

Text commenting devices in German and English academic articles¹

CHRISTIAN FANDRYCH AND GABRIELE GRAEFEN

Abstract

This paper presents some of the results of a pragmatic and comparative (English–German) investigation into text commenting devices – speech actions by which writers comment explicitly on the textual arrangement they have adopted – in a corpus of academic articles chosen from a variety of disciplines. Our main objectives have been to clarify the concept of text commenting speech action, and the role of such speech actions in text organisation, as well as to compare their occurrence and linguistic realisation in our corpus texts. The linguistic differences proved to be of particular significance, as they seem to reflect different ways in which text structure is conceptualised in both language communities.

0. Introduction

In this paper, we report on some results of a pragmatic and contrastive (English–German) investigation into specific textual elements of academic articles – those phrases or passages that we call ‘text commentaries’ or, more accurately and using speech act terminology, ‘text commenting speech actions’. Our empirical investigation is based on two corpora – a German corpus, comprising at present 19 research articles, and an English corpus with 17 research articles. The articles have been taken from academic journals in many disciplines.²

Our main aim has been to investigate more closely the differences between the two corpora with regard to text commentaries. It is obvious that our investigation merely indicates some tendencies in our own corpus and cannot claim any statistical relevance. We hope that our results may, however, inspire further contrastive research based on larger corpora.

Text commentaries are part of the author’s text organisation (see section 1). Inter-lingual differences in the usage of text commentaries could

therefore be construed as evidence for the existence of two different ‘discourse communities’ (in our case a German-speaking academic discourse community in contrast to an English-speaking one). For any such generalisation to be made, a much larger empirical basis would be needed than the one we can currently draw on. Therefore, where certain differences in text organisation between our two corpora can be observed, these should be interpreted with all necessary caution and should not lead to hasty generalisations.

The main focus of our study is not on text organisation but rather on the different linguistic realisations of text commenting speech actions in the respective languages. Text commentaries are part of the respective English or German academic language culture. We speak of academic languages as ‘cultures’ because they have been formed as part of a very long process which started with the demise of Latin as an international language of science. Since then, these vernaculars have developed into specialised and efficient means of thinking about and describing increasingly complex knowledge systems.

Section 1 gives an outline of our concept of text commenting and its role in text organisation. Section 2 describes our corpora and the methodology in more detail and gives the first general result arising from our investigation. In section 3 we look at the different forms and functions of text commenting, while in section 4, we analyse in some more detail the language used for text commentaries in both languages. We focus on the use of the modal verbs (section 4.1) and those lexical items which express the author’s concept of his own text as some sort of ‘deep structure’ (section 4.2). Finally, we discuss the results and possible consequences for intercultural questions (section 5).

1. Text commenting and its role in text organisation

1.1 The organisation of academic texts

For our discussion, it is crucial first of all to explain the concept of *text organisation*. We reserve the term ‘text’ – as opposed to (oral) discourse – for those instances in which communication takes place in a situation other than the original speech situation.³ Hence, text is fixed and transferable to a host of different situations, independent of the one in which it was originally produced. Ehlich (1983) speaks of an ‘extended speech situation’ (*zerdehnte Sprechsituation*), where there is no common ‘sphere of perception which is accessible to the speaker’s and listener’s senses’ (Ehlich 1992: 205). This division of the speech situation into two seemingly independent situations of production and reception may make it seem somewhat problematic to use the terms *speech action* or *linguistic*

action when referring to a text. But we are convinced that text linguistic research has to reconstruct the inner links of authors' and readers' goals and activities in dealing with the text, and linguistic action terminology allows us to remember that a text bridges a gap between speaker and listener.

The extended speech situation also has far-reaching consequences for the way in which academic texts are organised. Their structure is normally designed in accordance with certain genre-specific demands and principles. These principles have come to be established over the long history of academic communication. They are important, though not obligatory in a strict sense: it is the author's decision whether or not and to what degree he wants to follow any text-norms that may exist in his (sub-)discipline. Authors of academic articles generally intend to organise their texts in such a way that the readership is able to fully comprehend both the content of the text and the value of the contribution in question.⁴ Thus, it is the author's inner model of the reader which will determine, for example, the length and structure or the degree of exhaustiveness of a text. The same holds for non-verbal features, such as paragraph structure, the types and formats of headlines, as well as graphic elements, fonts, etc. Text connectors are another example: making logical connections explicit is a way of producing and ensuring a good organisation of propositional content in the mind of the reader.

Thus, the category of 'text organisation' is not only static, but also pragmatic: the academic text serves as a tool that equips other members of the academic community with an item of complex, structured knowledge, and the author therefore endeavours to help the reader process the new information and integrate it into his/her knowledge. This twofold nature of 'text organisation' – meaning the *result* of structuring as well as the author's structuring *activity* – may help to explain some of the contrastive differences we report on later (see section 4.2).

1.2 *Text commenting*

We reserve the term *text commenting* for those speech actions which are concerned with the structure of the text, resulting in text passages that are sometimes called 'metacommunicative'.⁵ We prefer not to use terms such as 'metadiscourse' (Crismore and Farnsworth 1990; Van de Kopple 1985) or 'metatext' (Mauranen 1993), because they are only motivated by the question of reference of the proposition. 'Text commenting' refers to a linguistic action which has a certain function for text organisation.

It is with the help of these linguistic actions that the author comments explicitly on the textual arrangement s/he has chosen. These types of linguistic action are not, of course, confined to written communication.

