Table of Contents

Metadiscourse Variations across Academic Genres: Rhetorical Preferences in Textual and Interpersonal Markers

Erdem Akbas
Erciyes University, Turkey

Çiler Hatipoğlu
Middle East Technical University, Turkey

Introduction

It is now commonly accepted that academic discourses tend to provide venues for participants to interact where the producer needs to display an awareness of the audience, and metadiscourse (MD) is the set of tools enabling the involved parties to establish relationships. MD strategies allow writers to project themselves into their work, signal their communicative intention, influence their readers and align, and distance themselves from cited materials (Hyland,1998, 2005a, 2005b). The problem is, however, that the rules of engagement differ from one culture to another, and from one specific genre to another (e.g., educational vs. professional), and according to Bizzell (1992), academic writers or speakers would not be able to produce texts fulfilling their aims unless they are closely acquainted with the intricate conventions followed in the particular genre by the particular discourse community. The overall aim of researchers exploring academic discourses, therefore, revolves around how such an interaction is built and sustained.

Keeping in mind the multinational/multicultural nature of the academic community, the main aim of academic texts (i.e., individuals with different L1s and cultures should be able to understand the messages of the authors and they should be persuaded that authors' claims are valid), and how frequently due to insufficient training on both sides (i.e., writers/speakers vs. readers/listeners), misunderstandings and communication breakdowns occur, experts in the field have called for more research scrutinizing the use of MD in different languages and genres (Ädel, 2017; Gholami, Tajalli, & Shokrpour, 2014; Hyland, 2009; Kawase, 2015). The goal of the papers in this issue is to contribute to this specific field of research and to widen, deepen and enrich the knowledge and understanding of the elusive term MD in the various sub-academic genres (e.g., university lectures, teacher feedback, dissertations, undergraduate writing). To fulfil these goals better, the contributors to the issue employ up-to-date theories, rich array of data collected in a wide variety of contexts and varied data analysis techniques. As a result, authors are able to point to and explain where and how native and non-native writers from different discourse communities employ and combine various sets of MD tools to solve communication problems, influence audience's understanding of the propositions as well as to reveal their attitude towards its content.

The studies also show how variables such as native language, training related to MD, writing experience in the genre, teaching materials related to MD can affect writers'/speakers' uses of MD devices. They also demonstrate and explain why MD and related concepts should be an important part of language teaching classes (as in teaching contrastive transition markers, hedges and boosters, modal markers), and how and when information related to MD could/should be integrated for more successful training of language users (e.g., under- and postgraduate students, translators, EMI instructors). It is believed that the articles in this issue will not only bring forward various understandings of the intricate metadiscoursal mechanisms at work in different contexts, but will also start discussions leading to the improvement of teaching and learning of MD both at national and international levels. Since both commonly studied (e.g., English) as well as less studied languages (e.g., Chinese, German, Saudi Arabian, Serbian, Turkish) are examined in the papers of this issue, it is also hoped that the findings of the studies will advance the development of more robust and widely applicable theories related to the field.

Background of Metadiscourse and Issues

Metadiscourse (MD) as a term was first introduced in the 1960s and since then it has been defined, examined and (sub)classified from different perspectives. MD's beginning was humble. Zellig S. Harris (1959) used it to refer to the passages in texts that contained information of only secondary importance. From there, it evolved into a relatively easy-to-remember aspect of texts, that is "discoursing about the discourse" (Crismore, 1984, p. 280), "writing about writing" (Williams, 1985, p. 226) and "discourse about discourse" (Vande Kopple, 1985, p. 83). Despite the fact that a big number of researchers agreed that MD indicated a speaker's/ writer's attempt to guide readers'/listeners' perceptions of the texts, no consensus concerning a precise definition of the word existed until Halliday (1994) suggested a holistic perspective towards functions of language, from which today's definition of MD has its origins. He argued that language fulfilled three important functions such as *ideational*, *textual* and *interpersonal* – and the first of those focused on issues outside the world of discourse known as propositional content. The *textual* and *interpersonal* functions, on the other hand, were defined as language uses operating within the discourse. The former was defined as the text creator's interest in the text-internal organization of the text while the latter as the writers/speakers attempt to establish relationships with the intended audience in one way or another.

