Recent trends in text linguistics[3]

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I Introduction

The title of this presentation opens up a whole research field, namely text linguistics. On the other hand, text linguistics, which dates back to the late 1960s or early 1970s, is a fairly young field compared to many other fields. Hence, the delimitation of the topic indicated by the words 'recent trends' allows me to concentrate on what I see as prominent developments within the last decade or so.

In order to put the discussion of these developments into perspective, I will start by giving a short historical account of how text linguistics has developed from its embryonic stage some three decades ago to what today may be called a research field which has gained at least some independence from its parent discipline, general linguistics. However, as will become clear from my discussion, I do not see text linguistics as an autonomous discipline. The field of text linguistics as it appears at the beginning of the 21st century is an interdisciplinary field. It is marked by heterogeneity rather than homogeneity in approaches to its research object, the text. These approaches are to some extent shared with its parent discipline.

As already indicated, I have chosen to define 'recent' as including the past decade only. Some of the trends which I intend to discuss in the main part of my presentation have remained strong throughout the decade. This applies to research on genres, while more recent technological progress has supported the development of new research areas, for instance the establishing and use of large electronic text corpora, sophisticated software to process naturally occurring text and the development and study of hypertext.

At this point I shall also have to state what I have chosen to exclude from my presentation. The field of linguistics is riddled with terminology problems,

which is perhaps due to the simultaneous development of schools and approaches throughout the global research community without a common arena for terminology standardisation. Relevant for my discussion here is the confusion caused by the two terms *discourse analysis* and *text linguistics*. To some researchers they are synonymous terms. To others, the first is regarded as designating the superordinate concept and the second is considered a hyponym. Others again treat them as designating different concepts, usually with discourse analysis covering spoken interaction such as e.g. conversation analysis, and text linguistics comprising the study of written communication. In the following, I take text linguistics to imply written communication only. However, I shall not deal with critical discourse analysis, which does include work on written text, as exemplified in the work by Fairclough (e.g. 1995).

A trend which might have been discussed is the renewed interest in intertextuality, which to some extent has been spurred by developments within hypertext, which I do intend to look at. However, the concept, which was first discussed by Kristeva in the late 1960s (e.g. Kristeva 1986), is today often used in a rather loose sense about the relationship a text has with previous texts. At this point in time, there are few discussions of concrete linguistic manifestations of the concept in the text linguistics literature.

I will also say very little about the issues of translation and didactics, both of which have obvious connections to text linguistics. Finally, I shall not consider text linguistic research on literary works.

The trends which I have selected for discussion defy neat categorisation and frequently display overlapping features. A case in point is the fact that cognitive approaches to text have gained ground in recent years and are reflected in for instance current research on text condensation. Research interest in text genres has been boosted by the increased focus on LSP texts, which is another trend observed. Hence, the outline and discussion of the trends selected for this presentation will necessarily be characterised by this situation.

The structure of my presentation will be as follows: I start by providing a short survey of the early beginnings of text linguistics, focusing primarily on how research within the new hyphen discipline develops from earlier research in the parent discipline. I continue with a look at how text linguistics establishes itself as a more independent research field in the 1980s. I then turn to the core part of

common feature of all these studies was primarily that their object of study was text. Pedagogical studies emerged, both on the development of first language competence and in foreign language acquisition contexts. There were also studies of other kinds of text than those studied by the story grammarians. A case in point is the work on news text, again with van Dijk as an important contributor (e.g van Dijk 1988a and 1988b).

The task of classifying texts can be traced back to the very early days of text linguistics, for instance Werlich's *Typologie der Texte* from 1975, but the 1980s can be regarded as the decade when work on text categorisation proper really got under way. We find text typological studies focusing on text typology and translation, for instance the work carried out throughout the eighties by Reiss and Vermeer (e.g. 1984). In addition, studies on specific genres started to emerge, such as Bazerman's influential study *Shaping written knowledge* from 1988.

We are now edging up to what I have defined to be the time period where I shall look for recent trends in text linguistics, namely the period from around 1990. The year 1990 should not be regarded as a turning point in the history of text linguistic research. However, the trends I intend to focus on in my discussion here do manifest themselves throughout the decade of the 1990s in a large number of publications reflecting these approaches to text.

The first trend I intend to discuss is the increased interest in cognitive approaches to text linguistics. This trend must be regarded as a trend permeating much work done in text linguistics in the last ten years. It also plays a part in most of the other trends discussed. The other trends which I see as prominent are as follows: an even stronger interest in genre research, supported by increased interest in LSP texts; increased focus on text adaptation, especially manifested in work on popularisation of special knowledge; and last, but certainly not least, the exploitation of the computer in the study and processing of text. This last-mentioned trend incorporates areas such as corpus design and the study of text by means of electronic corpora, automatic text condensation, as well as the development of hypertext structures. All of these sub-areas will be considered in the following.

