority of applications dealing with recall would be that the goal of Meyer's own research was to explore

the effects of certain aspects of the structure among the ideas presented in a passage on what ideas a reader recalls from the passage. (Meyer 1975:1, emphasis added)

But this of course only brings us back to the question why Meyer herself limits herself to recall. It seems to me that what Meyer as well as her colleagues and followers required was some comprehension measure, and that they went for the most straightforward, the simplest one, recall.

Understanding in relation to recall (as I indicated earlier in this chapter) could be defined as the retention of information from text: a purely psychological process which is not complicated by such social issues as what the purpose of the message is, what the relationship between writer and reader or recaller and addressee-of-recall is. Information is basically perceived to be transmitted from a page to a brain as it were, and the more accurate and complete the transmission, i.e. the more one recalls, the better. The ideal result is the projection from the 'meaning in the text' straight to the 'meaning in the mind', untouched by the agency of a reader with a purpose and judgement of his/her own. In such a transmission notion of communication there is no need, and no room, for considerations such as how people interpret texts and what makes them interpret them in a certain way. Quite the opposite is true of summarization, which, I would argue, can only be described on the basis of a negotiative view of communication, and which presupposes some motivated discrimination, some application of the principle of relevance.

Thus the move from recall to summarization is the move from text to discourse, from an individual, psychological to a social, communicative activity. And this move cannot be accounted for by an essentially text-fixated, submissive model.

Having said all this, it is certainly true that in principle, as de Beaugrande points out,

Meyer's model is *open* to admitting more reader activities, and empirical results are impressive and intriguing. Her exploration of *global* organization was clearly a pioneering effort at a time when few other researchers had realized the importance of this factor. (de Beaugrande 1981:277, original emphasis)

Despite the criticism raised above, then, Meyer's description of common expository structures and of linguistic signalling can of make a certain contribution to a better understanding of summarization.

But we need to go further. The models of text structure I have passed under review in the preceding chapters are all inadequate in some degree to the extent that they fixate on "what a text means", equating it with "what the writer means by the text", whereas it has become clear that the crucial consideration is what a text means to a reader, and what discourses readers derive from texts.

NOTES chapter 5

1. Since this level is of no particular relevance for the higher-level analysis of texts, it is not discussed in detail here. For a complete list of role relationships as well as instructions for analyzing propositions by applying predicate and argument rules see Meyer (1975:ch.2).

2. In her earlier monograph (1975:44ff), Meyer offers both a bottom-up as well as a top-down analysis procedure, but she points out that the top-down procedure is preferable when only the top levels of organization of a passage are needed - which, of course, is the case with summarization.

3. The term *brief account* has been coined to denote an approach to summarizing in which "the renderer must have a clear sense of who he or she is producing the account for, how much shared knowledge he or she can assume, what the purpose of the interaction is, and in what situation the discourse is conducted" (Seidlhofer (1990:418).

4. Meyer (1975:44) points out that the top-to-bottom procedure for identifying the content structure is particularly valuable "if only the top levels of organization of a passage are needed since the great expenditure of time required to diagram all the information in the text minutely is not always necessary." This observation clearly applies to summaries, since these should only contain top level ideas.

5. It seems to me that the same stylistic device is used in the poem by Emma Lazarus inscribed on the American Statue of Liberty:

Give me your tired, your poor,

where the impression that we are dealing with classes rather than individuals is confirmed:

Your huddled masses yearning to breathe free,
The wretched refuse of your teeming shore.
Send these, the homeless, tempest-tost to me...

(qu. in *The World Almanac and Book of Facts*, New York 1991)

6. Recall and summarization are the two activities for the study of which Meyer's system has been used most frequently, but they are not the only ones. The following are among articles which build on Meyer's approach but do not deal with recall or summarization:

Hiebert, Englert & Brennan (1983) examined college students' awareness of four expository text structures derived from

Meyer (1975) and found that knowledge of text structure appeared to facilitate both the reading and the writing performance of their students.

Ohlhausen & Roller (1988) is a fascinating study investigating the role of content schemata and structure schemata in readers' assignment of importance. They produced three versions of a social studies passage: one allowing readers to use both content and text structure schemata, and the other two allowing them to use one of these schemata while discouraging the use of the other. Their findings are complex and thus impossible to summarize here in the required brevity, but they concluded that their study supported the psychological validity of both types of schema and "suggested a series of complex interactions between prior knowledge, schooling, and text"(op.cit.:70). It seems to me that it would be extremely interesting to replicate their study with an L2 population, since this might yield valuable insights into the little-researched relationship between linguistic and extralinguistic knowledge of L2 learners.

Roller's (1990) theoretical article about the interaction between knowledge and structure variables reinforced this impression.

7. Although this is not directly relevant to my concern, it may be worth pointing out in passing that there is a general problem about studies such as this one in that it is never made explicit whether it is the instruction per se that has these effects, or the instruction in a particular structure.

8. As mentioned before, I cannot make a statement about Mosenthal (1984) in this respect because this dissertation was not available to me.

CHAPTER 6

EMPIRICAL STUDY: ANALYSIS OF SUMMARIES AND ACCOUNTS

In 1962 I was still subjecting boys to tests of the various psychological qualities and measuring their performance much as I might have measured feet or femora. Gradually this has changed. I have become more interested in the experiential life of individuals... (Hudson 1968:90, qu. in Evans 1988:3)

6.1. INTRODUCTION

The claims being made about this empirical study are consistent with the objectives of the enquiry of the thesis, as outlined in the first chapter. This chapter is accordingly not a definitive report on a completed empirical research project. No strictly controlled experiments were conducted, no treatment was administered to carefully 'randomized' subjects, no pre- and post tests were carried out.

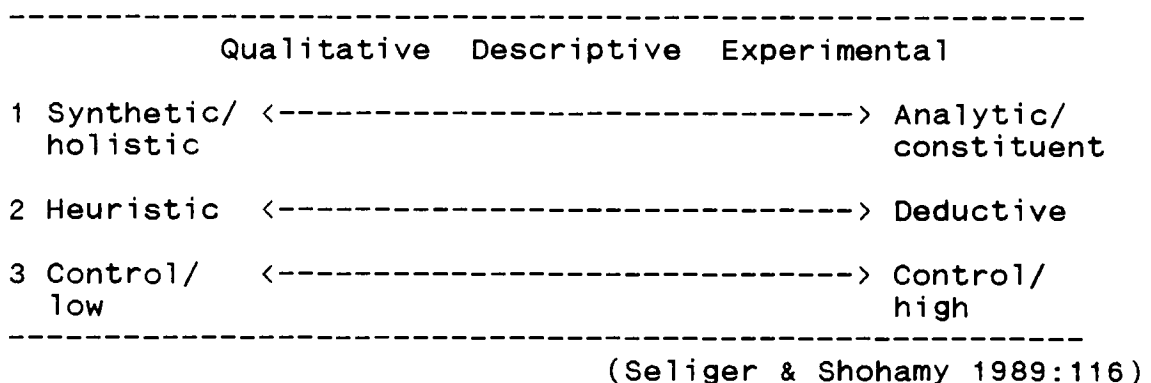
Instead, in keeping with the spirit of the preceding chapters, I propose to use texts written by students as an additional stage for continuing the discovery procedure of the enquiry as a whole. My aim is thus not to arrive at results in terms of precise measurements of factors defined *a priori*, but to let issues arise from the description of the student texts. In the terminology of Marton et al (1984), I am dealing with the *outcome space* of my data:

The range of categories of response found in this study ... can be described as the *outcome space* for the text concerned. The outcome space provides a kind of analytic map of variations in what has been learned from a given learning task. It is therefore an *empirical* concept which is not the product of logical or deductive analysis, but instead results from intensive examination of empirical data. (Dahlgren 1984:26, original emphasis)

I am hoping that this procedure might sharpen my perception in order to formulate pertinent questions, and enable me to relate the data to the approaches discussed in the preceding chapters, and in particular to specific problems identified there. In reference to the distinctions made in chapter 1 this empirical work, therefore, is directed at understanding, or illumination, rather than explanation. My method of analysis is therefore most akin to *phenomenography* as it is described in Marton et al (1984):

The aim of the analysis is to yield *descriptive categories* of the qualitative variation found in empirical data. The process involves the *reduction* of unimportant dissimilarities...and the integration and generalization of important similarities... (Dahlgren 1984:24, original emphasis)

As for the terms conventionally used to denote different conceptions of research design, such as the dichotomy *qualitative - quantitative*, I do not think that my own approach fits neatly into any one category. Seliger & Shohamy (1989), for instance, use the following diagram to give an overview of types of designs and research parameters:



I would add to these parameters

4 Hypothesis- generating	<----->	Hypothesis- testing
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My approach approximates most closely to the descriptive, but with the quantitative elements in a supporting role, at the service of the qualitative.

In the following, I shall first outline the data collection procedure and explain the rationale behind it. I shall then go on to describe the data as fully as possible and attempt to interpret what I have found.

6.2. DATA COLLECTION

6.2.1 Subjects

Second and third year students doing a degree course in English Studies at Vienna University, Austria, participated in the study. This degree course takes at least 4 1/2 years, usually longer, and students attend lectures and seminars on literature in English, linguistics, culture, pedagogy, as well as at least one 3-hour language class per term. Students normally do one other subject (history, German studies, another foreign language, etc), and when they finish their degree they are qualified, after some additional pedagogical training, to teach English and that other subject in Austrian secondary schools. English is normally the first foreign language for these students - they have usually studied it for eight years at secondary school before going to university; it is possible, however, that one or two of the subjects participating in my empirical study are 'native speakers' of English.

The study was conducted with students enrolled in one of the (compulsory) language classes mentioned above. Those in

the second year were mainly doing grammar and some translation, those in the third year were concentrating on (academic) essay writing. Although summary writing is regularly required of students, notably in some linguistics courses, there is hardly any systematic instruction in that activity - though some lecturers teaching the language classes include the odd summary exercise from time to time.

Participation in the study had to be anonymous and was on a voluntary basis: basically it meant extra homework for those who chose to take part; the students were all given data sets and were free to hand them back 'empty', without having done the tasks if they preferred, and a small number (about 10%) did that. Completion of the task had nothing to do with coursework and did not count as credit towards passing the course. Students worked in their own time at home, and were allowed to use dictionaries if they wished. The only important constraint was that they were instructed to do the task on their own, and not to talk to their classmates nor look at other data sets before finishing the task. To the best of my knowledge, this requirement was fulfilled.

117 students took part in the 'main run'. This number is supplemented by 16 students from a pilot study, making the total number of subjects 133.

6.2.2. Materials

The text used for the empirical study is the same that I have been referring to throughout this thesis, the article entitled *The Dilemmas of Childlessness* from *Time* magazine,

May 1988. For the tasks given to the students, three forms of this text were used:

- the original article, but without its title, and typed out,
- version A, entitled *The Pros and Cons of Childlessness*,
- version B, entitled *Childlessness: Are We Dying Out?*
(both versions typed out in the same manner as the original)

All three versions can be seen in Appendices 2 and 3. The way versions A and B were prepared was the following:

In my discussion of content structure in the preceding chapter, I tried to demonstrate that the *Childlessness* article can be claimed to have two different, and incompatible, top-level structures, depending on whether the analyst chooses to stick very closely to Meyer's (1975) method of analysis and definition of signalling, or whether the concept of signalling is broadened to include such features as semantic connotations and deployment of certain notational convention such as brackets and quotation marks. In the preparation of versions A and B all I did is make explicit, and put into practice, the result of my analysis of those two content structures. In other words, instead of just describing what the two possible structures are, I actually wrote them out with unambiguous top-level structures, adding and deleting signalling and rearranging some elements, thus making manifest the underlying double message. In short, I separated the two possible readings and put them in two different versions. To start with, this meant giving each version a different title. Also, this procedure entailed following through my observations about the signalling function of inverted commas and semantic

connotation. For example, in the Description version, the word *baby busters* was put in inverted commas, the expression *the childless* was replaced by *childless people*, and the brackets were removed from the following sentence in paragraph 8:

She notes, however, that she also counsels many women who regret having had children.

For the Comparison:adversative version, i.e. version B, a preview statement was added: *In today's America, childlessness is spreading*. In contrast to group A, the expression *those who choose not to have children* was replaced by *the childless*. The second half of the final paragraph, which according to Meyer (1975) constitutes a summary statement and thus not content but signalling, was deleted. What is important to note is that the versions are not rewritings with a different propositional content, but that merely differential signalling (as in Meyer & Freedle (1974)) was used to arrange the existing content in different top-level structures. An exact, step-by-step description of the changes made to produce versions A and B is included with those versions in Appendix 3.

The respective lengths of the input texts, excluding titles, are as follows:

original article: 995 words

version A: 989 words

version B: 915 words

6.2.3.Tasks and Procedure

There were six experimental groups altogether, to which students were assigned at random. 3 groups were asked to write a summary, and 3 to write a brief personal account:

summary-instruction:

Please write a summary (in no more than 60 words) of the following text, capturing as faithfully as you can the main points of the writer's intended meaning.

account-instruction:

Please give a brief account (in no more than 60 words) of what strikes you personally as of particular interest in the following article. Give your account a title.

The input text is called *text* in the summary instructions and *article* in the account instructions. This, it was assumed, would itself serve as a signal to students that the former was a language exercise and the latter, quite literally, the genuine article, which would allow more leeway for personal response.

The differences among the three summary and the three account groups lie in the textual versions they used: groups A and C worked on version A (Description content structure); groups B and D worked on version B (Comparison:adversative content structure); groups E and F worked on the original article, but without the title. Appendix 2 includes the data sets for all groups. Here is a survey of groups, materials used, tasks and group size:

Group	Text	Task	No. of protocols
A	version A:Descr.	summary	24
B	version B:Comp.	summary	23
C	version A:Descr.	account	26
D	version B:Comp.	account	22
E	original article	account	22
F	original article	summary	16

Group F is a special case in several respects: summaries in that group were not collected at the same time as the other protocols, but in the pilot, which explains the smaller population. Also, students in the pilot were asked to write a 350-word summary and a 60-word summary, so the two stages in the task may have had some influence on the outcomes. And lastly, the text that group F subjects worked on was the original wording of the article, but in a typed-out form which obliterated the division into paragraphs and columns of the original, as well as the illustration. These differences mean that group F summaries are not fully comparable to the summaries in groups A and B. However, since the empirical study is not aiming at making any precise quantitative statements, the advantages of including group F for a richer data set clearly seemed to outweigh the disadvantages of limited comparability.

In addition to the summary/account tasks, students were also asked to answer a few post-questions about how they had perceived the process of working out their protocols, such as which textual elements had helped them decide what to include in a summary. The account groups were only asked two quite general questions as to any observations they

wanted to make regarding either the article or their own responses. These questions were asked (and thus also answered) in German, the students' L1. Those questions, and a translation into English, can be found in Appendix 2. This material provided me with data for further analysis, which I propose to undertake later, but which does not figure in the research as recorded in this thesis.

As already mentioned earlier, students worked on their data sets on their own, at home. There were no restrictions as to the time available for the completion of the tasks, and students could consult whatever dictionaries or other auxiliary materials (such as grammars) they deemed useful. However, when reading through all the protocols I gained the impression that most, if not all, students had not spent a huge amount of time and effort on the task as a language exercise. They seem to have written their protocols fairly speedily, although a fair number of respondents took the trouble to give very detailed and thorough responses to the post-questions.

The completed data sets were posted to me by my colleagues. I then typed all protocols into a computer file and assigned numbers to them for clear identification and reference (e.g. A1-A24, F1-F16). It will be noticed in subsequent quotations from students' protocols that they were typed out as written, including the students' paragraph divisions and use of capitals, underlining, etc. More importantly, no attempt whatsoever was made to modify their language, so the typed protocols retain all errors of grammar, spelling, lexis as well as all 'slips of the pen'.¹

The total number of protocols is 133, which would seem a reasonable size for my purpose. When comparing the occurrence of certain features across groups, I decided to calculate percentages despite the fact that these sometimes are not very meaningful (e.g. when referring to two instances in group F (n=16) as 12.5%); percentages still seemed to offer the most convenient method of comparison.

It will be obvious, then, that I intended to obtain the richest possible data, with a minimum of idealization and just enough constraints to make them comparable. Accordingly, I shall also attempt a rich (or "thick") description of those data. This means that rather than limiting myself to a few predetermined categories from the start, I decided to proceed heuristically, by approaching the data with as few preconceived ideas as possible, and by describing them as completely as possible from various angles. My description is, then, (in current ethnographic parlance) more data than concept driven. Of course this process still involved some *a priori* decisions as to which lines of enquiry to follow, but I made an effort to characterize the data according to a large number of criteria, and to keep an open mind as to the distinctions that would gradually emerge. The categories of description were mostly those used by various other researchers working on summarization and related activities, supplemented by my own.

6.3. DESCRIPTION

6.3.1. Length of summaries and accounts

Since a summary is supposed to render the important ideas of a text in a condensed form, the length of a summary and thus the rate of condensation vis à vis the original is a relevant factor in its description, and in the formulation of any summarization task.

Saying what the length of a summary is is rather like saying how long is a piece of string. In principle, summaries can be any length at all, thus the instructions for the present study asking subjects to give a summary/account in no more than 60 words were arbitrary in that sense. The input texts were just under 1000 words, so the required reduction was quite drastic. However, it seemed to me that this rather strict constraint offered students scope to make a number of quite difficult choices about the relative importance of certain ideas which might all be regarded as 'main ideas', and which could all have been accommodated in a summary of, say, twice the length. Another reason was simply a pragmatic one, namely that when dealing with a large number of summaries/accounts the overall amount of data should still be relatively manageable. Of course I could have asked for even shorter summaries/accounts, but there appears to be a limit under which a summary becomes almost like a title, with features of block language. 60 words, on the other hand, intuitively seems something like paragraph size, a feasible chunk of natural language.

How closely, then, did students comply with the requirement to restrict themselves to 60 words?

The table below shows the average length and standard deviation of the five groups.

Group	\bar{X}	S.D.	N
A	73.7	27.3	24
B	75.9	17.4	21 ²
C	79.3	22.8	26
D	87.1	31.6	22
E	84.0	33.1	22
F	61.7	9.3	16

Mean (\bar{X}), standard deviation s_{n-1} (S.D.), and number of subjects (N) for summary/account length measured in number of words.

The above table shows that, generally speaking, all groups except F³ tended to exceed the 60 word limit quite considerably. If we group the summaries (A, B, F) and the accounts (C,D,E) together, we can further see that summaries tended to be shorter than accounts, that is, the students writing summaries tended to respect the limit to a greater extent than those writing accounts.

As for variability, the standard deviation in the above table indicates the typical number of words by which values differ from the mean, \bar{X} . Again, group F is the most 'conformist': not only are the summaries in this group closest to the required length, they also differ least from each other. With 74 words for the longest summary and 48 for the shortest, there are no huge digressions from the 60

word limit. In general, summary groups tend to be more homogeneous than account groups (though the standard deviation for A is slightly higher than for C), with D and E being the most heterogeneous groups.

Of all the 133 students producing summaries and accounts, only 30, that is well under a quarter, actually complied with the requirement to write no more than 60 words. This observation will come as no surprise to language teachers, or indeed to anyone with first-hand experience of summarizing. But while this observation in itself may be a very obvious one to make, it does not answer the question as to why this should be so. After all, it is quite possible to summarize the *Babies* text in 30 or 50 words, as indeed some students have demonstrated. So why is it that more than three quarters of all students exceeded the required limit, sometimes by twice and even three times as many words? It would seem to me that this straightforward quantitative observation about the reluctance to drastically reduce the text raises important issues. These may have to do with the authority of the text, with the way people relate to and get involved in a text, the attachment they develop to it. I will take up these matters again when I draw general conclusions from the data.

6.3.2. Orientation and explication

Orientation is a term introduced by van Dijk (1983) for the analysis of a news story to denote "a general statement of purpose" provided by the writer, usually at the beginning of the story. Golden et al (1988) incorporate this category into their coding scheme developed for describing "the structural and semantic strengths and weaknesses of

students' expository summary essays" (p.157). The analysis of their data leads them to conclude that providing some orientation for the reader which "establishes the topic of the essay" (p.147) is definitely a characteristic of good summaries. An example they quote is "The article was about how people rely on aspirin for minor aches and pains." (p.154). Orientation, it would seem then, relates to propositional point or gist. Connor & McCagg (1987:78), in their study of English expository prose paraphrases, refer to a similar phenomenon, the *pragmatic condition of the task*, i.e. explicit reference to the relation of the task to the original text, such as "This article discussed...". In this case, orientation would seem also to cover the formulation of illocutionary point or upshot (cf Heritage & Watson 1979). Its function is to provide a frame for what is being said and to help readers gain access to it.

As for my own subjects, the extent and manner in which they provide orientation statements depend very much on the task they were set. In groups A, B and F, the ones that produced summaries like Golden et al's subjects, these statements are similar to Golden et al's example quoted above, such as:

The article "The Pros and Cons of Childlessness" discusses the reasons for a growing number of women to decide against children. (A20)

The article "childlessness: Are we dying out" deals with the spreading of childlessness in today's America. (B8)

Group F, of course, could not refer to the title, nor indeed to the fact that they were dealing with an article, because they did not have the necessary priming. However, two students still managed to make a general introductory

remark which qualifies as orientation according to Golden et al:

Researches show that since 1950 more and more college-graduate women have decided not to have children. (F3)

It has been noticed that during the last 35 years the average birthrate among ... (F15)

The orientation provided by groups C, D and E (the ones who were asked to give an account of what struck them personally as of particular interest in the article) looks somewhat different: for them, Connor & Mc Cagg's term *reference to the pragmatic condition of the task* is more appropriate. The accounts typically start like this:

What strikes me personally in the article is obvious already from the title I gave to the account. (C1)

I feel personally very much addressed by this article. (D5)

Personally, it does not strike me that there are so many women who... (E1)

Not all summaries and accounts are introduced by orientation statements, though, and the six groups differ in that respect. The following table gives an overview:

Group	number of protocols	% of whole group
A	11	45,8
B	4	17,4
C	19	73,1
D	8	36,4
E	12	54,5
F	2	12,5

Number of protocols and % of whole group providing orientation

The first thing to be noticed is, of course, that the number of subjects providing some orientation differs very widely across the six groups, ranging from only 12,5% in group F to 73,1% in group C. Generally speaking, groups A, C and E have a high occurrence of orientation, and B, D and F a low occurrence. What is interesting is that with regard to amount of orientation the split is not between summaries on the one hand and accounts on the other, but rather between groups with high priming (E) and groups working on text version A (A and C) on the one hand, and those with low priming (F) and working on text version B (B and D) on the other: group E had the fullest priming in terms of background information, such as which magazine the article appeared in and when, which may account for the high percentage of orientation given by subjects in that group; conversely, F had practically no priming. Groups A and C both worked on text version A, whereas B and D worked on version B. As with questions of summary length there are implications here which call for closer attention, and which I will take up again in the next chapter.

When looking through my own data, I noticed that in addition to giving orientation, which is usually done at the beginning of the summary/account, some students also provide other meta-statements throughout their summaries/accounts, which I shall call *explication*. This notion is basically just a broadening of the term *orientation* in that it denotes elements which are not taken from the text (either verbatim or paraphrased), but instead represent some intervention of the summarizer and indicate a perspective which is as it were at one remove from the immediate content of the article. One could say that

explication expresses distance and 'digestion', for example:

"The author claims that..." (A7), "According to statistics,..." (B1), "This negative example is, however, only one reason for..." (B23), "This trend is due to..." (F16).

What orientation and explication have in common, then, is that they both represent evidence of writer intervention and usually employ some meta-language.

Instances of explication occur with the following frequency:

Group	number of protocols	% of whole group
A	8	33,3
B	10	43,5
C	16	61,5
D	8	36,4
E	14	63,6
F	4	25

Number of protocols and % of whole group providing explication

The pattern is similar here to the figures for orientation, except for groups B and F, which both have significantly more explication than orientation.

The overall picture, then, which emerges with regard to these two kinds of writer intervention involving the use of meta-language is that there is most of it in the groups giving accounts in reaction to version A and to the original article, and least in the summaries of the reduced-priming version of the original article. This seems to depend on certain combinations of three factors: the nature of the task, priming, and the input version. While it is impossible to determine at this point just how these factors interact, the absence or presence of orientation and explication clearly points to differences in the way summarizers/account writers perceive of their role as 'keepers', or interpreters, of the input text. Other questions which arise from the above observations concern the function of meta-language in summaries and accounts - 'interpretative shorthand' or "content-free verbiage" (Garner 1985) ? - as well as the stance of the summary/account writer - immediately involved vs objectively detached. Several other characteristics of the students' protocols will bring up similar issues and contribute to a fuller discussion.

6.3.3. Verbatim vs 'own words'

When looking through school textbooks and articles reporting on experimental research, it is not uncommon to encounter instructions such as the following:

A short summary of a passage presents the important information in the summary writer's **own words**. I'd like you to read this passage and write...(Garner 1985:552, emphasis added)

The teacher asked the students to read an article from *Science World* magazine and to "summarize it in **your own words**." (Golden et al 1988:148, emphasis added)

In order to condense one has to re-write, in one's own words, at much shorter length. ... one must not refer back to the original text because of the temptation to use the original words instead of one's own. (Zinkin 1980:44, emphasis added)

What I have not found so far, however, is an explanation of the reasoning behind this injunction. Since this chapter is dedicated to description rather than discussion, I want to restrict myself here to the justification of including the 'own words' criterion in my characterization of the protocols. This justification stems partly from the requirement (illustrated above) that students should not use the words of the original, and partly from my conviction that this request is in urgent need of deconstruction: it seems to me to be paradoxical, even perverse, to ask language learners/users to summarize strictly someone else's ideas in strictly their own words. Particularly for foreign language students, the requirement appears to be tantamount to adding insult to injury.

The instructions to my students, then, did not include a requirement to use their 'own words', so it was up to each individual to take up words from the input texts or to find their own formulations. By looking at what they actually did, I am hoping to find a way into articulating criteria for a discussion, in the next chapter, of the wider issues that have to do with lexical choices.