Accepting this broader view towards conceptualising MD, Hyland (2017) has suggested that "the idea is the view that language not only refers to the world, concerned with exchanging information of various kinds, but also to itself: with material which helps readers to organise, interpret and evaluate what is being

said" (p. 17). Finally, Ädel (2018) argues that the conceptualisation of MD and its related definitions should be widened even more and should be approached from a more context specific angle since MD can be "realized in all sorts of discourse" and because it can have peculiar characteristics and functions in the different genres. Therefore, a more context and genre-dependent conceptualisation of the term could be of more help to both researchers and practitioners in the field since such a more flexible perspective would give them the freedom and tools to uncover the nuances of the MD that otherwise might go unnoticed. With this in mind, the articles in this special issue attempt to employ both a general approach in defining and exploring resources with which interactional and textual meanings are achieved; and a narrower approach with a focus on *reflexivity* (Ädel, 2006) signalling commentary on the ongoing discourse.

It is highly possible to consider the concept of MD as a particular kind of social engagement of the text producer with the intended audience through the assistance of the world of discourse, which can range from the evaluation of the producer about the propositional content and negotiation it with the audience (i.e., this will probably result in, unsurprisingly, could) to the signals of text organisation (i.e., but, the aim of the talk, see Fig 3). However, one of the current arguments about the conceptualisation of MD lies within the boundary of MD items with respect to their dynamic nature when combined with the propositional content in different genres. As an example, Ädel and Rodway in their articles suggest that the personal pronoun 'you' can be seen as a way of drawing the attention of the audience to not the text produced but to the communication to be established via commentaries. This is also linked to how the researchers perceive the concept, identify the MD unit and adopt their own fundamental perspective towards investigating it.

Another issue about exploration of MD is closely associated with the extend that researchers approach the units functioning as metadiscourse. So far, a number of trends have emerged in the field of MD research. Because of their study goals, various researchers have relied on pre-determined categories of MD items with a more corpus-based approach, which allows them to deal with larger corpora (i.e., Gardner and Han, Alotaibi in this issue) and reach a broader generalization of the phenomenon under investigation. In contrast, some researchers have turned their attention to examining extended MD units and their various functions with a more corpus-driven approach. Since this approach requires a closer investigation of all potential cases, these researchers usually work with relatively smaller size corpora (e.g., Ädel, Rodway, Akbas, Andresen and Zinsmeister in this issue) and are able to uncover the previously unnoticed nuances in the MD functions. And, there are some other studies combining both approaches. Such a blend of approaches enables researchers to create tailor made solutions for specific contexts and language users (i.e., Bogdanović and Mirović, Martikainen, Molino, Hatipoğlu and Algı in this issue).

Overview of Contributions to the Special Issue

The first article in the issue looks at MD from a new angle and shows that the definition of the term and how it is approached should be modified. Ädel, as the title of the paper suggests, looks at *"Variation in Metadiscursive 'You' Across Genres: From Research Articles to Teacher Feedback"*. She scrutinizes university lectures, research articles, advanced university student essays and teacher feedback on student writing, and identifies and classifies the uses of 'you' as a MD marker in these texts. Her thorough quantitative and qualitative analyses reveal the varied levels of employment of reflexive 'you' across the examined corpora. From the researcher articles where it was not encountered at all to teacher feedback materials where its frequency was 262 instances per 10,000 words. Based on these findings, Ädel argues that the metadiscursive 'you' in her teacher feedback corpus cannot be classified as a device building the stance of the user towards the content or the audience but that it is a tool aiming to solve communication problems; which in turn, is a function closer to the original conceptualization of the term MD. To be more specific, the personal pronoun 'you' is found to build a more salient world of discourse to communicate with the audience-students in this case-and respond to the audience with a more dialogic nature.