In everyday oral discourse we often comment on or judge the ongoing interaction – in particular when there is a likelihood of misunderstanding, or when a specific communicative goal is endangered. In (academic) texts, however, such comments have an anticipatory rather than a repair character, due to the extended speech situation. Text commenting supports the reader in his/her understanding and orientation with regard to certain aspects of the text. The author steps back for a moment in a way and adopts the role of a commentator of his/her own text, explicitly directing the reader's attention towards the structure of text and its internal coherence. This constitutes a sudden change of theme or, more precisely, an interruption in the treatment of the 'primary subject matter' (Mauranen 1993: 146). This may be illustrated by two examples:

- (1) a. ... die interessanteste Größe die Pegeldifferenz Auf die Konsequenzen dieser Größe für den Einsatz von Lautsprecheranlagen *wird später noch eingegangen*. ACUS a8
- b. This distinction *is examined in a subsequent section* ('Interpretation of best-fit Gaussian parameters'). FISSION a21

2. Corpora, methods and a first general result

The texts we have analysed belong to two corpora which comprise at present 19 German and 17 English articles taken from academic journals in many disciplines.⁶ In contrast to other research, our intention has been to include a wide variety of disciplines in both languages in order to get a fuller picture across the whole spectrum of academic discourse. The texts were written by native speakers,⁷ thus minimising the risk of linguistic transfer. As the texts were not chosen systematically, the two corpora are not parallel in terms of the disciplines included.⁸

From these texts, we have extracted a total of 340 text-commenting passages, 183 in German, 157 in English. These passages sometimes consist of single clauses, sometimes of several sentences. The English and German text commenting extracts are comparable in structure and length, as both corpora contain short and long passages, consisting of at least one, and up to five, complex propositions in which we sometimes find several types of text commenting. In order to achieve a provisional quantitative measure, we have counted those phrases or parts of a text-commenting passage that contain an autonomous verbal phrase with a linguistic action verb, i. e. the emphasised parts of the examples in (1) above.

Almost every academic article in our corpora contains at least one or two text commenting actions, with the exception of two of the English texts (from Literary Studies and Medicine) and one text in the German

corpus (Physics). We can say that the frequency of text commenting, when every single phrase is counted, is similar in the English and German corpora, though there are great differences between individual texts. Thus, in an overall sense, the picture is quite similar in the two corpora.

In both languages, many of the text commentaries are quite short and are inserted routinely. They are combined with an assertion which is part of the main body or the propositional content of the text. We believe that this is due to the fact that they should not impede the smooth comprehension of the propositional content.

As has been mentioned earlier, our corpora are too small for any claim to representativity, and in our view any corpus would mainly serve heuristic purposes. However, the comparable frequency and distribution of text commenting in the corpus texts do show that commenting is a structuring device used in a routinised way in both academic discourse communities. This general similarity encourages us to undertake a more detailed analysis of the linguistic realisation of these speech actions in both languages.

In correspondence with the theory of 'Functional Pragmatics' (FP), developed by the German scholars Ehlich, Rehbein and Redder, we endeavour to reconstruct the linguistic and mental activities of speakers/listeners or writers/readers.⁹ We also draw on the theory of Functional Grammar being developed in FP.¹⁰ In addition, we take into consideration empirical work influenced by Systemic-Functional Linguistics (SFL), contrastive studies in grammar and text linguistics (e. g. Clyne's work on cultural influences on academic writing traditions, cf. Clyne 1987, 1991), and other text-linguistic studies on academic discourse.

3. Types of text commenting

3.1 Type 1: Declaration of main objective(s), topics and approaches of an article

This type of text commentary introduces the reader to the general topic, the approach, or the objective of the text. It typically occurs at or near the beginning of a text, and it enables the reader to place the text in the context of similar research. Examples include:

- (2) a. *In this paper I argue that interactional gender mechanisms can operate as an 'invisible hand' that rewrites gender inequality into new socioeconomic arrangements as they replace the prior socioeconomic bases for gender hierarchy. GENDER a2*
- b. *Im vorliegenden Aufsatz wird die regionale Ausbildung im westlichen Molassebecken zwischen Isar und Genfer See, vom*

Rand des Helvetikums bis auf den Tafeljura beschrieben.
MOLA a5

Text commentaries of type 1 quite frequently share certain features with abstracts. But while the function of abstracts consists in summarising the whole of the primary text, thereby forming an independent textual unit, text commenting actions have only a supporting function and are integrated into the text. As a consequence, they are generally not as extensive as abstracts. It is interesting that neither the presence nor the absence of abstracts in the corpus texts seem to have any bearing on whether text commenting of type 1 occurs or not.¹¹

Type 1 has been discussed by other scholars who have undertaken research into introductions. While some scholars use the term ‘advance organizer’ for similar phenomena, Swales’ (1981) would categorise some of our examples as ‘fourth move’ (later ‘third move’), which he calls ‘introducing present research’. According to Swales, this ‘move’ has the function of ‘giving the purpose’ and ‘describing the present research’.¹²

Clyne (1987) claims that advance organisers and preview sections are part of the Anglo-American tradition of essay-writing, so that the lack of these devices in German texts has to be explained by cultural or educational differences. We cannot confirm this result on the basis of our corpus, as many of our English texts, in fact the vast majority, do not contain discrete preview sections. There are some German texts, on the other hand, which contain quite extensive text commenting sections of this type.

3.2 *Type 2: Introductory qualification of speech actions*

A considerable number of text commentaries in our corpora – especially in the German corpus – have the function of introducing and characterising a speech action that follows immediately in the text. Instead of simply carrying out the respective speech action, the author names and qualifies it with the help of an appropriate verb or a verbal phrase, usually at the beginning of the utterance, e. g.:

- (3) a. Although other elements of gender stereotypes probably are also important, I *focus here on* status beliefs because they are directly relevant to inequality. Gender status beliefs have three types of... GENDER a19
- b. *Ich komme zu* der Gruppe interkultureller Vergleiche, die Themen der medizinischen Ökologie aufgegriffen haben. ETHN a33
- c. *Im folgenden Abschnitt sollen nunmehr* die wichtigsten dieser Indikatoren *dargestellt werden*. IDEN a15

The introductory function is normally indicated by elements which have been called *deictic* by Bühler (1934/1982), such as *this/dies*. In his analysis of the deictic field of language (*Zeigfeld der Sprache*), Bühler determines the function of deictic elements (demonstrative pronouns and adverbs, some of the personal pronouns and some other elements) as orienting the listener's focusing activities in such a way that they run parallel to the focus of the speaker.