III Recent developments

1. Cognitive aspects

As the last part of Stoddard's description of 'text' indicates, she sees mental processes as vital and necessary components in the discussion of texts, their production and their reception. The cognitive aspects of text analysis have become increasingly prominent in research carried out throughout the nineties. In the 1970s much work focused on linguistic characteristics in the description and classification of texts, for instance Gopnik's 1972 study on scientific text and Halliday and Hasan's account of cohesion in English from 1976. The 1980s saw the incorporation of the pragmatic aspect of textual research. This was a natural consequence of the emerging view of text as a communicative unit, to be used for a particular purpose in a particular setting. The Skopos theory of translation developed by Reiss and Vermeer is a typical example of this. Genre research, which I shall return to in the next section, also added to the literature considering the pragmatic dimension of texts.

During the 1990s, we see more and more areas of text linguistic research being characterised by the incorporation of cognitive aspects in the interpretation of the data. The notions of schemas and frames, developed by researcher such as Rumelhart and Minsky in the 1970s, have in a way been rediscovered and brought to bear on research in a number of text linguistic areas. Again genre analysis may be singled out as a relevant field of manifestation. By including the cognitive level in the analysis of text we direct the focus of attention on the participants in the communicative event manifested by the text, that is the text producer and the text receiver. A text is no longer a static object to be studied in that capacity. Rather, it takes on dynamic aspects on its way from producer to receiver. In the production phase the writer must try to anticipate the reader's reactions. The reader, on the other hand, will process the text according to his or her own knowledge and beliefs. Hence the text becomes what Hoey (2001) calls ' a site for interaction' (2001: 10).

Other fields where cognitive aspects have made their mark are translation research and text condensation. The recent popularity of so-called think-aloud protocols in the study of the mental processes behind such activities bear witness to this. Work by Danish researchers on the process of translation is recorded in a collection of papers from 1999, entitled *Probing the process in translation: methods and results*. Within text condensation, work has been carried out

in Germany by Brigitte Endres-Niggemeyer and her colleagues, which aims at explaining the knowledge processing activities that take place when professional abstractors condense texts (1995).

In pragmatics, a new theory to explain communication was launched by Sperber and Wilson in the late 1980s. The theory became very influential after the publication of their book *Relevance: communication and cognition* in 1986. Building on the cooperative principle and conversational maxims developed in Grice (1975), it focuses on **one** such principle which, it is argued, can account for all language use. This is the principle of relevance. Relevance theory posits a cognitive framework for language use, claiming that the purpose of communication is to 'enlarge mutual cognitive environments' (1986: 193). University College, London, has remained a stronghold of Relevance theory, but it has also become popular in many other research environments, for instance in Scandinavia. The theory has, however, been criticised for being too general and all-encompassing, and for disregarding the social dimensions of language (e.g. Mey 1993).

As a final manifestation of the increased interest in the cognitive aspects of text analysis I would like to mention the co-operation taking place between researchers belonging to the field of artificial intelligence and text linguists. The formulation of rules for the generation or processing of text in a computer clearly implies a mapping of the mental processes involved when humans perform such tasks. This is again a topic which I shall have opportunity to return to later in my presentation.

2. The genre concept

With the development of genre studies the research questions changed from HOW to WHY. Hence register analysis, focusing on statistically significant features to categorise texts as exemplified in for instance Barber (1962) and Biber (1988), gave way to studies whose primary aim was to say why texts looked the way they did. The notion of 'discourse community' became crucial in the explanation of why language was used in a specific way. Discourse communities are defined in Swales (1990) as 'sociorhetorical networks that form in order to work towards sets of common goals' (1990: 9). The genre, Swales claims, belongs to the discourse community rather than to the individual.

Genres are defined mainly on the basis of their communicative purpose; texts hence become the objects of socio-cognitive investigations.

Swales has remained the most influential representative of such research. His 1990 study on genre analysis was inspired by an interest in language teaching, especially the teaching of English for specific purposes. Swales focused on language used in academic and research settings. He developed a model for describing the rhetorical structure of the research article, which has become known as the IMRD structure. Swales maintains that

> [t]he acquisition of genre skills depends on previous knowledge of the world, giving rise to *content schemata*, knowledge of prior texts, giving rise to *formal schemata*, and experience with appropriate tasks (Swales 1990: 10, italics in original).

Hence the proper interpretation of a textual instance of a genre hinges on access to the appropriate schemata underlying the genre.