Similar to Ädel, Claire Rodway in her article entitled *"Metadiscourse use in a dialogic feedback practice"* focuses on the MD properties of teacher feedback. She looks at the electronic formative comments (n=627) provided by a lecturer to the student assignments written for the EAL [English as an additional language] courses and argues that the teacher feedback is a special genre whose metadiscursive properties should be investigated since by providing feedback to their students, teachers get involved in a dialogic partnership with them. Rodway examines the teacher comments both quantitatively and qualitatively to find potential MD uses from two major perspectives: (1) the reader's response, and (2) a pedagogical response. The analyses show that different MD markers assume different metadiscursive roles/ responsibilities. While 'here' and 'see' seemed to be almost exclusively referencing the current text, items such as *look* and *review*, exclusively point to a reference in the designed-in scaffolding from classroom instruction. The findings of the study lead Rodway to conclude that problem/solution orientation of MD in feedback is different from the typically discourse-organising function of MD in academic writing and that as participants in a feedback discourse community, teachers as well as students have agency and visibility. This, writer/reader reciprocity, in turn, makes the roles of the participants particularly complex since for the feedback to fulfil its role the awareness of the audience is essential.

In the paper entitled *"Young researchers writing in ESL and the use of metadiscourse: Learning the ropes"* by Bogdanović and Mirović, we see the

implementation of a qualitative case study approach to the examination of MD. The authors work with three young native speakers of Serbian who have advanced level of proficiency in English, and scrutinize their knowledge and understanding of MD devices. To be able to create a more complete picture of the young researchers' expertise and a more reliable network of analysis, authors collect multilateral data. First, they trace mathematics, computing and electrical engineering researchers' patterns of MD use in their academic articles. Then, they collect detailed information related to their background and training related to the field/topics; and complete the circle by conducting semi-structured interviews with the researchers where their conceptualization and awareness of MD are probed. The analysis of the data illustrates that the young researchers seemed to be aware of the concept, without being aware of the labels, as well as the rationale behind some of the linguistic items in accomplishing a more successful communication with the intended audience via their academic texts. Nevertheless, Bogdanović and Mirović argue that the lesser use of some of the interactional markers in their writing can be field dependent (e.g., math vs. computing). The paper brings to the fore once again the value of training in MD and a number of pedagogical issues to be considered while such training is planned.

The paper by Akbas and Hardman, *"Strengthening or weakening claims in academic knowledge construction: A comparative study of hedges and boosters in postgraduate academic writing"*, zooms in on how the claims are strengthened or weakened with the help of linguistic resources functioning as hedges and boosters. The material of their investigation is based on a corpus of dissertations written by L1 Turkish, L1 English and L2 English writers (approximately 300,000 words in total). They take the extent of commitment/detachment as a broader concept into account when assessing interpersonal functions of hedges and boosters. Apart from a range of differences and similarities across three groups from a qualitative perspective, the quantitative analyses suggest that the native speakers of Turkish and English established relatively divergent tones of certainty in expressing their knowledge claims; the former sounded more definitive and authoritative whereas the latter presented more academic modesty. Akbas and Hardman also highlight an interesting case for the Turkish writers of English (EL2), which shows a rather distinctive place for these interlanguage users with even more cases of weakening propositional content than the EL1 writers to signal detachment. This finding can be of help in advancing our understanding of how close the L2 practices can be to the academic conventions in the target language, digressing from their L1 (*see* also Akbas, 2012, 2014), partly due to their familiarity of target practices by means of instruction or self-development.

Gardner and Han's paper *"Transitions of Contrast in Chinese and English University Student Writing"* is an examination of linguistic representation