Quite frequently, the introductory qualification or characterisation of the speech action to follow is verbalised as a matrix clause, and the speech action introduced is embedded as a subordinate clause:

- (4) a. I would like to emphasize that the analyst's understanding of his view ... can enhance this dialogue. PSYCHIC a3
- b. Zu erwähnen ist noch, daß ... REICH s97

The second type often appears at positions in the text where the sequencing of the propositional chain is not completely evident, in other words at points where the author anticipates that the reader may expect an alternative propositional step. Therefore, we can also find a number of examples where there is an additional explanation or justification of the propositional sequencing, e. g.:

- (5) a. *Da* die Datenmuster in beiden ... vergleichbar sind ..., sollen auch hier nur die ... berichtet werden. SELB a63
- b. Brown and Levinson's (1987) politeness theory provided the framework for this research, and *so* I first briefly summarize aspects of their theory that are important for the present research. ARGUM a4

3.3 *Type 3: Advance organisers*

Our use of the term 'advance organiser' is somewhat narrower than that of other researchers. Our aim was to clearly separate type 1 from type 3, in which specific sections are announced that follow later in the text. The linguistic actions referred to as type 3 can occur anywhere in the text. In fact, they are the most frequent type of text commenting in our corpus, both in the English and German texts (if we disregard the rather technical type 'data integration' (cf. 3.6). Examples include:

- (6) a. However, *as discussed further below*, even in these instances the major consequence of an activator-TFIIB interaction could be at a later stage of PIC assembly. EUK a21
- b. *I return to this issue at the end of this article.* EMA a3

- c. Dazu soll später noch mehr gesagt werden. ETHN a5
- d. Auf die Frage nach ... wird im nächsten Abschnitt eingegangen. IDEN a33

With the text commenting action, the author makes his/her own planning decisions transparent. This can be done by means of complete clauses, but it is also possible to use short phrases in brackets: *see below*, *siehe Kapitel 3*, or merely to use deictic or para-deictic expressions to signal ‘distance’ (e.g. *below*, *later*; *unten*, *später*). The most important function of this type of text commentary consists in highlighting the inner organisation, or the propositional architecture, of the text.

Bearing in mind Clyne’s analyses,¹³ it is interesting that the usage of this type of text commentary can be regarded as a sign of ‘non-linearity’ in the propositional progression. The author has decided to give certain information later in the text, even though it also seems to be relevant for the present proposition or question. We return to this question in section 5.

3.4 Type 4: *Reactivation of information*

This type of text-commenting mirrors type 3 to a certain extent, as its main function is to highlight links between certain propositions put forward in a text with the information actually given, e.g.:

- (7) a. Although *the analytical approaches outlined above* are based on different ontological assumptions, most sociological studies of national business systems ... MAR a6
- b. Eine umfassende theoretische Darstellung *dieser – hier nur knapp angedeuteten – Zusammenhänge* muß einer anderen Gelegenheit vorbehalten werden. REICH s96

The type of information referred to is often characterised by a noun phrase (*the analytical approaches*, *dieser ... Zusammenhänge*). While object-deictic elements such as *this/dieser* focus the reader’s attention on the actual text or propositional parts of it, other (para-)deictic expressions like *above*, *vorher* refer back to earlier parts of the text. In a majority of cases, especially in the English texts, the reactivation is made ‘in passing’, either with the help of an attributive construction (*the framework proposed here*; *the previously quoted DSM–IV definition*), or with a parenthetical passive construction (*as mentioned above*; *wie bereits erwähnt*). Our corpus indicates that many of these commentaries are quite formulaic and are inserted routinely. In extreme cases, English attributive constructions are reduced to a single word (*based on the above*

findings). In these cases, they cannot be regarded as independent speech actions but are part of an assertion, enabling the author to give an indication of a propositional link to an earlier part of the text without interrupting the progression of the present propositional chain.

Thus, the main function of the actions we have classified as type 4 is to make the reader aware of thematic and propositional links between the new information and elements of knowledge asserted earlier, whenever the author believes these links might not be obvious.

3.5 Type 5: *Self assessment*

In some of our texts, the authors include speech actions of self assessment, mostly towards the end of their articles. As in type 1 (declaration of the author's main objectives), the text as a whole (or its main parts) is generally commented on, not just individual paragraphs or speech actions. But in type 5, the authors tend to put forward a stronger claim in summarising what they have done:

- (8) a. *The analysis* of patterns of social regulation of ... in the main part of the paper *has identified* two diametrically opposed systems of governance. MARKET a61
b. *Ich habe zeigen können*, daß die größte Erschwernis ... ist. ETHN a40

Specific linguistic action verbs appear, indicating what the author claims to have achieved,¹⁴ e. g.:

English: *to identify, to contribute/make a contribution, to show, to demonstrate*

German: *verdeutlichen, einen Überblick geben, zeigen*

The use of the present perfect in English and of *Perfekt* or *Imperfekt* in German marks the backward orientation of the statement.

This type of text commentary is the least frequent for both languages. It occurs more frequently in the English corpus (18 tokens) than in the German articles (6 tokens) – but even in the English corpus, 7 out of the 17 articles show no self assessment at all.

3.6 Type 6: *Data integration*

Clyne (e. g. 1987) states that a rather rigid 'norm' in Anglo-American academic writing refers to the integration of non-linguistic data in texts. All kinds of visualised data that do not belong to the main body of the

text but nevertheless form an integral part of the article, e.g. tables, graphic representations, photographs, etc., also quotations, need to be explicitly referred to and integrated into the verbal explications of the main body of the text. Surprisingly, we did not find any qualitative or quantitative differences between the two languages with regard to the use of this type of data. Data integration is normal and very frequent in both of the corpora. One could even go so far as to say that wherever such data occurred, they were embedded into the texts. Examples include:

English: *as is shown in fig. 1 ...*

German: *die schon in Fig. 8 dargestellte Autokorrelatsfunktion ...*

Here the question arises as to whether data integration should be regarded as a type of text commenting at all, particularly as relating the non-verbal to the verbal parts of the text often seems to be rather technical and standardised. In many cases, there are no independent phrases used for such text commenting. Instead, the data are referred to with the help of attributive constructions or with bracketed formulae of the type '(see fig. 1)'; only in some cases were more elaborate constructions used. Authors seem to agree that it is necessary to integrate the non-verbal data, although strictly speaking, there is no obligation to do so. Explicit data integration shows, therefore, that the author has a certain awareness of textual macrostructure and of possible comprehension problems, resulting, again, from the non-linear sequence of information.

