Knowledge-stating Verbs and Contexts of Accountability in Linguistic and Literary Academic Discourse[1]

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Abstract
In academic communication, the notion of accountability is central, because academic discourse essentially involves the communication of knowledge – knowledge for which someone must assume accountability. This paper considers the use of knowledge-stating verbs in knowledge statements. It investigates the accountability contexts (High accountability, Medium-to-High accountability, Medium-to-Low accountability and Low accountability) for seven knowledge-stating verbs in order to ascertain if different knowledge-stating verbs appear in different kinds of accountability contexts. The verbs investigated are *argue, claim, suggest, propose, maintain, assume* and *believe*. The empirical basis for the investigation comes from two different academic disciplines, linguistics and literary studies, and the investigation also addresses the issue of whether the knowledge-stating verbs considered appear in the same or different accountability contexts across the two disciplines. The conclusions to be drawn on the basis of the investigation are that (i) individual knowledge-stating verbs do feature in different kinds of accountability contexts, but (ii) there is little evidence to the effect that there should be any significant differences between linguistics and literary studies with respect to the accountability contexts associated with the individual knowledge-stating verbs.

1. Introduction

This paper is concerned with writer accountability in connection with knowledge statements, such as (1)-(3), containing knowledge-stating verbs, such as *argue, suggest* and *claim*, in texts from two different academic disciplines.

(1) I **argue** that Swedish is a special language.
(2) These results **suggest** that Swedish is a special language.
(3) Smith (2000) **claims** that Swedish is a special language.

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[1] This paper is based on Chapter 4 of Malmström (2007).

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Knowledge statements should be thought of as a sub-category of assertions (Searle & Vanderveken 1985; Vanderveken 1991; the term "knowledge statement" is my own) that make reference to the epistemic (Palmer 2001) or evidential grounding (Chafe 1986) of the information in the utterance. They always involve direct or indirect reference to the writer's knowledge reserve, as in (1) and (2), or the knowledge reserve of someone other than the writer, as in (3), and some reference to how the information communicated was arrived at (e.g. through "self-reflection" as in (1), through inference as in (2), or through a report as in (3)). Knowledge statements either express new knowledge which is introduced into the discourse or older, previously established, knowledge (cf. Myers 1985 and Charles 2006)

An interesting aspect of knowledge statements is that the issuing of a knowledge statement is always associated with some (often indirect) expression of how accountable a writer is for the knowledge content. "Accountability", as the term is used in this paper, refers to the writer's being accountable for the information in the utterance by virtue of being the origin or mediator of that information. On this view, a writer would be highly accountable for a knowledge statement such as (1) by virtue of being the sole source of the information or knowledge content, less accountable for a knowledge statement such as (2) since it is made apparent that the knowledge content of this statement has its basis in an inferential process and even less accountable for a knowledge statement such as (3) since the source of the knowledge content in (3) is someone other than the writer him/herself.

The term "knowledge-stating verbs" refers to verbs which feature as central knowledge stating elements (i.e. elements which turn a "regular" assertion into a knowledge statement) in knowledge statements.[2] This

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[2] The knowledge-stating verbs under investigation have elsewhere been variously described as speech act verbs or otherwise as making a contribution towards some sort of speech act (Hayakawa 1968, Searle 1969, Ballmer & Brennenstuhl 1981, Searle & Vanderveken 1985, Wierzbicka 1987, Vanderveken 1991, Levin 1993, Francis et al. 1996, Shinzato 2004), as evidentials (Chafe & Nichols 1986, Aikhenvald 2004), or as hedges or lexical

paper considers the verbs *argue, claim, suggest, propose, maintain, assume* and *believe*.[3]

One point which I want to raise in this paper is that when we consider knowledge statements (with knowledge-stating verbs) in terms of their indirectly conveying writer accountability, writer accountability should be seen as scalar. This means that a knowledge-stating verb has the potential to feature in different kinds of accountability contexts (i.e. discourse contexts in which writers convey that they are accountable to a high, moderate, or low degree). Since knowledge-stating verbs have been associated with various ranges of other scalar properties (such as epistemic strength) when decribed elsewhere under other labels (cf. footnote 2), I investigate whether individual knowledge-stating verbs can also be associated with different degrees of writer accountability. For example, I would like to see whether a verb such as *argue* typically occurs in discourse contexts where a high degree of writer accountability is conveyed, or if *suggest* typically occurs in contexts of low writer accountability.

In addition, this paper takes a contrastive approach in that in investigating the extent to which different knowledge-stating verbs feature in different kinds of accountability contexts, it considers knowledge statements from two different academic disciplines, namely linguistics and what could be called literary studies. Many previous studies have pointed to substantial differences between texts from different academic disciplines and scholars have suggested that such differences in surface linguistic manifestation reflect a deeper difference

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hedges (Salager-Meyer 1994, Hyland 1998), epistemics (Holmes 1988, Vold 2006a/b), epistemic reporting (main) verbs (Varttala 1999) or shields (Salager-Meyer 1994).