of *contrast* known to be one of the central concepts of academic knowledge construction. The researchers build the Han CH-EN corpus by taking various issues (i.e. comparable genres, level of study, discipline) into account in order to investigate and compare the use of contrast markers in student writing. Analysing 156 assignments written in English by Chinese (78 texts totalling 170,000 words) and English writers (78 texts totalling 204,000 words), they find no statistically significant difference between these two groups in general. Nevertheless, a closer examination of the data across five disciplines reveals that the non-science disciplines such as Business and Law had higher number of instances of contrast when compared to the science disciplines (Biology, Engineering and Food Sciences). It is also noteworthy to add that some of the contrast items (such as *while, on the other hand, whereas, in contrast*) are preferred by the Chinese writers more than the English writers at a significant level. Interestingly, the use of *on the other hand* by the Chinese writers is flagged to be misleading since they use it with a function of adding an argument to the preceding one rather than signalling a relation of contrast. The English writers, in contrast, heavily rely upon the use of *however* and *but* to signal contrast, accounting for more than 86% of all contrast items in the sub-corpus. Gardner and Han draw upon a range of implications with respect to the teaching of students in L2 writing for particular contrast transitions functioning appropriately in their contexts.

The next contribution is by Andresen and Zinsmeister who provide a cross-disciplinary perspective towards understanding the role of MD in German Linguistics and Literary Studies. The researchers employ a data-driven approach via n-gram analysis to explore their corpus of 60 PhD theses written by German students. The n-gram analysis indicates that there is a variation between two disciplines with respect to frequency and use of metatext. A closer analysis of *im Folgenden* ('in the following') reveals that literary texts included the item as an intertextual element whereas the item was mainly use for metatextual purposes in linguistics texts. In addition, the analysis of reporting verbs co-occurring with *im Folgenden* allows the researchers to come up with a theoretical argument with respect to the distinction between disciplines; that is, linguists seem to 'present an investigation' more via communication verbs (i.e., auf etw. eingehen, darstellen, vorstellen) in comparison with the literary authors who mainly 'investigate' (untersuchen) in their own texts. The results related to *zusammenfassend* ('summarizing') show that the linguistics texts had a more frequent use with metatextual function so as to introduce the summary of what has been discussed or referring to any figure or tables. Andresen and Zinsmeister suggest that the MD investigations need to focus on details rather than relying on automatic identification; otherwise, various aspects could be overlooked. The authors finalize their paper by addressing potential explanations for the disciplinary variations

they reached and some practical teaching implications while teaching academic writing to the students of these disciplines since the conventions of Linguistics and Literary Studies have distinct ways of creating and conveying knowledge.

Alotaibi's paper "*Metadiscourse in Dissertation Acknowledgments: Exploration of Gender Differences in EFL Texts*" studies the concept of MD from an understudied perspective – gender. He investigates the role of gender in determining the generic structure of dissertation acknowledgements written in English by EFL Saudi students at US universities (totalling 120 samples of sixty males and sixty females). The study includes two major steps in analysing the genre (1) identification of the moves and (2) identification of interactional MD devices within the corpus of the study. The analysis indicates that the acknowledgement sections written by Saudi students comprise of four main moves in conveying gratitude of the writers such as *thanking for academic assistance*, *thanking for moral support*. Interestingly, Alotaibi reports that his corpus did not include any hedges or engagement markers, which signals a distinctive Saudi rhetorical choice for both genders. In contrast to boosters and attitude markers, the self-mentions appear to vary largely between the genders. The female students show a heavy reliance on self-references when compared to males both in general (1348 vs. 969 instances) and particularly in the use of plural forms such as *we, our, us* (29 vs. 6 instances) in establishing an explicit rhetorical identity. Building upon the argument of strategic use of MD resources by learners, the paper offers a venue for increasing the MD awareness of the users via authentic materials and activities. Echoing some other papers in the special issue (e.g., Adel, Akbas, Molino), the researcher maintains that to be able to develop more comprehensive understanding of the applications of MD, more research investigating different academic genres and part-genres should be conducted.

The study by Martikainen examines the concept of MD by focusing on modal markers in translated medical discourse since the process of presenting the modal meaning in translated medical texts is highly vital with respect to the interpretation of the elements such as treatment, effectiveness of intervention and level of confidence. The data of the study includes Cochrane Abstracts written in English (85,000 words) and their translated versions in French (107,000 words) to investigate the sources of distortion due to biased translation of modal markers. The translation of auxiliary 'may' (mainly via more affirmative indicative mood of the verb 'pouvoir' in French) seems to shift the interpretation of the readers since the translated version signals a higher level of certainty. She offers cases of positive distortion in the translation of English texts owing to the selection of evidential verbs rather than their closest meanings in French. As an example, the translation of the evidential verb 'show' is positively distorted with a choice of reinforcing the knowledge instead of conveying a neutral meaning via 'montrer' or 'indiquer'. By

touching upon various potential sources of distortion in the translation of medical texts, the article brings up pedagogical possibilities in relation to the significance of precision on modal markers in medical texts, especially for translation students.