Because of the enormous frequency of this type of text commentary, and because of its rather standardised nature and formulaic verbalisation, we have not analysed this type of text commentary any further.

3.7 *Discussion of frequencies*

As the overall comparison shows, the quantitative difference between English and German text commenting is not striking, if indeed it is apparent at all.

However, it should be noted that the differences between single texts/authors are much more noticeable. Two English texts and one German text do not show any text commenting at all, while the others differ quite considerably in the frequency of text commenting. As to the different disciplines, there are some specific features in our corpus: in the English corpus, texts relating to economics, computer science and psychology have the highest number of text commentaries, while articles from biology, (laboratory) medicine and literary studies have the fewest.¹⁵ This coincides partially with the German sample: texts relating to economics,

chemistry and psychology show the highest frequency of text commenting, whereas articles from biology, physics, and literary studies show only few text commentaries or even none at all. A larger corpus would be needed to confirm this interesting tendency.

As we have discussed above, text commenting is, in the first instance, the result of a decision made by each individual writer although, there may, of course, be constraints resulting from a discipline-specific manner of writing academic articles. Whereas the text norms in some natural sciences seem to be 'globalised' and more strictly regulated, other disciplines allow more room for variation in dealing with a topic, also with regard to academic language and style. According to Busch-Lauer (1997), medical articles nowadays have a clearly prescribed macro-structure (IMRAD, i. e. introduction, material and methods, results, discussion), which explains their lack of 'metacommunication'. The same seems to hold for the mathematical texts we have analysed: they are ordered in a strict and complex way and do not show any text comments.

We can thus formulate two hypotheses, which would need to be confirmed by an investigation based on a broader empirical basis: firstly, that in (sub-)disciplines with a highly regulated text macrostructure, text commenting is of little or no importance. Secondly, that in disciplines with a tendency towards more individual variation in text organisation and writing (such as literary studies and possibly some areas in history and philosophy), text commenting may not occur at all.

Busch-Lauer (1995: 51–52) yields some further interesting results and hypotheses regarding the frequency of 'metacommunicative text elements'. In her empirical investigation of English academic texts, Busch-Lauer found that 'metacommunication' tends to correlate with

- the length of texts (the longer the texts, the more metacommunication occurs);
- the author's involvement in teaching (authors who teach are more aware of the potential problems of transference of knowledge);
- the degree of standardisation of text-forms and text-organisation (the higher the degree of standardisation, the less need there is for metacommunication);
- the discipline, with the general tendency being that her medical texts showed no metacommunication at all, in contrast to a high degree of metacommunication in 'polemic' texts.

Table 1 shows the frequencies of the different types of text commenting actions in our English and German corpora:

Table 1. *Text commentaries in German and English academic texts*

	Type 1 (topics)	Type 2 (intro- duction)	Type 3 (advance organiser)	Type 4 (reactiv- ation)	Type 5 (self assess- ment)	Total
German (19 texts)	23	66	69	18	7	183
English (17 texts)	24	21	64	30	18	157

These figures are for heuristic purposes only. They show that the English and German authors seem to have different preferences concerning the types of commentary used. While the announcement of linguistic actions (type 3) is common to both groups of authors, more English-speaking authors introduce the main objectives of their articles at the beginning (type 1), and most use advance organisers more than once. German authors, on the other hand, prefer to introduce speech actions by giving an explicit characterisation of their speech act quality (type 2). These results seem to point towards the following explanation (with all necessary precaution as to their representativity): while German authors regard it as desirable or even necessary to prepare the reader for the next argumentative step, the reactivation of the reader's knowledge (type 4) is a less important option to them. They do not appear to attach as much importance to explicitly summing up the contribution of their articles as their English-speaking colleagues (type 5).

Provided that the figures shown in Table 1 were characteristic of writing habits, we could conclude that English-speaking authors tend to comment on the macrostructural aspects of their texts more frequently, while German authors pay more attention to textual microstructure, in particular to the bridging of different speech actions. We will now examine in more detail the linguistic structure of the comments.

4. Analysis of text commenting language

4.1 *The use of modal verbs*

Comparing the use of modal verbs in English and German texts is a difficult task, as with all cross-language comparison in the area of modality, not least 'because of the extent to which languages differ in their mapping of the relevant semantic content onto linguistic form' (Bybee and Fleischmann 1995: 3). We will nevertheless try to explain some quite conspicuous differences between English and German in the usage of modal verbs in text commentaries. This analysis confirms that text commenting is a distinct type of speech action in both languages, irrespective of the inter-lingual differences in the use of modal verbs.

The text commenting phrases we have extracted from the texts contain modal verbs in both languages, but quite considerably more in German than in English. German authors use almost all the existing modals extensively, i. e. with a frequency of about 50 percent, whilst there are only few English examples with either modal verbs or with verbs of a modal character (7–8 percent of the phrases). Table 2 illustrates the German types by shortened examples, Table 3 gives a complete list of the English tokens.

Table 2. German examples of modal verb use

	active voice	passive voice
<i>sollen</i>	X soll zeigen X soll genügen	X soll vorgestellt werden X soll exemplifiziert werden X soll gezeigt werden X soll diskutiert werden
<i>können</i>	Ich habe zeigen können X kann nicht geschehen Man kann zusammenfassen	X kann vernachlässigt werden X kann zusammengefaßt werden X kann ausgeführt werden
<i>möchte</i>	Ich möchte besprechen Ich möchte offenlegen Ich möchte herausstellen	
<i>müssen</i>	Das muß man präzisieren	Es muß hingewiesen werden auf Es muß erinnert werden an X muß vorbehalten bleiben
<i>wollen</i>	Wir wollen betrachten Wir wollen uns zuwenden	
<i>dürfen</i>	Man darf vermuten	X dürfte angebracht sein
<i>werden</i>	Ich werde mich auf X konzentrieren Ich werde X vorstellen Ich werde X betrachten	Darauf wird hingewiesen werden X wird abgeleitet werden X wird behandelt werden

Table 3. Modal and similar constructions in English text commenting

	active voice	passive voice
<i>must</i>		X must be clarified
<i>would like to</i>	I would like to emphasise	
<i>want</i>	I want to extrapolate	
<i>shall</i>	I shall try to explain We shall see below	As shall be argued below
<i>will</i>	We will make use of X This paper will concentrate on X The main focus will be on X	X will be done by presenting Z X will be adopted X will be given some consideration

This is all the more astonishing as apart from text commenting, modals seem to be quite frequent in research articles in both languages.¹⁶ In text commenting speech actions, however, it seems that English speaking authors find it less natural to use modal verbs, whilst German authors can hardly do without them.