[3] The selection of the knowledge-stating verbs was based on two primary criteria: (i) the ability to feature as central elements in a knowledge statement (as defined) in academic texts and (ii) the frequency of occurence in my corpus (see Malmström 2007:26-28 for further details). In connection to this it is also worth noting that a verb is not the only lexical category to feature as knowledge stating elements (see Malmström 2007 for a brief discussion on nouns and adverbs as knowledge stating elements).

at the level of disciplinary epistemology (cf. Becher 1987). Such differences have been accounted for, for example, in connection with metadiscursive strategies (e.g. Hyland 1998, 2005). In addition, differences between academic disciplines or texts written in different languages within a single discipline (French, English and Norwegian) are at the heart of work emanating from the KIAP research group in Bergen (see the reference list of KIAP publications in Fløttum et al. (2006)). The idea that there should be disciplinary differences between linguistic and literary texts is not solely based on findings in other corpus investigations. It also rests on the assumption that there are more general differences between academic texts such that some texts can be assigned to a group of "hard science" texts whereas other texts are more appropriately labelled as manifesting properties of "soft science". This idea is advocated by Hyland (1999) (and, for example, by Becher & Trowler 2001). The linguistic texts could be claimed to qualify as examples of *hard* discipline texts (Hyland 1999).[4] Many of the features of text in the hard disciplines seem to be present in the academic writing up of research in linguistic, and particularly psycholinguistic, contexts. Just like scientists in the natural sciences, researchers in linguistics often resort to testing or laboratory-like experiments. This, and the many other ways in which linguistics is sometimes claimed to resemble natural science, is likely to have significant rhetorical effects on the communication in such contexts (not least with respect to accountability). Hyland identifies the notion of hard science in the following way:

> The hard knowledge disciplines can be seen as predominantly analytical structuralist, concerned with quantitative model building and the analysis of observable experience to establish empirical uniformities. Explanations thus drive from precise measurement and systematic scrutiny of relationships between a

[4] Some scholars may object to this assignment of linguistics to the "hard" disciplines. However, just as Stotesbury (2003) notes, I believe that the distinction between hard and soft fields is rather 'fluid' but that 'some disciplines traditionally regarded as humanistic subscribe to the reporting patterns of experimental research, for example various branches of linguistics' (2003: 328).

> limited number of controlled variables. Knowledge is characterised by relatively steady cumulative growth, problems emerge from prior problems and there are fairly clear-cut criteria of what constitutes new contribution and how it builds on what has come before. (1999: 80-81)

The texts emanating from a research tradition in literary studies, conversely, are usually far removed from the hard disciplines and often epitomise research from *soft* disciplines (Hyland 1999).

> Soft knowledge disciplines […] concern the influence of human actions on events. Variables are therefore more varied and causal connections more tenuous. These fields tend to employ synthetic rather than analytic inquiry strategies and exhibit a more reiterative pattern of development with less scope for reproducibility. (1999: 81)

This means that the corpus used in this study includes texts from two disciplines which, according to a somewhat stereotypical picture, have the potential of displaying distinct characters.

2. Aims and hypotheses

The first aim of this paper is thus to investigate to what extent the different knowledge-stating verbs (*argue, claim, suggest, propose, maintain, assume* and *believe*) feature in utterances that convey different degrees of accountability, i.e. whether they feature in different accountability contexts.

The hypothesis is that the knowledge-stating verbs do feature in different kinds of accountability contexts. This hypothesis is based on the fact that in other discourse functions, such as expressing epistemic strength, the verbs are clearly different and this difference should be reflected also in their disocurse function as knowledge-stating verbs.

The second aim of this paper is to investigate to what extent any differences in typical accountability contexts of the knowledge-stating verbs hold across two different academic disciplines.

With respect to this second aim, the hypothesis is that there should be differences between typical accountability contexts of the verbs. This hypothesis is based on findings in previous literature indicating that there are substantial differences, not only at an epistemological level but also at a textual and pragmatic level between different academic disciplines.

3. A model of writer accountability

This section proposes a model which describes the degree of writer accountability. It is one of the main assumptions underlying the work in this paper that accountability is scalar, that is, that a writer can be more or less accountable for the knowledge content in a knowledge statement.[5] This is contrary to much previous research which has frequently conceptualised accountability as an "either-or" phenomenon (for criticism of this view, see Malmström 2007).

In this paper, following the proposal in Malmström (2007), I assume that writer accountability is directly associated with the concept of DISCOURSE VOICE which is also scalar.

Any stretch of discourse is likely to include or manifest different "voices," to be "heteroglossic" (Holquist 1990) or "multivoiced" (Fløttum et al. 2006). Discourse voice is considered in this paper as an aspect of discourse pertaining to how "visible" or "present" (or, conversely, "invisible" or "absent") a writer (not necessarily the writer in the utterance situation but any potential writer) is at any given point in a discourse (Fløttum et al. 2006 talk about "person manifestation" in their characterisation of "academic voices"). I thus define discourse voice by referring to a writer's relative presence or absence in a piece of discourse, where the presence-absence dimension is indexed by discourse traces of some writer (for example, overt presence signalled through the use of 1st person pronouns).