It will be appreciated that determining when students used words from the original text and when they used their 'own' is not a straightforward matter, not least because the dichotomy *verbatim copying* - *own words* is not at all clear-cut. All texts have traces of other texts, and this

intertextuality is indeed seen by de Beaugrande & Dressler (1981) as one of the defining features of textuality in general. So it is that in some cases several lexical alternatives suggest themselves very readily to the summarizer/account writer, whereas in others the original author's choice is difficult to avoid. All I aimed to do, then, was to gain an impressionistic picture of tendencies in the different groups. The way I proceeded was to read through the summaries and accounts, looking for obvious echoes of the original on the one hand and for traces of students' endeavour to use their 'own' words where taking up words from the text would clearly have been possible. Words from the text I marked in blue, 'own' words I marked in pink.

Obviously it would be ludicrous to try and quantify the tendencies I found in any exact way. Instead, the table below puts protocols in one of three categories: almost entirely 'own words', mixture of 'own words' and words from the text, and almost entirely verbatim formulations from the text.

Group	all 'own words'	mixed	all verbatim
A	6 (25.0%)	17 (70.8%)	1(4.1%)
B	1 (4.3%)	21 (91.3%)	1(4.3%)
C	17 (65.3%)	9 (34.6%)	0
D	13 (59.1%)	9 (40.9%)	0
E	9 (40.9%)	13 (59.1%)	0
F	0	15 (93.7%)	1 (6.1%)

'own words' vs verbatim: no. of protocols and % of whole group

As one might expect, the only 'all verbatim' protocols are summaries (one each in groups A, B and F), and the highest numbers of all 'own words' protocols are in groups C, D and E, the ones that wrote accounts. However, there are some interesting differences, such as between the relatively high percentage of all 'own words' in A in contrast with B and F, as well as the considerably lower percentage of 'own words' in E compared to C and D.

The 'all verbatim' protocols are essentially *collages* of author expressions, (and sometimes perfectly feasible summaries), with the original pieces discernible and unassimilated. The following is an example:

Nowadays childlessness, especially among the college-educated working women, is spreading. The childless fall into two categories: the deliberate types, often only children or firstborns who perceived their mothers' lives as restrictive and unfulfilling and the postponers who allow relationships, their profession and nature to make the choice for them.

But many of the childless regret their decision later and often blame feminism for encouraging their childless state. (B9)

The above summary is taken word for word, with very minor changes, from the original text. In contrast, the next example is typical of the summaries in the 'all 'own words' category:

This article deals with the fact that, nowadays, many women don't want to have children at all.

Some statements of childless women show that the main reason for this development is that they want to be able to realize themselves to the same degree as men can. At a later date childless women, however, often regret not having had any children. (A12)

Clearly, the labels for the categories in the above table do not mean the same for all groups: in the 'mixed' column, for instance, there is a higher proportion of 'own words'

in the accounts than in the summary, which tend to have an even distribution of roughly half verbatim, half 'own words'. Also, there are differences among the account protocols grouped together under 'all 'own words'': some of them bear no recognizable resemblance at all to the input text, whereas others actually start with a quote from the article, which constitutes the starting point for the account of their own reaction. Compare, for instance, the first halves of the two accounts below, of which D11 is an example of the former case, and C2 of the latter:

"The Final End of the Beat Generation?"

In the '50s artists like: Jack Kerouac, Neal Cassady, Allen Ginsberg a.m.o. gave birth to the Beat Generation. They rebelled against the U.S. society, its conformity, stereotypes and productiveness which caused depersonalization, unsatisfied parents and children. The family image has always been one of the most important supports for economy and for keeping conformity.... (D11)

ME OR MY (?) CHILD?

What strikes me most in this article is the sentence 'I either gave birth to someone else, or I gave birth to myself'. I personally have heard several reasons to stay childless, but this argument is the most egotistic one.... (C2)

The difference between the two quotations above illustrates the wide range of possibilities covered in one category. It is obvious, then, that assigning labels to protocols such as 'own words' and 'verbatim copying' is bound to constitute a gross oversimplification, and I do not think that there is much value in the application of those categories as an end in itself. What these textual facts can do, though, is carry with them certain implications about the roles the summary/account writer assumes, and the kind of discourse that is derived from the original text - issues which will be taken up in the next chapter.

6.3.4. Use of conjunctions

Whereas the other categories of description employed in this section have all been used, in varying degrees, by other researchers studying summarization, this is not true of conjunctions. However, my decision to include this feature rather than any of the numerous other linguistic dimensions by which the protocols could be characterized is not entirely arbitrary; in fact, it seems to follow on logically from the other categories discussed so far.

Conjunction, of course, is one of the five types of cohesion discussed in detail in Halliday & Hasan (1976). In that book, the authors limit themselves to a discussion of cohesion across sentence boundaries, arguing that

in the description of a text, it is the intersentence cohesion that is significant, because that represents the variable aspect of cohesion, distinguishing one text from another. (p.9)

Accordingly, I shall limit myself to a discussion of conjunctions between, and not within, orthographic sentences.

In the description of my data so far I have repeatedly pointed to differences in the roles which writers can assume in terms of the stance they take vis à vis their texts. Halliday & Hasan point out that these differences are also reflected in the way conjunctions are used:

When we use conjunction as a means of creating text, we may exploit either the relations that are inherent in the phenomena that language is used to talk about, or those that are inherent in the communication process, in the forms of interaction between speaker and hearer; (Halliday & Hasan 1976:241)

This means that one and the same conjunctive item can in one case exploit mainly relations inherent in **external** reality, and in another exploit relations inherent in the communication process, in its **internal** workings as it were. Halliday & Hasan (239ff) capture this distinction by the terms *external* and *internal* planes of conjunctive relation, and they exemplify it with the following two sentences:

(a) Next he inserted the key into the lock.

(b) Next, he was incapable of inserting the key into the lock.

Halliday and Hasan comment on these by saying that in (a),

the cohesion has to be interpreted in terms of the EXPERIENTIAL function of language; it is a relation between meanings in the sense of representations of 'contents', (our experience of) external reality. (Halliday & Hasan 1976:240)

In contrast, in the second example above,

the cohesion has to be interpreted in terms of the INTERPERSONAL function of language; it is a relation between meanings in the sense of representations of the speaker's own 'stamp' on the situation - his choice of speech role and rhetorical channel, his attitudes, his judgments and the like. (ibid.)

It would seem, then, that looking at the way students use conjunctions in terms of the *external - internal* distinction

might reveal something about the role they see themselves in with respect to the content they are dealing with on the one hand and the communication situation on the other. In particular, it might be interesting to investigate the use

of internal conjunctions, since these should tell us something about

the unfolding of the speaker's COMMUNICATION ROLE - the meanings he allots to himself as a participant in the total situation. (ibid.)

Halliday & Hasan also emphasize that while the *external - internal* distinction is most clearly visible in instances of temporal conjunction, it is important to realize that both possibilities exist in all types of conjunction, i.e. additive, adversative, causal and temporal. They also stress that the line between the two is by no means always clear-cut, and that it is quite usual for both kinds to be exploited simultaneously.

So how did my respondents use conjunctive cohesion? Let us first look at an overview of the overall number of conjunctions used in students' protocols, as well as the portion of external, internal and 'mixed' (external/internal) conjunction:

Groups: number of instances and % of group's
total

Kind of Conj.	A	B	C	D	E	F
E	1 9.1%	9 36.0%	4 30.8%	3 18.7%	6 35.6%	1 7.7%
I	5 45.4%	10 40.0%	5 38.5%	12 75.0%	7 41.2%	5 38.5%
E/I	5 45.4%	6 24.0%	4 30.8%	1 6.3%	4 23.5%	7 53.8%
Total no. of Conj.	11	25	13	16	17	13
Mean no. of conj. per pro- tocol	0.45	1.08	0.50	0.70	0.77	0.80

*Number of conjunctions per group and distribution of
EXTERNAL - INTERNAL - MIXED (E/I)*

At first sight it may seem that, on the whole, students did not use a lot of conjunctions to connect sentences. The average number of conjunctions per protocol, between 0.45 and 1.08, initially seemed rather low to me. But then it must be remembered that the summaries and accounts are only roughly 60 - 100 words long and usually only consist of between 3 and 6 sentences - that is, roughly speaking, only 2 to 5 potential 'slots' for intersentential conjunctions. Also, I did a very rough calculation of the sentence:conjunction ratio in the original article, which showed that the average frequency of conjunction in the students' protocols is actually higher than that in the input text. It seems reasonable to assume that what turns out to be, after all, a relatively large number of conjunctions employed by my respondents may be due to

summaries and accounts being essentially meta-texts: the activities of summarizing and responding to text require a high degree of 'digestion', or reconceptualization. This may result in a heightened awareness in the writers of their own role as mediators between input text and the eventual readers of their protocols, which in turn may encourage the use of conjunctions: after all, these are, according to Halliday & Hasan, an efficient means of clarifying relationships within the text as well as between the text and the writer.

All this is of course speculation which would need to be corroborated with a much more rigorous experiment and a larger sample. However, it seems to me that this assumption is also borne out by the predominance of internal conjunction in my protocols: in all groups, the proportion of internal conjunctions is higher than that of external conjunctions, the extreme case being group D with 18.7% external vs 75% internal. It would appear that precisely because of what it tells us about "the unfolding of the speaker's communication role", the use of conjunction can be assumed to be a genre-specific feature of text.

Here are a few examples of the way conjunctions are used by my respondents:

external:

The author begins with the thesis that fulfillment for a woman is having children. Then he immediately turns to the Pros for childlessness. [A17]

Women are not satisfied staying at home, they work out of house, but still the burden of parenting is on them, since there is no good day-care available. So they often have to choose between good job or having children. [D3]

external/internal:

Some of them deliberately opt for childlessness, others postpone the decision. Recently, however, the birth rate among college-educated women...has begun to climb. [F9]

internal:

The writer enumerates economic and feminist reasons considering this development. Some women choose to be childless, others postpone childbirth. Finally, women often try to find different ways to satisfy their nurturing instincts or regret their decisions. [B19]

It is very obvious that women do not want to raise their children alone but with the help and support of their partner. Moreover, women are beginning to live their own lives without suppression by society... [D10]

What I find very interesting is what Steinem says: the importance of giving birth to oneself. On the other hand, B. Friedan's thoughts sound reasonable, too... [D22]

Further it was interesting to hear that nowadays finances do not allow one breadwinner to support a family of four...[E14]

The above quotes show quite clearly the differences in the way the writers position themselves with respect to their own protocols as well as to the original article: in the 'external' examples the conjunctions serve to express relationships between ideas within the text. In contrast, the 'internal' conjunctions convey a much stronger sense of writer intervention in that they function as auxiliary devices for organizing the discourse and thus also reveal something about where the writers 'stand' in relation to what they are saying.

What is interesting to note about the use of conjunctions in my protocols, then, is not so much any variation across the six groups, but rather the high frequency of internal conjunction in general, which seems to point to the

students' awareness of the intertextual nature of their task and hence their role as analysts in the process.⁴

6.3.5. Macroprocesses

In the theoretical discussion of Kintsch & van Dijk's approach to discourse processing in chapter 4 above I established that the macrostructure model addresses the question of gist formation, and thus summarization, more directly than any other model I passed under review, and that it is therefore not surprising that it should have become the approach most popular among applied linguistics, psychologists and language teachers interested in summarization. However, I also attempted to work out and make explicit my reservations as regards the reliability and validity of this model. In particular, I concluded that the macrostructure model does not provide a framework for the actual generation of summaries, but rather that its value lies in offering a method of analysis for describing *ex post facto* what happened in specific cases, that is, how a particular reader derived a summary from a particular text.

What I should like to do in this chapter is just that: to use macrorules as a kind of *tertium comparationis* for relating students' summaries back to the original article which constituted the starting point, or stimulus.

As discussed in detail in chapter 4, van Dijk and Kintsch conceptualize summarization as the reduction and organization of the microstructure of a text into a

macrostructure. This is done by applying the following macrorules:

- deletion (deletion of 'irrelevant', redundant information):

Mary played with a ball. the ball was blue -> Mary played with a ball.

- generalization (replacing instances of a category by a category name):

Mary played with a doll. Mary played with blocks -> Mary played with toys.

- construction (integration of component parts into the superordinate whole):

They bought bricks. They dug foundations. They built walls... -> They built a house.

As soon as I tried to retrace the macro-operations which the students had performed in order to arrive at their summaries, it became apparent that the above macrorules needed to be modified in certain ways to allow operationalization and in order to capture most of the processes that appeared to have taken place. This did not take me by surprise, since many of the studies I discussed in the 'applications' - part of chapter 4 - notably the most thorough ones - had documented the same need for modification. One of these papers in particular struck me as very successful in terms of how the authors made use of the macrostructure model in a way which combined a thorough appraisal of the theoretical framework with a detailed empirical study: this is Schnotz et al (1981). This article demonstrates and discusses in detail how the researchers utilize and modify the macrostructure model; the aim of the empirical part is stated explicitly and largely coincides with mine, namely to specify the processes which take place

"between text and summary" (p.122). Therefore I decided to use Schnotz et al's paper as the starting point and guiding example for my own analysis, rather than starting cold, as it were, from a purely theoretical formulation of macrorules. There are also a number of other aspects I share with Schnotz et al, such as an interest in linguistics and pedagogy in equal measure, the fact that their subjects are university students in an academic context similar to mine, as well as the general attitude towards the empirical study in terms of letting descriptive categories emerge out of a detailed analysis of students' writing rather than fixing them at the outset. One significant difference between their study and my own is that they were working with students summarizing in German, their L1. However, this does not impinge on the relevance of their paper but might actually bring up some interesting points for comparison in subsequent work.

So how do Schnotz et al modify and use Kintsch & van Dijk's model? They actually undertake the ambitious attempt to synthesize the various approaches to text processing, notably by Kintsch and van Dijk (1978), van Dijk (1977a, 1977b), Frederiksen (1972, 1975), and schema theorists such as Mandler & Johnson (1977), Minsky (1975), Neisser (1979) and Rumelhart (1978) into one unified model. In doing so they distinguish between horizontal and vertical comprehension processes. Horizontal processes result in an extension of the mental representation of a text by additional items, on the same hierarchical level, which do not derive from the text, but are inferred from cognitive schemata. There are three subcategories: intended inferences, elaborations, and restructuring.

- Intended inferences are basically what Kintsch & van Dijk call the extension from the implicit to the explicit text base, i.e. the construction of elements which do not correspond directly to propositions in the text, but were nevertheless intended by the author to be taken for granted by readers.
- Elaborations go beyond 'what the author meant' and have no directly corresponding elements in the text. They can be factually right or wrong.
- Restructuring is a process whereby readers tie together concepts differently from the way they are connected in the text, resulting in an interpretation which deviates more or less from author intention.

Vertical processes are macroprocesses in van Dijk's sense, which work on the micropropositions of the text base and produce hierarchically higher macropropositions. Schnotz et al subdivide these into deletion, generalization/abstraction, and selection and add a category of their own, 'bundling'.

- deletion and generalization are used in van Dijk's sense as presented above
- selection denotes the assigning of 'macro-value' to a microproposition, thus making it into a macroproposition; the formulation is kept intact or very slightly altered (e.g. by changing the word class)
- 'bundling' consists of the pulling together of concepts which clearly belong together semantically or pragmatically, but which are spread all over the text. As I understand it, this does not necessarily result in a hierarchically higher concept, such as a hyperonym, actually being expressed: the important

thing is the assumption that in order to be able to pull various ideas together, readers have to create a superordinate concept in their mind, whether or not this then becomes manifest in their protocols.

It will be evident that all the problems I identified in the earlier theoretical chapter regarding the application of these categories, such as the conflation of the roles of participant and analyst, are clearly visible here; but rather than reiterating their discussion it seems more helpful here to bear them in mind as a caveat while getting on with the actual analysis, remembering that what all analysts do is to themselves interpreting the interpretation of readers.

When attempting to apply Schnotz et al's categories to my own data I soon found that while their extension of Kintsch & van Dijk's framework was helpful, I still needed to add two categories to capture as faithfully as possible the processes I deemed my students had gone through. The first one of these reflects the fact (which may be a function of the particular article I used in that it provided many examples) that respondents often picked one or two expressions where three or more conceptually related ones occur together in the original text. For example, the first sentence of paragraph 3 in the article reads as follows:

Those who choose not to have children tend to be well educated, live in urban areas, marry late and work outside the home; as a group, they are not actively religious.

What students sometimes did was to leave some of the coordinated phrases standing while cutting others, as in

Many of them marry late and work outside the home.
(B2)

To label the process which must have occurred here *selection* would misrepresent matters since selection involves the move up to a higher hierarchical level. On the other hand, *deletion* does not seem appropriate, either: deletion affects irrelevant, redundant information, which presupposes the application of criteria for importance. In the above case, however, as in several others of my protocols, the selection of some ideas at the expense of others appears to be rather more random. It is as if students would really have liked to copy the entire, rather tightly packed sentence but felt that they were only allowed to 'have' part of it, rather like picking out a few flowers from a thick bouquet, stopping short of taking the whole bunch. Processes of this kind I shall call **pruning**. The terms seems appropriate since the *OALDCE* defines it as "trim[ming] the shape of (a tree, a bush) by cutting away some of the branches", and "reduc[ing] the extent of sth by cutting unnecessary parts".

The second category of macroprocess (if it can be called one) which I added was **metastatements**: while Schnotz et al explicitly exclude this aspect, I felt it necessary to include it to do justice to my data. Metastatements, of course, overlap to a large extent with statements of orientation and explication dealt with above; they are simply being treated from a different perspective here.

Apart from these two additions, my only other modification was leaving out deletion: with the drastic rate of reduction required, from around 1000 words to less than

100, there is obviously so much that is deleted that identifying every instance of it would become very unwieldy. Moreover, deletion is implicitly reflected in the scoring of the other processes: whatever is not a result of another horizontal or vertical process must have been left out.

The way I proceeded in scoring macroprocesses had to be intuitive to a certain extent, especially with respect to the number of processes identified. The criterion I used for boundaries between individual processes was the point where I thought a new, different macroprocess had occurred. Every unit between such two boundaries was then checked against the meaning units of the original text in order to establish what had been added, restructured, generalized, selected, bundled, or pruned⁵, and the initial for the respective process was marked on the margin. This is illustrated in the following examples, where approximate boundaries between units and thus processes are marked by |:

The essay "Childlessness" deals with	M
the problem of American women who do not	
want to have a baby any more.	E
A deliberate group of women decides	
early not to have a child,	S
whereas the group of postponers	
leave the decision to nature.	P
Nevertheless, there can be now seen	
a tendency that the birth rate is	
beginning to climb again. (B4)	S

The birthrate among well-educated women	P
has decreased enormously.	G
This trend is due to the current economic	
situation, to men's reluctance to share child-	
raising and to women's attempt to settle down	
in a business world dominated by men.	B
However, there seems to be some backlash to	
this in the air. (F16)	G

As becomes clear from the above examples, this analysis is indeed very rough and wide-meshed as it were. But then this is precisely what Kintsch and van Dijk intended their 1978 model for (which is the one used here):

...for some purposes the 1978 model might still be quite satisfactory, for example, if one is not concerned with some of the fine grain of the processes, but is content with relatively **gross analyses** of memory, forgetting, **summarizing**, and the like. (van Dijk & Kintsch 1983:351, emphasis added)

Schnotz et al also make the observation that the distinction between the various macroprocesses is not an absolutely clear-cut one, which means that in many cases there are two or even more alternatives. For instance, summary A 22 starts like this:

Does having children still mean fulfillment for a woman?

What the student has done here is to explicitly formulate a question which has no direct correspondence in the text. It could be argued, of course, that the question is asked implicitly in the article, namely in the last sentence of paragraph 1:

Many people are questioning the assumption that fulfillment for a woman is having children.

I decided that this was in fact the most satisfactory explanation and therefore scored an instance of *intended inference*. However, one could also argue that irrespective of the syntactic change the content of the student's formulation is so similar to the original that *selection* must be said to have taken place, or indeed that the

reformulation in the form of a question is such an intervention by the summarizer that it is an *elaboration*.

Having said all this, I do not think that the fact that there are very many cases which involve just as much uncertainty diminishes the value of the framework as such. However, it is vital to be aware of the relativity of the concepts involved and therefore to take great care to apply the analytical framework as consistently as possible across all summaries in all groups, which is what I have tried to do.

Which macroprocesses, then, did my respondents employ, and what are the differences across the three groups?

(Obviously, the application of macrorules can only be investigated for the summary groups A, B, F and not for groups C, D and E who were not asked to summarize the text, but to react to it). The following table gives an overview of the macroprocesses I scored in the manner demonstrated above:

Macroprocesses (N/X)								
	G	B	S	P	M	I	E	R

Groups								
A	35/1.46	5/0.21	78/3.25	9/0.37	11/0.46	20/0.83	36/1.50	16/0.67
B	24/1.04	11/0.48	101/4.39	4/0.17	8/0.35	16/0.69	25/1.09	4/0.17
F	36/2.25	3/0.19	33/2.06	7/0.44	1/0.06	5/0.31	10/0.62	5/0.31
Total	95/1.58	19/0.29	212/3.23	20/0.32	20/0.29	41/0.61	71/1.07	25/0.38

Number of occurrences of macroprocesses per group (N) and average frequency per protocol; G=generalization, B=bundling, S=selection, P=pruning, M=metastatement, I=intended inference, E=elaboration, R=reconstruction

Looking at the totals for all groups first, it is obvious that there are great differences among the frequencies with which the various macro-operations are performed: selection is by far the most 'popular', with no other process coming anywhere near its frequency. Next comes generalization, followed by elaboration. In terms of Schnotz et al's distinction between horizontal and vertical comprehension processes, the two most frequent ones are vertical, with elaboration being the most frequent horizontal one in third place.

Selection, however, is not the most frequent macrorule in all groups: group B has more generalization than selection. In fact there is some variability regarding which group used which process more or less often. If we put the initials for the various processes in order of frequency for the three groups, we come up with a different sequence for each one:

	most frequent	least frequent
Group A:	S - E - G - I - R - M - P - B	
B:	S - E - G - I - B - M - P,R	
F:	G - S - E - P - R,I - B - M	

order of frequency of macroprocesses

This chart shows very clearly, though, that groups A and B are very similar in the left half, that is, with respect to the most frequent macroprocesses, and that it is group F which differs considerably from them.

But what does it mean to say that subjects in groups A and B tended to select propositions from the original for their summary, while group F respondents tended to generalize? Although selection and generalization are both vertical processes, it would seem that they differ in the amount of processing work students needed to do to use them: whereas for selection it is basically sufficient to recognize important propositions, generalization requires more effort in terms of understanding sense relations, finding superordinate terms, in short, more reconceptualization.

Continuing on the theme of level of reconceptualization, or digestion, one could, rather speculatively, group all macroprocesses into a 'more effort' and a 'less effort' half. As I see it, pruning and intended inferences require less digestion than bundling, metastatements, restructuring and probably even elaboration - although the last two are difficult to judge because they derive from readers' schemata rather than from the text. For the sake of argument, then, the two groups look like this:

+ EFFORT	- EFFORT
generalization	selection
bundling	pruning
metastatements	intended inferences
? restructuring	
? elaboration	

If we now fill the above categories in with the figures established in the analysis of macroprocesses in the three summary groups, we obtain the following picture:

+ EFFORT	group	- EFFORT
51.5%	A	48.5%
37.9%	B	62.1%
57.4%	F	42.6%

Even if we bear in mind that we are dealing with fairly small numbers here for which percentages may not be an ideal measurement, it nevertheless seems interesting that the overall descriptions for the three groups are rather different: group A has slightly more '+ effort' than '- effort' processes; in group F there is the same preponderance, but it is much more marked; group B is quite different, with significantly more '- effort' than '+ effort' processes in evidence.

One reason for the deeper processing that seems to have gone on in group F might lie in the different task demands: it will be remembered that the respondents in this group had already written a longer summary of around 350 words, which they then cut down to around 60. It may be that through going through the text more often, therefore simply giving the task at hand more thought and thus getting more involved in the text fostered reconceptualization.

However, there are also differences between A and B, which had exactly the same task demands. It seems likely that a better understanding of these can only emerge when macroprocesses are considered in relation and interaction with all other factors discussed in this chapter, in a synthesis which I shall attempt in the next chapter.

6.3.6. Content structure

Before embarking on the actual analysis of content structures, some preliminary remarks about procedure are necessary. In order to be able to compare texts (input article and student protocols in my case) one needs to be clear about the units of comparison: since it is hardly possible to undertake a detailed and consistent comparison by simply dealing with texts wholesale, some method of chunking is required.⁶

When searching for an appropriate way of chunking my texts the obvious thing to do was to look at which units other researchers had chosen. In the secondary literature I consulted, several different methods appear: propositions, t-units, idea units, orthographic sentences, topic units, and semantic units. Apart from the question of theoretical validity, a factor in the decision for a particular unit will also depend on the length of the texts involved and on the purpose of the analysis.

What I needed, because of my fairly long input text, was a chunking method which would allow me to capture major semantic correspondences without getting lost in detail. This meant that a representation of semantic content by propositions, i.e. relationships between a predicate and its arguments as used by e.g. van Dijk (1977a), Frederiksen (1977) and Kintsch (1974) was not feasible because it would turn the text into an unwieldy list. Without going into any detail here, I just want to add that simply transcribing the text into an alternative format as propositional analysis does would also have had the disadvantage of not expressing, or neutralizing as it were, the important

factor of signalling, which means that clues to author intention would be irretrievably lost to the analysis.

Units which bear more resemblance to natural language are T-units and idea units. Hunt's (1970) T-unit, or "minimal terminable unit" is defined as "one main clause plus any subordinate clause of nonclausal structure that is attached to or embedded in it"⁷. Hunt says that

cutting a passage into T-units will be cutting it into the shortest units which it is grammatically allowable to punctuate as sentences. (1970:4)

While T-units may be a useful measure for quantitative comparisons, they are not at all appropriate when the objective is to trace propositional content across texts, since such content is simply irrelevant to their definition (cf also the conclusions I came to when discussing grammatical sentences in ch 2). In terms of the actual chunking of texts into T-units this means no more than chunking into orthographic sentences, the only difference being that co-ordinated main clauses are split into separate T-units.