We offer three explanations to account for this phenomenon, one concerning the quality of text commenting, the second related to a typological difference between the two languages, and the final one dealing with the communicative practice of the speakers.

1. A closer look at the types of modals in text comments shows that all of them are used with their root meaning, which is sometimes called ‘intrinsic’ or ‘basic’ or, more precisely, interpreted as ‘agent oriented’ (Bybee and Fleischman 1995). Thus, no epistemic modals can be found in text commenting in either language. Compare this with Butler’s characterisation of the main function of English modals in academic texts in general:

The modal verbs are among the most powerful devices available in English for the presentation of conclusions with a range of subtle gradations in strength and confidence. (Butler 1990: 138)

It is precisely this epistemic sense which seems to be incompatible with the function of text commentaries. It is not surprising, therefore, that prime candidates for occurrence in academic texts such as *can* and *may* (the most frequent modals in Butler’s corpus, cf. Butler 1990: 143) did not occur at all in the text commenting passages. Instead, the few modal constructions in English in our corpus use mostly *will* or *shall*, or devices of politeness such as *would like to*.

We conclude that epistemic or ‘extrinsic’ modality (which is sometimes called ‘hedging’) does not seem to be compatible with text commenting actions, because there is no need to strengthen or weaken claims here. German modal verbs in the text commenting passages therefore adopt their basic (‘agent oriented’) meanings, while English modals seem to be avoided altogether.

2. Heine (1995: 19) shows that while German and English modals share a series of properties, there are six morpho-syntactic features that characterise only German modal verbs. On the whole, there seems to be a tendency amongst scholars to argue that English modal verbs belong to the category AUX, while German modals are more verb-like (Heine 1995: 18–19).

From a functional perspective, the German modals form a semantic system in which each of them represents one aspect of the mental prehis-

tory of acting in the speaker (cf. Brünner and Redder 1983). Their systematic relations and logical interrelations have been analysed by Ehlich and Rehbein (1972). Recent research describes their function as a specific reference to an elaboration of typical 'backgrounds of speech' (Zifonun *et al.* 1997: 1882ff.), i. e. the speakers, the speech situation, and the conditions of acting. Modals give answers to questions such as: given the relevant facts (i. e. the situation, the needs and interests of the agent, as well as his ability), is there a specific need or necessity, wish or obligation to carry out the action – questions which have to be answered before acting. This relation to the preliminary stages of action appears to be more clear and homogeneous in the German system.

Leech and Svartvik (1994: 244), for example, list a wide variety of verbs under their category of 'modal auxiliaries', many of them with a somewhat similar meaning to that of modals (e. g. *used to*). Such a list might be justified by the semantic classification given in, for example, Bybee, Perkins and Pagliuca (1994), comprising obligation, ability, possibility, etc. We can find such classifications for German modals, too, but the English group of modal auxiliaries seems to lack common properties with respect to their linguistic form, hence they cannot really be regarded as belonging to a (grammatical) system. We conclude that the *pragmatic value* of the English modal verbs is different from that in German, so that a simple transfer is often impossible. German *sollen*, for example, expresses the fact that an actant other than the speaker or listener is interfering in the prehistory of the action by imposing his/her personal or institutional will. Statements with *sollen* can only be paraphrased in English, there is no literal translation for them (paraphrases include *sth. is to be done; to be supposed to; to be intended/meant to, ought to*). The situation is similar with *möchte(n)* and *wollen*, where the nearest equivalents are lexical elements such as *would like to, want to*. Translations like these are usual but often not really adequate.

A comprehensive analysis would not only have to look at the core verbs *wollen, sollen, müssen, möchte, dürfen, können*, but also at *werden* (active forms), because of its quasi-modal function in announcements and suppositions, and because it exhibits a distinction between epistemic and non-epistemic uses like the modal verbs (Heine 1995: 29). Redder provides a detailed analysis of all functions of *werden* and of their functional and etymological connection (1999).

To sum up our second explanation, we can say that German authors have a rather elaborate system of modal verbs at their disposal by which they can refer systematically to the preliminary stages of actions (e. g. the action of text organisation and text planning). There is no similarly homogeneous system available for English authors. This may at least explain why modals are not used extensively in English text commenting,

although we still need to find an explanation for the extensive use of the modal verbs in their ‘agent-oriented’ sense in the German texts.

3. Our third explanation refers to the communicative nature of text commenting. The presence of text commenting makes readers aware of the fact that the text and its organisation are the result of planning and decision-making, highlighting (and, sometimes, justifying) certain aspects of text organisation. When using modal verbs to highlight their text structure, German authors bring the mental prehistory of text organisation to the surface. This emphasises text structuring as a process rather than text structure as a product. While in reality the reader is confronted with an accomplished text, the author creates the fiction that the process of construction is going on at the very moment of reading.

For example, it is quite typical of a German author to talk about his goals by using *möchte(n)* and *wollen* – informing his reader about parts of the reflections preceding the actual text organisation. This creates the fiction of the reader witnessing the author as he plans the text, e. g.:

- (9) In diesem Beitrag möchte ich nun folgende Punkte besprechen.
Zunächst ... ETHN a7
- (10) Im Hinblick auf die Untersuchung ... wollen wir uns ... zuwenden. SEIS a7

English authors, on the other hand, prefer to indicate the *result* of their complex actions as a given fact (‘We focus on ...’).