With respect to knowledge statements, discourse voice is directly related to whose "knowledge" is referred to, whom the idea or information forming the basis of the knowledge content can be ascribed to. If it is the current writers' own knowledge, their idea, or information "coming" from them, the discourse voice is that of *Self*. If it is knowledge emanating from someone other than the current writers (we

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[5] See also e.g. Hunston (2000), Groom (2000), or advocates of Appraisal Theory: Appraisal Website http://www.grammatics.com/appraisal/ (accessed on 25 February, 2008).

need not identify that/those individual(s) more precisely), the discourse voice is that of *Other* (see also Fløttum et al. 2006 for similar uses of these terms).[6]

Writers can thus be present in the discourse, or rather make their presence known in the discourse, to higher or lower degrees, depending on their communicative objectives. Similarly, writers can make the presence of the Other known to the addressee to varying degrees. This notion of scalar vocal presence is assumed to link directly to the equally scalar notion of writer accountability such that when the degree of Self manifestation is high, the writer (the current writer) is also accountable to a high degree. When Self is made manifest to a lower degree, the referent of Self is also accountable to a lower degree. On the other end of the scale, we see that when the voice of someone other than the writer (i.e. Other) is made manifest to a high degree, the (current) writer must be taken to be minimally accountable; in those instances, the writer is almost completely absent from the discourse in the knowledge statement, i.e. the voice of the writer is not heard or it is heard only very marginally in relation to the knowledge content. Finally, when the voice of the Other is made manifest to a lower degree, but it is clear that the knowledge statement makes manifest the voice of Other, the degree of writer accountability could be taken to be intermediate but on the lower end of the scale. Figure 1 indicates how the writer's concerns with these three aspects of the utterance are crucial for the degree of discourse voice manifestation and how discourse voice can be associated with writer accountability.

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[6] Henceforth, any use of the words Self and Other (with capital letters) denotes the two dimensions of discourse voice.

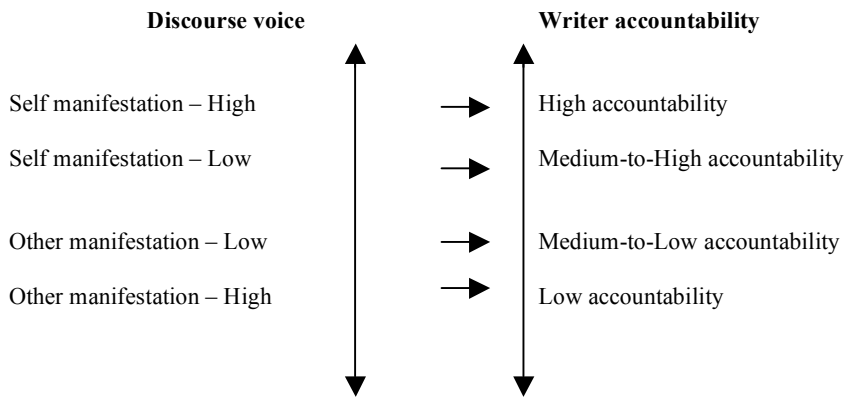

Figure 1: The relationship between discourse voice manifestation and accountability

It is assumed *a priori* that at least three aspects of the utterance are primarily conducive to the manifestation of discourse voice in a knowledge statement: (i) metadiscourse features of the utterance,[7] (ii) the citation practices adopted,[8] (iii) the staging of the utterance in terms of

[7] I refer to metadiscourse as that aspect of the utterance through which writers themselves highlight or refer not to a situation in a real or imagined world – not knowledge content – but to things said or done in the discourse about other things said or done in the discourse (for influential accounts of metadiscourse, see e.g. Crismore 1983, Vande Kopple 1985 & 2002 and Hyland 2005). Examples of metadiscourse include but are not limited to transition elements (however, in addition), frame markers (finally, to conclude), evidentials (according to), hedges (may, must, perhaps), boosters (in fact, certainly), attitude markers (unfortunately, to my surprise) and self mentions (me, mine, I, we) (Hyland 2005).

[8] With respect to citation practices, I draw on the traditional distinction between integral (source occurs within citing sentence or else as a sentence element) and non-integral citations (source appears outside the sentential structure) as proposed by Swales (1990).

foregrounding and backgrounding of the writer, someone else or something else.[9]

(4) These results **suggest** to me that Swedish may be/is clearly a special language.

In an utterance like (4) we see that metadiscourse features such as self-mentions, hedges, boosters, attitude markers, engagement markers, could be considered to promote Self manifestation. On the other hand, elements such as transition markers, frame markers, endophoric markers and code glosses often appear to yield a relatively lower degree of Self orientation (see Hyland 2005 for metadiscourse categories).

As for citation practices, writers who are integrated into the utterance will be taken to make manifest their own voice to a high degree (5). When Others are integrated, the voice of the Other comes out strongly (6). When any source in non-integrated, the voice of that source is made manifest to a lower degree relatively speaking (7).

(5) I **argue** that Swedish is a special language.
(6) Smith **argues** that Swedish is a special language.
(7) It has been **argued** that Swedish is a special language (Smith 2000).

Although the aspect of the staging of the utterance cuts right across citation practices, it is best to treat them separately. In knowledge statements where the source of the knowledge content is foregrounded (for example, when the source is promoted as the grammatical subject, cf. (5) or (6), the degree of voice manifestation is considered to be high (Self or Other). In knowledge statements where the source of the knowledge content is backgrounded (for example by virtue of some impersonal construction, a construction with an inanimate subjects or because the voice referent has to be contextually identified/inferred) the degree of discourse voice manifestation is considered to be low:

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[9] Consider for example aspects of information packaging, the introduction of inanimate subjects or the use of impersonal constructions.

(8) It is **suggested** that Swedish is a special language.

To test this assumption about what it is that affects discourse voice (and indirectly also writer accountability), an informal questionnaire was administered to six interview subjects (colleagues at the department). The interviewees were asked to rank a set of knowledge statements randomly selected from my data and to indicate the degree to which they felt that writers in these utterance could be claimed to be "present" in their utterances. The informants were also asked to indicate what in the utterance made them draw the conclusions about writer presence. A comparison was then made between the ranking of the respondents and my own rankings of the utterances. Our intuitions matched with only minor differences.