The same is true of (the rather misleadingly named) *idea units* which Johns (1985) adopts from Kroll (1977) to relate her students' summaries to the input text. The term *idea unit* sounds very promising for this kind of investigation (and gave rise to some wishful thinking on my part), but what it in fact denotes is certain syntactic entities. Here is Kroll's "operational definition":

(1) a subject and verb counted as one idea unit together with (when present) a (a) direct object, (b) prepositional phrase, (c) adverbial element, or (d) mark of subordination

- (2) full relative clauses counted as one idea unit when the relative pronoun was present
- (3) phrases which occurred in sentence initial position followed by a comma or which were set off from the sentence with commas were counted as separate idea units
- (4) verbs whose structure requires or allows a verbal element as object were counted with both verbal elements as one idea unit
- (5) reduced clauses in which a subordinator was followed by a non-finite verb element were counted as one idea unit
- (6) post-nominal -ing phrases used as modifiers counted as one idea unit
- (7) other types of elements counted as idea units were (a) absolutes, (b) appositives, and (c) verbals (Kroll 1977:90)

Kroll then illustrates the way her scheme works with examples from her data, such as

I then approached a driveway/that was lined with two short brick walls,/about three feet tall. (ibid.)

The three idea units in the above sentence, separated by virgules (/), belong to the categories 1a, 2, and 3 above. It seems to me that if one approaches this rather intricate scheme with summarization in mind, it makes very little sense indeed. But since the analysis of summaries is precisely what Johns (1985) uses idea units for (though she does not demonstrate how she chunked her input text), this puzzled me at first - so much so that I was unable to give a more general description of Kroll's operational definition rather than copying the lot. However, a closer perusal of Kroll's entire paper made it clear that she devised this scheme for a completely different purpose, namely for a quantitative comparison of coordination and subordination in written and spoken narratives, not altogether unlike the way Hunt used his T-units. Hence her motivation for devising the notion of idea unit is this:

Considered in light of the extent to which planning frequently requires syntactic "work", we want to use a chunking device that will be sensitive to the amount of lexical and grammatical manipulation (work) needed to create the units of discourse. (Kroll 1977:89)

It can be said, then, that T-units and idea units are equally unhelpful for capturing the essentially semantic units required to relate summaries to their original texts, the reason being that both these concepts are defined along purely grammatical lines. Also, they both result in a vast number of rather small entities as soon as one tries to tackle a text longer than the average paragraph, leaving the researcher unable to see the wood for the trees.

Whereas T-units and idea units result in too many units for my purpose (i.e. relating information in summaries back to the input text), the opposite is true of Bear's (1983) topic units. As I understand her notion of them, the boundaries of topic units are determined by breaks between cohesive stretches of text, i.e. everything linked by cohesive ties belongs to one topic unit:

Since the constituents of topic units are clauses, the units do not depend on any punctuation to show their limits... The relationship between the topic and the comments is very much the same as the relationship between the topic and comment elements of a single sentence or between the complete subject and complete predicate of a sentence as described in most pedagogical grammar books. The difference in text is that the topic and comment elements within sections of text do necessarily reveal specific cohesive ties. These ties establish what I call a 'relevant' relationship for the clauses of a unit. (Bear 1983:57)

In practical terms this means that a topic unit can be very long and consist of a number of ideas which I would need to be able to score separately.⁸

So what if we move down to the units which, according to Halliday & Hasan (1976) are the ones which are linked by cohesive ties, i.e. the time-honoured category of orthographic sentence? This is the unit which Winograd (1984) employs for his much-quoted study of "strategic difficulties in summarizing texts" (his title). At first sight it might be objected that using orthographic sentences, i.e. stretches of text between full stops, is just another, potentially longer, syntactic unit. However, I think that the crucial difference here is that what we get is also a trace of author intention in that the author has actually chosen to express certain things together in one sentence, exploiting syntactic devices such as coordination vs subordination and functional devices such as thematic structure. While much of my argument in chapters 2 and 3 was devoted to demonstrating that these devices do not represent reliable algorithms for summarization, I did find they had certain insights to offer into the signalling of importance. In this respect orthographic sentences are certainly more valuable as cues for relevance assignment than T-units or idea units: they are the writer's, not the analyst's, category.

Also in terms of manageability of length, orthographic sentences have the advantage that they lie somewhere between the (always too detailed) t-units and idea units and the (nearly always too long and complex) topic units, and moreover the length of a sentence is itself, as was just pointed out, an indication of author intention. In addition, orthographic sentences are a perfectly reliable unit, they come readily marked with the text. So it is easy to relate, say, sentence 2 of a summary to sentences 5-10 in the original text. However, it was precisely when I

started to proceed like this that I ran into problems: there are simply too many orthographic sentences in the original article which contain several ideas, some of which might be picked up in a summary while others might be deleted. In other words, sentence 1 in the original might contain ideas a, b and c and sentence 2 ideas d and e. How, then, should I score the presence of ideas b and e in the summary? Just relating them to sentences 1 and 2 would obviously oversimplify things and distort them. Moreover, it would be impossible to distinguish the summary from another which picks up ideas a, c and d, because they would both be coded as using sentences 1 and 2 in the original as their source. For instance, some summaries pick up elements from the following sentence in paragraph 7:

New York City-based Joni Evans, 45, publisher of Random House trade books, openly mothers her authors and colleagues and feels no societal pressure to have children.

If my original text were chunked into orthographic sentences, I would have to score a summary referring to "mothering" and another referring to "no societal pressure" identically as relating to that sentence, without reflecting the very different choices that were made.

At this point in my search for a suitable chunking device I was thus back to the *leitmotiv* of this whole thesis, namely the trade-off between reliability and validity. All the fairly well-defined units discussed and rejected above are reliable enough, but entirely inappropriate for the purpose at hand. What I needed was a text-based unit of flexible length for relating chunks of propositional content, and it seemed that the only way to get that was to take an intuitive leap. I was helped by the fact that the authors

of a theoretically well-founded and thorough paper with a similar concern had already 'jumped' before me, namely Schnotz et al (1981) (the study that also served me as a guide through my analysis of macroprocesses in the present chapter). What is striking about Schnotz et al (1981) is that generally speaking it is a very 'scientific' paper abounding in precise definitions and exact references. And yet, when it comes to chunking their input text and summaries, they decide for an astonishingly intuitive instrument which they call **meaning unit** (Bedeutungseinheit):

Bedeutungseinheiten ... umfassen einen inhaltlich zusammengehörigen Informationskomplex, der meist größer als eine Proposition ausfällt, da untergeordnete Propositionen nicht gesondert aufgeführt werden. (Schnotz et al 1981:123)

(Meaning units ... consist of an information complex which belongs together in substance, and which is usually larger than a proposition, since subordinate propositions are not scored separately).

This is all the explanation we get as to what their chunking device is - apart from the fact that they also reject propositions à la Kintsch (1974), because, like me, they find that propositional analysis is too unwieldy for longer texts.⁹

In comparison with all the other chunking devices discussed above, Schnotz et al's meaning units seemed the least inconsistent with my theoretical arguments in earlier chapters, as well as being operational and not over-elaborate. I therefore decided to adopt their scheme for the chunking of my text, and proceeded in the following way: First I carefully read all student protocols to get an impression as to what level of detail was required, and

found that it was rather 'delicate'. Then I went through the original article (not versions A and B, since these have essentially the same propositional content) and divided it into units which I felt "belonged together in substance". In order to keep a record as to which stretches of actual text correspond to which meaning unit, I also chunked the text into T-units and correlated T-unit and meaning unit numbers (see Appendix 4). For instance, meaning units 36-39 all come from T-unit 29, which is:

The postponers refuse to make a decision, allowing relationships, professional commitments and finally nature to make the choice for them.

The reason why I needed four meaning units to chunk this one T-unit was that I knew from my close reading of the protocols that some students had only picked up meaning unit 36 (/postponers refuse to make a decision/), while others had also selected from the other three, 37-39: /allow relationships to decide for them/ [and/or] professional commitments/ [and/or] finally nature. Of course, this chunking procedure is far from perfect. For example, when steering the narrow course between precision and unwieldiness I sometimes decided to tolerate imprecision in order to avoid proliferation. This was sometimes done in order to stick to the surface of the text as closely as possible: for instance, meaning unit 14, /working women/ should ideally be split into two, but this would have required a repetition of *women*, (the argument in propositional terms) and thus a departure from the wording in the text.

Despite these flaws I was satisfied that I had found the most effective operational instrument for my purposes, and

in the process of relating protocols to meaning units in the original the chunking was further refined and adapted.

To return now to **content structures**: In chapter 5 I discussed the potential of Meyer's approach to text analysis for summarization. According to Meyer, good readers work both in a bottom-up and top-down fashion: they are cued by the signalling provided by the author and also let themselves be guided by the top-level rhetorical structure of the whole text, thus successfully reconstructing the author's intended message. This means that for summary attending to the signals and top-level structure should enable readers to unequivocally select the 'important' parts of a text.

As I also point out in chapter 5, this rather uncomplicated view of an ideal reading process is based on a number of assumptions which do not hold when confronted with the complexities of linguistic and social realities. For instance, writers do not always signal their plans very clearly; readers, because they have their own individual interests and goals, may not want to get out of the text what authors intended them to; and a text may give conflicting signals.

These are precisely the sort of complexities that I should like to investigate in the light of my empirical data. In particular, I intend to look at the extent to which students were actually guided by the content structure of the text they were summarizing, and thus how sensitive they were to signalling. Also, I am interested in the way this adherence to the author's plan is affected when it is not

required by the task. In other words, I am hoping that the analysis of the student protocols will

- indicate the degree of my subjects' sensitivity to top level structure and signalling as provided in the versions they were confronted with,
- show how accurate my predictions were of information likely to be contained in short summaries of the two versions of the *Babies* text (cf 5.2. above), with Description and Comparison:adversative content structures respectively, and
- illustrate the variety and richness in readers' responses to the text which Meyer's assumption of a very submissive reader precludes.

In chapter 5 I provided content structure diagrams for the two top-level structures à la Meyer that can be assigned to the *Babies* text. I also tried to demonstrate that whether a Description or a Comparison:adversative structure is chosen depends largely on the scope of the definition of signalling: if we limit ourselves to Meyer's definition of signalling as

information in text which does not add new content on a topic, but which gives emphasis to certain aspects of the semantic content or points out aspects of the structure of the content (Meyer, Brandt & Bluth 19880:77)

and restrict ourselves to her five categories (pointer words, etc), the most likely content structure to emerge from my article is Description. However, if we also pay attention to more subtle factors such as lexical choices and their connotations, the use of certain notational conventions (quotation marks, brackets) and of figures in the text, I argue that we can unveil the underlying

intended message (and thus ideological stance) of the article.

In the *Babies* text this procedure results in a Comparison:adversative content structure, which "relates a favored view to [a] less desirable opposing view" (Meyer 1985:273), i.e. having children vs childlessness. In my 'critical linguistic' analysis I thus tried to demonstrate that the original magazine article, for whatever reasons, speaks with a forked tongue as it were, purporting to give an objective description of pros and cons while subliminally strongly siding with one view and subtly condemning the other. As I indicated earlier, I subsequently devised two versions of the original text which were intended to make the two underlying content structures explicit: version A was rewritten with a straightforward Description structure, and version B as a straightforward Comparison:adversative structure. The titles given to the two versions (A: *The Pros and Cons of Childlessness*; B: *Childlessness: Are We Dying Out?*) were intended to reflect these differences. The two versions were then tried out informally with a few volunteers. The way this was done was by giving them versions A and B to read without titles and then asking them to assign the titles to the versions. All volunteers agreed on the correspondence of versions and titles as described above and thus confirmed that the rewriting had achieved the desired effect.

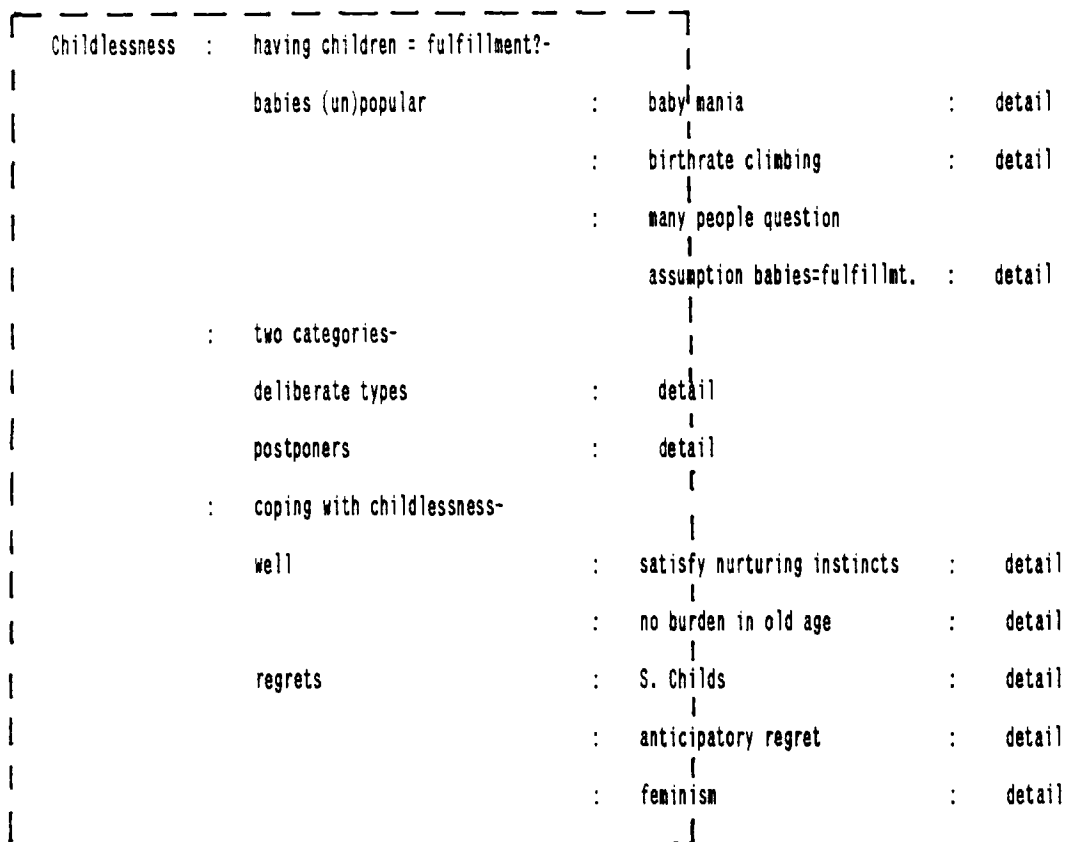
This little informal experiment also bore out my conviction that Meyer's strict distinction between content on the one hand and signalling on the other is a misleading oversimplification. I therefore wanted to take this line of

enquiry further and see how students would summarize the versions, whether the different content structures of versions A and B would find expression in their protocols.

In chapter 5.2. I offered a prediction of which elements of the original article were likely to be contained in short summaries of the respective versions. In a more graphic display this prediction can be represented as follows:

VERSION A: DESCRIPTION

(unipolar starting point: "This is about the phenomenon of childlessness.")



had occurred in the protocols of each group as a whole. As can be seen in the table in Appendix 5, the number of times any of the 76 meaning units of the original text 'reappeared' in protocols varies from 0 to 21. For example, meaning unit 26 (2 categories: deliberate types and postponers) is very 'popular' in all summary groups, with 15 students taking it up in groups A and B, and 11 in group F. Accounts, which by their very nature are more difficult to trace back to the original, still have a fairly high occurrence of meaning unit 26 (4 each in C and D, and 2 in E). After having scored all protocols in this way, I was able to select the ones which appeared most often in each group, and arrange them in order of frequency. Thus for group A this sequence is the following:

<u>meaning unit</u>	<u>frequency</u>
3	16
26	15
58	13
49	11
4	7
5	6
18	6
38	6
etc.	

From this list I then formulated the semantic content of a 'typical' protocol for group A, by filling in the numbers with the wording of the corresponding meaning unit. The result of this procedure for the summary groups (A,B,F) looks like this (I will consider the account groups later):

'TYPICAL' SUMMARIES < frequency of scored m-units

A: summaries include

Not all Americans want children.
 The childless fall into two categories: the deliberate types and the postponers.
 Regret about childlessness is not unusual.
 Some childless people cope well / have found ways to satisfy their nurturing instincts.
 Many people are questioning the assumption that fulfillment for a woman is having children.
 Childlessness is (partly) due to economic realities.
 Childlessness is (partly) true to professional commitments.
 Since the late '60s and early '70s, women have forged ahead in a male-dominated workforce.
 The deliberate types usually decide against children early in life.
 Childlessness is (often) due to nature (= waiting until it is too late).
 Some women wonder whether they have violated a biological law.

B: summaries include

Childlessness is spreading (in today's America.)¹⁰
 The birth rate is beginning to climb.
 The childless fall into two categories: the deliberate types and the postponers.
 Childlessness is (partly) due to economic realities.
 Regret about childlessness is not unusual.
 It is among women 20-24 years of age that the birth rate is beginning to climb.
 Childlessness is (often) due to nature (=waiting until it is too late).
 It is between 35 and 45 that many women are childless.
 The deliberate types usually decide against children early in life.
 The postponers refuse to make a decision.
 Many people are questioning the assumption that fulfillment for a woman is having children.
 It is (mostly) college-educated, working women that are childless.

F: summaries include

Childless people fall into two categories: the deliberate types and the postponers.
 Not all Americans want children.
 Childlessness is (often) due to nature (=waiting until it is too late)
 Regret about childlessness is not unusual.
 The postponers refuse to make a decision.
 The birth rate is beginning to climb.

Childless women often work outside the home.
There is a baby mania.
Childless women tend to be well-educated.
Many people question the assumption that fulfillment for a woman is having children.
The number of childless women has increased a lot since the 1950s.
Childless women tend to live in urban areas.
The childless have found ways to satisfy their nurturing instincts.
It is among college-educated women 20 to 24 years old that the birth rate is beginning to climb.

Let us first compare the three summary groups A, B and F. In my prediction charts above, I showed that I expected summaries in group A to reflect the Description content structure of their input text, and those in group B the Comparison:adversative content structure of theirs. The protocols in groups F, summarizing the original text, should be somewhere between the two, reflecting the fact that the article oscillates between Description and Comparison, depending on how it is read.

The most important element in my prediction is the presence or absence of the target meaning unit about the climbing birth rate. As explained earlier, this target unit contains the same information in both versions, but it varies with respect to its height in the content structure: while it is just incidental to the Description passage, it represents a vital component of the Comparison:adversative text, namely the favoured option, contrasting with childlessness. If students are sensitive to the weighting of information in their text and want to be faithful to the author's assignment of importance, their summaries should reflect these differences in content structure, with the presence or absence of the target unit functioning as a strong indicator as to which content structure the students

perceived in their input text: group A summaries will seldom contain the target unit, while in group B summaries it will usually be included. Group F summaries will vary depending on whether students picked up the overt (Description) or the covert (Comparison:adversative) content structure.

This expectation was fulfilled, as shown in the following table:

Occurrence of target idea unit in summaries

Group	Total No.of Protocols	No.(%) of Protocols with Target Unit	Content Structure of Input Text
A	24	3 (12.5%)	Description
B	23	17 (73.9%)	Comparison:adv.
F	16	9 (56.2%)	Descr./Compar. (original)

The figures in this table, then, confirm quantitatively what is expressed in the 'typical summaries' presented above. 21 out of 24 group A subjects (87.5%) summarized their text as a description of various aspects of childlessness, to which the meaning unit about the climbing birthrate is merely a kind of afterthought, and therefore not included in their summaries. In contrast, nearly 74% of group B summaries are based on the comparison between childlessness (the less favoured view) and having children (the favoured view), of which the climbing birthrate is very much an integral part. And group F is split roughly down the middle, with 56.2% picking up the comparison structure and therefore including the target meaning unit,

and the rest realizing the description structure. As opposed to the theoretical cumulative 'typical' summaries consisting of meaning units, here are real examples, one for each group:

The article in question deals with the fact that nowadays less women of child-bearing age have children. They choose not to have children either because they make a firm commitment 'against' children or because they postpone their decision to have a baby. Some women regret their childlessness, others, however, do very well without children, they devote themselves to other persons instead. [A19]

Nowadays a climbing childless rate can be observed in America. Especially college-educated working women between 35 and 45 seem to reject having children firstly because of their economic situations and secondly because childbearing is no longer regarded as the only fulfillment of a woman's life. The deliberate types who decide very early to have no children and the postponers for whom it is usually too late to get children. However, as statistics show this trend is not going to continue since the birth rate among women 20 to 24 years old already climbs. [B15]

Nowadays there are many women around the age of 40 who have no children. They either did not want to have any because of their career or their special conception of a woman's fulfillment, or they postponed this significant decision until it was too late and are now sometimes regretting their childlessness. Nevertheless, the birth rate has begun to climb again. [F7]

So much for the predictions regarding the inclusion of the target meaning unit. But what about expectations about the remaining content of summaries arising from the respective top level structures? The predictions here for versions A and B were very similar, and they were also confirmed to a high degree: both A and B have a high frequency of mention of the distinction between the two categories of childless people, "deliberate types" and "postponers", as well as of social and economic reasons for childlessness.

One interesting difference between group A and B is that whereas group A summaries have a fairly balanced mention of both regrets about childlessness (meaning unit 58, 13 occurrences) as well as coping well with childlessness (meaning unit 49, 11 occurrences), group B has much more emphasis on the regrets unit, which outnumbers the coping-well one by 11 to 6. This is consistent with the observation that in the Comparison:adversative version childlessness is presented as the undesirable option.

The significant differences between the groups with respect to inclusion of the target meaning unit and the accuracy of predictions for summaries from content structures in general indicate that Meyer's findings regarding recall can be extended to summarization:

...the height of information in the content structure is a powerful variable in predicting how well information will be recalled. (Meyer 1975:117)

By analogy, then, the height of information in the content structure is also a powerful predictor for the likelihood with which information will be summarized.

It has to be noted, of course, that one important precondition for this to work is that summarizers submit to the author's intention and assignment of relevance, and that is exactly what the subjects writing summaries did, and indeed were asked to do: the instructions to them were to capture as faithfully as they could the main points of the writer's intended meaning.

But what happened in groups C, D and E, where subjects were asked not for a summary, but for a brief account of what

struck them personally as of particular interest in the article? How much correspondence is there in these groups between the content of the input text and that of their accounts? That there should be some recognizable semantic relationship with the input text seems a reasonable assumption since students were asked what it was in the article that they found especially interesting. What I expected to happen in most cases was that subjects would select one or two elements from the text and then comment on them, saying what the reasons for their choice were and offering a personal opinion, as illustrated in the following account:

[C14] *Reasons for staying childless*

For me the most important idea in this article is, that most men are still not willing or able, causing from working conditions or working hours, to spend more time with their children. This means that women still have to do housework and education besides their job. So it seems to be only logical that an increasing number of women is not willing to bear this extra burden anymore.

While the above example is typical of a number of accounts with this sort of pattern, it is by no means representative of all accounts. In fact, the most striking feature of the accounts when I first read through them was just how very diverse they were: while some students just picked out a few elements from the text and recounted them without much commentary of their own, others, and clearly the vast majority, really took advantage of the opportunity to express their own views. Here are two more examples to illustrate the wide range of responses:

Childlessness in America

Since the 1950s childlessness has increased considerably. One out of 4 college-educated working women is childless.

The childless can be divided in two groups: the deliberate types, who decide very early in life and the postponers who refuse to make a decision. Relationships and professional commitments are more appreciated and the nurturing instinct is satisfied in other ways. [D6]

Only a mother can really feel like one

No childless woman can really imagine how much she is missing in her life - that's impossible. Only a mother is able to feel this deep inner joy and the fulfillment that new life inside of her may bring and how much strength she may earn through the love towards her baby.

No male can ever feel like that and no childless woman can either.

But everybody can lively and realistically imagine how much effort it may be to care for a baby, what a lack of freedom it may bring and what an enormous responsibility it means. Because that's what we can see: crying babies, tired parents a s o. But what we can't see and therefore can't feel either is the love and fulfillment a mother feels. A career will end one day, freedom will become less important and all your friends will slowly disappear -

but the love between a mother and her child will always remain. [D12]

The accounts students came up with were, by invitation, individual responses, so it is obviously less likely that generalizations can be drawn from them. What I will attempt to do, however, is the following:

- convey some impression as to which semantic units of the original text, if any, they make reference to,
- point to some recurrent themes which are not directly taken from the input article, and
- give some idea as to the variety of roles students assumed in fulfilling the account task.

As to correspondence with semantic units in the original, it comes as no surprise that the number of elements directly traceable to the input text is far lower than in the summaries - after all, students were not asked to

summarize, or recount, but to give a personal account. However, most subjects did select one or the other idea from the article and then went on to develop their own reaction to it. It therefore seemed interesting to compile a 'typical account' profile in the same manner as I did for the summaries, by scoring all accounts for meaning units taken from the input text, putting the totals of occurrence of each meaning unit in order of frequency, and thus producing a 'cumulative account' for each group. This procedure yielded the following 'typical accounts':

C: Comments have to do with

giving birth to oneself / self-realization vs giving birth to a baby
 not all Americans want children
 childless women often have a career / work outside the home
 the childless fall into two categories: the deliberate types and the postponers
 childlessness is (partly) due to economic realities
 some childless people cope well / have found ways to satisfy their nurturing instincts
 losing sleep taking care of babies / egoism
 regret about childlessness is not unusual

D: Comments have to do with

late '60s, early '70s
 childlessness is spreading (in today's America)
 childless women often have a career / work outside the home
 regret about childlessness is not unusual
 materialism / childlessness is (partly) due to economic realities
 the childless fall into two categories: the deliberate types and the postponers
 giving birth to oneself / self-realization

E: Comments have to do with

childless women often have a career / work outside the home
 not all Americans want children
 materialism / childlessness is (partly) due to economic realities

many people question the assumption that fulfillment
 for a woman is having children
 childless women tend to be well-educated
 giving birth to oneself / self-realization
 feminist ideas are one cause of childlessness

One glance at these 'cumulative accounts' tells us that they differ much more from each other than the three 'typical summaries' do: apart from a general statement about childlessness (meaning unit 3), references to women's self-realization and economic realities (meaning units 24 and 18), they have little in common. But it is very important to bear in mind that the above cumulative accounts only capture one aspect of the students' responses, namely which elements of the input text they refer to. However, what is more interesting in the accounts is the students' own contributions, what they made of the article, how they reacted to it. Of course, being personal reactions they all have their individual characteristics, but nevertheless a few common themes emerge quite clearly.