A particular use of *sollen* (cf. Table 2) is quite conspicuous in our corpus and seems to be typical for the functioning of German modal verbs in general, but also for academic language. It is restricted to passive-voice constructions – not for grammatical but for pragmatic reasons. In our corpus, *sollen* is most frequent in ‘introductory qualifications of speech actions’ (type 2) and ‘advance organisers’ (type 3). Given its ‘normal’ meaning, it may appear rather peculiar that this modal should occur in this function at all. As mentioned above, *sollen* indicates that the impetus for an action is external, i. e. an agent is required to carry out the will of another person or an institution. This type of construction does not allow for the author to appear on the surface of the text. Hence, when *sollen* is used in text commenting actions, the author presents his own planning and constructing as if there were a decisive external force or necessity obliging him to carry out the action of writing and organising his text, as if the text organising activities had not yet come to an end.

The need for this kind of modality in text commenting linguistic actions appears to be so great in German that some authors seem to be

afraid of repetition. This leads them to choose partly equivalent forms, such as the modal infinitive or the auxiliary *sei* + past participle, which have a similar function as *sollen*-constructions:

- (11) Auf das Problem ist noch einzugehen.
Hier sei vermerkt, daß ...

To conclude, German modal verbs enable the author to make the options, necessities and obligations influencing his text planning transparent, anticipating that the reader may choose to skip a certain section or stop reading altogether once he has been informed about the author's plan. It seems to be rather typical of German academic writing to verbalise this mental preparation of speech actions by using modal verbs.

4.2 *Ways of conceptualising text structure in commentaries*

German and Anglo-American authors often use *deictic* expressions in text commenting, as mentioned in section 3.2. In addition to deictic elements in the strict sense of Bühler's notion of deixis (1982), there are other words used in this type of comment that have a similar function, in that they force the reader to focus on a non-verbal element accessible only by bridging the gap of the extended speech situation and adopting the speaker's perspective.¹⁷ These expressions include the adjectives *present/vorliegend*, adverbs like *herelhier*; *laterlspäter*, some prepositions (e.g. *afterlnach*) and conjunctions (e.g. German *ehe*). Following Ehlich (1992), we call them *paradeictic*. Their function in text organisation is quite evident: deictic and paradeictic words orient the reader towards a certain point in the developing sequence of the text centred around the writer's *origo* (Bühler 1982):

English: *now, in the next section*

German: *nun, nunmehr, als nächstes, an dieser Stelle*

Such elements provide interesting insights into the way authors structure their texts mentally. Both English and German writers apply linguistic elements verbalising either a temporal sequence or a local arrangement for the conceptualisation of text structure. German authors, however, seem to prefer the general concept of a chronological (temporal) structure of their text to a spatial one. A greater variety of such expressions is used in German text commentaries, making the distinctions more subtle. In addition, their overall frequency is also quite remarkable – one could even say that German authors take every opportunity to use such expressions in their text commentaries (compare Table 4).

English authors, by contrast, use fewer deictic procedures for the conceptualisation of their texts, and where they do, they prefer to use spatial concepts rather than temporal ones (although both do occur). Table 4 shows that *here/hier* is used equally frequently for text commenting in our corpora, whereas *below* and *above* are clearly more frequent than their German equivalents *oben* and *unten*. In addition to the deictic expressions, German authors make use of an astonishing variety of (para-)deictic elements that conceptualise text as a sequence of events or actions. This seems to be consistent with our results regarding the use of modal verbs (section 4.2), where we have also found a tendency in German text commenting to conceptualise text structure as the result of the author's planning and creating the text.

In conclusion, we can say that, from the analysis of our corpora, German authors seem to set great store by expressing the immanent order of the text as a sort of *ongoing process*, thereby giving an account of their own mental planning of the text structure. The reader is concerned

Table 4. *Deictic and paradeictic elements in text organisation*

English expressions	frequency	German expressions	frequency
Text as chronological sequence			
now	3	nun, nunmehr	13
then	2	dann	2
later	2	später	3
first	3	zunächst	5
	1	soeben	2
earlier, previously	3	bereits, bisher, bislang	6
in the next section	4	im nächsten ...	4
to begin by	1	als nächstes	1
		im letzten/vorigen ...	6
following	8	folgend, es folgt	7
as follows	1	im folgenden	15
after	1	vor/nach	2
		ehe/nachdem	2
		schließlich, zum Schluß	3
<i>total:</i>	27	<i>total:</i>	71
Text as space			
here	18	hier	18
		andernorts, hierher	2
above	12	oben	2
below	9	unten	1
<i>total:</i>	39	<i>total:</i>	23

with what will happen to him when reading the text. Thus, German ordinary academic language¹⁸ makes more lexical devices available for this purpose than English does. English authors, on the other hand, seem to prefer to imagine the text as a *spatial object*. They talk about their text as an already finished product and give an overview of its structure. Deictic expressions are used as ‘signposts’ of text architecture – as if the author had once again gone through the core text, putting up signposts wherever s/he felt this was necessary.

Being aware of these differences in commenting on the text may prove useful to those who translate from one language into the other, or to those who write articles in the respective foreign language. In addition, this may have some implications for language education, in particular for writing courses.

5. Discussion and conclusions

As we know, the English speaking academic world tends to put great emphasis on explicit guidance of the reader and certain set elements of an essay, such as the suggestion to ‘echo’ one’s introduction in the conclusion (see, for example, Carino 1993). Although such suggestions do not always specifically recommend using ‘text commentaries’, they are likely to lead to a stronger presence of text commentaries, in particular of types 1 and 5. The reason is that text commenting serves to orient the readers, thereby possibly improving the benefits gained from their ‘labour’ of reading.

Michael Clyne and others assume that German authors might be more content-oriented than reader-oriented compared with their English counterparts (Hinds 1987). Clyne even calls this a lack of ‘reader-friendliness’. When looking at text commenting in our corpora, we cannot confirm this generalisation as it stands. Clyne’s empirical results (cf., e.g., Clyne 1987) may reflect certain writing traditions in the disciplines he looked at: (socio)linguistics and sociology. As our corpora are not restricted to certain disciplines, the supposed cultural differences seem to fade away. Our investigation shows that German authors also put a lot of effort into making text organisation transparent by commenting on text structure, though they prefer other types of text comments. For disciplines in which the use of text commenting is restricted, these restrictions are ‘implicit’ and are not well documented in writing manuals or style guides.