Bhatia, in a study from 1993, continues in the genre tradition developed by Swales, but he takes the genre concept into professional settings with studies of the business letter and the analysis of legal discourse.

An even stronger emphasis on the socio-cognitive approach to genre research is found in Berkenkotter and Huckin's study from 1995, entitled *Genre knowledge in disciplinary communication: cognition/culture/power*. The authors state in the preface to their book that:

> [o]ne way to study the textual character of disciplinary communication is to examine both the situated actions of writers, and the communicative systems in which disciplinary actors participate. It is these two perspectives that we present in this book' (Berkenkotter and Huckin 1995: ix).

The implications of the last three words of the title of their book – cognition/culture/power – are hinted at in the following quote from a section called 'Community ownership':

> Our own research on discourse communities has led to our growing attention to the ways in which the genres of academic writing function to instantiate the norms, values, epistemologies, and ideological assumptions of academic cultures' (Berkenkotter and Huckin 1995: 22).

3. Text linguistic studies of LSP texts

We have seen how genre studies may involve the use of language in professional settings. Let me now focus on the concept of language for special purposes – or LSP – as such. Language use in texts communicating specialist knowledge has for a long time been subject to linguistic investigation. Early work on LSP texts focused on the use of special words, or terms, as labels for concepts that are the building blocks of particular knowledge fields. Throughout the 1980s, the study of special language text started to include other aspects in addition to terminology. The texts were studied as texts, with a particular focus on their communicative function.

This shift in approach has continued in the nineties and is clearly reflected in the papers presented at the LSP symposia held in this period. As the proceedings from these symposia show, the text linguistic sections grow at the expense of terminology-related work. The same trend is nicely expressed in the title of the 1988 anthology of some of Lothar Hoffman's articles on LSP research, namely *Vom Fachwort zum Fachtext*. As mentioned during my discussion of the genre concept, genre studies were to a large extent based on the use of language in academic or professional contexts rather than texts to be used in the private sphere.

There have also been comprehensive text linguistic studies of LSP text in the Scandinavian countries, with work carried out by for instance the LSP research group at the University of Uppsala, headed by Britt-Louise Gunnarson and several projects at the University of Vaasa, led by Christer Laurén and Marianne Nordman.

In the German literature the concept of 'Fachtextlinguistik' incorporates several strands of research based on the study of LSP texts. According to Kalverkämper (1983), Fachtextlinguistik incorporates:

> the study of special texts on all levels of linguistic description, which must always use the textual entirety as a methodological background: Thus it has to consider the pragmatic circumstances, the textual constitution and macrostructure, the means of coherence, the characteristic features of special syntax, the terms, which should be regarded as condensates of memorized texts fulfilling the function of definition, and, further, the problem of comprehensibility of terms and of special texts' (Kalverkämper 1983: 165 - 166).

During the last decade, all these various aspects have been dealt with by researchers in the field of LSP studies. An impressive collection of, and extensive reference to, such work can be found in the 1998 *International Handbook of Special-Language and Terminology Research*, edited by Hoffman and Kalverkämper.

This brings me to the problem of defining the object of study within LSP research. How should the concept of language for special purposes be distinguished from language used for so-called general purposes? While some definitions of LSP restrict it to language used in specialist-to-specialist communication, such as the definition in Sager et al (1980), a much more common view is to regard texts used in such a symmetrical communication situation as representing one end of a continuum, rather than seeing LSP and LGP texts as belonging to discrete categories. Much text linguistic work done on the communication of specialist knowledge belongs in the field of didactics, with special focus on the linguistic performance of non-native speakers in special fields of knowledge. As for the mediation of special knowledge for use in truly asymmetrical communication situations, that is, in communication between specialist and lay person, this is the realm of text adaptation, which will be discussed in the next section.

4. Text adaptation

In specialist-to-specialist communication, text plays an important part in the progress and development of the subject domain represented in the text. In popularised accounts of special knowledge, text serves a very different purpose in the communication process. Hence, as the target audience for the text changes, the role of the text changes, too. This fact is reflected in the discourse strategies employed by the text producer.

The trend is for an increasing share of leading-edge research to be communicated to the interested public, especially in the medical field. While specialist writing tends to focus on problems and concepts in relation to the research field as such, popularised accounts usually focus on the significance of the concepts and problems to the reader as an individual. Fahnestock, in an interesting contribution to the field of text adaptation from 1986, describes how the change in rhetorical situation leads to changes in information. Later contributions which have been more explicitly directed at linguistic phenomena in such information

adaptation processes include for instance work undertaken by Myers. A case in point is his 1991 study on the differences in cohesive patterns found in scientific research articles and popularised accounts of the same research.