The most striking one, because it gives rise to the the strongest feelings, is the criticism of the **selfishness** which the article is seen to advocate:

A singular feeling of egocentricity pervades this article. [D20]

Self fulfillment is more important than raising a child, for men and women. This attitude reflects the growing egotism of our society, which can be discovered in other domains of our life as well. [C5]

"Against Childlessness"

It strikes me that many people of higher education or position don't want to do anything for other people (e.g. babies). They don't want to be wakened at night and spend money or so. As soon as they (think they) are someone it seems they become egotistic and selfish and try to impose their work on others (i.e. wife or

husband) and if she or he doesn't want to do the work either, no child is born. [C8]

One of the most hidden reasons is not mentioned at all, pure egoism. [E3]

Selfishness or economic pressure?

Deliberate renunciation of children is explained by the respective parents with rather selfish arguments. ...the real problem is that many couples are not willing to come down a peg or two in financial respects and prefer to spend all their time for themselves. For me, this tendency for childlessness is a symbol of our society which becomes more and more selfish. [E21]

In the last quotation above criticism of selfishness is coupled with criticism of materialism. This issue is taken up by several other accounts:

Although the article tries to avoid giving a one-sided portrayal - presenting the views of various persons - it none the less reflects widespread prejudices as well as an extremely materialistic and egocentric attitude towards life. [C19]

...economy tries to sell grown up products like insurances, automobile tires etc with the help of "giggling", "gurgling" newborns. Smiling children shall support business interests. [E6]

What those women really are is instruments of a completely career oriented and materialistic society. [E19]

One quote that students often homed in on for their criticism of egotism in the article is Gloria Steinem's statement (T-units 27-28), which provoked reactions such as shock and sarcasm:

ME OR MY (?) CHILD?

What strikes me most in this article is the sentence 'I either gave birth to someone else, or I gave birth to myself'. I personally have heard several reasons to stay childless, but this argument is the most egoistic one.

The woman sets up two categories: her life and the life of a child. It seems that it did never occur to her that she could link these two lives.

When I read this sentence, I was really shocked by it. [C2]

[What struck me was] the opinion of Gloria Steinem that giving birth to a child hinders ones own development. [C3]

"I either gave birth to someone else or I gave birth to myself" (Feminist Gloria Steinem)

This shows the general attitude of today's women towards having babies. Women nowadays are well-educated and fear that they'd have to give up their lives when they decide to have children... [D13]

What really stroke me was Gloria Steinem's quotation: 'I either gave birth to someone else or I gave birth to myself.'

The author of the article entitles her feminist ? I think this woman (Gloria Steinem) is very much involved in traditional thinking as to what role-repartition is concerned. Steinem thinks that a woman having a baby is automatically reduced to being "only" mother... [C6]

Another focal point of the students' responses has to do with the notion of community, social values, and related issues:

Children or Selffulfillment! Is this a contradiction?
Although there is a boom in the movie business in producing "baby-films" the US's birth rate sinks, or stays stagnant. Today's couples find their luck without having children. Several reasons are mentioned: freedom, independence, don't want to be a burden when I grow old, selffulfillment etc. A social cowardness dominates. To marry and raise a family is one of our main principles in life. What for do we exist? To earn money as much as we are able to? To feed our ego?

We do exist to share our emotions and dreams in a community. The smallest form of society is a family - with children.

But in the end everyone is responsible for his life on his own. [E8]

Career, money and status symbols nowadays replace fulfillment through real values like love, happiness, feeling of security in a family. Especially Rohde's

statement about the loos of sleep shows all the facettes of selfishness and materialism in our time. Finally, regrets about being childless go hand in hand with the question for the sense of life - to achieve goods or human qualities. [D4]

What about our western, industrialized and civilized society. Not only women also men are to occupied by their careers. Their is no room for babies in our thoughts. [D16]

The issue of having children or not is repeatedly discussed in connection with problems of responsibility:

"PARENTLESSNESS"

Most of the time people talk about "having children" as if they wanted to buy a pet. I appreciate the fact that women rather decide against having children than having some just for the sake of it and make the children persons full of conflicts and problems. Having a child means to welcome a new human being in this world and to help him/her to make his/her way. This enormous responsibility ought to make one ask himself "Am I willing and able to have a child?" [D9]

Reasons for this tendency can be seen in men's unwillingness to share the burdens of parenting and women's fears of responsibility. [E18]

The main objectives of the women interviewed seem to be self-realization and (instant) gratification, without considering responsibility towards others. [D20]

In contrast to the above three protocols, the next one sees the issue of responsibility in rather a different light: having children is regarded as a way of opting out of an increasingly competitive society:

I have already observed this new "child-movement", but I doubt that these women's decisions are thought over properly. In my opinion these college-educated women fear the male-dominated society and its pressure they would have to withstand if they decided to undertake a profession. Instead they choose to give birth to children and stay home. [E10]

Apart from the discussion of personal factors in the decision for or against children, there is also ample evidence of students' social awareness on a more global scale:

What about those who think that it's not fair to the (unborn) children to send them into world which is gradually destroying itself. [C12]

The argument that not having children removes the concern of being a burden to your children in old age has another side. Where will you go when you are old and alone and have no children? I think there are already too many isolated old people. [D8]

Women do not only rebel against conservative men, but also fight against the shortcoming in our social system. [E11]

The opinions express the current glorification of the individual and the drive to make changes at will. [D20]

As might be expected, a large proportion of accounts address themselves to questions which emerge more directly from the article. Since the article deals with issues which are as controversial as they are fundamental, it might well have provoked a polarization between 'pro-children' and 'anti-children' views. It is interesting to note that this did not happen. In fact, apart from the one eulogy to motherhood already quoted earlier ("No childless woman can really imagine how much she is missing in her life...[D12]) there is a marked absence of absolute, moralistic statements. What we find instead are very clear personal views which come down strongly on one side or the other, but with students talking about their own lives rather than those of others:

As a female student I will (most probably) be confronted with this particular matter, too. For this reason this article is of particular interest for me. It gives advantages and disadvantages of childlessness.

Nevertheless, Martha Smiglis' elaboration cannot effect my mind, which I made up a long time ago, in any respect: Despite the 'lost freedom' and a lot of misgivings, it simply must be possible to have both, a good job and children! [E4]

I somehow can identify with the group of women that choose to have no children, because I also want to "give birth to myself". Yet my opinion towards babies has changed and I take the view that they will not necessarily hinder your personal development (in fact they are a new experience), it depends on how you see yourself. [E16]

Unlike the examples above, which express a positive attitude towards having children, there are some which voice doubts, such as the following one:

I feel personally very much addressed by this article. Being in my early thirties it has been the question in my relationship with a man who is eager to become a father, even a cooperative one. I on the other hand feel quite content with my childless life, besides I wonder if I would ever feel the promised fulfillment a child is supposed to bring. What if this doesn't realize? The decision to have a child is such an absolute one, a decision of no return - and that's what makes me hesitate. [D5]

And then there are some opponents to having children, but again note that they are talking about themselves rather than pronouncing generalities:

For me it is no question - I'm not going to have children. The reason for this is that I don't like them. They make a lot of noise, work and cost a lot of money. [C20]

As I am myself a girl who wants a career rather than a family this article had quite some interesting points. [E7]

The reluctance to make moral judgements about other people or to prescribe certain patterns of behaviour must not be confused with indifference. In fact, some students get very passionate about the value and importance of tolerance and acceptance:

I want to have children on my own, but this doesn't give me the right to judge women who decides against having children. [D7]

Personally I think that it is always a couple's decision either to have children or not. Society has to accept their decision. ...

What makes me really furious is that some people cannot accept my decision. [C20]

Why not "childless"?

Every woman has the right to decide whether she wants to have children or not. This decision is a profound and important one. Sometimes we condemn women who have decided against having children. We should accept them. Fullfillment for a woman need not always be having children. [C11]

Steinem thinks that a woman having a baby is automatically reduced to being "only" mother. But I think it is her own decision whether to accept this expectation - often represented by society - or not. [C6]

So much for the most salient common themes recurrent in the students' personal accounts. I have devoted rather more space than I can afford (but much less than I should have liked to) to quoting directly from the protocols since I wanted to convey some of the liveliness and involvement that is so striking in most of them. My main concern here was, however, to demonstrate that the invitation to students to give not an 'objective' summary but an account of what they personally found interesting in the article did not result in total 'interpretive anarchy'- far from it: what actually emerges quite clearly is a certain

consensus as to what is important to this particular group of students in this particular text, expressed in interpretations which are consistent with a shared world view and their state of knowledge. In short, there is evidence here of membership of an *interpretive community* (Fish 1980) or *discourse community* (Swales 1990). I shall come back to this issue in the last chapter.

What is left to do in the present one is to have a look at the different kind of roles that my students assumed in producing their accounts. The question of roles is of course one that I already alluded to in other sections of this chapter, notably 'orientation and explication' and 'verbatim vs own words'. However, while these were rather formally defined criteria, it should be interesting to approach this issue from the content-side here, and to concentrate in particular on accounts, which were given rather short shrift in the other sections.

When considering the roles that my respondents cast themselves in when producing their accounts, four basic groups seem to emerge: there are those who are deeply involved in what they are writing at one extreme, those who opt for minimum involvement at the other, those who choose a combination of personal involvement and detached commentary, and those who assume the role of analyst rather than participant. Let me illustrate these distinctions.

Strong personal identification with the issues at hand is evident when students see the account task as an opportunity to write about themselves rather than considering the wider social and moral implications of the topic:

As a female student the issue of this article addresses me directly. The first thing that pops into my mind is the question "Would I like to get a baby?" I am in the happy situation to have a loving friend who would surely help me if I would get a baby right now. But I must admit that I am not ready yet for having a child.

Right now I find my fulfillment in other things. I do not want to restrict my life too soon. If my job and my partnership are settled in a couple of years, I would like to become a mother and live together with the man that I love. [D1]

At the other extreme, minimum involvement can be expressed either directly, as in the first example below, or indirectly by just offering a selection of elements from the original text without commentary, something that actually amounts to a summary:

Statement:

Some people want to have children, others don't. As for the latter, they may have good reasons for their choice, or they may have none; some just will not spend part of their lives on raising children, others turn out to regret their hesitating later on. Personally, I don't care about people's having children or not, and I won't care about their justification either. [C9]

Decreasing birthrate

The rate of childless women in the USA has more than doubled since the 1950s. Most of the women concerned belong to the group of those well educated (college graduates of the late 60s and 70s) who live in urban areas, marry late and work outside home. Feminist ideas and economic considerations seem to be the prominent reasons that cause women to renounce deliberately (mainly only children or firstborns) or delay getting babies respectively. [E13]

American women on baby-strike

More and more American women nowadays remain childless.

One reason is economy: it is a problem to support a family with only one income. Moreover, having children for many women is no longer their fulfillment. They do not want to commit their whole lives to children and be a burden for them in old age. Still, some women regret not having children. [D18]

A combination of a selection from the text with a personal comment is the most frequent outcome. This is not surprising since it corresponds to what students were actually asked to do: to give an account of what struck them personally as of particular interest in the article. As already pointed out in the section on 'orientation and explication' above, these accounts also often pick up the wording of the instructions. However, they vary considerably with respect to the degree with which the students include themselves in their responses. The following examples are arranged on a cline of increasing author presence/intervention:

The childless century

What strikes me personally in the article by Martha Smiglis is that many women actually plan not to have children or even object to children first of all. It is rather their dislike of sleepless nights and the extra work than the fact that they are in good jobs that prevent them from giving birth to a baby.

Further it was interesting to hear that nowadays finances do not allow one breadwinner to support a family of four, that means that both parents need to be working in order to have more children which is practically impossible. [E14]

BABIES ARE IN FASHION AGAIN

What strikes me particularly in this article is the fact that the birth rate among college-educated women in America is about to climb compared to the past. Whereas in the late 60's and early 70's childlessness came "into fashion" as a result of women's emancipation, nowadays well-educated women in America seem to return to their "maternal instincts" again. How come this change of attitude? [E15]

Has Our Life Become Too Expensive For Children?

The fact that now it takes two breadwinners to support a family of four, while in the 50s a single breadwinner could support a family of five is for me of particular interest because this is the reason that many women have to go to work although they have children. Therefore I can understand that many don't want to be in a situation like that and rather don't have a child. [C16]

Childless Generation

It is quite remarkable that there seems to be a generation of women, who felt the need to set a sign against the established value of family by their deliberate childlessness. I was particularly touched by the observation made in the article that a great number of these women regrets having made this choice when it is too late. They seem to have sacrificed their wish to have children in order to show that women want to be more than a mother. [D17]

I was not very surprised by reading that many women don't want to have children although I do want to have some.

Many women think that having children means loosing their freedom or giving up their careers.

I'm of the opinion that this is not true. I know several women who do have children and are successful at work. The only difference is that these women have their children at higher ages than women in former times so that they can think about their career first and later have children. I also think that today's young men like to take care for their children, it is no longer only women's work which enables both partners to work and enjoy some freedom. [C10]

Of course, students involved in an intertextual exercise such as giving an account of their reactions to a text are not just readers and writers, but also analysts. This is very apparent in many accounts, and manifests itself in different ways. There is the option of attempting a straightforward structural analysis:

Structural analysis

The information provided by this article is understandably conveyed and extremely well structured:

After an introductory passage the author makes the disposition evident; thus the article is structured according to the criterium of deliberately chosen childlessness (first group of women) and postponed motherhood (second group of women). Each of these motivations is illustrated by examples, so that the reader is able to trace the reasons for this far-reaching decision in question. [D15]

Others concentrate on aspects of content, for instance speculating on the effect on society of articles such as

the one they are dealing with, or criticizing its shallowness:

Apparently, having children or not depends on an individual disposition and situation. Trends are only the listing up of a number of such individual tendencies. But the recording of such trends can well influence individuals. [C22]

...these shallow arguments as presented of women who are said to be well educated show, that most of them did not come to a well considered conclusion, but tried to escape from reality. [E12]

There is also evidence of reflection on the act of communication itself, and on the fact that the openness with which the topic is discussed should not necessarily be taken for granted:

It is interesting that women can talk freely about this topic, especially that there can be found opinions of any kind, pros and cons. What surprises me is that - which seems natural with Americans - childless people say what they do with their paternal and maternal feelings.

So there is no hiding, no apologizing, and, I think, no uneasiness from the part of any person asked. [C17]

There are even intertextual allusions, as in the following rather detached and tongue-in-cheek response:

"LYSISTRATA 2000?"

Obviously, the article deals with an evergreen problem, a kind of modern Lysistrata syndrome, as more and more women try to escape from the patriarchal society by refusing to give birth to their offspring. Furthermore, their highest principle is self-realization in a men's world. Yet in trying so they simply adopt their male antagonists's moral patterns and attitudes; but to put it in a nutshell: the original is always better than the copy! [C18]

And finally, the analysis below pinpoints exactly the 'hidden message' in the article which I tried to work out by positing the alternative Comparison content structure:

The childless - injured and abnormal

The article's approach to childlessness is comprehensive, including social, feminist, philosophical dimensions of the phenomenon. The latter being the most interesting aspect, I would have been delighted to learn more about the deliberate, "uncompromising" childless, who are so without being subject to social circumstances, alcohol problems or feminist aspirations. This group is hinted at by a summing-up of characteristics, "educated, urban areas, not religious,...", but further investigations only bring to light women who regret their childlessness, who spoil child-substitutes, who are disheartened by their mothers' example and question their female "normality". The tragic tenor, that the childless are unfortunate after all, remains. [D2]

I hope that this description of students' protocols has managed to convey some of the wealth and variety of ideas, but also highlighted the common traits. What I intend to do in the final chapter, then, is to build on the characteristics of summaries and accounts described in the present one, to revisit my data as it were in the light of existing frameworks and systematic ways of thinking about linguistic communication, learning from texts, and intertextuality. From these observations I then hope to draw my own implications for language pedagogy, and the nature of learning in general.

NOTES chapter 6

1. I refrained from adding a *[sic]* to every instance in the protocol which I would consider an error or a mistake because I think that following this convention would have a disruptive effect on readers of the protocols and distract from the actual purpose of quoting directly. I deemed a general introductory remark about this issue sufficient. In case of doubt as to whether a misspelling on my part is involved, Appendix 1, which contains all protocols in their entirety, can be consulted.

Students in groups C, D and E were asked to give their accounts a title, and most of them did so. Whenever I quote an entire account protocol I include that title, but not so when I only quote an extract.

2. Group B contained two summaries with lengths quite different from the bulk of protocols, 240 and 217 words respectively. These were so unusual - for group B as well as for all groups - that it was decided to exclude them before calculating the mean.

3. It must be remembered that group F, unlike the other groups, were asked to write two summaries, one of up to 350 and one of up to 60. The data sets handed in suggest that students usually wrote the longer summary first, which may have made it easier for them to write a very succinct summary the second time round.

4. A cloze test I conducted with Austrian EFL students at secondary schools suggested that they found internal conjunctions significantly more difficult to supply than external ones. (Seidlhofer 1986:227f). This seems to make the preponderance of internal conjunctions in the present study even more noteworthy.

5. The summaries of all three versions (original, A and B) were all related back to the meaning units arrived at by chunking the original version, rather than each to its corresponding version. The reason for this simplification of procedure is that versions A and B are simply ways of organizing, rearranging basically the same propositional content, and I am interested in what propositional content people derived from that content.

6. I discuss here various attempts that analysts have made to identify units for the operational purpose of description. How far the analyst's chunks correspond to those that readers employ is another matter (see Urquhart 1976 as cited in Widdowson & Urquhart 1976:3.9.) for an attempt to establish such 'participant' categories of psychological reality in the reading process). My concern here is not to investigate this process, but to use analytic categories to describe the product in an *ex post facto* manner.

7. In his first study (Hunt 1965), Hunt examined average T-unit length, the T-unit:number of clauses ratio, the number of T-units:sentence ratio, average clause length and average sentence length. He compared these in the free writing by children at 4th, 8th and 12th grade and found significant age-related increases, which led him to equate syntactic maturity with T-unit length. In 1970, Hunt corroborated these initial findings with a study of (adult) professional writers.

8. Péry-Woodley (1989:153) points out that despite the fact that they "do not refer to each other...and work in different spheres and with different goals", Bear and Givón "arrive at similar concepts of an intermediate unit of information packaging". Givón's unit is the **thematic paragraph**, which he regards as "the most immediately relevant level of discourse within which one can begin to discuss the complex process of continuity in discourse (Givón 1983:7, qu. in Péry-Woodley 1989:153) The crucial criterion for both authors is a high degree of topic continuity, which results in units which are too long and complex for my present purposes.

9. Schnotz et al (1981) found it useful for their particular research to further group their meaning units into thematic blocks, something which I considered unnecessary for my own purposes.

10. Due to differences between versions A and B, the wording of meaning unit 3 is different for groups A and B. This meaning unit subsumes all statements at the beginning of each version which introduce the idea of childlessness, i.e. it contains the same propositional content in versions A and B. Since, however, the connotations of those statements are very different in the two versions, it seemed reasonable to reflect that difference in the wording of the meaning unit for the 'typical summary'.

CHAPTER 7

CONCLUDING SUMMARY: THE ROLES OF THE SUMMARIZER

As was natural, th[e] inordinate hope was followed by an excessive depression. The certitude that some shelf in some hexagon held precious books and that these precious books were inaccessible, seemed almost intolerable. (Borges 1962:83)

It is unlikely that we ever achieve an exact match between intention and interpretation, and we probably would not know it if we did. We arrive at the degree of convergence necessary to the purpose of interaction and no more. Comprehension is never complete: it is always approximate, and relative to purpose. (Widdowson 1990:108)

We come to the final chapter: the one in which, by common rhetorical convention, the researcher is supposed to 'pull everything together', to draw conclusions, to point to 'implications for further research'. It is here that I myself hope to formulate the summary of previous chapters, not so much in the sense of gist, but rather in the sense of upshot: in short, to attempt some answers to the legitimate question "So what?"

Also, this is the chapter in which I was hoping to lunge into the finishing tape, triumphant, ready to reap the rewards of my labour and to enjoy the pay-off.

The first quotation above thus expresses my frustration at realizing that this inordinate hope cannot be fulfilled, that instead of an all-out victory I can only hope for a *succès d'estime*, at best. This frustration stems from the acute awareness of all the issues I have raised but cannot

come back to, the questions I haven't even got round to asking, the books I have not read (and worse, the ones I have read but haven't got round to quoting). But there is some solace to be found: by analogy to the second quotation above, I accept that the particular enquiry of a thesis, like comprehension in general, does not need to be, indeed cannot be, complete, but can only be approximate, and relative to the purpose it was written for.

As I see it, this purpose is primarily that of a rite of passage: a passage into a professional life in which I will be able to follow up the issues which I cannot deal with satisfactorily here.

But there is another reason for choosing the above quote from Widdowson: it mentions notions which are crucial to communication in general, and to summarization in particular. These are (the author's) **intention** and (the reader's) **interpretation**, and the question as to how to achieve a **match** between them.

In fact, the entire theoretical part of this thesis can be seen as a quest for a model that would help readers achieve that match. Various models of text analysis were investigated with respect to the extent to which they indicate the matching of communicative intent with certain linguistic forms (of a syntactic or rhetorical kind) and thus guide readers in their interpretation, and in their formation of summaries.

So what has emerged from my critical analysis of these models? As might be expected, the philosopher's stone was not found: none of the models offers a reliable algorithm

for summarization. What has become clear in the course of my enquiry is that such an algorithm is an impossibility in itself, and my investigation into these models has in fact been an investigation into the reasons why this should be so. One could argue that this is just as well, for finding a perfect solution is surely less interesting than finding out why something does not work. Thus the enquiry so far can be seen as a kind of discovery procedure, which has helped me understand better the issues involved and has sharpened, and altered, my perception as to what aspects actually require careful consideration when thinking about summarization. Or put differently, what I have tried to come to terms with is the question: "What is it important to consider when discussing how a reader decides what is important in a text?" Resolving this question, or at least understanding what is involved in the resolution, is clearly a precondition for proposing how the ability to summarize might be developed in students.

To recapitulate briefly, four models of text analysis with potential value for summarization were examined, arranged along a cline of decreasing reliability but increasing validity: syntactic subordination, thematic structure, macrostructures, and content structure analysis. Despite the fact that these models are extremely diverse in many respects, the main points that emerged from the critical analysis are common to all of them. At the highest level of generality, these can be subsumed under two major aspects: the conflict between the perspectives of (ordinary) readers and (expert) analysts, and the problematic nature of the linguistic signalling of author intention.

The first of these, the reader - analyst conflict, became apparent in chapter 2 when discussing Matthiessen & Thompson's description of their own procedure of analysis, which involves the combination of such phrases as "the analysis claims that..." with "judgments of our perceptions, as ordinary readers..." (cf 2.3. above). In chapter 3, the same problem is exemplified in the contradictions which arise from a closer scrutiny of Firbas' framework: on the one hand, for instance, his concept of interpretative arrangement, giving as it does central importance to individual readers' interpretation, is in direct contrast with his choice of the chunks his analysis is concerned with: these are clauses, not orthographic sentences, and thus neither the reader's nor the writer's category, but unequivocally the analyst's.

The tension between the roles of reader and analyst rises more acutely when we move on to Kintsch & van Dijk's macrostructure approach. In fact, I argue that this tension represents the problem of the model, and it is the red thread which runs through its entire representation in chapter 4. The problem manifests itself in the split between the presentation of macrostructures as specifying "the general principles followed by all language users in understanding the global meanings of discourse" (van Dijk & Kintsch 1983:193) and the claim to provide a dynamic and strategic approach,

in which the precise processes are specified by which a macrostructure is actually inferred from text and knowledge. (op.cit.:192, emphasis added).

In their sample analysis of a *Newsweek* text, the authors claim to present a "plausible processing sequence" performed by an "average reader" (pp.209 & 210), but in doing so they enact the part of that "average reader" themselves, thus conflating the roles of analyst and participant, or reader. The casualty of this procedure is the acknowledgement of the essentially interactive nature of reading and summarizing, in which any specific reader's reduction is determined by the correspondence between textual content and reader's state of knowledge and purpose in reading.

Meyer's (1975) model is riddled with very much the same problem. From all her and her coworkers' writings it is clear that the primary objective of reading is seen in capturing the author's, and only the author's, intended meaning:

The reader's task, then, is to construct a cognitive representation of the text which is similar to that intended by the writer. The comprehension process will involve an active effort to discover the text's major logical relationships and the information expressed in these relations. (Meyer & Rice 1982:156)

According to the Meyer model, good comprehenders go about the task described in the above quotation by employing a structure strategy which will enable them to construct the organizational plan provided by the author. Readers who "cannot utilize the structure strategy" use a "default strategy", which (since they are investigating recall) means "simply try[ing] to remember something from the text" (Meyer & Rice 1982:166). There is a third reader category in Meyer & Rice's scheme, but it is only dealt with in a kind of brief aside, since it does not fall within the

scope of Meyer & Rice's research interests: this is the category of readers who "choose not to follow the text from the writer's perspective". Meyer & Rice conjecture that

[i]n this case, readers (e.g. experts in a field) could have well-organized schemata for selection, differential processing, and retrieval which are different from those suggested by the texts. (Meyer & Freedle 1982:167)

It would seem to me that this remark brings up a number of very intriguing questions regarding the modelling of reading processes and reading pedagogy. For instance, would it not seem desirable, and indeed natural, for readers to be able to approach practically any text as "experts in the field" as it were? Experts, after all, are not only people such as nuclear physicists and neurosurgeons perusing their professional journals, but also 'ordinary people' consulting their daily papers for news stories, cricket scores and arts reviews. What makes them experts is knowing what they are after, and how and where to find it in the text, how to bring their own schemata to bear and to interact with conceptual content in the text, according to their state of knowledge.