Molino's paper focuses on spoken interaction at an English-Medium Instruction (EMI) setting in order to investigate the functions and patterns of context-specific uses of MD by Italian lecturers in the fields of Physical Sciences and Engineering. The data of her study consists of six university lectures totalling 418 minutes with around 45,000 words. After identifying personal and impersonal markers of MD in this special corpus, she offers a close analysis of *metatext* categories (i.e. metalinguistic comments, discourse organization, speech act labels) by referring to personal and impersonal forms. The mode of communication and discipline specificity seem to have resulted in variations in the use of MD. For example, the total absence of items signalling 'arguing' in combination with extensive use of 'saying and exemplifying' creates a quite unique way of interaction with the audience. The results also show that the second person pronoun 'you' is extensively used with the functions of inviting students to the process of creating meanings or assessing their knowledge throughout the teaching process. Judging from the non-standard forms of MD, hesitations and repetitions, Molino also reflects upon the extent to which the comprehensibility of MD markers can be influenced by non-native use of English. Furthermore, the integration of MD into teacher training is proposed since the results of the study can shed light on various teacher talk issues from topic management to discourse labelling for particular teaching settings.

The last paper in the issue is entitled *"Catch a tiger by the toe: Modal hedges in EFL argumentative paragraphs"* by Hatipoğlu and Algı. Here researchers focus on a particularly problematic area for non-native speakers of English (Algı, 2012; Hatipoğlu & Algı, 2017) –modals– and use detailed analysis to answer their research questions. They begin by identifying and describing the number and functions of modal hedges used by native speakers of Turkish learning English in their English argumentative paragraphs and then, analyse the level of appropriateness of these in the contexts where they were employed. This multi-layered designed (i.e., frequency, function, appropriacy, context) allows researchers to detect problems peculiar to specific groups of learners (e.g., overreliance or avoidance of specific modals) and to suggest a number of tailor made methods for teaching modal hedges. The study also points to a number of potential factors that might shape/determine how Turkish writers express their degree of confidence and assess possibilities in argumentative paragraphs (e.g., teaching materials, norms in L1) written in their foreign language. Hatipoğlu and Algı conclude their paper by underlying how important MD related instruction is in EFL contexts and how significant it is to ensure that knowledge related to modal and other hedges is included in the academic writing assessment rubrics. Without these, they claim, L2 writers will continue "catching the tiger by the toe".

References

Ädel, A. (2017, March-April). *Mapping Metadiscursive 'you' across genres.* Paper presented at the 1st Metadiscourse Across Genres Conference (MAG2017), METU Northern Cyprus Campus, Cyprus.

Ädel, A. (2018). Variation in metadiscursive 'you' across genres: From research articles to teacher feedback. *Educational Sciences: Theory & Practice, 18*, 777–796.

Akbas, E. (2012). Exploring metadiscourse in master's dissertation abstracts: Cultural and linguistic variations across postgraduate writers. *International Journal of Applied Linguistics & English Literature, 1*(1), 12–26. http://dx.doi.org/10.7575/ijalel.v.1n.1p.12

Akbas, E. (2014). Are they discussing in the same way? Interactional metadiscourse in Turkish writers' texts. In A. Łyda & K. Warchał (Eds.), *Occupying niches: Interculturality, cross-culturality and aculturality in academic research* (pp. 119–133). London/Berlin: Springer. http://dx.doi.org/10.1007/978-3-319-02526-1_8

Algi, S. (2012). *Hedges and boosters in L1 and L2 argumentative paragraphs: Implications for teaching L2 academic writing* (Master's thesis). Retrieved from https://etd.lib.metu.edu.tr/upload/12614579/index.pdf

Bizzell, P. (1992). *Academic discourse and critical consciousness*. Pittsburgh: University of Pittsburgh Press.