Much text adaptation is undertaken by journalists, who interpret and adapt specialist information written for a different purpose and a different audience. In many cases, the researchers find that the adaptation has been less than success-ful, as witnessed by the many comments sent to the editors of the media where the popularised accounts appear. It seems to me that some of this criticism is caused by a lack of recognition among the researchers of the changed rhetorical situation of the information and the difference in roles played by a newspaper text and a research article. Today, however, it has become a general requirement in most research communities that the researchers themselves must make their results available to the general public. It seems likely that further investigation into the various aspects of text adaptation may provide researchers in general with better tools for fulfilling the requirement of mediating their research to a lay public. This will allow the specialist to be in control of the information in a better way.

5. *The computer in text linguistic research*

In the year 2000 we have all grown accustomed to using the computer when we do research. Practically all of us will use it in the actual writing up of our work, and many of us also use it to perform various operations on our data. Those of us who do research involving written text benefit in various ways from software programs, to a large extent developed in the last ten years or so, to handle lin-guistic data. Some of these programs perform simple operations such as finding all occurrences of a particular word in a text or checking the spelling of the words. Most word processing programs today include such features. Other pro-grams have been developed to handle collections of electronically available text, so-called corpora, often running to millions of words.

These programs may perform relatively simple as well as quite sophisticated operations on the texts in the corpus. In the first category we may refer to the identification of concordances in text, that is, strings of words with a common search node. This provides the researcher with information on the company a particular word or term keeps. This in turn may reveal new things about the meaning and usage of it. In the second category, including more sophisticated

operations on textual data, we find programs that for instance are able to analyse the content of the text, to select important information from it and to produce a new text based on this information. Such programs are developed in the field of artificial intelligence and involve highly complex algorithms. I shall return to this point in my discussion of text condensation. But first let me deal with the issue of corpus design.

5.1 Corpus design

We have now entered the domain of another hyphen discipline within linguistics, namely corpus linguistics. However, it is obvious that questions arising in connection with the compilation of an electronic corpus of texts will need answers which relate to text linguistics in an obvious way. This will not be a thorough discussion of all the relevant issues in corpus design. Such a discuss-ion can be found for instance in John Sinclair's 1991 book called *Corpus, concordance, collocation*. A very good account of recent developments in this field is provided in Pearson (1998). Here I shall only point to a few aspects of corpus design that involve text linguistic considerations.

Compilers of electronic corpora must decide whether whole texts should be included, or whether text extracts are sufficient to identify or investigate particular linguistic phenomena. Well-known examples of so-called sample corpora for English include the LOB and Brown corpora, as well as the more recent British National Corpus. Developments in storage capacity have now also made it possible to establish full text corpora. The text linguistic researcher must then decide whether samples of text are sufficient, or whether only full texts may provide satisfactory answers to his or her research questions.

The size of the corpus is also an issue which needs to be dealt with. The question of size is of course closely linked to the issue of representativeness. A general reference corpus needs to be much larger than a special purpose corpus in order to be representative of the language or subset of language under investi-gation. While general corpora today may comprise hundreds of millions of words, it seems to be generally acknowledged that special purpose corpora may be significantly smaller and still be representative.

Text linguistic studies involving the design and use of electronic text corpora must also consider aspects relating to text classification. Genre considerations

will be very important in the setting up of all kinds of corpora, while topic or subject domain may be an important variable in the design of special purpose corpora.

5.2 Automatic text condensation

In the introduction to the part of my discussion dealing with the use of computers in text linguistics, I mentioned automatic text condensation programs as examples of sophisticated computer programs for handling text. Condensation programs that perform a semantic analysis of text as a basis for the actual information condensation belong in the field of artificial intelligence which deals with natural language processing. Such deep condensation programs require vast knowledge resources, in addition to knowledge of cognitive processes relevant to the task. There is also a need for sophisticated linguistic analysis tools in order to generate satisfactory output. The main problems developers of such programs are facing today are related to the lack of adequate knowledge resources and information on the mental aspects involved in human text condensation.

Another strand of research within automatic text condensation deals with the development of condensation programs based on knowledge about text. This is a more shallow approach to the task, and one which has enjoyed wider success than the deep programs. The deep programs tend to be very restricted in use. Sometimes they may be successfully applied to only one text or a few similar texts. Several of the shallow programs, however, manage to produce satisfactory output for texts belonging to a specific genre or type of text irrespective of subject domain.