Another question arising from the quotation above would seem to be whether, if experts tend to select schemata "different from those suggested by the texts", there might not be something wrong with those texts in that they should preferably be written with such organizational plans that expert readers are likely to find what they are looking for. After all, writers often have a very precise idea of the kind of readership they are writing for, and there are well-established conventions for different kinds of text. I shall return to this matter later.

The point I still need to make about Meyer's content structure model is that, like the other schemes investigated, it also poses the participant-analyst problem, in that the analysts, in this case Meyer and her colleagues, need to draw upon their own reading processes as participants in order to come up with the 'objective' content structure analyses of their experimental texts.

The question as to how Meyer attempts to objectivize the process of retrieving the author's intended content structure from a text brings us to the second major issue which emerged from the consideration of all models, namely that of signalling. Put very simply, it would seem that linguistic signalling, i.e. visible traces of author intention residing in the text itself, could solve the reader-analyst conflict by representing a common point of reference: if a repertory of linguistic signals can be agreed upon, these signals can constitute concrete evidence of author intention by means of which the interpretation of texts can be negotiated.

This seems to be what Meyer had in mind, since in her scheme signalling looms large. But as I demonstrated in chapter 5, there are problems with it. Above all, for a repertory of signals to be agreed upon and to be a reliable guide to interpretation, there needs to be a comprehensive list of linguistic realizations so that it is clear what constitutes a signal of what (and what does not). Meyer does not provide such a list: her four types of signalling are open-ended categories (cf Meyer 1975:ch.4), which results in the burden of responsibility being shifted to whoever tries to work with them in specific cases.

Signalling gets an even worse deal in van Dijk & Kintsch's work. As I pointed out in chapter 4 when discussing their sample text analysis, van Dijk & Kintsch say that the macrostructure which they derive is

only one possible macrostructure, derived from our analysis of the text with an objective attitude, that tries to be faithful to the intentions of the author. (op cit. :219, emphasis added)

I have argued that, quite apart from the question as to what an objective attitude might be, van Dijk and Kintsch fail to fully exploit textual signals, they do not systematically adduce whatever linguistic evidence is there, in the text, of traces of author intention.

The three approaches based on thematic structure and functional sentence perspective also raise the issue of the nature of signalling, and actually illustrate the whole range of the problem in terms of the reliability - validity scale: for Halliday, the theme is unequivocally signalled by clause-initial position, so we have no problem in identifying the theme. However, I have tried to demonstrate in chapter 3 that Halliday does not offer any guidance as to how his notion of theme might be applied at the text level. This is something that Danes does do, and his description of thematic progression as the "skeleton of the plot" (1974:114) sounds very promising for summarization, but upon closer scrutiny his term *theme* turns out to be defined too vaguely to be relied upon for a textual analysis. This leaves us with Firbas. His definition of the rheme as the element carrying the highest degree of communicative dynamism again looks like a potential algorithm for summarization: for a summary, single out the rhemes, and discard everything else. Alas, just what

constitutes the rheme turns out, in the last analysis, to be dependent on context and entirely open to interpretation - that is, it is not unequivocally signalled in the text.

Having worked our way backwards as it were on the reliability - validity cline, we have now arrived at the 'completely reliable, but invalid for relevance assignment' end of the scale, namely the approach based on the hypothesis that subordinate clauses code less important information than main clauses. Signalling, if it can be called that, is no problem at all here: all sentences come as it were readily furnished with clear markers of subordination. However, in the course of the discussion of this approach the concept of the sentence turned out to be irrelevant to the decision as to what is regarded as important in the actual processing of discourse.

One last observation about the reader-analyst contrast and its relation to signalling: it would seem that the distinction between (objective) analyst and (subjective) reader corresponds very closely to the distinction between submissive and assertive reading. This is a distinction introduced by Widdowson and described thus:

... the reader ... can choose to relate [the written text] to his own scheme of things in whichever way serves his purpose best. He may choose to be dependent and to adjust in **submissive** fashion to the writer's scheme, following the discourse development plotted for him. Alternatively, he may choose to be dominant and to assert the primacy of his own conceptual pattern, fitting textual information into it directly and short-circuiting the discourse process. (Widdowson 1984:91, emphasis added)

If we think back to the discussion of Meyer's (1975) model and her insistence on the purpose of reading being the

recovering of the content structure provided by the author, we have here an example of an analyst who is skilled in the recognition, aided by signalling, of the top-level structure intended by the author. The analyst's own 'mind set', comprising content and formal schemata, interest, attitudes, purpose of reading and the like, are not relevant here: they recede completely into the background; they are not asserted. Alternatively, someone confronted with a text may not care at all about the author's intention, but instead approach the text with a very clear purpose in mind. He or she might even look for (and find) something in a text which the author perhaps had no wish to express (cf. Meyer & Rice's "expert" in the extract quoted earlier). In such a case, we are faced with a very real reader, of flesh and blood so to speak, who asserts his or her own schemata rather than being a submissive and faithful analyst of 'his master's voice'.

For the sake of argument, (and also because dichotomizing is proving contagious) we can thus group the four roles mentioned above in the following way, and link them with the intention/interpretation relation which I previously referred to:

focus: writer's INTENTION	-	reader's INTERPRETATION
objective/hypothetical	-	subjective/real
ANALYST	-	PARTICIPANT
SUBMISSIVE	-	ASSERTIVE

I shall add to this juxtaposition later on.

So much then for the upshot of my enquiry into the applicability of various theoretical models to

summarization, which by implication and necessity also turned out to be an enquiry into the nature of summarization itself. But what of the analysis of my own data? How do the findings obtained there relate to the points arising from theory?

To anticipate my conclusion, the findings in the empirical part gave rise to very much the same issues. It will be remembered that my purpose in the data analysis was not to make (reliable) quantitative statements about what I found, but to use the student protocols to guide me towards (valid) issues and implications of a more general nature which need to be considered in a well-founded approach to summarization and learning from texts. So what has emerged?

The tasks set the students were of two kinds: some were asked to write a summary (i.e. to say what the writer means by the text), others were asked to give an account (i.e. to say what the text means to them as readers). These tasks were designed to bring differences between submissiveness and assertiveness out into the open and make them objects of reflection. The expected differences emerged very clearly: there is an all-pervasive contrast between a tendency of summarizers to be submissively faithful to the text and producing assimilative reductions on the one hand, and on the other, a tendency of account writers to establish ownership by asserting reader initiative to make the text accommodate to their own world.

This is evidenced by findings in several categories of description: as regards the 60 - word limit set to all groups, summaries exceeded that limit to a lesser extent than accounts did, so in that respect summary writers were

actually being submissive to the task rather than to the text. As to the 'own words' vs 'verbatim' distinction, the most obvious finding is that summaries tended in general to use words from the text and thus to be more submissive than accounts. But if we look more closely, more interesting differences emerge: why should it be, for instance, that group E subjects, asked to write accounts just like C and D, has a much lower percentage of 'own words' than these two groups? And why does A, a summary group just like B and F, have such a relative large percentage of 'own words'? Since these are differences, or even discrepancies, among groups with the same task, it would seem that an explanation of them must have to do with the different text versions these groups were using. For instance, group E was the only one that was given a text that actually looked like a genuine magazine article, namely a photocopy of the page in *Time* magazine with the original layout in 3 columns, the illustration, and the source and author cited at the bottom - quite different from the anonymous and neutralized typed-out versions of the other groups. One could speculate, therefore, that given students' well-known enthusiasm for 'authentic materials', this was perceived as the 'real stuff', which carried more conviction, and thus more authority, than the other versions, which resembled language teaching passages rather than real texts. And it may have been the very authority of the text on the page that 'captivated' students in such a way that they tended to use words from that text rather than their own. There is also the argument that the original article carries more authority in that it is certified as it were to be by a 'native speaker', whereas the typed-out versions, for all students knew, could have been concocted by their 'non-native' teacher - as indeed they were.

So if the important thing is whether students are faced with the original article or a version, how do I explain the relatively high occurrence of 'own words' in group A? I think that we have to move into the next level of delicacy here and look at the differences between the two versions. Group A was summarizing version A, group B version B, and group F the original in typed-out form. It seems likely to me that the Description content structure of version A had a less 'coercive' effect on respondents than the Comparison:adversative structure of version B. It could be said that version B is the more emotional, affective one: the author is clearly siding with one view and subtly condemning the other (i.e. childlessness), and this seems to have a potentially persuasive, even manipulative effect on readers, which in turn binds them more firmly to the lexical choices made in the text and leaves less room for individual expression. This is also borne out by group D (working on version B) having a smaller proportion of 'own words' than C (working on version A). It may of course seem that, considering the small sample, these guesses are wild ones to make, but findings in other categories, which I shall come to presently, also point in the same direction. And even if these considerations are but speculation, I would still think that they are worth reflecting on.

It would appear, then, that not only the difference between summary and account tasks, but also the difference between textual versions, influences the degree to which students responded submissively or assertively. This is also what emerges from my investigation of orientation and explication in the protocols. The observation I made there was that the groups working on version A as well as group E had a higher occurrence of orientation than the other three

groups. It might be helpful to first compare groups A/C with groups B/D, and then E with F. In the previous chapter I conjectured that, amongst other things, this might have to do with the way summarizers/account writers perceive their role as interpreters of the text. If I pursue my above argument that version A, because of its more balanced Description structure, tends to draw readers less into its spell than the affective version B, then this is consistent with subjects working on version A being more detached in the sense that they are aware of their roles as analysts as well as participants, a role which finds expression in the meta-language employed for the kind of textual comments that constitute orientation and explication. But what of groups E and F? Would one not, by analogy with the 'own words' vs. 'verbatim' distinction, expect group E subjects to be drawn into the world of the article, and group F respondents, faced with an anonymous and shapeless text, to be rather distanced? This might be one line of argument, but in fact it is impossible: group F subjects simply did not have the necessary information to make metastatements such as "The article entitled .../by Martha Smiglis/ in *Time* magazine, etc." because they had no access to the fact that they were dealing with an article, let alone to any of the more detailed information. As to group E, my interpretation is that the high occurrence of these metastatements is, once again, a tribute students are paying to the face-value and authority of the ('authentic') text: they quote from it in the same way as, say, statistics and "informed sources" are cited in journalism, to back up and lend credence to what they are saying. This might be regarded as the positive counterpart of hedging: you avoid commitment by passing the buck, so to speak, to higher authorities.

Differences between the two content structures might also be responsible for my findings regarding macroprocesses: what emerged there was that in groups A and F much more 'effort', in terms of reconceptualization, or digestion, seems to have gone into summarizing than in group B. It could be, then, that the affective nature of version B tended to discourage this reconceptualization. As for group F, I explained in the previous chapter that I think the reason for the high score regarding effort lies in the fact that subjects in that group summarized twice, (from 1000 words to 350, and from 350 to 60) and thus not only digested, but also ruminated the textual cud.

As for the use of conjunctions, the preponderance of internal over external conjunction in all groups (albeit to a different extent) suggests that students were generally aware of the intertextual nature of their task, and used internal conjunctions to monitor "the unfolding of [their] communication role". I must admit, however, that the reasons for the differences among the groups (for the present) elude me.

There remains one category of description, that of content structure. Since I commented on this at much greater length than on the others in the previous chapter, I just want to mention very briefly the sort of issues which emerged there.

As predicted, summaries faithfully reflected the content structures of their respective input texts. The accounts, in contrast (but also in accordance with expectations) showed an extremely wide range of responses: I got the impression that students took to the account task like fish

to water, and seemed to enjoy having the opportunity, and the warrant, to express their own views. This resulted in each account having a very personal stamp on it, both in terms of content as well as linguistic expression. What also became clear upon closer scrutiny, however, was that there is a discernible pattern to the variety of responses, a sense of shared values and beliefs. This, I think, is a finding of some significance, and I will return to it later.

To sum up the story so far, we can say that the issues emerging from my analysis of theoretical models on the one hand and empirical data on the other are, in their most general formulation, the contrast between submissive and assertive reading, the question of linguistic conventions for the signalling of importance, and, perhaps more tenuously, a certain consensus in *Weltanschauung* evidenced in ideas expressed in the accounts.

What I shall try to do in the following, then, is to relate these issues to concepts originating in sociology, linguistics and (in some degree) literary theory and thus accommodate them into a framework which should make it easier to generalize from the findings of this particular study to broader questions of language pedagogy and education at large.

A few pages ago, I drew a diagram aligning the concept of an objective analyst with submissive reading behaviour, and the concept of a subjective participant with assertive reading. Now it seems to me that distinctions made by Goffman (1981:144f) put these differences in a nutshell and thus help conceptualize these roles quite powerfully. He

points out that a speaker/writer can fulfil three different kinds of role: the **animator** is somebody who lends his or her voice to the expression of somebody else's ideas, acting as a "sounding box", as Goffman puts it. The one responsible for the actual wording of the text is the **author**,

someone who has selected the sentiments that are being expressed and the words in which they are encoded.
(Goffman 1981:144)

Behind these two, however, there is the **principal**,

someone whose position is established by the words that are spoken, someone whose beliefs have been told, someone who is committed to what the words say.
(ibid.)

So, for instance, the Queen giving her speech at the opening of Parliament is a typical animator: she has not written the speech herself, but she lends expression to it, serves as its mouthpiece. Whoever has formulated the speech, selected the ideas and decided on the wording in which they should best be conveyed, is the author. But he or she (the speech writer) is not the originator of these ideas, the one who is committed to them, and whose position is being staked out by the speech: that is not the author's, but the principal's role.

Goffman goes on to say that

[t]he notions of animator, author, and principal, taken together, can be said to tell us about the "production format" of an utterance. (op.cit.:145)

As mentioned above, then, Goffman talks about these roles in terms of producers of language, speakers or writers. But these distinctions are just as useful for thinking about

the reception side of communication, they also tell us about the 'reception format' of an utterance. As Widdowson (in press) points out,

...the reader can assume the role of animator, whose task is simply to activate meanings deemed to be in the text, but who takes no initiative to engage creatively with the text and so to act as author of personal reaction. As animator, we might say, the reader provides an *exegesis*. As author, the reader provides an *interpretation*. (op.cit.:Introduction)

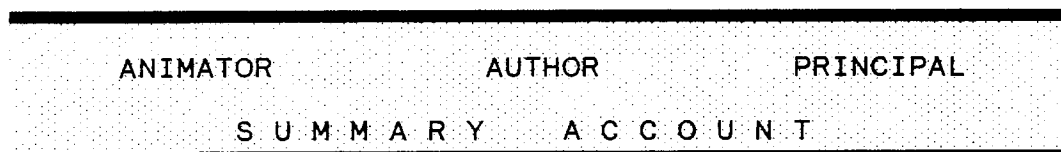
It seems to me that the above quotation is a particularly apt description of what goes on in the processes which are the concern of this thesis, namely summarizing on the one hand and responding to a text in an account on the other: generally speaking, the summarizer's task is "simply to activate meanings deemed to be in the text" and thus to act as animators providing an *exegesis* of that text, whereas account writers "engage creatively with the text and so act as authors of personal reaction": they provide an *interpretation* of their own.

Of course, as is illustrated by the examples from students' protocols in the previous chapter, many accounts went far beyond an *interpretation* of the text: not only did they make the input text their own and express their personal reaction to it, they actually made the entire communicative event their own and, to use Goffman's words, "staked out [their] own position" in it - in short, they acted as principals.

Of course, neither the distinction between roles, nor that between summaries and accounts are hard-and-fast categories. They just capture what typically happened, and in fact it seems reasonable to exclude the very extreme

ends of the scale on either side: it is actually impossible, and nonsensical, to envisage a summary which does not involve selection, which after all is something an author, and not an animator does. Likewise, it is hard to imagine an absolutely pure instance of 'principal account', without any 'contamination' whatsoever by ideas which are not entirely the account writer's own. In fact, it would seem that the very nature of the task, which is intertextual not just in the case of summaries but also in the case of accounts, necessitates that some ideas from the original, or stimulus, text be embodied in the response, whether they become manifest on the surface or not.

It would appear, then, that we can map out the territory of summaries and accounts like this:



This map suggests that in order to be competent summarizers, writers (in the present context, my students) need to be able to act out the roles of animator and author. And in order to be competent account-givers, they need to be able to act out the roles of author and principal. What I should like to do in the following is to consider how such students might be helped in acquiring this role repertoire, how they might learn to be in control of the registers of their voices as it were. In order to be able to do this, it is necessary to decide what fulfilling

these roles actually means, and which knowledge and which skills are required to enact them.

Let us start with the animator role. There is a sense, then, in which to a certain degree at least meaning is in the text to be discovered by identifying textual clues. Thus developing the submissive animator role in the student is necessary and pedagogically legitimate. One could in fact argue that such development is logically prior: you have to first learn the conventions of the craft in order to become artistically creative. By the same token, you first have to be able to submissively understand a text by reference to linguistic conventions, then you can assertively make it your own.

In Goffman's description, however, the animator role does not sound like a particularly rewarding part to play:

...one of the two participants moves his lips up and down to the accompaniment of his own facial (and sometimes bodily) gesticulations, and words can be heard issuing from the locus of his mouth. He is the sounding box in use... (op.cit.:144)

By analogy, in its application to the reception end of communication, this would presumably mean that the animator-reader does nothing but mindlessly parrot the words on the page, put there by beings of a higher order. I would contend, however, that being a good animator requires a lot more expertise than that. But what is a "good" animator? Presumably someone who is able to animate the text in the way the author intended, someone capable of providing an authentic reading and/or rendering - authentic in the sense of true to the author's intention: a faithful rendition. (What might look like an inconsistency on my

part in that I sometimes refer to the reception and sometimes to the production side is due to the fact that I do not think the distinction is relevant here: reading can be seen as as rendering for oneself.)

But giving a faithful rendition is a far more active undertaking than Goffman makes it sound. As pointed out above, it requires a great deal of know-how (or expertise, to echo the comments made above on the quotation from Meyer & Rice (1982)) in the interpretation of signs for the assignment of relevance. This expertise involves the ability to exploit linguistic conventions on various levels. Harking back to distinctions made in earlier chapters, there is the need to be able to recognize indicators of local relevance, for instance signalling devices such as Meyer's "pointer words", as well as organizational structures on a more global level: higher level conventional structures which are called *formal schemata* by Carrell & Eisterhold (1983), *superstructures* by van Dijk & Kintsch (1983) and *top-level structures* by Meyer (1975).

Needless to say, the importance of textual structure has also been recognized by teachers and textbook writers, who have provided activities and exercises for the recognition and replication of textual patterns, or text types, as de Beaugrande & Dressler (1981:ch.IX) call them. In a sense, these are pedagogic variants of the models which I reviewed and applied to my own text in the preceding chapters.

However, these models do not seem to provide sufficient guidance towards a more effective enactment of the animator role.

True, some approaches do look specifically at the actual linguistic repertoire for signalling importance. Meyer (1975) puts forward four categories of signalling (see chapter 5 above). But I have argued that there are two big problems about Meyer's concept of signalling. One is her untenable distinction between "content" and "non-content" (i.e. signalling), the other is the fact that she does not make an attempt to offer a comprehensive list of linguistic realizations of her signalling categories, which results in the buck being passed to the language user, be s/he writer, reader, or analyst. I also pointed out that there is a certain discrepancy in Meyer's model between clearly defined elements on the micro-level, such as the analysis of individual propositions into predicates and arguments, and the much less well-motivated and thus operationally less reliable top-level rhetorical structures she posits. The crux seems to be that her model, designed as it is for a purely *ex post facto* analysis of recall protocols and their input texts, only serves a strictly one-way view of communication-in-text: the author is seen as a static, monolithic entity with no potential and no interest in genuine interaction with his/her readers. The readers' purpose is also fixed *a priori*: it consists solely in capturing the writer's intention. No room is allowed for the (in a discourse view, crucial) factor that readers might have purposes of their own. One could say that the reader implied in Meyer's model is a typical "submissive analyst" rather than an "assertive participant".

And yet, there are important factors Meyer considers which one would definitely hope to draw on for facilitating summarization: the recognition of the guidance afforded by knowledge of conventional text types, the usefulness of an

awareness of signalling devices, the insistence on the interaction (albeit theoretical) between content and structure.

So where can we turn to for an improvement of this state of affairs? What might help readers (and in particular the readers I am concerned with here, that is, advanced EFL students) become better animators?

The approach which to me seems to open up the most valid and profitable lines of enquiry is that of **genre analysis**, in particular in the form presented in a recent book bearing that title (Swales 1990). Swales himself provides me with a convenient transition in that he mentions the Meyer model in a way which is compatible with the criticisms I raised above:

Unfortunately, at least for the arguments in this book, the schema-theoretic research tradition in both L1 and L2 contexts has tended to rely on decontextualized textual samples that fit broad textual categories such as historical narrative or Meyer's five types of expository organization: collection, description, causation, problem-solution and comparison...There has been in consequence some neglect of communicative purpose and of looking at text in genre-specific organization. (Swales 1990:87)

The point to note here is that Swales' concept of genre is much more specific than, say, Meyer's structures. It is based on analyses of attested, or genuine, texts in an actual context, and with a real communicative purpose. Swales' definition of *genre* is complex, but for our purposes it will suffice to emphasize four main components: communicative event, communicative purpose, discourse community, and rationale. Here is the first part of his definition:

A genre comprises a class of communicative events, the members of which share some set of communicative purposes. These purposes are recognized by the expert members of the parent discourse community, and thereby constitute a rationale for the genre. This rationale shapes the schematic structure of the discourse and influences and constrains the choice of content and style. (Swales 1990:58)

To give an example, Swales points out (p.53) that *correspondence* does not constitute a genre because it lacks a set of shared purposes. To those who are used to working with much broader categories such as *expository prose* this may seem surprising. For instance, Carrell (1985:729) simply juxtaposes "the realm of narrative prose" and "the realm of expository prose". And Grabe (1987), although he concedes the need to characterize some "sub-text groupings" (p.116), sums up the findings of his elaborate empirical study thus:

The results of this study support the notion that **expository prose** is a **distinct text genre**, with its own particular textual dimensions, requiring its own instruction. (Grabe 1987:136)

In contrast to these very wide-meshed categories, Swales regards *correspondence* as "a supra-generic assembly of discourse" (p.53), and he goes on to say that even *administrative correspondence* needs to be divided up further to establish distinct genres, such as '*good news*' letters and '*bad news*' letters. Swales then demonstrates that although both these genres are formal responses to applications, or sometimes, complaints, it will not do to conflate them into one genre because they differ with respect to the rationale behind them. For instance, part of the rationale, for the '*good news*' letter, is that "communications will continue" (p.53), whereas for the '*bad news*' letter it is that "communications have ended"

(ibid.), and this rationale has important consequences for the way information is 'framed' (such as personal-impersonal), and thus for lexical and syntactic choice (e.g. passive-active voice).

The difference between Swales (1990) and earlier studies on text types, rhetorical structures and the like is that Swales provides a much more subtle and sophisticated approach to the analysis of text types. His book is a very careful and scholarly attempt to define much more precisely what these recurrent communicative events are, to define their rhetorical features and the ways these are commonly realized, or signalled, in English.

It would seem to be obvious that familiarity with such conventions must be very helpful, even indispensable, not only for writing, but also - and logically prior - for reading. In fact we are dealing here with a more sophisticated version of the idea that "text structure" facilitates comprehension, recall and summarization; cf the discussion of this in chapter 5, and Carrell (1985), Geva (1983), Reutzel (1985), Taylor & Beach (1984). And so we come back to the question posed above, as to what might help readers in general and advanced EFL students in particular develop their animator skills. Clearly the way to proceed would be to familiarize students with the more specific organization of genres - sets of communicative events - in order to provide them with reliable bearings for identifying salience. The idea is that if students know what the rhetorical conventions are, and how they are typically signalled in the text, then they can use this knowledge for selecting the information which is expressed in the typical sequence of moves which makes the text in

question an exemplar of a particular genre. The result will then be a summary modelled directly on, and thus reflecting, the generic features of the input text.

Some types of summary, namely *abstracts*, are themselves established as conventional genres (see Swales 1990:179ff), and although they are typically produced by the writers themselves, the conventions are presumably adhered to by those who do abstracts of other people's articles (for instance, *ERIC*, the U.S. Educational Resources Information Center, offers contributors the choice whether they want to write their own abstract or have one written by ERIC).

As I understand it, the crucial criterion, and thus the potential beacon guiding students' comprehension as well as their summarization of any given text is the **communicative purpose**:

The principal criterial feature that turns a collection of communicative events into a genre is some shared set of communicative purposes. (Swales 1990:46)

What seems to me to be pedagogically vital is that this communicative purpose could constitute the handle, or rudder, that helps students steer their course, even through texts which they find difficult at first.

It is precisely the absence of a clear indication of communicative purpose that has made the traditional practice of *précis*-writing so problematic: the only 'genre' conventions in evidence here are pedagogically and arbitrarily imposed ones: summarize in one third of the length, in your own words, for no specified addressee.

One line of enquiry emerging from this thesis, then, takes us into genre analysis to see whether and to what degree generic conventions can be more precisely identified in the original texts, and types of summary become established in reference to them. This line has to do with making students better submissive animators of textual meaning. I shall return to Swales for a discussion of his notion of *discourse communities* a little later.

It will be evident that instances of a particular genre are not all equally typical (cf. op.cit.:49ff). In a pedagogic situation where the teacher has chosen fairly unequivocal exemplars of a genre, this only strengthens the argument for using it as a guide for summarization: if the necessary and sufficient conditions are met for a given text to qualify for a particular genre, it will be all the more apparent to students what the important information is that needs to be represented in the summary. However, a lot of language use is not so readily recognizable as conforming to recurrent rhetorical patterns (and the magazine article I have been using throughout may be a case in point). But even if most of the texts we come across, or at least most of the texts we want (our students) to summarize, conformed to a recognizable generic pattern, the procedure suggested above of letting readers' knowledge of genre categories guide their comprehension is only applicable to the enacting of the submissive animator role.