Crismore, A. (1984). The rhetoric of textbooks: Metadiscourse. *Journal of Curriculum Studies*, *16*(3), 279–296.

Gholami, M., Tajalli, G., & Shokrpour, N. (2014). An investigation of metadiscourse markers in English medical texts and their Persian translation based on Hyland's Model. *European Journal of English Language and Literature Studies, 2*(2), 1–14.

Halliday, M. A. K. (1994). *An introduction to functional grammar* (2nd ed.). London: Edward Arnold.

Harris, Z. S. (1970). Linguistic transformations for information retrieval. In *Papers in structural and transformational linguistics* (Formal Linguistics Series). Dordrecht: Springer. (Original work published 1959)

Hatipoglu, C., & Algi, S. (2017). Contextual and pragmatics functions of modal epistemic hedges in argumentative paragraphs in Turkish. In C. Hatipoglu, E. Akbas, & Y. Bayyurt (Eds.), *Metadiscourse in written genres: Uncovering textual and interactional aspects of texts* (pp. 85–108). Frankfurt am Main: Peter Lang.

Hyland, K. (1998). Persuasion and context: The pragmatics of academic metadiscourse. *Journal of Pragmatics*, *30*(4), 437–455.

Hyland, K. (2005a). Stance and engagement: A model of interaction in academic discourse. *Discourse Studies, 7*(2), 173–192.

Hyland, K. (2005b). *Metadiscourse: Exploring interaction in writing.* London & New York: Continuum.

Hyland, K. (2009). *Academic discourse: English in a global context*. London: Continuum.

Kawase, T. (2015). Metadiscourse in the introductions of PhD theses and research articles. *Journal of English for Academic Purposes, 20*, 114–124.

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

Williams, J. (1985). *Style: Ten lessons in clarity and grace* (2nd ed.). Boston, MA: Scott Foresman.

Variation in Metadiscursive "You" Across Genres: From Research Articles to Teacher Feedback

Annelie Ädel[1]
Dalarna University

Abstract

This article takes the theme of metadiscourse across genres as a point of departure. To illustrate variation in the use of metadiscourse, reflexive uses of second person "you" are examined in different genres and discourse types, all of which represent academic discourse. The material includes university lectures, research articles, advanced university student essays and teacher feedback on student writing. The data is analysed both quantitatively, taking frequency into consideration, and qualitatively, taking discourse function into consideration. The extended units in which "you" occurs are compared across genres and discourse types to highlight the considerable variability of metadiscursive uses. One of the implications of the variation found—which was brought to the fore especially through the study of teacher feedback—is that our conceptualisations of metadiscourse are overly influenced by the type of data that have been in focus in research to date: highly visible written genres at the highly monologic end of the continuum. The metadiscourse in teacher feedback was found to be primarily about solving communication problems rather than organising the discourse and telling the reader how to respond to it. In fact, the feedback material is congruous with Roman Jakobson's original conceptualisation of the metalinguistic function as solving communication problems.

Keywords

Metadiscourse • Genre • Academic discourse • Reflexivity • Variation

1 **Correspondence to:** Annelie Ädel, Department of English, School of Humanities and Media Studies, Dalarna University, 791 88 Falun, Sweden. Email annelie.adel@du.se

Metadiscourse across Genres

One of the pioneers in the study of metadiscourse, Vande Kopple (1985, p. 88), raised the question about the relation of metadiscourse and genre variation over thirty years ago, asking: "Are some kinds of metadiscourse more appropriate than others—or even necessary—in some kinds of texts?". This question is beginning to generate interesting answers. A recent event which helped paint a clearer picture was the first conference fully dedicated to work on metadiscourse, whose theme was "Metadiscourse across Genres".[2] This theme is taken as a point of departure here.