We know from Clyne’s studies (1981, 1987) that essay-writing classes play an important role in forming what many regard as ‘the’ Anglo-American academic style.¹⁹ Most of the participants who have gone through such an education system will tend to transfer these essay writing ‘norms’ to other texts.²⁰

J. Galtung, M. Clyne and R. B. Kaplan have often been regarded as pioneers in this field of research. Later on, the empirical basis and the sometimes rather speculative character of their studies have also been criticised (cf. Adamzik 1998: 104). There are only provisional and inconclusive answers to the question as to the relevance of cultural differences between language communities for academic discourse (or, indeed, academic communities as part of a specific culture). What is more, there seems to be no general concept of culture in this field that could be said to be sufficiently theoretically developed.²¹

This leads us to a more general statement on the function of text commenting actions. Without revoking their supporting function with regard to the reader's understanding and overview, we wish to point out that text commenting can, in principle, also disturb the processing of the text. Experienced readers of academic articles may be able to read and understand a complete text or great parts of it without 'stepping back' and reflecting on the overall structure. Unfortunately, these reading practices have not been investigated so far in any detail. Authors who comment on their text demand that their readers interrupt the processing of the propositional content in order to focus on text organisation. This may be welcome in most cases. If, however, an author increases the frequency and length of text comments, some readers may well regard this as a hindrance rather than a help for text processing. This might explain why many comments on text organisation are short and formulaic. But it should also put a question mark behind the automatic identification of text commenting, and, namely, the use of advance organisers, with reader friendliness which is implicit in some of the research.

The most interesting results of our study emanated from an analysis of the microstructure of text comments. We see our findings presented in sections 4.1 and 4.2 as expressions of the different academic language cultures, including the authors' concepts of the readers' mental activities. German authors show a clear tendency to adapt their comments to the ongoing process of understanding in the reader. This seems to be the reason why they employ modal verbs as well as deictic and paradeictic elements of the temporal dimension more often. These are rather subtle preferences of the two languages in question, or, more precisely, of the respective ordinary academic languages. It is evident that well accepted – and perhaps rather formulaic – verbalisations in one language may sound odd in the other, even if they are not actually 'ungrammatical'. This can have far-reaching consequences for the perception and assessment of an academic text which is sometimes hard to separate from the research it is reporting on.

Looking for intercultural differences, it is useful to remind ourselves that scholarly work has some universal features, which have been foregrounded by Widdowson (1984). All research is based on a stock of shared knowledge as well as on academic methods of expanding this knowledge (Ehlich 1992: 201). These methods are differentiated, but not along the lines of national or well-known cultural borders. As 'science is a cumulative enterprise' (Gruber 1999: 2), the aims and objectives of scientists as well as the topics and the types of knowledge of specific disciplines are in principle the same, though the actual working conditions of scholars may be quite different. Mauranen (1993: 39) points out that

For cultural phenomena such as scientific activity, the culture which might be postulated as determining genre cannot be the national culture, because science as a form of social activity is essentially cross-cultural, as far as national cultures are concerned. The genres of scientific discourse are international, and they therefore select international 'discourse communities'.²²

But over the past few decades, the exchange of knowledge itself has also become more and more internationalised, not least because English has adopted the role of the *lingua franca* of science and scholarship, marginalising – sometimes rather rapidly – the use of other vernacular languages. As a consequence, the ways of writing and constructing a text have become increasingly similar, at least in the natural sciences. Certain conceptions of 'efficient communication' (Clyne 1982: 73), modelled upon textual conventions of the English-speaking academic world, have been developed, refined and generalised. The practice of giving abstracts, for example, has spread into all disciplines (cf. Adamzik 1998: 118). The tendency to reduce the multiplicity of languages in science/scholarship is, it seems, also connected with the tendency of unification of textual macrostructures. As a result, in some non-English-speaking language communities (e. g. in the German-speaking countries) two 'academic language cultures' seem to co-exist, sometimes even within one and the same discipline. This may be a sign of a state of transition which inclines towards – or perhaps even demands – a new attentiveness to textual arrangements. We assume that a growing number of researchers and writers have at least started to adjust their texts to some standardised forms of English academic discourse, because of the presumed efficiency of these forms. As a consequence, there will be a loss of traditional genre features, depending on the strength of international orientation in each country and discipline.²³

While text structures of different genres are clearly affected by these unifying tendencies, this is not true in the same way for the *academic language cultures* of English and German. To use Clyne's words, we see language as 'the deepest manifestation of a culture' (1994: 1). Hence, text commenting language preserves structures deeply connected with the authors' view of their purpose and role in research and communication. Their way of presenting their texts to their audience cannot be 'globalised' as easily as text structures themselves – a supplementary argument that may discourage simple transfer from one language to the other.

*King's College, London
University of Munich*

Appendix

Corpus texts (abbreviation) together with the titles of journals, from which they were extracted:

AIDS	<i>Laboratory Medicine</i> 1997
ARG	<i>Journal of Language and Social Psychology</i> 1997
DSM	<i>Psychiatry</i> 1996
EMA	<i>Journal of Anthropological Research</i> 1997
EUK	<i>Nature</i> 1993
FAU	<i>American Literature</i> 1997
FISH	<i>Ecology</i> 1993
FISS	<i>American Journal of Science</i> 1992
GEN	<i>American Sociological Review</i> 1997
HOB	<i>History of Political Thought</i> 1997
INEQ	<i>British Medical Journal</i> 1996
KINA	<i>Nature</i> 1993
LAR	<i>The Computer Journal</i> 1995
MAR	<i>Cambridge Journal of Economics</i> 1997
NEU	<i>Journal of Neuropathological and Experimental Neurology</i> 1987
PSYC	<i>Psychoanalysis</i> 1997
RAC	<i>New Left Review</i> 1997
ACUS	<i>Acustica</i> 1989
CYC	<i>Angewandte Chemie</i> 1980
ETHN	<i>Sociologus</i> 1991
GEOG	<i>Die alte Stadt</i> 1989
HEFE	<i>Biologie in unserer Zeit</i> 1989