The programs exploit knowledge about how texts are structured or organised. Features used by these programs are, for instance, meta-comments, such as phrases like: 'The purpose of this paper is to...' or 'In this paper we have shown...' or lexical patterns to identify significant passages of the text as signalled by the author. My own work on automatic text condensation (Dahl 2000) includes an evaluation of the lexical patterning method for identifying essential information in research articles. My results are interpreted as providing firm support for using lexical signals as pointers to passages which contain information on what the text is about.

Such an analysis of text may also be performed manually, as demonstrated in Hoey (1991) and Stotesbury (1993). But, as all text linguists know, analysis of naturally occurring text is a very complex and time-consuming activity. The computer makes it possible to process much more data. Hence, longer texts and more texts may be investigated. This may provide new insights into the mechanisms involved in the linguistic features studied, and also gives a firmer basis for making claims about text.

5.3 Hypertext

The availability of text in electronic form opens up for a possibility to create document structures which are nonsequential. The World Wide Web may be regarded as a global hypertext structure which may be accessed via the Internet. In hypertext structures, the documents involved contain cross references to elements which may be accessed by many different routes. Elements in a single text are hence part of networks of information nodes. As a consequence, the reading of a text may involve 'detours' to other texts to find more information on particular aspects of the text in focus. This of course changes the concept of text processing by a reader. The sphere of the single text is augmented. Most likely the reader's perception of the text is altered compared to how it would have been processed without the links to other texts. In a paper presented at a recent Hypertext conference in Germany, Cole (1999) looks at the use of the metaphor of 'surfing' in a hypertext context:

> ...the term points to a fusion of freedom and constraint that I find inherent in the act of hypertextual reading. The surfer must follow lines of force already present in the waves, but with skill he or she can move with great freedom within and across those lines. So, too, with the hypertext reader. Nodes and links set up certain lines of force; the reader as surfer rides those lines through the work. Each 'run' will be different, lasting longer or shorter, yielding more or less interesting results' (Cole 1999: Web-paper).

For text linguists, this way of processing text makes it necessary to take a fresh look at the old research questions of text coherence, cohesion and structure. In addition, the genre and text type concepts take on new aspects in hypertext environments. A case in point is the reading of literary works with access to factual information through links in the narrative text to other documents representing other kinds of text. Other considerations relate to issues connected to text production. How does text written for use in a hypertext structure differ from text which is not?

So far, a fairly small body of research exists in the field of linguistic hypertext research, but the current trend is for any conference including text linguistic aspects to have at least a few contributions within this new field. Scandinavian examples include work by for instance Martin Engebretsen, a Dr. art. student at the University of Bergen, who studies various issues of hypertext in journalism (e.g. Engebretsen 2000) and Anne Ellerup Nielsen, a researcher at the Aarhus School of Business, who compares how companies present themselves on the Internet through home pages and in printed material (e.g. Nielsen 1999).

III Concluding remarks

During this short journey through the field of text linguistics as it has evolved over three decades, I have only been able to scratch the surface of some of the many relevant aspects of the field. I have also primarily concentrated my presentation on the European tradition, which I know best. In this concluding section, I try to point to common features of the trends I have focused on. I also attempt a look into my own personal crystal ball in the hope of being able to identify some issues which may be relevant to text linguistics in the years ahead.

In my view, the development of text linguistics in the last decade may be summed up by reference to three concepts, namely cognition, special knowledge, and the computer. These concepts obviously belong primarily in other research fields than text linguistics, and to take them into the realm of the text is once more to demonstrate the truly interdisciplinary nature of text linguistics.

The increased focus on mental processes underscores the role of text as a dynamic concept rather than a static – given – entity. The writer must try to anticipate the knowledge base from which the reader will interpret the text, and the reader must see the writer's mental platform in order to work out the intention of the text.

As the so-called knowledge society develops further and becomes ever more specialised, it becomes necessary to pay increased attention to the many aspects involved in the dissemination of special knowledge in various domains. Most of this knowledge will be spread through texts of different kinds, both in the shape of the familiar genres and text types, but also in new shapes created by the new media.

While the somewhat older generation has primarily embraced the e-mail message as a new form of communication, the younger generation has been born into the age of the electronic media. Today many seven-year-olds have their own personal home page, while older siblings use chat rooms and mobile phone text messages as important means of communication. In academic environments, the introduction of Internet-based teaching forces us to find new ways to mediate our knowledge. Most likely these new forms of communication will imply a rethinking of the concept of text. We are for instance likely to see that the division between oral and written communication will become even more blurred than today.

However, what today seems like complete anarchy and lack of regularity in the new communication forms, may – when the field settles – turn out to be just a different exploitation of familiar text linguistic features. It seems safe to end my presentation by the prediction that text linguistics will remain a dynamic and challenging hyphen field of linguistics.

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