Two main points will be presented: (i) There seems to be considerable variation in the use of metadiscourse across genres; the second person pronoun "you" will be used to illustrate this. (ii) One of the implications of this is that our definitions and conceptualisations of metadiscourse need to be rather flexible to accommodate this variability. In fact, they need revisiting, as they are overly influenced by the type of data that have been primarily in focus in research to date: written genres, at the "monologic" end of the continuum.

If we consider previous work on metadiscourse from the perspective of genre, we can see that it is especially academic genres that have been in focus. Divided into written and spoken types, the following list includes some examples of types of discourses studied in an academic context together with a selection of references.

WRITING

- Research articles (e.g. Dahl, 2004; Harwood, 2005; Hyland, 1998; Kuo, 1998; Mauranen, 1993; Pérez-Llantada, 2010; Sanderson, 2008; Vassileva, 1998)

- MA/PhD theses (e.g. Hyland, 2004)

- University student essays (e.g. Ädel, 2006; Crismore et al., 1993)

- Textbooks (e.g. Bondi, 2001; Hyland, 2004)

SPEECH

- University lectures (e.g. Ädel, 2010; Mauranen, 2001; Pérez-Llantada, 2006; Molino, 2018)

- Conference talks (e.g. Luukka, 1994; Thompson, 2003)

- Spoken ELF interactions (Mauranen, 2012)

---

2   The conference was held in 2017 and attracted participants from some 40 different countries, which testifies to the fact that metadiscourse is a dynamic area of research across the globe. This article is based on a plenary talk given at the conference.

It is academic writing that has gained the widest popularity by far compared to academic speaking. For a host of different reasons, our research is "scripto-centric".[3] The most widely investigated genre appears to be the research article—a high-prestige genre that is also highly visible. The focus of research into metadiscourse has been on written texts and the linguistic resources that are typically drawn on to interact with the audience even in a highly "monologic" text. By "monologic" is meant a type of discourse that is not executed face-to-face and that offers no possibility for direct linguistic exchanges.[4] Metadiscourse has been conceptualised as contributing to "organis[ing] a discourse or the writer's stance toward either its content or the reader" (Hyland, 2000, p. 109).

Variables studied in research on metadiscourse

In addition to looking at metadiscourse across genres, we should also, to a greater extent and more specifically, be looking at variables which affect the use of metadiscourse. After all, if we break down the concept of "genre"—in the sense "type of discourse"—it involves a complex set of variables which may all be relevant to the variability of metadiscourse. We know that language is not a static phenomenon, but rather varies depending on why it is used, where it is used, by whom it is used, to whom it is addressed, and so on. In studies of metadiscourse, we are interested in the discourse level, but variability of course occurs at all levels of language, with speakers making choices in pronunciation, vocabulary, grammar, information structure, politeness, etc. Some prominent variables that have figured in classic work in sociology and anthropology are listed as follows in Biber and Conrad (2003, p. 175): the participants, their relationships, and their attitudes toward the communication; the setting, including factors such as the extent to which time and place are shared by the participants, and the level of formality; the channel of communication; the production and processing circumstances; the purpose of the communication; the topic or subject matter.

If we consider the variables that have been explored in previous research on metadiscourse, we find language culture (e.g. Crismore et al., 1993; Mauranen, 1993; Mur-Dueñas, 2011; Pérez Llantada, 2010; Salas, 2015) and academic discipline (e.g. Dahl, 2004; Harwood, 2005; Hyland, 1999, 2005) among those most widely studied. Studying metadiscourse from the perspective of rhetorical styles cross-linguistically has attracted a great deal of attention, as has the study of research writing across academic disciplines. Metadiscourse has been studied contrastively also across

---

3 Overall, this general trend also applied to the first conference on metadiscourse (MAG 2017), even if the repertoire was expanding somewhat, especially into media discourse. Of a total of some 90 presentations, as many as 60 were on academic writing, and only half a dozen on academic speaking.