IDEN	<i>Allgemeines Statistisches Archiv</i> 1990
JAPA	<i>Nachrichten der Gesellschaft für Natur- und Völkerkunde Ostasiens</i> 1991
KANA	<i>Elektrophysik</i> 1982
KONT	<i>Klinische Psychologie</i> 1991
LOHN	<i>Kyklos</i> 1988
MACHT	<i>Analyse und Kritik</i> 1991
MANN	<i>Deutsche Vierteljahresschrift für Literaturwissenschaft und Geistesgeschichte</i> 1990
MOLA	<i>Geologische Rundschau</i> 1988
OZON	<i>Physikalische Blätter</i> 1988
P'ERS	<i>Gestalt Theory</i> 1991
REFO	<i>Außenwirtschaft</i> 1991
REICH	<i>Ifo-Studien (Zeitschrift für empirische Wirtschaftsfor-</i> <i>sung)</i> 1993
SEIS	<i>Gerlands Beiträge zur Geophysik</i> 1981
SELB	<i>Archiv für Psychologie</i> 1987

Notes

1. We would like to thank Geraldine Horan, Robert Kaplan and Winfried Thielmann for their comments on earlier versions of this paper.
2. The names of the journals from which we have drawn our data are listed in the appendix. This gives an impression of the variety of disciplines involved.
3. Mauranen also distinguishes between text and discourse, noting that the author has to anticipate the reactions of the reader as an imagined interactant (1993: 145).
4. Of course, there may be other objectives, such as building a reputation or signalling membership of a specific 'bee-hive' (cf. Ventola 1997: 49–50).
5. Cf. Stainton (1996); note that our notion of text commentary is quite different from most of the concepts discussed in Stainton – the latter tend to cover a much wider set of phenomena and, in our view, are not always very coherent.
6. For a list of the journals see appendix.
7. As far as we could ascertain this; we only included articles by authors where there was no reason to suggest that they might not be native speakers.
8. We think it would be impossible to create such a corpus for the following two reasons: firstly, the traditional division and classification of disciplines has been split up into an increasingly great variety of fields which are often difficult to name or to term; secondly, it is becoming more and more difficult, if not impossible, to find academic articles written in German in those disciplines where English has almost completely been adopted as the language of publication.
9. For a general description of FP see Ehlich (1991).
10. For an example see Redder (1999).
11. With regard to abstracts, there is a great deal of approximation between English and German articles in our corpus: 13 of the 19 German texts are supplemented by an abstract, sometimes in more than one language. In the English corpus, 13 out of 17 articles have an abstract. This confirms our view on the globalisation of text organisation, see section 5.

12. Swales does not seem to be interested in the role of text commenting, and we do not consider his move-categories to be useful for our analysis. See also the critique by Swales in Peng Jingfu (1987), and Gnutzmann and Oldenburg (1991), who found his categories 'practically unworkable' when applying them to empirical data (*ibid.*: 117).
13. Compare Clyne's (1987) findings concerning the 'linear' and 'non-linear' organisation of texts. Clyne (1987: 229) also looked at the position of 'advance organisers' relative to the beginning of the text, and found that German authors often place their advance organisers 'in an obscure position'; while English-speaking authors placed 59 percent of their 'advance organisers' 'at or near the beginning of the text', this was only the case in 42 percent of the German samples. However, Clyne's definition of 'advance organiser' apparently also comprises what we have called 'introductory speech act qualification' (type 2); see his examples 'I will now digress...' and 'Let us briefly digress to...' (1987: 229). Our corpus clearly shows that this type of text commentary is not confined to any particular part of the text, which casts some doubt on the reliability of Clyne's data.
14. There are marked differences in the strength of the claims made, depending on the type of verb used and on the different forms of modalisations, which we cannot discuss here. For a detailed analysis of English verbs in academic texts see Meyer (1997). A first contrastive (English–German) analysis of speech act verbs in text commenting is given in Fandrych (2001).
15. The medical text AIDS ('Unique monocyte subset in patients with AIDS dementia') and FAUST ('An American Faust', literary studies) have no text commentaries at all, except for one case of type 6 (data integration).
16. For English research articles, compare Butler (1990), who found that modals were quite frequent in his corpus of English texts.
17. For a more detailed analysis of deictic and para-deictic elements in German academic articles see Graefen (1997).
18. Compare Ehlich (1993) for the concept of *alltägliche Wissenschaftssprache* ('ordinary academic language').
19. Clyne observes that English native speakers disliked the text organisation of texts written by German academics – whether they were written in German or English. It appears to us that the German texts in Clyne's corpus were indeed more or less badly organised and may not be entirely representative. According to Clyne, German native speakers did not seem to care as much for good text organisation when reading texts (cf. Clyne, Hooks and Kreutz 1988). We agree that German authors do not bear in mind linearity and symmetry as a strict norm. But this fact need not necessarily lead to badly organised texts.
20. However, Kaplan and Grabe (1991) have criticised some of the assumptions that underlie this kind of teaching of writing. For an overview of German preparatory efforts see Püschel (1997).
21. Oksaar (1999: 23), for example, states that the English concept of 'culture' and that of German 'Kultur' are not the same; see Elias (1978) for a detailed account of the complex European history of the notions 'culture' and 'civilisation'. Koch and Oesterreicher (1990) look at different writing and discourse traditions and their relationship to 'culture'. Clyne often speaks of 'norms', 'expectations', and 'patterns' as being 'cultural' (e. g. 1981, 1982).
22. Mauranen then goes on to stress that 'all members of the international scientific community are simultaneously also members of national language communities. Some of their beliefs as to what constitutes effective writing must come from their national backgrounds' (1993: 39).

23. Some national academic communities (e. g. the Russian community) seem to have retained, for the present, at least, their own understanding of genres such as the academic lecture.

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