It was also assumed *a priori* that the staging of the utterance is most important for deciding how present or absent a writer is in an utterance, and that citation practices are more important than metadiscourse. This assumption was also confirmed by the questionnaire, particularly by the follow-up comments from the interviewees:

> 'Inanimate subjects and impersonal constructions signal distancing'
>
> 'What comes first […] and last seems to be important for presence, I think'
>
> 'First person pronoun indicates very clearly that the speaker is present'

I take the matching of my intuitions with those of the interviewees as tentative support for proposing that decisions pertaining to discourse voice manifestation are made in accordance with some rough set of discourse voice interpretation principles – principles that illustrate how a particular knowledge statement makes manifest a high or low degree of Self manifestation or Other manifestation, and as will be shown below, the degree of writer accountability associated with any given knowledge statement.

Table 1: Self manifestation as dependent on staging, citation management and metadiscourse

Discourse voice orientation (Self)		
Parameter	HIGH	LOW
A. Staging	Source as grammatical subject[10]	Impersonal constructions, constructions with inanimate subjects, or when voice referent is contextually determined
B. Citation management	Not applicable in Self orientation	Not applicable in Self orientation
C. Metadiscourse elements	Self mentions, hedges, boosters, attitude markers, engagement markers	Transition markers, frame markers, endophoric markers, code glosses

I operate with two simple minimal scales of discourse voice. Both the scale of Self and the scale of Other map only two points, represented by the discourse voice values of High and Low, respectively.

For any knowledge statement, the degree of discourse voice manifestation (as determined by the discourse voice interpretation principles) is then taken to map directly onto a scale of writer accountability (see Figure 2).

I thus assume that accountability can be conceived of in terms of a scale comprising four non-distinct ranges and without any absolute endpoints. The model in Figure 2 could be used to illustrate both discourse voice and writer accountability as essentially scalar concepts.

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[10] With reference to Self in a topicalised grammatical subject position, there are two options available to the writer: first person singular I and first person plural we. It is a possible shortcoming of the present investigation that I have not differentiated between them in reporting my findings; as Charles (2006: 507) notes, the use of the plural may potentially signal indeterminacy 'to imply that there could be others who share propositional responsibility' and this would therefore potentially affect the degree of discourse voice.

Table 2: Other manifestation as dependent on staging, citation management and metadiscourse

Discourse voice orientation (Other)		
Parameter	HIGH	LOW
A. Staging	Source as grammatical subject	Impersonal constructions and constructions with inanimate subjects or when voice referent is contextually determined
B. Citation management	Integrated citations	Non-integrated citations
C. Metadiscourse elements	Not applicable in Other orientation	Not applicable in Other orientation

Figure 2 shows how the two scales of discourse voice collapse into a single scale of writer accountability. The figure should be interpreted in the following way: if an utterance makes manifest Self to a high degree, Figure 2 indicates that Self (High) results in High writer accountability. If an utterance makes manifest Self to a low degree, Figure 2 indicates that Self (Low) results in Medium-to-High writer accountability. If an utterance makes manifest Other to a low degree, Figure 2 indicates that Other (Low) results in Medium-to-Low writer accountability. If an utterance makes manifest Other to a high degree, Figure 2 indicates that Other (High) results in Low writer accountability.

I have now shown how we could conceive of writer accountability in terms of degree rather than in either/or terms. The deciding factor for accountability "distribution" or "ascription" (i.e. the assigning of the onus of accountability) between writer and someone other than the writer rests with the notion of discourse voice. I now turn to the corpus investigation focusing on knowledge-stating verbs in knowledge statements.

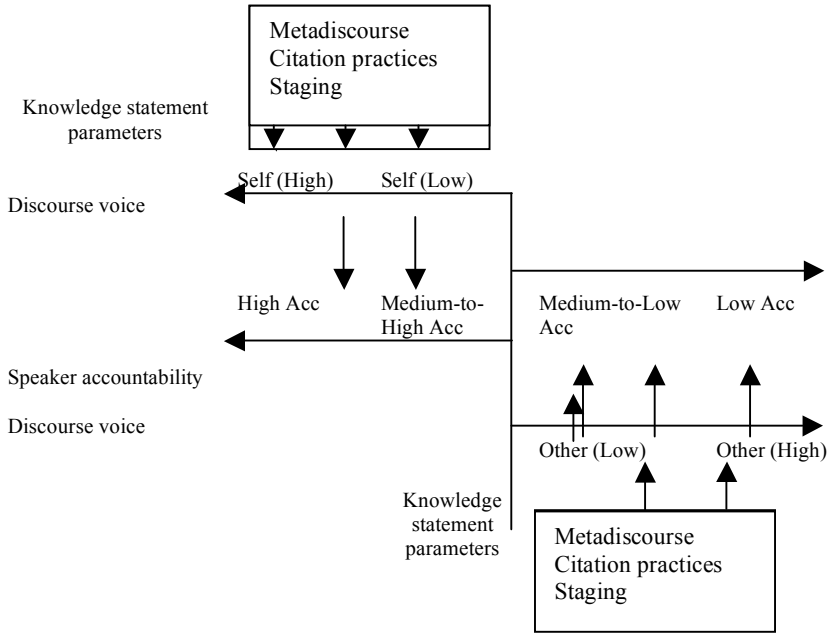

Figure 2: Scales of discourse voice manifestation (Self and Other) collapsed into a single scale of writer accountability

4. Corpus and method of analysis

The corpus used in this paper is a 1.25 million word corpus of academic texts. It contains research articles from four journals (*Brain and*

Language, Language, English Literary Renaissance and *Shakespeare Quarterly*) in two disciplines (Linguistics and Literary studies).[11] All of the journals are refereed and publish at least four editions a year.
The texts in the corpus were selected randomly from the online editions of the journals. All of the articles are from the years 2001-2004 and range in length between 5700 and 28600 words, with an average length of 12485 words per article. The corpus contains a total of 100 articles.