But what of the assertive authorial role, the role in which readers provide not just an exegesis by saying what the writer means by the text, but an interpretation as to what the text means to them? It would seem that pedagogically, methodologically, fostering this role in students poses

much less of a problem than familiarizing them with rhetorical and linguistic conventions required for the animator role. After all, what is required here is not that they acquire knowledge from outside as it were, but that they establish a connection between the text and their selves. So presumably all they need in a learning environment is some encouragement to that effect in the task set them, some authorial licence. Assuming that this stage comes, as I have suggested earlier, when they have already acquired a repertoire of animator skills, this should create no great difficulties. And indeed, my students' reaction to the invitation to give a personal response, in a brief account, to the article amply demonstrates that they embarked on this enterprise with enthusiasm and, yes, great authority. Obviously, there was quite a wide range of responses. One or two students found it difficult to transcend the authority of the text and thus gave submissive summaries; it may be that giving more encouragement, or simply more time to get used to this novel kind of task, would help these students to make the text their own. The majority of respondents, however, did not feel inhibited at all by the authority of the text, and asserted their own, sometimes so much so that no reference whatsoever was made to the input text. In relation to my 'map of the territory of summaries and accounts' above, we could say that these students were taking full advantage of their rights as authors without making any reference to the original text whatever. As I will indicate later, however, there are aspects of the principal role in their performance also.

Similarly, some of the summaries strayed a little from the territory allotted to them in my map. There are a few that

could be regarded as too submissive, such as [A3], in that there is no clear evidence of selection according to (the writer's) criteria of importance, but rather a verbatim rendering of one or two sentences from the original. The number of these too submissive summaries, however, is very small indeed. On the other hand, there are quite a few which could be regarded as too assertive. This may be expressed in intrusions of the summarizer's opinion, such as "Ultimate freedom then becomes an unbearable burden" [A16] or "But women should not wait too long to make this decision..." [A6]. And in summary group B there is one extreme example of the writer making the text his or her own and offering a sophisticated discussion and critique which could not be further removed from a submissive exegesis, as in:

...The catching caption together with the first and last paragraph constitute an artistic piece of rhetoric which aims at something quite different from the series of implications it embraces. ...
 ... A counter-move of irony against the susceptibility of American society to statistical figures and against the malleability of the female faction by psychologically trained opinion leaders. [B18]

Needless to say, this protocol is also very assertive in its disregard of the 60-word limit set in the task: it is 217 words long.

There appears to be, then, a tendency in both summaries and accounts to veer towards the more assertive roles - too assertive in relation to the specific task and the specific purpose. Of course, to a certain extent this could be a function of the particular circumstances in which the protocols were produced: outside class time and outside

class 'legislation', without prospect of credits towards the course, etc. But it seems to me that certain observations are still general enough to be generalizable to other task conditions as well.

For instance, the above finding regarding the tendency towards disproportionate assertiveness can be related to the thinking behind the promotion of genre study in education in Australia (cf. Christie (1985/89), Kress (1985/89), Martin (1985/89), Stratta & Dixon (1991). As opposed to Swales (1990), whose approach is based on discourse analysis in a linguistic sense, the Australian 'genre school' also brings in the notion of discourse as social action. In a climate of free-ranging discovery learning, they argue, allowing children to be simply authors writing about their own feelings and their own world sidesteps the whole problem that children in fact are constantly constrained by the conventions of the society in which they live. And unless they know what these conventions are and how to utilize them for their purposes, they are going to be disadvantaged - an argument familiar enough from the debate about Standard English, Received Pronunciation, etc. Only when you understand, and are initiated into, the conventions of your discourse community, because that initiation provides you with rights (and rites) of membership, are you able to act out your role as an individual.

The main motivation behind their advocacy of genre study in general education has thus been to counteract excessive "creative writing" and to guide students into a knowledge of social conventions of different discourse types - not to make them conform but to make them aware of their

constraints so that they could operate within (and perhaps eventually transcend) them.

By analogy to my extensions of the application of Goffman's producer/speaker roles to receivers/readers, one could argue that a similar recognition of the conventions and constraints of the text is needed to counteract excesses in "creative reading". It is all very well to encourage students to make a text their own, but where do we draw the line? If they are asked to say not 'what the text means' nor 'what the writer means by the text', but 'what a text means to them', can a text be made to mean anything? Is the result utter interpretative anarchy?

The evidence from my empirical data suggests otherwise. As we saw in the previous chapter, despite the fact that the students did lend voice to their own, idiosyncratic interpretations, there were nevertheless also very clear commonalities in the meanings they read out of the text. There was a certain consistency in response across the accounts.

Why should this be so? One possible explanation might be based on the assumption that, following Swales (1990:24ff), the students belong to the same *discourse community*, sharing common goals, mechanisms of communication, etc. However, this conception of discourse community, which serves Swales to pin down the notion of genre, is rather too narrow to be very helpful for my concerns here. But Swales includes in his discussion a quotation from a paper by Bizzell, which afforded a more appropriate perspective:

In the absence of consensus, let me offer a tentative definition: a 'discourse community' is a group of people who share certain language-using practices. These practices can be seen as conventionalized in two ways. Stylistic conventions regulate social interactions both within the group and its dealings with outsiders: to this extent 'discourse community' borrows from the sociolinguistic concept of 'speech community'. Also, canonical knowledge regulates the world-views of group members, how they interpret experience; to this extent 'discourse community' borrows from the literary-critical concept of 'interpretive community'. (Bizzell, forthcoming:1, qu. in Swales 1990:29)

As I interpret it, (with some authorial licence), Bizzell's twofold definition is directly relevant to the distinctions I am considering here: the "stylistic conventions regulat[ing] social interactions" could be regarded as constituting, or including, the rhetorical conventions of genres, which I have argued could help students develop their expertise required for being successful submissive animators. And the "canonical knowledge regulat[ing] the world-views of group members, how they interpret experience" accounts for the fact that, in their interpretation of texts (which is one form of interpreting experience), my students did not scatter in all directions, performing a fireworks of interpretative promiscuity.

So a text cannot mean anything the reader wants it to mean because the reader, granted interpretative authority, will interpret it as an individual, but as an individual embedded in an *interpretive community*. As Bizzell points out, this term originates in literary theory, more precisely in Reader Response Criticism (Fish 1980, Scholes 1985, Freund 1987). And the notion of interpretive community was precisely the one I invoked in the previous chapter when first confronted with the finding that my

students' individual accounts seemed to share a certain basic ideology, certain assumptions and values. For Fish,

meanings are the property neither of fixed and stable texts nor of free and independent readers but of interpretive communities that are responsible both for the shape of the reader's activities and for the texts those activities produce. (Fish 1980:322)

The concept of interpretive communities is thus helpful in the exploration of the limits of the author role: clearly, for students to make texts into discourses of their own, they need to incorporate what they read into what they know and so efface the separate textual identity of their sources of knowledge and experience. That is what learning itself involves - in learning you summarize in your own terms and on your own terms. But there must be limits - because if you were entirely free to make meanings of your own, you would learn nothing from the text.

But there are also problems with the notion of interpretive communities. Freund (1987) points out that

[b]y 'interpretive communities' Fish does not mean a collective of individuals but a bundle of strategies or norms of interpretation that we hold in common and which regulate the way we think and perceive. (Freund 1987:107)

This conceptualization seems to leave very little room for individual world-views, ideologies and the like, which however (in my world-view and ideology) I would regard as a value which needs to be encouraged and fostered in education. In the concluding remarks of her chapter on Fish, Freund gives expression to similar concerns, but rather more eloquently:

...Fish's position so far has refused to face up to the ways in which the authority of interpretive communities might become grimly coercive. The salutary curb on subjectivity, without a corresponding curb on the authority of consensual norms, remains troubling. (Freund 1987:111)

Before trying to find a way around this newly identified problem it might be useful to summarize the main points that have arisen so far in this chapter.

1. A certain degree of convergence between writer's intention and reader's interpretation is necessary for learning from text (e.g. in the process of summarizing) to take place.
2. In order to be faithful submissive summarizers, readers need expertise as animators in the exegesis of writer intention, which might best be developed by familiarizing them with relevant genres.
3. But learning can only take place when students make texts into discourses of their own. Therefore they also need to be given warrant to enact an assertive author role, to exert interpretative authority in saying what a text means to them.
4. The notion of interpretive communities offers an explanation as to why there is no danger of unbridled individuality causing interpretative chaos, and thus inability to learn from texts: individuals are socialized into, and thus constrained by, shared sets of beliefs.

So far so good. But where does this leave us as pedagogues, and specifically as language teachers? Obviously, the question as to how submission and assertion, individual and society are to be related to one another is a major issue in education. How then do we indicate to students what the conditions for membership are in the relevant (FL)

discourse communities, and what the leeway is for individual action within those? In short, how can they learn to strike a balance between the animator and the author roles?

We can begin by (re)considering the traditional activities associated with comprehension and composition. Both of these are usually regulated in a way which we can relate to the roles I have been discussing. Thus, comprehension exercises can range across requirements that students simply make direct reference to information clearly signalled in the text, or need to infer meaning from the text or give their own reactions to what is said. We have here the three perspectives I previously discussed, namely what a text means, what the writer means by the text, and what the text means to the reader. Similarly, composition activities are traditionally ranged along a continuum from those which are "guided " to the extent that learners are simply required to compose sentences, to "free composition", where they are encouraged to express their own views in their own words. In both cases, then, we can see a continuum from animator to author involvement.

Taking a lead from these traditional exercises, one might propose summarization activities along similar lines. These could be regulated in terms of both text and task. With regard to the former, texts could be revised or devised so as to make the signalling of salient information and the generic structure explicit. One might then gradually introduce texts in which such signals were removed. As an alternative, instead of beginning with texts to be summarized and requiring students to derive summaries, a

reverse procedure might be adopted whereby students are required to expand summaries into more extensive texts.

With regard to tasks, these could be so designed as to engage the learner in relatively animator or author activities. Thus learners might first be required simply to identify and select elements from the text by explicit reference. This would be analogous to direct speech: the writer said "x". A more difficult task would be to get learners to infer propositional content in the manner of indirect speech: the writer said that x. This is already a shift towards authorship since it allows the possibility for the use of the learner's own words rather than verbatim recording. One might then move further towards authorship by asking for the report of illocutionary force, the provision therefore of upshot and not simply gist: the writer complained/denied/etc that x. Lastly one might require learners to express their own reactions, that is to say, the perlocutionary effect of the text, to say what it means to them: the writer is egotistical enough to assert that x. Here we move from version to account.

Another line of approach is to take up suggestions made by Hoey (1983:ch.3) and Widdowson (1979:ch.13) for the transposition of text into overtly interactive form. Hoey quite explicitly uses this as a means for identifying the kind of rhetorical structure previously discussed with reference to Meyer (chapter 5 above). This in itself would seem to lend some face validity to the procedure for our purposes. In a somewhat different, but related way Widdowson talks of this procedure as a way of identifying the focal as distinct from the enabling acts expressed in written discourse. The focal acts, in his definition, are

precisely those which constitute the main points which the writer intends to express, and the enabling acts those aspects of the text which provide the means for getting this focal, main information across (see also ch 2.4 above). Again this suggests that the procedure can be applied to our purposes.

The activity types that I have proposed, and which seem to derive naturally from the enquiry into summarization in the thesis as a whole, provide a set of models or templates for further exploitation in the conditions of real classrooms. They give me an agenda for work to be carried out with my own students in Vienna. The fact that these students were also subjects for the empirical investigation means that I could involve them also as participants and complement the activities I have outlined with "language awareness work" by making the empirical tasks themselves objects of enquiry. This in itself has the desirable effect of reducing the distance between the enquiry and its application. One method I would like to try and adapt for working on the empirical tasks with students is that described in Bleich's *Subjective Criticism* (1978) for responding to literary texts. Clearly, the activity types outlined are only models, hypothetical in character, and they will have to be evaluated and adapted in the course of implementation. But this is a projection into future developments, which takes me beyond the scope of the present thesis.

There is a further point I should like to make about these activities. It concerns the relationship between **pedagogy** and **education**. I have been arguing that an effective pedagogy for coping with written language, and for

integrating its receptive and productive modes, depends on recognizing and reconciling the roles of animator and author. This allows for meaningful output, so to speak, to be a natural extension from meaningful input. In this respect the proposals I make are consistent with recent work on SLA which points to the need for this kind of productive activity on the part of the learner (see for example Swain 1985).

But there is an educational aspect to this as well. Summarization can be understood as the process of learning and summaries the record of such learning. This is presumably why they figure so prominently in education. But this learning process also depends on the recognition and reconciliation of the two roles of animator and author. It needs to be clear to students, as to people in 'real life', which role they are expected to play. Education in general can be seen as the effective interplay of the two. The operation of the two roles is evident in the analysis of summaries and accounts in the previous chapter. Failure to recognize the distinction between them is what, more than anything else, makes problematic the models of analysis that I have reviewed earlier in this thesis.

One can argue, then, that getting the relationship between animator and author right lies at the heart of curriculum theory in general. A transmission view of education might be defined as one which gives primacy to the animator role: learning is seen to be a matter of conformity to established structures of knowledge. A progressivist view, on the other hand, gives primacy to the authorial role in the sense that it encourages discovery and the exploration of individual experience (see Clark 1987). The issues about

summarization I have raised in this thesis, therefore, would seem not only to carry some promise of practical applicability, but also to have implications of a wider and more philosophical kind, which bear on the nature of education in general beyond the more particular concerns of pedagogy. This is important, I think, because proposals for practical pedagogy in the field of ESOL have tended not to take into account the broader questions about the purposes of education, to which they should also respond. But English language teaching (and the teaching of any language) should presumably be accountable, in the last analysis, to educational values.

The writing of this thesis has also been an educational process in this sense. I, too, have been both animator and author, both in the understanding of other people's texts and in the writing of my own. However the product may be viewed, the process as a learning experience has been worthwhile in itself. And the value of this experience would elude all attempts at summarization.

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APPENDIX 1: STUDENT PROTOCOLS

[A1] The text "The Pros and Cons of Childlessness" deals with the situation and motives of American women between 35 and 45 who are childless. This group is divided into two categories: those women (and men) who decided to have no babies early in life and those who are not childless by real choice but by the circumstances of their lives. Some of the reasons for childlessness are given by interviews with women who belong to the two categories. {76}

[A2] The article reports on childlessness and states opinions of people interviewed. Two groups of childless women are categorised: the "deliberate type", deciding against having children, and the "postponers", not deciding at all. As to coping with childlessness, attitudes vary: some are happy, some do baby-sitting, and a third party regrets it, blaming feminism for their childlessness. {57}

[A3] Despite the fact that the birthrate among college-educated women 20 to 24 years old is rising, the assumption that fulfillment for a woman is having children is questioned by many people, especially by female college graduates of the late '60s and early '70s forged ahead in the male-dominated workforce. {49}

[A4] Childlessness is a growing aspect of modern times. Economic realities, childhood experiences as well as Feminist concepts encourage the young women, usually urban sophisticated and working, to childlessness. Some of them cope well with the situation, some do not. Compensation is made by "mothering", a healthy effect as a lot of women are not childless by real choice. The profound question whether to have children leads to a decision between narcissistic and natural ideals. {74}

[A5] Two categories can be made up of the childless people: the deliberate ones, in most cases influenced by their mothers' unsatisfied lives, and the postponers who often have economic or professional reasons. "Time got away from me," is a frequent argument. Nowadays society is rather tolerant towards childlessness but referring to psychologists it is the women themselves who doubt their decisions. {61}

[A6] These days a high number of people remains childless due to various reasons. As a matter of fact, the decision to have or not to have children is a profound one. There are certainly a lot more women who have a very hard time making the right decision, although they are quite aware of the pros and cons concerning this question. Thus, it is up to each woman to decide whether or not to have children. But women should not wait too long to make this decision because sitting on the fence too long might have the consequence that they cannot make this decision anymore. {105}

[A7] (In the article entitled: "The pros and cons of childlessness") the author groups childless people into two categories: the deliberate types who in general make their decision early in life, often because they perceived their own mother's lives as restrictive and unfulfilling. Moreover, they want men to share the burdens of parenting, (who normally want to have children, but leave child raising to their wives.)

(The second group are the so-called) / The postponers, (who) refuse to make a decision, allowing relationships, professional commitments and finally nature to make the choice for them. As to coping with childlessness, (the author claims that) some do very well (because they have found ways to satisfy their nurturing instincts) and some have regrets. {59/119}

[A8] The author analyses the pros and cons of childlessness. Childless people fall into 2 categories: the deliberate types and the postponers.

Given are opinions of the various people, ranging from outstanding feminist to medical doctor, as well as personal experiences of common childless women. It seems that for some people childlessness is a sane and good choice while for the others this is a regrettable decision. {65}

[A9] In America, having children is no longer seen as the only fulfillment for women. Many young women prefer to forge ahead in male-dominated workforce. There are two categories of childless people: the deliberate types and the postponers. Many of them find ways to satisfy their nurturing instincts, but also outright regret is not unusual, as the respective decision is a profound one. {63}

[A10] Since the 1950's far more people disagree with the attitude that only children can fulfill a woman's life.

It is more the decision a woman takes either to have a successful career or a household with children.

Coping with childlessness is a problem too, because some women question whether they violated the biological law or if they have failed life. {60}

[A11] People are discussing whether it is a woman's biological duty to have children or not. Historically seen women in the 60's questioned the moral imperative to reproduce and tried to make their way into the male-dominated job-market. There is the deliberate type and the postponers, two groups of childless people. The first group made their decision early in life based upon the bad experience of their own mothers. The others allow their career and nature to make the choice for them. {83}

[A12] This article deals with the fact that, nowadays, many women don't want to have children at all.

Some statements of childless women show that the main reason for this development is that they want to be able to realize themselves to the same degree as men can. At a

later date childless women, however, often regret not having had any children. {61}

[A13] Nowadays many couples decide not to have babies because they do not want to give their lives over to parenting. Many young women are well educated and fear that having children would change ?there/?these life and give up many things. Raising children the right way, no woman would have to give up her life. Many women regret their decision not to give birth to a child when they become older. {71}

[A14] Although the idea that female fulfillment lies in having children is being questioned, the birthrate among college-educated young women is going up. Nonetheless a considerable percentage (25%) has no children. The reasons for not having children fall into 2 types: the deliberate one who prefers self-fulfillment to the commitment of being a mother and the so-called postponers who lacked definite decision to say yes. {65}

[A15] In general, there seems to be a balance between the pros and cons.

Well educated and rich people, enjoying their way of life, tend to remain childless. Emancipation and the high degree of women working contribute to childlessness, too.

However, a lot of women regret their having no child when they are in their 40ies, so many of them and also men look after other people's children in order to be with children. {73}

[A16] Childlessness, whether chosen for materialistic or professional or personal reasons, has become a widespread characteristic of modern American society. Although socially accepted, the decision to relinquish the chance to have children often causes late remorse or a feeling to have violated a rule of nature or an urge to look for alternatives. Ultimate freedom then becomes an unbearable burden. {59}

[A17] The author begins with the thesis that fulfillment for a woman is having children. Then he immediately turns to the Pros for childlessness. He depicts the economic realities and divides the childless people in a group who decides early and a group of postponers.

Concerning the Cons the author speaks of violating a biological law and of fears of growing old without children. {63}

[A18] To have, or not to have kids - that is the question... which many young women ask themselves nowadays. Male-structured jobs and not earning enough money are the main reasons for remaining childless. However, later in life, some women regret their decision.

Childless people often satisfy their nurturing instincts through caring for their nephews and nieces.

To have, or not to have a baby is definitely one of the most difficult decisions in a young girl's life! {77}

[A19] The article in question deals with the fact that nowadays less women of child-bearing age have children. They choose not to have children either because they make a firm commitment 'against' children or because they postpone their decision to have a baby. Some women regret their childlessness, others, however, do very well without children, they devote themselves to other persons instead. {62}

[A20] The article "The Pros and Cons of Childlessness" discusses the reasons for a growing number of women to decide against children. In fact not all of these women really refused motherhood, but, by striving for a career, 'missed' to have children. On the other hand women, and also men settle on childlessness because of economic and moral considerations. {58}

[A21] Since the '60s more and more women consider carefully whether to have children or not. There are those women who refuse to give birth on feminist grounds, and those who simply postpone their decision. Today, society is accepting childlessness. Some women come to terms with their decision quite easily, others regret it in the long run. {56}

[A22] Does having children still mean fulfillment for a woman? Today less women have children than in the 50's and there are many reasons for it, most of which being personal ones. Many women are used to a big family and want children of their own. Others are devoted to their job or they never thought about children and time passed by. In general only few regret their choice and are basically happy with their life. {75}

[A23] People's attitudes towards childlessness are varied, but there is a trend among educated, successful American women to make a deliberate decision against having children.

They justify their childlessness selfconsciously, whereas regret is more common among the "postponers", who never make a firm commitment until it is too late.

What many childless people tend to is seeking substitutes. {58}

[A24] In the last few decades the question whether to have children or not has become more and more essential for women. Although a lot of women doubt whether having children is the fulfillment of their lives, the birthrate among young, college-educated women in the United States is climbing. The greatest drop was produced in the late sixties and early seventies and since then the birthrate has remained low. Important factors for that phenomenon are the change of living conditions, the people's different attitudes towards the standard of living, and also the fact that nowadays women want to share the duties of parentage with their husbands.

There are two categories of childless people: the deliberate ones who usually decide not to have children

early in life and the postponers who make a career, enjoy their lives and put off the children until it is too late.

Childless people either have no regrets at all concerning their state, or they blame feminism for encouraging them or their employers, who provide no satisfactory child care in their male-dominated jobs. {179}

[B1] According to statistics, childlessness in America is spreading. This tendency towards childlessness is even likely to be reinforced by economic realities.

It is especially the academics who either decide not to have children or postpone their decision until it is too late.

In some cases nephews or nieces serve as substitutes for one's own children. Still, it is not unusual that people regret not having had children.

On the other hand, however, birth rates are climbing among the youngest women and a certain baby boom is to be remarked, too. {90}

[B2] In today's America the number of childless couples increases. There are several reasons for this phenomenon: Young women have come to achieve a new attitude towards family and children. Many of them marry late and work outside the home. They have seen their mothers' unfulfillment in life and now want to be more independent. The text gives a number of examples why people tend to remain childless. It is, of course, a question of money and time, but it also requires patience and the renounce of many things (e.g. hobbies) {92} {good ex. of a long one saying little}

[B3] In contrast to the 1950s, more and more college-educated working women between 35 and 45 of today's America are childless. This childlessness is caused by different reasons: a career job, an early decision in life (having a baby is not fulfilling) or even the fear of raising the baby alone without any help from the father. Most of those women are satisfied with their childlessness but there are also many who might regret their decision later.

Nevertheless, in spite of all this, babies seem to be everywhere these days. Even the birth rate among college-educated women between 20 and 24 is rising. {100} {102 acc to me}

[B4] The essay "Childlessness" deals with the problem of American women who do not want to have a baby any more. A deliberate group of women decides early not to have a child, whereas the group of postponers leave the decision to nature. Nevertheless there can be now seen a tendency that the birth rate is beginning to climb again. {59}

[B5] Women's increased self-confidence and economic realities reinforce the spreading of childlessness in America. Women, who decide deliberately, must be distinguished from postponers, who let circumstances

decide. Many childless satisfy their nurturing instincts by "mothering" relatives and colleagues, many regret their decision. However, the birth rate among younger women is already climbing again. {53}

[B6] The article says that in today's America childlessness is spreading because the fulfillment for a woman is not any more to have children but to be part of a male-dominated workforce. Some women decide not to have children very early, others refuse to make a decision till it is too late. And there are also some who don't want to raise their children without the help of their partners. Some childless women regret their decision and some not. {79}

[B7] The number of childless in the US, particularly among the well educated, working women between 35 and 45 is increasing. Reasons may be traced in "economic realities", like the necessity of "two breadwinners to support a family" nowadays and the reality that "in male-structured jobs good day care is not available". However, a more subtle reason may be found in the women's questioning of the societal imperative to reproduce and be fulfilled as a mother.

Against this tendency a reinforced presence of babies in the media (movies, commercials) and even an increase of the birth rate among college-educated women 20-24 years can be observed. {103}

[B8] The article "childlessness: Are we dying out" deals with the spreading of childlessness in today's America. One of the main reasons for the low birthrate is the more expensive life nowadays. Different business women tell why they want to be childless. The question arises if it is a problem of feminism or society. Surprisingly enough the birthrate among college educated women increases. {62}

[B9] Nowadays childlessness, especially among the college-educated working women, is spreading. The childless fall into two categories: the deliberate types, often only children or firstborns who perceived their mothers' lives as restrictive and unfulfilling and the postponers who allow relationships, their profession and nature to make the choice for them.

But many of the childless regret their decision later and often blame feminism for encouraging their childless state. {68}

[B10] In today's America, childlessness is spreading. The childless rate is likely to remain unusually high. Those who have children have fewer newborns than their mothers. The childless tend to be well-educated, live in urban areas, marry late and work outside the home; as a group, they are not actively religious and can be divided into the deliberate types (they have always perceived their mothers' lives as restrictive and unfulfilling) and the postponers (they have never made a firm commitment to say no to having children - they don't have any for other reasons). Many women prefer going to work to taking care of children.

Nowadays, a single breadwinner cannot support as many persons as one could in the 1950's, Nevertheless, many men still want to have children. The problem is that most are content to leave child raising to their wives. The societal pressure to have children doesn't make itself felt anymore. Women don't associate fulfillment with having children anymore. The childless have already found ways to satisfy their nurturing instincts. They help to pay e.g. tuition fees for their nieces and nephews and take them along on special vacations. Still, there are childless who regret their decision not to have a baby - especially those who are in male-structured jobs with no good day care available. Movie films, television commercials - they involve babies. And the birth-rate among college-educated women 20 to 24 years old is beginning to climb. {240}

[B11] Nowadays in America the rate of childlessness is increasing, which could be caused by economic realities. The childless fall into two categories: the deliberate types and the postponers.

The first category make their decision early in life, often after realizing that their mothers' lives were restrictive and unfulfilling.

The postponers first want to succeed in their professions and then it is often too late to give birth to a child.

Moreover, women want their husbands to help them with parenting. Certainly many men still want children but most of them leave education to their wives. {95}

[B12] Nowadays, birthrates in America are considerably low. Economic realities and questioning of "fulfillment" may be important reasons, especially for college-educated working women between 35 and 45, who have the lowest rates. They can be divided into the "deliberate types", who generally decide not to have children in their early lives, and the "postponers", who refuse to make a decision.