Table 3: Description of the corpus used in the study

Name of journal	*No. of articles*	*Total no. of words*	*Average no. of words/article*
Language	21	336,826	16,039
Brain and Language	29	301,130	10,383
Shakespeare Quarterly	25	306,225	12,249
English Literary Renaissance	25	304,319	12,172
Total	100	1,248,500	12,485

All of the knowledge-stating verbs: *argue, claim suggest, propose, maintain, assume* and *believe* occur in knowledge statements found in articles in these research journals. After being randomly selected, the articles were converted to text files and put into a database, File Maker Pro. In File Maker Pro, searches could be carried out on a number of relevant parameters either in the corpus as a whole or in one of the sub-corpora (LING)(uistics) and (LIT)(erature). All statistical analyses have been carried out in SPSS.

The model proposed in Section 3 can be applied to any knowledge statement, and therefore also in relation to each knowledge-stating verb, such that each verb will be assigned a certain "writer accountability value." Consider the following example.

[11] I use the term "discipline" to denote a fairly well established area of scientific interest, the texts of which display a certain socio-cultural "sameness" or similarity with respect to discourse practices and epistemological and linguistic routines (see also Becher & Trowler 2001).

(9) We would like to **suggest** that two assumptions might now allow one to see the development of subject agreement as potentially very similar to the general pattern of development […]. (LING) ◊ High accountability

Since each utterance is awarded a writer accountability value, and since each utterance is also tagged for discipline (LING or LIT), it is possible (i) to calculate how frequently a certain knowledge-stating verb features in utterances with a certain accountability value and (ii) to investigate potential disciplinary differences. In this way, it is possible to characterise each knowledge-stating verb as a High-accountability verb, a Low-accountability verb and so on based on its frequency of occurrence in certain accountability contexts.

5. Results

There are a total of 1703 knowledge statements in the corpus that feature the knowledge-stating verbs *argue, claim, suggest, propose, maintain, assume* and *believe*.[12] The knowledge-stating verb that occurs most frequently is *suggest* (644 occurrences). The other six knowledge-stating verbs are distributed as follows in descending order of frequency: *argue* (461 occurrences), *assume* (212 occurrences), *propose* (175 occurrences), *claim* (107 occurrences), *believe* (79 occurrences) and *maintain* (25 occurrences).

I now turn to the results of the investigation of the knowledge-stating verbs relative to different kinds of accountability contexts, first looking at the corpus as a whole, and then considering potential differences between linguistic and literary texts.

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[12] All occurrences in the data have been checked so that their meaning reflects their "knowledge stating capacity" – utterances involving other senses of the verbs have been excluded from the analysis. For example, all instances of *argue* in its "fight/quarrel" sense and all instances of *maintain* in its "preserve/continue-to-have" sense have been excluded.

5.1. Results – knowledge-stating verbs and typical accountability contexts

Table 4 represents the distribution (expressed as percentages) of the knowledge-stating verbs compared to different accountability contexts. To make the interpretation of Table 4 more transparent, let us look in detail at one example involving the knowledge-stating verb *suggest*. *Suggest* occurs at a ratio of 14.8% in High accountability contexts, 56.8% in Medium-to-High, 7.8% in Medium-to-Low and 20.7% in Low accountability contexts. I want to compare the frequency with which *suggest* is found in the different accountability contexts with how frequently any of the other knowledge-stating verbs feature in those contexts.

Table 4: Distribution of the knowledge-stating verbs in accountability contexts (the chi-square value for Table 4 is 554 228 (df=18) where $p<0.05$)

	High	***Medium-to-High***	***Medium-to-Low***	***Low***
suggest	14.8%	56.8%	7.8%	20.7%
argue	23.2%	15.2%	6.7%	54.9%
assume	26.9%	42.0%	16.0%	15.1%
propose	34.3%	8.0%	31.4%	26.3%
claim	24.3%	4.7%	14.0%	57.0%
believe	59.5%	7.6%	5.1%	27.8%
maintain	20.0%	12.0%	36.0%	32.0%
Total %	23.3%	32.5%	11.6%	32.6%

Based on Table 4, a median value (with respect to accountability) was calculated for each knowledge-stating verb and its preferred accountability contexts. A non-parametric analysis of variance for independent groups was then carried out. The knowledge-stating verbs distribute in the following way according to their *median value of accountability*.

Table 5: Median value of accountability for the knowledge-stating verbs. The result of the Kruskal-Wallis test: chi-square value 112.941 (df=6) where $p<0.05$)

Verb	***Median***	***Count (N)***
believe	(High)	79
assume	(Med-to-High)	212
suggest	(Med-to-High)	644
propose	(Med-to-Low)	175
maintain	(Med-to-Low)	25
argue	(Low)	461
claim	(Low)	107
Total		1,703

It is notable that the verbs fall quite neatly into four statistically significant groups, corresponding to the four ranges of accountability (High to Low).

Let us look at some examples from the corpus of the knowledge-stating verbs in their typical accountability contexts.

(10) I **believe** this marriage symbolizes the reunion of Puritan and Catholic which was one of James I's major policy goals. (LIT) ◊ *Believe* as a High accountability verb

(11) These figures **suggest** that constructional praxis lateralizes with language skills. (LING) ◊ *Suggest* as a Medium-to-High accountability verb

(12) Consequently, **assuming** the determiner to be in D0, such structures raise the same problem as in Chinese concerning where it might be assumed that the demonstrative is base generated. (LING) ◊ *Assume* as a Medium-to-High accountability verb

(13) The "slowed activation-hypothesis" **maintains** that a slowed rise time of lexical activation delays the activation of ambiguous word meanings (Prather et al., 1994; Swinney et al., 1989). (LING) ◊ *Maintain* as a Medium-to-Low accountability verb

(14) OP has been **proposed** for topic drop in child English and French (Wexler 1992). (LING) ◊ *Propose* as a Medium-to-Low accountability verb

(15) Bean **claims** that the play is a game, one that revises the farcical fabliau elements of earlier shrew-taming stories with a humanizing program of matrimonial reform […] (LIT) ◊ *Claim* as a Low accountability verb

(16) Keen **argues** that such conservative faith in the king amounts to the greatest deception of the agrarian public. (LIT) ◊ *Argue* as a Low accountability verb

All potential differences in typical accountability contexts between the knowledge-stating verbs were tested for significance with a Chi-square analysis and a post-hoc comparison using a Kruskal-Wallis test. With very few exceptions the differences between the knowledge-stating verbs with respect to typical accountability contexts turned out to be significant.

On the basis of the results illustrated above, it is clear that the knowledge-stating verbs do occur in different kinds of accountability contexts. Next, let us consider possible disciplinary differences.

5.2 Results – knowledge-stating verbs, accountability contexts and disciplinary differences

When considering disciplinary differences, we should perhaps first look at the overall distribution of the knowledge-stating verbs in the two disciplines. The investigation shows that the knowledge-stating verbs investigated are overall slightly more common in knowledge statements in the linguistic texts than in the literary texts (59% vs. 41% of the total number of occurrences, respectively). The distributional differences between LING and LIT for each of the individual knowledge-stating verb are marginal (more or less 50% in each sub-corpus) in three cases (*believe, suggest* and *argue*). With *assume,* more than 75% of its occurrences are accounted for in the linguistic texts; a similar tendency is visible with *propose* (92.6% in the linguistic texts). *Maintain* shows high frequency in the linguistic texts (80%) and low figures in the literary texts (20%). *Claim* is found in the linguistic texts more often than in the literary texts (59.8% vs. 40.2%).

Let us now explore in more detail possible disciplinary differences between linguistic and literary texts with respect to typical accountability contexts for knowledge-stating verbs. The result of the investigation is that only for a few of the knowledge-stating verbs are the differences with respect to accountability contexts relative to linguistic texts and literary texts significant. Most differences are non-significant and they will not be considered any further.

Table 6: Differences between the knowledge-stating verbs with respect to accountability contexts relative to linguistic texts and literary texts

	High	**Medium-to-High**	**Medium-to-Low**	**Low**
Believe in:				
LING	68.4%	5.3%	5.3%	21.1%
LIT	51.2%	9.8%	4.9%	34.1%
Assume in:				
LING	29.3%	45.7%	17.7%	7.3%
LIT	18.8%	29.2%	10.4%	41.7%
Suggest in:				
LING	17.0%	56.3%	12.2%	14.5%
LIT	12.6%	57.4%	3.6%	26.4%
Propose in:				
LING	35.2%	8.6%	32.1%	24.1%
LIT	23.1%	.0%	23.1%	53.8%
Maintain in:				
LING	20.0%	15.0%	30.0%	35.0%
LIT	20.0%	.0%	60%	20%
Argue in:				
LING	28.2%	24.1%	7.8%	40.0%
LIT	17.6%	5.1%	5.6%	71.8%
Claim in:				
LING	32.8%	6.3%	18.8%	42.2%
LIT	11.6%	2.3%	7.0%	79.1%

For *assume,* the differences between LING and LIT in Low accountability contexts are significant. Thus we can say that *assume* is more common in Low accountability contexts, like (17), in the literary texts than in the linguistic texts.

(17) Both Lacy and Garrick **assume** that female agency, in any form, is threatening to male power. ◊ *assume* in Low accountability context in LIT

For *suggest,* there are significant differences between LING and LIT in Medium-to-Low and Low accountability contexts. This means that we can conclude, first, that there is a difference between how often *suggest* features in Medium-to-Low accountability contexts in the linguistic journals as compared to the literary journals; in this context, *suggest* is more common in the linguistic texts. Second, *suggest* is more common in Low accountability contexts in the literary texts than in the linguistic texts. To exemplify, utterances like (18) are typical in the linguistic texts and utterances like (19) in the literary texts.