Many of them start regretting and some blame feminism. {67}

[B13] In America the number of childless women - mostly well educated, marrying late, working outside home - is increasing. The deliberate ones decide early in life against children, the postponers refuse to make this decision because of their mother being a negative model, economic reasons and the men's lack of support in raising children. Later some of them regret it. But now this tendency seems to be reversed. {67}

[B14] In America childlessness is a phenomenon which is spreading especially among the well educated. There are two groups of childless: the deliberate type and the postponers. Both groups consider children as a burden or cannot afford to have children because of economic reasons. However, a lot of women regret their decision in later life. {55}

[B15] Nowadays a climbing childless rate can be observed in America. Especially college-educated working women between 35 and 45 seem to reject having children firstly because of their economic situations and secondly because childbearing is no longer regarded as the only fulfillment of a woman's life. The deliberate types who decide very early to have no children and the postponers for whom it is usually too late to get children. However, as statistics show this trend is not going to continue since the birth rate among women 20 to 24 years old already climbs. {90}

[B16] The spreading of childlessness in today's America is striking with 35-45 year-old-women who tend to be well-educated, live in urban areas, marry late and work outside the house. The reasons are that they regard their own mother's lives as unfulfilling or they miss the ideal age of receiving children.

Nevertheless, the birth rate among 20-24 year-old college-educated women is beginning to climb. {65}

[B17] In today's America, childlessness is spreading. 25% of college-educated working women between 35 and 45 are childless. One half of them decides in their early life not to have children, the other half has no children because they postpone having a baby for various reasons until it is too late. Nevertheless, the birth rate among younger women is beginning to climb. {59}

[B18] 1) Main points of the writer's intended meaning.

a) The catching caption together with the first and last paragraph constitute an artistic piece of rhetoric which aims at something quite different from the series of implications it embraces.

b) Female college graduates are spear-heading an unabatable strive for female egalitarianism in the meritocratic society of male America, which favours the egoistically minded, yet at the same time experiencing a growing sense of idiosyncratic seclusion and state of isolation of the female self. An experience that results from traditionally paternalistic guidance mechanisms (language) the same way as it does from a hidden determination to keep opposing trends and ideas at bay.

c) The skilfully designed introduction of people in the text, their sequence of appearing in connection with their points of views, revealed a campaign to monitor female activity back into the house by artifices of mass-psychologie were it not for the remark in the last paragraph '...backlash of sorts against...'. Up to this point the critical attitude of the writer is noticeable. A backlash not considered weighty enough in the face of a majority of 75% of graduates with children. A counter-move of irony against the susceptibility of American society to statistical figures and against the malleability of the female faction by psychologically trained opinion leaders. {217}

[B19] Childlessness is spreading among 35 to 45-year-old American women. The writer enumerates economic and feminist

reasons considering this development. Some women choose to be childless, others postpone childbirth. Finally, women often try to find different ways to satisfy their nurturing instincts or regret their decisions. Despite all that babies are used for economic profit and the birth-rate among younger women is increasing already. {64}

[B20] In today's America, childlessness is spreading. The childless tend to be well educated, live in urban areas, marry late and work outside the home. Basically, there are two groups: the deliberate types and the postponers.

Nonetheless, babies seem to regain their important role. The birth rate among college-educated women 20 to 24 years old is beginning to climb. {57}

[B21] 25% of college-educated working women between 35 and 45 are childless in today's America. In the 1950's only 9% (of the same age group) had no children. This increase largely depends on two factors: Firstly, on the economic reality. Today it takes two breadwinners to support a family of four. And secondly, on the women's change of opinion. There has been a change in the way of thinking, concerning the fulfillment of being "only" a mother. In spite of the advantages a childless life offers, the birth rate among college-educated women between 20 and 24 years is beginning to climb. {97}

[B22] Today 25 percent of American college-educated working women between 35 and 45 years are childless. These women can be divided into two groups: First, the deliberate types of women, who decide early not to have children on their own; and secondly, the postponers, who refuse to make a decision, but devote themselves fully to either relationships or career. Many childless people try to establish contact to their nephews or nieces, but a great number of them regrets not having children some day. Perhaps the current situation is going to change since the baby-boom on TV seems to make the birth rate climb again. {102}

[B23] Especially for educated women, having children is no longer the fulfillment of their lives. They prefer their careers to a life modelled after their mothers' lives. This negative example is, however, only one reason for remaining childless. Other women do not actively decide against children, but simply postpone them until it is too late. This tendency towards a life without family is strangely counteracted by the baby craze in mass media. {71}

[C1] *Yes or No - Why don't We know what We want?*

What strikes me personally in the article is obvious already from the title I gave to the account. I am not so much interested in the statistics given in the text, but in the more philosophical question why women act in different ways.

Although it is all-important that few children are born, because this development forms society, it is not those

facts that make me talk and think about the problem. It is very helpful to have commentaries, parts of interviews in a scientific, matter-of-fact text. From those statements the reader can judge freely. In case of theoreticians' explanations or opinions we are manipulated. {107}

[C2] *ME OR MY (?) CHILD?*

What strikes me most in this article is the sentence 'I either gave birth to someone else, or I gave birth to myself'. I personally have heard several reasons to stay childless, but this argument is the most egoistic one.

The woman sets up two categories: her life and the life of a child. It seems that it did never occur to her that she could link these two lives.

When I read this sentence, I was really shocked by it. {81}

[C3] *New Ideas*

Two aspects of the article stroke me particularly because I had never connected them with women emancipation: Firstly, the fact that economic realities have changed so much that it is nowadays more difficult to support a large family than in the 50ies and, secondly, the opinion of Gloria Steinem that giving birth to a child hinders ones own development. {59}

[C4] *Responsible Mankind*

What does surprise me in this article is that most of the many childless couples or singles seem to consider very well the reasons why they refuse to having a baby and the consequences they have to face by staying childless. {41}

[C5] *Growing egotism*

The article confronts the reader with a well known fact: many women decide not to have children. The article is interesting in so far that ?he lists some reasons - women try to explain why they do not want a child. A baby would take them too much time, they would lose sleep taking care of them. Self fulfillment is more important than raising a child, for men and women. This attitude reflects the growing egotism of our society, which can be discovered in other domains of our life as well. {90}

[C6] {no title}

What really stroke me was Gloria Steinem's quotation: ' I either gave birth to someone else or I gave birth to myself.'

The author of the article entitles her feminist ? I think this woman (Gloria Steinem) is very much involved in traditional thinking as to what role-repartition is concerned. Steinem thinks that a woman having a baby is automatically reduced to being "only" mother. But I think it is her own decision whether to accept this expectation - often represented by society - or not. If a woman is willing to keep up her firstly being a person of her own and secondly being a mother she will surely succeed. {108}

[C7] *Reasons for not having babies*

The most important and fundamental reasons for giving birth to babies or not are the economic realities and the fact that women have to work in male-structured jobs which give them a doubled burden when they have to educate children too. Only the minority of fathers share the burdens of parenting. That are the reasons why old (male) structures in the society remain and force women to stay childless. {70}

[C8] *"Against Childlessness"*

It strikes me that many people of higher education or position don't want to do anything for other people (e.g. babies). They don't want to be wakened at night and spend money or so. As soon as they (think they) are someone it seems they become egotistic and selfish and try to impose their work on others (i.e. wife or husband) and if she or he doesn't want to do the work either, no child is born. {79}

[C9] *Statement:*

Some people want to have children, others don't. As for the latter, they may have good reasons for their choice, or they may have none; some just will not spend part of their lives on raising children, others turn out to regret their hesitating later on. Personally, I don't care about people's having children or not, and I won't care about their justification either. {64}

[C10] {no title}

I was not very surprised by reading that many women don't want to have children although I do want to have some.

Many women think that having children means losing their freedom or giving up their careers.

I'm of the opinion that this is not true. I know several women who do have children and are successful at work. The only difference is that these women have their children at higher ages than women in former times so that they can think about their career first and later have children. I also think that today's young men like to take care for their children, it is no longer only women's work which enables both partners to work and enjoy some freedom. {121}

[C11] *Why not "childless"?*

Every woman has the right to decide whether she wants to have children or not. This decision is a profound and important one. Sometimes we condemn women who have decided against having children. We should accept them.

Fullfillment for a woman need not always be having children. {47}

[C12] *3rd CATEGORY OF CHILDLESS PEOPLE*

I think that it's not enough to categorize childless people as being either deliberate types or postponers. What about those who think that it's not fair to the (unborn) children to send them into world which is gradually destroying itself.

They say that 'Nature' soon doesn't exist anymore since there are so many catastrophies happening. As far as I'm concerned, this group must not be forgotten... {66}

[C13] *To have a child or to have not,
that is the question*

As a considerable number of college-educated women between 35 and 45 is childless but, on the other hand, birthrate among women of the same background between 20 and 24 is climbing one has to ask for the reasons of this. Obviously the decision against having children is a reaction against the traditional role of women in society. All of the childless women interviewed see their fulfillment in self-realization in their profession. Nevertheless there are women who later regret their decision against children. This fact seems to show that they are by no means free of the traditional society's belief and its demands of women. {102}

[C14] *Reasons for staying childless*

For me the most important idea in this article is, that most men are still not willing or able, causing from working conditions or working hours, to spend more time with their children. This means that women still have to do housework and education besides their job. So it seems to be only logical that an increasing number of women is not willing to bear this extra burden anymore. {70}

[C15] *A new trend?*

The fact that the birth-rate among college-educated women 20-24 years old is climbing strikes me of particular interest.

The article that follows does not really explain this new trend, but discusses the motives of women in deciding to have children or not in a general way.

(The fear of the former alcoholic couple that their kids would also become alcoholics was also quite interesting for me) {67}

[C16] *Has Our Life Become Too Expensive For Children?*

The fact that now it takes two breadwinners to support a family of four, while in the 50s a single breadwinner could support a family of five is for me of particular interest because this is the reason that many women have to go to work although they have children. Therefore I can understand that many don't want to be in a situation like that and rather don't have a child. {71}

[C17] {no title}

It is interesting that women can talk freely about this topic, especially that there can be found opinions of any kind, pros and cons. What surprises me is that - which seems natural with Americans - childless people say what they do with their paternal and maternal feelings.

So there is no hiding, no apologizing, and, I think, no uneasiness from the part of any person asked. {65}

[C18] *"LYSISTRATA 2000?"*

Obviously, the article deals with an evergreen problem, a kind of modern Lysistrata syndrome, as more and more women try to escape from the patriarchal society by refusing to give birth to their offspring. Furthermore, their highest principle is self-realization in a men's world. Yet in trying so they simply adopt their male antagonists's moral patterns and attitudes; but to put it in a nutshell: the original is always better than the copy! {74}

[C19] {no title}

Although the report tries to avoid giving a one-sided portrayal - presenting the views of various persons - it none the less reflects widespread prejudices as well as an extremely materialistic and egocentric attitude towards life. It makes certain domestic aspects of feminine existence into a religion, a pattern by which all women must now live or deny their femininity. {59}

[C20] *Child or no child. That is the question.*

Personally I think that it is always a couple's decision either to have children or not. Society has to accept their decision. For me it is no question - I'm not going to have children. The reason for this is that I don't like them. They make a lot of noise, work and cost a lot of money.

What makes me really furious is that some people cannot accept my decision. I often heard that I'm going to change my opinion. But I am now 26 and enjoy my life. My mother got me with 19 and she is now still young and a good friend for me. But I am too egoistic to take a burden, and a child definitely is a burden. I'm glad that my boyfriend thinks the same way. {130}

[C21] *"Nurturing Instincts versus "baby strike""*

Particularly interesting I found the categorizing of childless people, and the wide range of reasons given. The article succeeds in making the distinction between personal and social or moral factors that play a role in the decision if or if not to have a baby.

Personally I agree to the opinion of not having children when a real commitment and interest is missing, or when the child's fortune is at stake, like in the case of the two recovering alcoholics. The influence of feminist ideas, to have or have not children strikes me as less appealing. Interesting, especially, if find the possibilities of people finding "other ways in satisfying their nurturing instincts". {112}

[C22] *Nobody is safe from having regrets*

Apparently, having children or not depends on an individual disposition and situation. Trends are only the listing up of a number of such individual tendencies. But the recording of such trends can well influence individuals. Some people manage quite well without children of their own. They find substitutes for children or throw all their weight into their professions. But whether they decide to have children or not, like with all decisions in life, nobody is safe from having regrets. {79}

[C23] *Can anyone be blamed?*

The most striking thing was that some women "blame feminism for encouraging their childless state". The decision whether to have children or not is a very personal one and I do not believe that feminism can be cause enough for anybody not to have children. Perhaps these women are looking for someone else to blame because they feel guilty of not having done their "biological duty". {66}

[C24] *A dangerous division*

What strikes me personally in the article is the rigid division into two groups. I am of the opinion that a considerable number of childless women does not fit into one of them. It is taken for granted here that women "think" before having/not having a child. In many cases, women, out of biological or religious reasons, do not really have a choice. Why were these left out? {69}

[C25] *Social Pressure*

It seems to me that society's pressure on women to have children still is very strong. Many women feel that they are not regarded as "real" women by their environment just because they cannot or do not want to have children. Some people think it to be a woman's duty to bear children, regardless of the changing status of women in modern society. {63}

[C26] *"The Baby Strike"*

As to content, I found the statement made by Gloria Steinem (and summed up in the fifth paragraph) the most interesting aspect of the matter. If her hypothesis about the reason why many women chose to remain childless (referred to as the "deliberate types") is correct, the picture that emerges of the real situation of women today is far from rosy. It would seem that (also in the light of the evidence on the so called "postponers") while gaining independence through the possibility of taking on jobs, women are forced to neglect/sacrifice their (for obvious biological reasons) primary function as mothers. {102}

[D1] {no title}

As a female student the issue of this article addresses me directly. The first thing that pops into my mind is the question "Would I like to get a baby?" I am in the happy situation to have a loving friend who would surely help me if I would get a baby right now. But I must admit that I am not ready yet for having a child.

Right now I find my fulfillment in other things. I do not want to restrict my life too soon. If my job and my partnership are settled in a couple of years, I would like to become a mother and live together with the man that I love. {116}

[D2] *The childless - injured and abnormal*

The article's approach to childlessness is comprehensive, including social, feminist, philosophical dimensions of the phenomenon. The latter being the most interesting aspect, I would have been delighted to learn more about the

deliberate, "uncompromising" childless, who are so without being subject to social circumstances, alcohol problems or feminist aspirations. This group is hinted at by a summing-up of characteristics, "educated, urban areas, not religious,...", but further investigations only bring to light women who regret their childlessness, who spoil child-substitutes, who are disheartened by their mothers' example and question their female "normality". The tragic tenor, that the childless are unfortunate after all, remains. {104}

[D3] {no title}

In today's America, there are more and more women who decide against having children. While some of them argue that the kids are a "drag" spoiling their lives and especially their career, others believe that in our male-structured world there is no place for children: Women are not satisfied staying at home, they work out of house, but still the burden of parenting is on them, since there is no good day-care available. So they often have to choose between good job or having children. {87}

[D4] {no title}

Career, money and status symbols nowadays replace fulfillment through real values like love, happiness, feeling of security in a family. Especially Rohde's statement about the loss of sleep shows all the facets of selfishness and materialism in our time. Finally, regrets about being childless go hand in hand with the question for the sense of life - to achieve goods or human qualities. {63}

[D5] {no title}

I feel personally very much addressed by this article. Being in my early thirties it has been the question in my relationship with a man who is eager to become a father, even a cooperative one. I on the other hand feel quite content with my childless life, besides I wonder if I would ever feel the promised fulfillment a child is supposed to bring. What if this doesn't realize? The decision to have a child is such an absolute one, a decision of no return - and that's what makes me hesitate. {92}

[D6] *Childlessness in America*

Since the 1950s childlessness has increased considerably. One out of 4 college-educated working women is childless.

The childless can be divided in two groups: the deliberate types, who decide very early in life and the postponers who refuse to make a decision.

Relationships and professional commitments are more appreciated and the nurturing instinct is satisfied in other ways. {58}

[D7] ± CHILD

Many people would find it rather surprising that such a high percentage of women refuse to have children, but I think that everyone has the right to give life to another human being on her own decision.

In some cases it's due to the emancipation movement that women have to work in a men-dominated world, where is no place for children at all.

I want to have children on my own, but this doesn't give me the right to judge women who decide against having children. {88}

[D8] *Old lonely people*

The argument that not having children removes the concern of being a burden to your children in old age has another side. Where will you go when you are old and alone and have no children? I think there are already too many isolated old people. It is right to turn to one's children, because they understand that you need them, although they often do not show this. {68}

[D9] *"PARENTLESSNESS"*

Most of the time people talk about "having children" as if they wanted to buy a pet. I appreciate the fact that women rather decide against having children than having some just for the sake of it and make the children persons full of conflicts and problems. Having a child means to welcome a new human being in this world and to help him/her to make his/her way. This enormous responsibility ought to make one ask himself "Am I willing and able to have a child?" {88}

[D10] *THE CHILDLESS: SINKS & DINKS*

Due to economic realities more and more women between 25 - 45 decide not having children. These women tend to be well educated, live in urban areas and they are devoted to work outside the home.

For them childlessness is often a decision made early in their lives, they are the so-called deliberate types who regard their mother's life as unfulfilling and boring and therefore want to change their role as a woman/mother in today's society.

The other group of women, the so-called postponers, leave the decision of having children to nature and other commitments.

Today it seems that women are on baby strike, the birth rate is declining, the majority of women works. It is very obvious that women do not want to raise their children alone but with the help and support of their partner. Moreover, women are beginning to live their own lives without suppression by society - they can do what they want to do: having children or being successful at work without children.

It is up to each woman to decide for or against children! {181}

[D11] *"The Final End of the Beat Generation?"*

In the '50s artists like: Jack Kerouac, Neal Cassady, Allen Ginsberg a.m.o. gave birth to the Beat Generation. They rebelled against the U.S. society, its conformity, stereotypes and productiveness which caused depersonalization, unsatisfied parents and children. The family image has always been one of the most important supports for economy and for keeping conformity. But

through "social-well-fare" Americans became more selfish than the U.S. society wanted them to be. No children - to fulfill ones own life. Now, birthrate is climbing again - will that be the final end of the Beat Generation? {97}

[D12] Only a mother can really feel like one

No childless woman can really imagine how much she is missing in her life - that's impossible. Only a mother is able to feel this deep inner joy and the fulfillment that new life inside of her may bring and how much strength she may earn through the love towards her baby. No male can ever feel like that and no childless woman can either.

But everybody can lively and realistically imagine how much effort it may be to care for a baby, what a lack of freedom it may bring and what an enormous responsibility it means. Because that's what we can see: crying babies, tired parents a s o. But what we can't see and therefore can't feel either is the love and fulfillment a mother feels. A career will end one day, freedom will become less important and all your friends will slowly disappear -

but the love between a mother and her child will always remain. {160}

[D13] A mother is born

"I either gave birth to someone else or I gave birth to myself" (Feminist Gloria Steinem)

This shows the general attitude of today's women towards having babies. Women nowadays are well-educated and fear that they'd have to give up their lives when they decide to have children. But raising kids the right way, namely by enjoying, no woman has to give up her life - and she is enabled to give birth to a mother and a child. {78}

[D14] {no title}

What strikes me personally is that many women nowadays prefer a good job to a family with children. I know several women who later regretted having done so because they feel or felt alone.

The fact that people can be found who decided against having children because of possible diseases is quite striking. I think that such a decision is very hard, but that those people do the right thing. {70}

[D15] Structural analysis

The information provided by this article is understandably conveyed and extremely well structured:

After an introductory passage the author makes the disposition evident; thus the article is structured according to the criterium of deliberately chosen childlessness (first group of women) and postponed motherhood (second group of women). Each of these motivations is illustrated by examples, so that the reader is able to trace the reasons for this far-reaching decision in question. {72}

[D16] Not only women stay childless

The article is right in naming various reasons why women want to be more than mothers. But to me one major point is missing. What about our western, industrialized and civilized society. Not only women also men are to occupied by their careers. Their is no room for babies in our thoughts. {52}

[D17] Childless Generation

It is quite remarkable that there seems to be a generation of women, who felt the need to set a sign against the established value of family by their deliberate childlessness. I was particularly touched by the observation made in the article that a great number of these women regrets having made this choice when it is too late. They seem to have sacrificed their wish to have children in order to show that women want to be more than a mother. {82}

[D18] American women on baby-strike

More and more American women nowadays remain childless.

One reason is economy: it is a problem to support a family with only one income. Moreover, having children for many women is no longer their fulfillment. They do not want to commit their whole lives to children and be a burden for them in old age. Still, some women regret not having children. {62}

[D19] Who can afford to have children?

The fact that the increasing cost of living since the 1960s is one of the best reasons for the decrease in the birthrate obviously cannot be left out in a discussion concerning the problem of childlessness. Being a general phenomenon touching almost every domain of life, this topic should have been expanded into a more detailed examination of child raising in connection with its financial expenditure. {66}

[D20] Is "The Family" a dead issue?

A singular feeling of egocentricity pervades this article. No mention is made of the aspects of family life and its influence on the mental and emotional well-being of family members, nor of the adjustments necessary to achieve positive relationships.

The main objectives of the women interviewed seem to be self-realization and (instant) gratification, without considering responsibility towards others. The opinions express the current glorification of the individual and the drive to make changes at will.

It is interesting to note the desire for vicarious parenting, gratification of the need for human relationships without total committment. {97}

[D21] {no title}

I am surprised by the high rate of childlessness. Should women be responsible for this problem? No.

With the development of modern society women are not satisfied with confining themselves to houses by raising the babies any more. They want joint in the male-dominated

workforce & forge ahead. Society and men should support them. Husbands should share the responsibility of raising the children. {64}

[D22] {no title}

What I find very interesting is what Steinem says: the importance of giving birth to oneself. On the other hand, B. Friedan's thoughts sound reasonable, too: women feeling the permanent urge of showing their capability in a world dominated by men. This behaviour raises doubts whether they really wanted that or whether they have internalised the ruling values to such an extent that they are not even aware of it. {71}

[E1] *Childless Women*

Personally, it does not strike me that there are so many women who entirely refuse to take over the role of a mother without sharing it. I am of the same opinion and I am not sure whether I want to have children in the future. Thus I am very much interested in the statements which are given by women who are already at a higher age and childless. {69}

[E2] {no title}

The article discusses childlessness which seems to be a problem for some women and natural for others.

In our class we were eighteen girls and three of us are already married at the age of 20. One girl married because she was going to have a baby. It appeared to me we were all shocked when we heard that she was pregnant. "Now she can not continue to study at university." "She has to dedicate her young life to her child."

Such thoughts strike me although they are probably justified. But I consider statements as "I either give birth to someone else or I give birth to myself" or "chances are too high" that a baby of a recovering alcoholic would become an alcoholic too" as too extreme. This attitude however is a consequence of our society and progress and it depends on us whether we want to change or maintain it. {151}

[E3] *Two missing aspects*

One of the most important reasons why parents decide not to have children is mentioned only in a few lines, the economical factor.

One of the most hidden reasons is not mentioned at all, pure egoism. {36}

[E4] {no title}

Both, as a student and woman I feel somehow directly personally addressed. According to this article, those who choose not to have children tend to be quite educated and prefer their career, their life to the life of a baby. They try to avoid all the problems a working mother is confronted with.

As a female student I will (most probably) be confronted with this particular matter, too. For this reason this

article is of particular interest for me. It gives advantages and disadvantages of childlessness.

Nevertheless, Martha Smiglis' elaboration cannot effect my mind, which I made up a long time ago, in any respect: Despite the 'lost freedom' and a lot of misgivings, it simply must be possible to have both, a good job and children! {129}

[E5] *SOCIETY AND CHILDLESSNESS*

The fact that strikes me most about this text, is that beside of the boom babies seem to achieve regarding mass media, there is a tendency within our society to accept the personal and profound decision of a woman or a couple to remain childless.

The reasons for these decisions can't really be generalized. The motives depend on the personal situation of a woman.

It is also true that some people blame feminism for the increasing childlessness. But I don't really think so. {84}

[E6] {no title}

The article tells us that many young people decide against having own children. They've different arguments like their finances, independence, career, health or feminism. In spite of these facts economy tries to sell grown up products like insurances, automobile tires etc with the help of "giggling", "gurgling" newborns. Smiling children shall support business interests. {54}

[E7] *For and against childlessness*

As I am myself a girl who wants a career rather than a family this article had quite some interesting points.

Especially the different opinions for and against children. I do believe, as author Betty Friedan says, that a lot of woman would like to have children but as it is very difficult to have a career and children, many young women choose the career, particularly the ones who had an university education. {73}

[E8] *Children or Selffulfillment! Is this a contradiction?*

Although there is a boom in the movie business in producing "baby-films" the US's birth rate sinks, or stays stagnant. Today's couples find their luck without having children. Several reasons are mentioned: freedom, independence, don't want to be a burden when I grow old, selffulfillment etc. A social cowardness dominates. To marry and raise a family is one of our main principles in life. What for do we exist? To earn money as much as we are able to? To feed our ego?

We do exist to share our emotions and dreams in a community. The smallest form of society is a family - with children.

But in the end everyone is responsible for his life on his own. [119]

[E9] *A Baby - A Career - The fulfillment*

It was a hard struggle for women to gain the same or nearly the same rights as men. Nevertheless it is more or less up

to them to bring up children and consequently I do understand that a great deal of women prefer not to have a child. Both a baby and the career would be a fulfillment but unfortunately there are so many reasons for not having a child. {72}

[E10] *A moral imperative come into being again*

It is interesting to learn that after a long time of an ever decreasing birth-rate, 20 to 24-year-old women again follow a moral imperative to give birth. I have already observed this new "child-movement", but I doubt that these women's decisions are thought over properly. In my opinion these college-educated women fear the male-dominated society and its pressure they would have to withstand if they decided to undertake a profession. Instead they choose to give birth to children and stay home. That's what I personally missed in this text, which gives a profound collection of reasons why women have chosen to remain childless. They range from economic reasons, their own personal experience in their own childhoods, to feminism. It was already known to me that those who choose not have children are in most cases well educated, live in urban areas, marry late and work outside their home. They don't want to change their ways of living, which they would have to if becoming pregnant. {171}

[E11] *TIME FOR A CHANGE*

In the last decades it was the duty of women to bring up children. Their life-task was staying home, serving and cooking for their husbands.