(18) But in addition it is **suggested** that a flat stratum also corresponds to a flat constituent structure (see Aissen & Perlmutter 1976/83). ◊ *suggest* in Medium-to-Low accountability context in LING

(19) Thurston Dart **suggests** that Morley's consort music was performed in the public theater […]. ◊ *suggest* in Low accountability context LIT

For *argue,* differences between LING and LIT in Medium-to-High and Low accountability contexts are signficant. *Argue* is thus used more frequently in Medium-to-High accountability contexts in the linguistic than in the literary texts. However, the reverse is true for Low accountability contexts: *argue* is more frequently encountered in such contexts in the literary texts than in the linguistic texts.

(20) However, one could also **argue** that there is a possibility of a different intra-hemispheric language organization. ◊ *argue* in Medium-to-High accountability context in LING

(21) Foster has also forcefully **argued** that Shakespeare himself was behind the publication of his sonnets in 1609 […]. ◊ *argue* Low accountability context in LIT

To sum up, what the corpus investigation clearly reveals is that there are few significant differences between the linguistic and the literary texts investigated in terms of the distribution of knowledge-stating verbs relative to different kinds of accountability contexts.

6. Conclusion

As mentioned in passing above, there appear to be some (sometimes substantial) significant differences in how the knowledge-stating verbs distribute in typical accountability contexts in the corpus investigated. The results indicate that *believe* should be viewed typically as a High accountability verb, that *suggest* and *assume* are both to be treated as typical Medium-to-High accountability verbs, that *propose* and *maintain* are typical Medium-to-Low accountability verbs and that *argue* and *claim* are typical Low accountability verbs (see Figure 3, which illustrates these differences in typical accountability contexts).

High accountability

Knowledge-stating verb	**Example of context**
Believe	"I believe that…"
Assume	"One would assume that…"
Suggest	"These results suggest that…"
Propose	"It is proposed that… (Smith 2000)"
Maintain	"The Smith-hypothesis maintains that…"
Argue	"Smith (2000) argues that…"
Claim	"Smith (2000) claims that "…""

Low accountability

Figure 3: Knowledge-stating verbs on scale of writer accountability

Although it seems appropriate to label the knowledge-stating verbs investigated in this paper as High-accountability, Low-accountability

verbs etc., it is important to remember that it is not the verbs themselves that *express* the relevant degree of accountability. Rather, there is evidence that knowledge-stating verbs typically *occur* in different accountability contexts.

Already in the introduction to this paper it was pointed out that the knowledge-stating verbs frequently feature in linguistic environments which, in different ways, evoke various kinds of scalar properties in the discourse (often other aspects of the verbs' contextualised uses such as their evaluative force (Thompson & Ye 1991) or the degree of epistemic strength (Thompson 1994, Hunston 1995, Vold 2006a/b).[13] It is natural to assume that the verbs are potentially scalar also in their contribution to the manifestation of accountability and I take the results of the investigation to support such a view. Other studies have shown that the choice of verb (reporting, mental state, or knowledge stating) is important for how we understand and evaluate the utterance and its knowledge content. Although this investigation (just like Malmström 2007) has not been concerned with evaluation, the investigation adds to those previous findings by pointing to where, i.e. in what accountability contexts, certain such verbs are typically found. This is likely to be important for a better overall understanding of the area of reporting discourse or the making of knowledge statements as well as for our understanding of the communicative potential of knowledge-stating verbs. I think that probably the most interesting aspect of the investigation presented here is the finding that what appears to be a pragmatically homogenous group of lexical expressions (such as reporting verbs/mental state verbs/knowledge-stating verbs) actually displays some significant differences in the usage pattern of its individual members. A pattern which is interesting to note when considering the results of the investigation is that what could be perceived of as epistemically "strong" knowledge-stating verbs, i.e. verbs that could be taken to express a strong assertive force or high commitment, mostly

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[13] These other (perhaps related) aspects of the discourse potential of the knowledge-stating verbs will not be considered any further in here (but see Malmström 2007).

feature in Low accountability contexts or the lower ranges on the scale of accountability (*argue, claim, propose* and *maintain* are cases in point). This means that writers are more likely to foreground Others and background themselves with strong-commitment verbs. Conversely, what could be considered weaker knowledge-stating verbs appear to feature more frequently in High-accountability contexts or at least in the upper range on the scale of accountability (*believe*, *suggest* and *assume* are examples). This means that writers are more likely to foreground themselves with weak-commitment verbs.

Turning to the issue of possible disciplinary differences between the ways the knowledge-stating verbs are used in different accountability contexts, it turns out that very few differences between linguistic texts and literary texts can be found. Writers in the linguistic texts considered in this paper do not appear to differ to any considerable extent from the writers in the literary texts when using knowledge-stating verbs to manifest accountability (although, as indicated above, there are *minor* differences). This is interesting in view of what has been said in previous reserearch about other rhetorical (or indeed epistemological) differences between academic disciplines.[14] Even if differences between academic disciplines have been found in other respects – for example, hedges are employed to a greater extent in marketing articles than in articles in astrophysics (Hyland 2005: 144) – the way such differences carry over to the manifestation of accountability appears to be very limited. This is somewhat surprising given the possible characterisation of linguistic texts as hard discipline texts, and literary texts as soft discipline texts, and because what is characteristic of hard and soft discipline texts could have a lot to do with issues of writer accountability.

References

Aikhenvald, A. 2004. *Evidentiality*. Oxford: OUP.

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[14] See, for example, Charles (2006) for an overview of other studies focusing on disciplinary differences.

Ballmer, T.T. and W. Brennenstuhl. 1981. *Speech act classification: a study in the lexical analysis of English speech activity verbs*. Berlin and New York: Springer.

Becher, T. 1987. "Disciplinary discourse." *Studies in Higher Education* 12 (3): 261-274.

Becher, T. and P. Trowler. 2001. *Academic tribes and territories*. Buckingham: The Society for Research into Higher Education & Open University Press.

Chafe, W. and J. Nichols (eds.). 1986. *Evidentiality: the Linguistic Coding of Epistemology*. Norwood, NJ: Ablex. 261-272.

Chafe, W. 1986. "Evidentiality in English conversation and academic writing." *Evidentiality: the Linguistic Coding of Epistemology*. Eds. W. Chafe and J. Nichols. Norwood, NJ: Ablex.

Charles, M. 2006. "The construction of stance in reporting clauses: a cross-disciplinary study of theses." *Applied Linguistics* 27 (3): 492-518.

Crismore, A. 1983. *Metadiscourse: What is it and how is it used in school and non-school science texts*. Urbana-Champaign, IL: University of Illinois.

Fløttum, K., T. Dahl and T. Kinn. 2006. *Academic voices*. Amsterdam: John Benjamins.

Francis, G., S. Hunston and E. Manning (eds.) 1996. *Grammar patterns 1: verbs*. London: HarperCollins Publ.

Groom, N. 2000. "Attribution and averral revisited: three perspectives on manifest intertextuality in academic writing." *Patterns and perspectives: insights into EAP writing practice.* Ed. P. Thompson. Reading: CALS. 14-25.

Hayakawa, S.I. 1968. *Modern guide to synonyms and related words*. Darmstadt: Verlag Darmstädter Blätter.

Holmes, J. 1988. "Doubt and certainty in ESL textbooks." *Applied Linguistics* 9 (1): 21-44.

Holquist, M. 1990. *Dialogism: Bakhtin and his world*. London: Routledge.

Hunston, S. 1995. "A corpus study of some English verbs of attribution." *Functions of Language* 2 (2): 133-158.

Hunston, S. 2000. "Evaluation and the planes of discourse: status and value in persuasive texts." *Evaluation in text: Authorial stance and*

the construction of discourse. Eds. S. Hunston and G. Thompson. Oxford: OUP. 176-207.

Hyland, K. 1998. *Hedging in scientific research articles*. Amsterdam: John Benjamins.

Hyland, K. 1999. "Persuasion in academic articles." *Hong Kong Journals On Line* 11: 73-103. (http://sunzi1.lib.hku.hk/hkjo/article.jsp?book=10&issue=100020 accessed 2007-12-04)

Hyland, K. 2005. *Metadiscourse: Exploring interaction in writing*. London: Continuum.

Levin, B. 1993. *English verb classes and alternations*. Chicago: The University of Chicago Press.

Malmström, H. 2007. Accountability and the making of knowledge statements – a study of academic discourse. Unpublished doctoral dissertation: Lund University.

Myers, G. 1985. "The social construction of two biologists' proposals." *Written Communication* 2 (3): 219-245.

Palmer, F. R. 2001. *Mood and Modality*. Cambridge: CUP.

Salager-Meyer, F. 1994. "Hedges and textual communicative function in English medical written discourse." *English for Specific Purposes* 13 (2): 149-170.

Searle, J. 1969. *Speech acts: an essay in the philosophy of language*. New York: CUP.

Searle, J.R. and D. Vanderveken. 1985. *Foundations of illocutionary logic*. Cambridge: CUP.

Shinzato, R. 2004. "Some observations concerning mental state verbs and speech act verbs." *Journal of Pragmatics* 36: 861-882.

Stotesbury, H. 2003. "Evaluation in research article abstracts in the narrative and hard sciences." *Journal of English for Academic Purposes* 2: 327-341.

Swales, J. 1990. *Genre analysis: English in academic and research settings*. Cambridge: CUP.

Thompson, G. 1994. *Reporting*. Collins Cobuild English Guides. Glasgow: HarperCollins Publishers.

Thompson, G. and Y. Ye. 1991. "Evaluation in the reporting verbs used in academic papers." *Applied Linguistics* 12 (4): 365-382.

Vande Kopple, W. J. 1985. "Some exploratory discourse on metadiscourse." *College Composition and Communication* 36 (1): 82-93.

Vande Kopple, W. J. 2002. "Metadiscourse, discourse, and issues in composition and rhetoric." *Discourse studies in composition*. Eds. E. Barton and G. Stygall. Creskill, NJ: Hampton Press. 91-114.

Vanderveken, D. 1991. *Meaning and speech acts (vol. II).* Cambridge: CUP.

Varttala, T. 1999. "Remarks on the communicative functions of hedging in popular scientific and specialist research articles on medicine." *English for Specific Purposes* 18 (2): 177-200.

Vold, E.T. 2006a. "Epistemic modality markers in research articles: a cross-linguistic and cross-disciplinary study." *International Journal of Applied Linguistics* 16 (1): 61–87.

Vold, E.T. 2006b. "The choice and use of epistemic modality markers in linguistics and medical research articles." *Academic discourses across disciplines*. Eds. K. Hyland and M. Bondi. Bern: Peter Lang. 225-249.

Wierzbicka, A. 1987. *English speech act verbs: A semantic dictionary*. Sydney: Academic Press.