But things have changed!

Women do not tolerate that men do not conducive anything to share the burdens of parenting. On the other hand our social system does not make it easy for women to have children. Women do not only rebel against conservative men, but also fight against the shortcoming in our social system. {85}

[E12] *WHO CARES*

What really strikes me is this general opinion the article reflects. I can not believe that women do have such an indifferent attitude towards having children. But also these shallow arguments as presented of women who are said to be well educated show, that most of them did not come to a well considered conclusion, but tried to escape from reality. {61}

[E13] *Decreasing birthrate*

The rate of childless women in the USA has more than doubled since the 1950s. Most of the women concerned belong to the group of those well educated (college graduates of the late 60s and 70s) who live in urban areas, marry late and work outside home. Feminist ideas and economic considerations seem to be the prominent reasons that cause women to renounce deliberately (mainly only children or firstborns) or delay getting babies respectively. {75}

[E14] *The childless century*

What strikes me personally in the article by Martha Smiglis is that many women actually plan not to have children or even object to children first of all. It is rather their dislike of sleepless nights and the extra work than the fact that they are in good jobs that prevent them from giving birth to a baby.

Further it was interesting to hear that nowadays finances do not allow one breadwinner to support a family of four, that means that both parents need to be working in order to have more children which is practically impossible. {97}

[E15] *BABIES ARE IN FASHION AGAIN*

What strikes me particularly in this article is the fact that the birth rate among college-educated women in America is about to climb compared to the past. Whereas in the late 60's and early 70's childlessness came "into fashion" as a result of women's emancipation, nowadays well-educated women in America seem to return to their "maternal instincts" again. How come this change of attitude? {66}

[E16] *BABIES - FULFILLMENT FOR A WOMAN?*

Being a woman, I am, of course, interested in the question of babies and their "consequences" in a woman's life.

As I, too, have found my mother's life restrictive and unfulfilling (she is not working), I thought to lead a different life. I somehow can identify with the group of women that choose to have no children, because I also want to "give birth to myself". Yet my opinion towards babies has changed and I take the view that they will not necessarily hinder your personal development (in fact they are a new experience), it depends on how you see yourself. {101}

[E17] *Problems of Childlessness*

Generally, the article happens to give striking examples of women being childless. Two categories are thus clearly emphasized, namely the deliberate type, the one who made the decision not to have children early in life and the postponers, who let nature make the choice. Both types of women are addressed in the article. As a result, if this trend in childlessness in continuing a decrease in the childrate is going to be feared in the future.

I think differently! {80}

[E18] *Childlessness and its roots*

Whereas only 9% of women had no children in the 1950s, 25% of college-educated women are childless nowadays. Reasons for this tendency can be seen in men's unwillingness to share the burdens of parenting and women's fears of responsibility. Besides it is hardly possible for women of certain professions to have children. Later on, many women regret their decisions. {58}

[E19] {no title}

What strikes me most is that it is the inability to take decisions rather than being superior to ordinary housewives that makes some of today's career women remain

childless. What those women really are is instruments of a completely career oriented and materialistic society. {46}

[E20] Profession and children - today's commonly accepted double load

Today's college-educated working women have fewer children than in the 1950s, and this implies already that going to work and having children cannot easily be reconciled. Whereas modern society claims for professional practice of both partners in the marriage, it fails, however, to acknowledge the double burden of a working mother. And as long as this has not changed, birth rate is unlikely to climb. {66}

[E21] Selfishness or economic pressure?

Deliberate renunciation of children is explained by the respective parents with rather selfish arguments. It is true that esp. women have to sacrifice their (potential) professional career at least to a certain degree for a child, but the real problem is that many couples are not willing to come down a peg or two in financial respects and prefer to spend all of their time for themselves. For me, this tendency for childlessness is a symbol of our society which becomes more and more selfish. {85}

[E22] Is there a relation between feminism and childlessness?

According to the statement of Feminist Author Betty Friedan, one of the questioned persons in the pool, there is no contradiction between fighting for the rights of women and giving birth to children. It should be stated more clearly that the biological ability of women to bear children does not necessarily mean that all women should regard this aspect as detrimental to their careers or as their only purpose in life. {71}

[F1] To Have or not to Have...

A considerable number of Americans decide not to have babies. Especially, well-trained, urban women who work outside home and have married late, decide against having a baby or postpone it for too long.

Childless adults, however, often occupy themselves with their nieces and nephews or foster newcomers and colleagues in their careers. {53}

[F2] BABY-BOOM

Although babies seem to be popular in cinema and TV-adverts, the number of women who remain childless is increasing. Most of these women are representatives of the late '60s and early '70s female college graduates.

Some of the women decide to have no children deliberately whereas others just postpone this decision until they realize that it is too late.

Nevertheless, the birthrate among college graduates now at the age between 20-24 years, is increasing. [74]

[F3] *Are we running out of children?*

Researches show that since 1950 more and more college-graduate women have decided not to have children. They are either deliberate types or postponers. According to Psychologist Goodchilds, not having children removes the concern of being a burden to them in old age. However, some childless adults feel regret at some point. As the birthrate among young college-educated women is in fact beginning to climb a backlash of sorts against childlessness may have already begun. {75}

[F4] *WOMEN ON BABY STRIKE*

Reasons for the drop in the birth rate are that many Americans cannot find fulfillment in being mothers, or are deterred from their mothers' restrictive lives. Another group of women, the postponers, leave it up to nature to make the choice for them. Nevertheless, many childless couples, now accepted by society, satisfy their parental instincts by spending time with other children. {61}

[F5] *To have or not to have - that is the question*

The decision to have or not to have children has become a profound one nowadays. In general, those who decide against children are well-educated and either deliberately choose to remain without children mainly for economic reasons and for reasons of independence and self-realization, or they simply fail to make a decision, but they let time do it for them. They only realize what they have missed when it is too late. {73}

[F6] *Childlessness - a matter of deliberate choice or a violation of the biological law.*

Despite of the new baby-boom in America, the question of childlessness is still a profound one. On the one hand, childless women are satisfied with their decision because of professional interests. On the other hand, there are discontented ones who seriously question if they have violated a biological law when they decided not to have children. {57}

[F7] *A DECISION OF GREAT SIGNIFICANCE*

Nowadays there are many women around the age of 40 who have no children. They either did not want to have any because of their career or their special conception of a woman's fulfillment, or they postponed this significant decision until it was too late and are now sometimes regretting their childlessness. Nevertheless, the birth rate has began to climb again. {60}

[F8] *A BABY? WHY?!*

Although babies seem to be everywhere these days, many Americans are questioning the assumption that fulfillment for a woman is having children. Of these, some choose deliberately not to have children, others postpone their decision until nature decides for them, Thus, the birth-rate is very low nowadays. {48}

[F9] "She's (not) having a Baby"

Although a baby boom seems to have broken out on TV and cinema screens, many Americans do not believe in a woman's fulfillment by becoming a mother. Some of them deliberately opt for childlessness, others postpone the decision. Recently, however, the birth rate among college-educated women, 20 to 24 years old, has begun to climb. {54}

[F10] Childlessness in the U.S.

In the 1950's, 9% of women of childbearing age had no children; now 25% remain childless, mostly well educated women from urban areas, who married late and work outside the home. They either deliberately decide not to have children or postpone it, preferring their freedom. Later many regret their childless state and try to satisfy their nurturing instincts at others. {58}

[F11] The reasons for the baby strike

Nowadays, many women decide to remain childless, partly because it is still hard to combine a happy family life and a full-time job and partly because they feel a life entirely devoted to children to be restrictive and unfulfilling.

On the other hand, there are also adults who regret the decision not to have children at a later stage in life. {62}

[F12] "Having children becomes popular again"

About 25% of the female graduates of the late 60's and early 70's are childless. This fact originates in the self-realization of these women who did not want to lead such a restrictive life as their mothers. Although these women have good reasons for this decision, some of them regret to lead a life without children and so it is not surprising that the birth-rate among college-educated women is climbing again. {73}

[F13] BABY BOOM FOR EVERYONE?

The rate of childless people is relatively high these days in America. People, more or less, decide either deliberately against having children or are forced into the state of childlessness by outward circumstances. There is, however, a backlash set to childlessness by college-educated women 20 to 24 years old, who get the birth rate going. {54}

[F14] American women on baby-strike?

Nowadays, a high rate in childless American women who are mostly college-educated, live in urban areas and marry late can be noticed. Reasons range from economic problems to the wish of independence and rejection of traditional roles to lack of time or opportunity. Most of the childless find other ways of satisfying their nurturing instincts, only few regret childlessness. {60}

[F15] The Baby-Busters

It has been noticed that during the last 35 years the average birthrate among the college-educated, urban

business women has considerably been decreasing for reasons of changed moral values, striving for success in their career as well as hard working conditions. These women either decide against children at a very early stage or they postpone the decision until it is too late. However, regrets about this decision are not unusual at a certain age. {75}

[F16] "Decreasing Birthrate"

The birthrate among well-educated women has decreased enormously. This trend is due to the current economic situation, to men's reluctance to share child-raising and to women's attempt to settle down in a business world dominated by men. However, there seems to be some backlash to this in the air. {51}

APPENDIX 2 : TASKS

Please write a summary (in no more than 60 words) of the following text, capturing as faithfully as you can the main points of the writer's intended meaning.

THE PROS AND CONS OF CHILDLESSNESS

These days many people are questioning the assumption that fulfillment for a woman is having children. This attitude is widespread despite the fact that the birth-rate among college-educated women 20 to 24 years old is actually climbing. So some Americans at least are not interested in fuelling the baby mania as evidenced by giggling, gurgling newborns in television commercials and such movies as *Three Men and a Baby*, *Baby Boom* and *She's Having a Baby*.

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Childless people fall into two categories: the deliberate types and the postponers. In general, the former make their decision early in life, often because they perceived their own mothers' lives as restrictive and unfulfilling. A dis-

proportionate number are only children or firstborns who had to care for younger brothers and sisters.

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Steinem believes one crucial point is that women want men to share the burdens of parenting. "Women are on baby strike. They have said, 'I'm not doing this by myself.'" Certainly, many men still want to have children; but most are content to leave child raising to their wives.

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—By Martha Smilgis

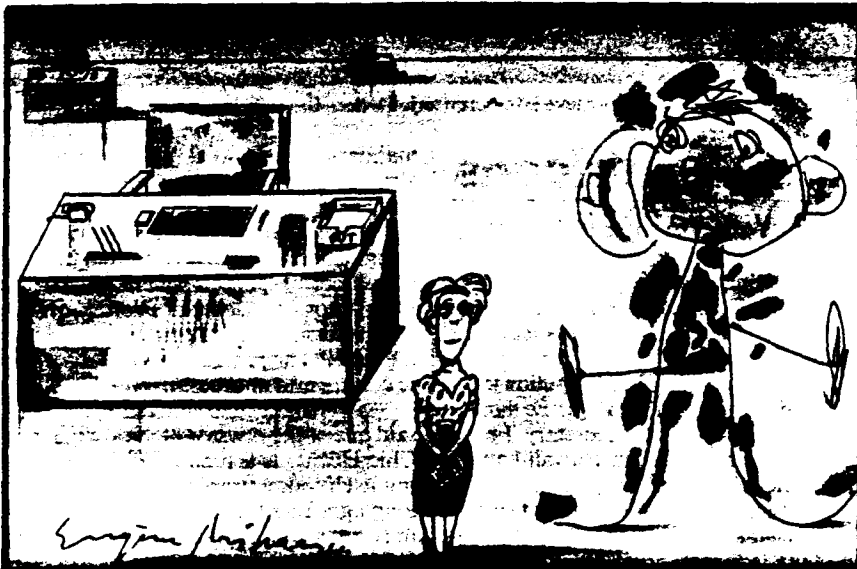


ILLUSTRATION CONTINUED BY EUGENE WINNESCO

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Other women feel the same way. New York Psychologist Felice Gans regularly hears "anticipatory regret" from female patients in their early 30s. Says Gans: "They ask, 'Will I regret this? What is wrong with me that I didn't want a baby all along?'" (She notes, however, that she also counsels many women who regret having had children.) Some discontented women blame feminism for encouraging their childless state. Feminist author Betty Friedan, who relishes her role as the mother of two children, sharply disagrees. She insists that feminists are addressing the problems of working mothers. "Half of the women who are childless at 40 are not childless by real choice," says Friedan. "They have not had children because they are in male-structured jobs with no good day care available."

A backlash of sorts against childlessness may have already begun: the birth rate among college-educated women 20 to 24 years old is beginning to climb. Nonetheless, the decision to have or not to have children is a profound one. Says Yankelovich: "Society is accepting childlessness, but some women question whether they have violated a biological law." Most childless adults who have deliberately made the choice enjoy their freedom with few misgivings. But some of those who find themselves sitting on the fence may have already made a decision they did not intend to make.

Bitte beantworten Sie die folgenden Fragen so ausführlich wie möglich (auf der Rückseite ist auch noch Platz!)

1) Was genau war es, das es Ihnen ermöglicht hat, die wichtigsten Elemente im Text zu identifizieren? Welche Textteile haben Ihnen den besten Hinweis geliefert, wovon der Text handelt?

2) Gab es Textteile, bei denen Sie nicht sicher waren, ob Sie sie in die Zusammenfassung aufnehmen sollen oder nicht? Wenn ja, welche und warum? ...->

3) Wenn die Zusammenfassung um 1-2 Sätze länger sein dürfte, was würden Sie hinzufügen? ...->

4) Gibt es noch irgend etwas, was Ihnen am Text oder bezüglich des Zusammenfassens aufgefallen ist? (z.B. war die Aufgabe einfach oder schwierig? Warum?)
[Ich bin für jegliche Bemerkung dankbar!]

Wenn Sie Ihre Zusammenfassung abgeben, legen Sie bitte den Ausgangstext bei, und versehen Sie jedes Blatt mit Ihrem Namen und Ihrer Gruppe (A od.B). Vielen Dank, dass Sie zu meiner Datensammlung beigetragen haben! Sie ermöglichen mir damit, in meiner Arbeit Theorie und Praxis zu verbinden. ...->

.0 . C.-1 068

Bitte beantworten Sie die folgenden Fragen so ausführlich wie möglich (auf der Rückseite ist auch noch Platz!)

1) Gibt es irgendwelche Beobachtungen, die Sie bezüglich des Ausgangstextes oder Ihrer eigenen Darstellung gemacht haben? (z.B., war es schwierig oder einfach? warum?)

2) Irgendwelche anderen Bemerkungen? [Ich bin für alles dankbar!]

Wenn Sie Ihren "account" abgeben, legen Sie bitte den Ausgangstext bei, und versehen Sie jedes Blatt mit Ihrem Namen und Ihrer Gruppe (C, D od.E). Vielen Dank, dass Sie zu meiner Datensammlung beigetragen haben! Sie ermöglichen mir damit, in meiner Arbeit Theorie und Praxis zu verbinden.

Hartmut Kroll

TRANSLATION OF POST-QUESTIONS

For the summary groups (A,B):

Please answer the following questions in as much detail as possible.

- 1) What was it exactly that enabled you to identify the most important elements in the text? Which text elements gave you the best indication as to what the text was about?
- 2) Were there parts of the text you were not sure whether to include in your summary or not? If so, which ones, and why?
- 3) If the summary could be 1-2 sentences longer, what would you add?
- 4) Is there anything else that struck you either about the text or about the summarizing? (for instance, was the task easy or difficult? Why?) [I am grateful for any observations you might wish to make!]

For the account groups (C,D,E):

Please answer the following questions in as much detail as possible.

- 1) Are there any observations you would like to make, either about the input text or your own account? (e.g., was it easy or difficult? why?)
- 2) Any other remarks? [Any observations at all are welcome!]

Behavior

The Dilemmas of Childlessness

Careers and indecision are leading many to bypass parenthood

P₁ Babies seem to be everywhere these days. Current movie fare offers *Three Men and a Baby*, *Baby Boom* and *She's Having a Baby*. Even television commercials are using giggling, gurgling newborns to shill for grownup products such as carpets, insurance and automobile tires. Yet despite the highly visible new crop of infants, not all Americans are sure they want to help fuel the baby mania. Observes UCLA Psychologist Jacqueline Goodchilds: "Many people are questioning the assumption that fulfill-

sion early in life, often after perceiving their own mothers' lives as restrictive and unfulfilling. A disproportionate number are only children or firstborns who had to care for younger brothers and sisters.

P₂ Consider Susan Peters, 36, a Los Angeles TV producer who has been married for ten years. Half jokingly, she speculates that her decision not to have children stems from her childhood play with Barbie dolls. "Barbie had a house, a car and a boyfriend, period," she notes. Peters has not been swayed by close friends who

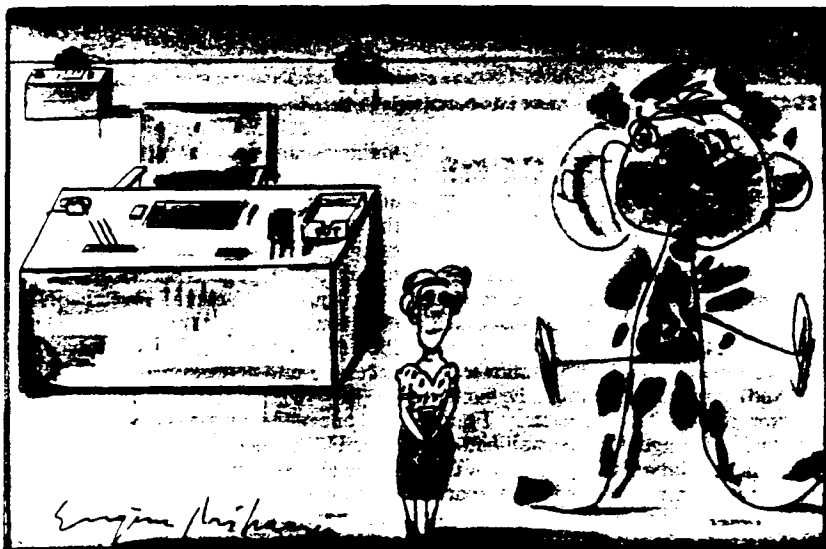


ILLUSTRATION FOR TIME BY EUGENE MINICCO

ment for a woman is having children."

P₂ By and large, the baby busters are female college graduates of the late '60s and early '70s who questioned the moral imperative to reproduce and instead forged ahead in the male-dominated work force. Many, of course, have had children, but in far fewer numbers than their mothers. In the 1950s, 9% of women of childbearing age had no children; now 25% of college-educated working women between 35 and 45 are childless. If their younger sisters, now between 25 and 35, also decide not to give birth, the childless rate is likely to remain unusually high. Moreover, the younger women's ambivalence is reinforced by economic realities. "In the 1950s a single breadwinner could support a family of five," says Public Opinion Expert Daniel Yankelovich. "Now it takes two breadwinners to support a family of four."

P₃ Those who choose not to have children tend to be well educated, live in urban areas, marry late and work outside the home; as a group, they are not actively religious. They fall into two categories: the deliberate types and the postponers. In general, the former make their deci-

have babies. "They spend the first three months staring at the baby. I won't give my life over to that. The Smurfs become your life." Feminist Gloria Steinem, 54, also made a deliberate choice. "I either gave birth to someone else," she explains, "or I gave birth to myself."

P₃ The postponers refuse to make a decision, allowing relationships, professional commitments and finally nature to make the choice for them. Dr. Karen Rohde, 40, a suburban Chicago obstetrician, has some regrets about not having had kids, but is devoted to medicine and her second marriage to a man with grown children. "Time got away from me," explains Rohde. "I never made a firm commitment to say no to having children. Now I've decided it is not going to happen. Whenever I see a particularly sweet-looking baby, I just think of what they're like when you take them home. Then I'm glad I'm not the one who has to lose sleep taking care of them."

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are content to leave child raising to their wives. Still, some men are opting for childlessness too. Ed McCrary, 41, a recovering alcoholic who works for a rehab center in Charlotte, N.C., and his wife, also a recovering alcoholic, have decided against having children because the "chances are too high" that the baby too would become an alcoholic.

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—By Martha Smolga

MODIFICATIONS

CHANGES MADE TO PRODUCE VERSIONS A & B: rearrangements, added signalling, and deletions.

Structures described in relation to original: paragraph numbers refer to original, new paragraphs forming the list below represent paragraphs in versions A & B.

Version A: DESCRIPTION:SPECIFIC

last sent P1 + *these days*; elements from P9: climbing birthrate + *despite the fact* + *actually* + *this attitude is widespread*; elements from P1: baby mania + *so* + *interested in* + *as evidenced by*.

P2 plus " " for baby busters & first half P3

second half P3 they -> *childless people*, after perceiving -> *because they perceived* & P4 & first half P6 + *one crucial point is that*

P5 + *although she* & second half P6 myself -> *by myself*; minus *still*, and minus " "

three quarters P7; + *As to coping with childlessness, some do very well and some have regrets*. the childless -> *childless people* + *many* & rest P7 & P8

P9 minus part already used at beginning; + *in short*

Version B : COMPARISON:ADVERSATIVE

second half P2 + *In today's America, childlessness is spreading*. minus *now*, + *as opposed to*.

last sent P1 + *nowadays* & first third P2

P3 Those who choose not to have children -> *the childless*

P4

P5

P6 myself -> *by myself*; + *even*

P7

P8 Other women feel the same way -> *There are other women who feel just the same way*;

P9 + *nevertheless, in spite of all this*; + first half of P1; + *and, what is more*; summary statement (Nonetheless - end) deleted.

APPENDIX 4

MEANING UNITS/T-UNITS (<original article)

<u>no.</u>	<u>meaning unit</u>	<u>t-units</u>
1	babies everywhere	1
2	movies, TV	2-3
3	not all Americans want children	4
4	assumption fulfillment for a woman = having children	5
5	many people question assumption	5
6	baby busters: female college graduates	6
7	late '60s, early '70s	6
8	questioned moral imperative to reproduce	6
9	forged ahead in male-dominated workforce	6
10	fewer children than their mothers	7
11	1950s: 9% of childbearing age childless	8
12	now 25% childless of:	9
13	college-educated	9
14	working women	9
15	between 35 and 45	9
16	if women 25-35 also decide for childlessness	10
17	childless rate likely to remain unusually high	10
18	economic realities	11
19	1950s: single breadwinner enough for family of 5	12
20	now 2 breadwinners needed for family of 4	13
21	those who choose to remain childless: well-educated	14
22	live in urban areas	14
23	marry late	14
24	work outside the home	14
25	as a group, not religious	15
26	2 categories: deliberate types and postponers	16
27	deliberate: early decision	17
28	see mothers' lives as restrictive & unfulfilling	17
29	only children or firstborns	18
30	Susan Peters: Barbie doll	19-21
31	has not been swayed by friends with children	22
32	won't give her life over to the Smurfs	23-25
33	Gloria Steinem: deliberate choice	26
34	either gave birth to someone else	27
35	or gave birth to myself	28
36	postponers refuse to make a decision	29
37	allow relationships to decide for them	29
38	[and/or] professional commitments	29
39	[and/or] finally nature	29
40	Dr Karen Rohde: some regrets, medicine, stepchildr.	30
41	Time got away from me	31-33
42	losing sleep taking care of babies	34-35
43	Steinem: women want men to share burdens	36
44	women are on baby strike	37-38
45	many men still want children	39
46	most leave child raising to their wives	40
47	many men opting for childlessness	41

APPENDIX 5 : Meaning Units in Protocols

M-Unit	Group					
	A	B	C	D	E	F
1	0	3	1	0	4	5
2	0	6	0	1	4	3
3	16	21	6	5	8	9
4	7	8	0	3	5	4
5	6	8	0	3	5	4
6	1	1	0	0	1	3
7	5	0	0	7	2	2
8	1	3	2	1	2	2
9	5	6	1	3	3	1
10	0	1	0	0	0	0
11	1	2	0	1	3	4
12	2	6	0	1	3	4
13	0	8	1	1	2	1
14	1	8	0	1	1	0
15	4	9	1	1	1	1
16	0	0	0	1	0	0
17	0	1	0	0	0	0
18	6	12	4	4	6	3
19	1	1	2	0	0	0
20	1	2	2	0	1	0
21	4	7	1	3	5	5
22	2	3	0	2	2	4
23	0	5	0	0	2	3
24	2	6	5	5	10	6
25	0	1	0	1	0	0
26	15	15	4	4	2	11
27	5	9	0	2	2	1
28	4	7	0	2	2	3
29	1	1	0	0	2	0
30	1	0	0	0	0	0
31	0	0	0	0	0	0
32	1	0	2	3	2	2
33	0	0	0	0	0	0
34	0	0	4	1	2	0
35	2	0	7	4	5	2
36	3	9	0	2	2	7

M-Unit	Group					
	A	B	C	D	E	F
37	2	4	0	2	0	2
38	6	5	0	2	0	2
39	5	10	0	1	1	9
40	0	0	0	0	0	0
41	3	0	0	0	0	1
42	0	0	3	1	1	0
43	2	4	2	3	3	1
44	0	3	0	1	1	0
45	0	3	0	0	0	0
46	1	4	2	1	2	1
47	0	0	0	0	0	0
48	1	0	2	2	2	0
49	11	6	3	3	0	4
50	3	2	1	1	0	2
51	3	1	1	1	0	2
52	3	2	1	1	0	1
53	3	2	1	1	0	2
54	1	0	1	0	0	1
55	0	2	1	0	0	0
56	1	0	0	0	0	0
57	1	0	0	2	1	1
58	13	11	3	5	1	8
59	0	0	0	0	0	0
60	0	0	0	0	0	0
61	0	0	0	0	0	0
62	4	3	1	0	1	1
63	0	0	0	0	2	0
64	2	0	1	2	5	1
65	1	0	0	0	1	0
66	3	3	2	3	3	2
67	1	0	0	0	0	2
68	3	16	2	1	1	6
69	3	7	2	0	1	4
70	3	11	2	0	1	4
71	4	0	0	0	1	2
72	3	0	1	1	0	1
73	5	1	2	1	0	1
74	2	2	0	0	0	0
75	2	2	0	0	0	0
76	1	0	0	0	0	1