4 Researchers such as Ken Hyland have convincingly shown that no discourse is truly 'monologic', as there is always a recipient in mind—hence the scare quotes marking 'monologic'.

different genres/types of texts (e.g. Bondi, 1999, 2010; Hyland, 2005). Given the complexity of the concept of genre, it is useful to try to break it down into more specific variables if possible, and for example see a study looking at BA-level writing and MA-level writing as contrasting the academic proficiency of the writer. There is also work that takes a diachronic perspective on metadiscourse, investigating its potential change over time (e.g. Boggel, 2009; Hyland & Jiang, 2016; Taavitsainen, 2000). Furthermore, there is a small number of studies that have contrasted spoken and written modes from the perspective of metadiscourse (e.g. Ädel, 2010; Mauranen, 2001; Zare & Tavakoli, 2017). We are beginning to see more work on metadiscourse in spoken genres (e.g. Correia et al., 2015; Molino, 2018; Zhang et al., 2017). The extent to which metadiscourse varies based on gender has also been studied (e.g. Alotaibi, 2018; Crismore et al., 1993; Sanderson, 2008; Tse & Hyland, 2008), with varying results. Then there are additional variables which have been investigated only to a small extent, such as age and academic status in the case of academics writing research articles (Sanderson, 2008). The use of metadiscourse has also been investigated comparing learner versus native-speaker writing (e.g. Ädel, 2006) and, more recently, focusing on "novice" writers at the postgraduate level contrasting not only L1 English to L2 English but also the L1 of the L2 group (Akbas & Hardman, 2018). It has also been considered from the perspective of position in text (e.g. Ädel, 2006), with findings suggesting that metadiscourse is likely to occur particularly often in part-genres such as introductions and conclusions. Just to further stress the fact that the number of relevant variables may be large, we can consider also the relative power of the discourse participants. There is a hypothesis in a study by Mauranen that "those in a dominant position in any speech event will use more reflexive expressions" (2001, p. 209). It seems that this has yet to be tested empirically, but it is likely to be true for instance in institutional settings if we consider teachers versus students.

To sum up, there appears to be considerable variation in the use of metadiscourse, but we are still far from being able to map in a comprehensive way the extent of the variation, the variables that give rise to it, or the possible ranking of different variables (cf. Ädel, 2012a). Thus, in future work, we would stand to gain from taking a more systematic approach to variability.

Reflexivity in Language

Having set the scene by considering briefly genre and variability, next I will give some background on reflexivity in language. My own work on metadiscourse has approached it as a form of reflexivity in language. This is not the dominant paradigm given what is published on metadiscourse, but the dominant paradigm is what has been called the *interactive* approach, where the interactivity aspect is foregrounded and a broad definition of metadiscourse is applied. This is championed by Ken Hyland,

who has done so much important work in this area. I adopt a *reflexive* approach to metadiscourse, where the reflexivity aspect is foregrounded, and a more narrow definition is applied [These two different approaches are described for example in Ädel and Mauranen (2010) and Flowerdew (2015, pp. 19–20)].[5]

I see metadiscourse as a specific type of reflexivity in language, defined as "reflexive linguistic expressions referring to the evolving discourse itself or its linguistic form, including references to the writer-speaker *qua* writer-speaker and the (imagined or actual) audience *qua* audience of the current discourse" (cf. Ädel, 2006). Human language gives us the means not just to convey information, but also to refer to the situation of communicating itself, as when we emphasize the main message or show how the discourse is structured. Communication *about* communication is one of the basic functions of language, first described as such in the 1950s by Roman Jakobson who dubbed it the "metalinguistic function". Jakobson (e.g. 1990) essentially described the function as being about checking that the channel is working and removing obstacles to communication. Another term used for this function is "reflexivity" in language, defined as the capacity of language to refer to or describe itself (Lyons, 1977, p. 5). Jakobson's work has been used as a basis for a model of metadiscourse where the "reflexive triangle" is central (cf. Ädel, 2006). If we focus on the foregrounded parts in Figure 1 (the backgrounded parts are explained below), we see that, central to this model is the view of metadiscourse as serving *metalinguistic*, *expressive* and *directive* functions of language, based on three of Jakobson's six basic functions of language. This means that the main components of metadiscourse include the discourse, or text, itself (the metalinguistic function),
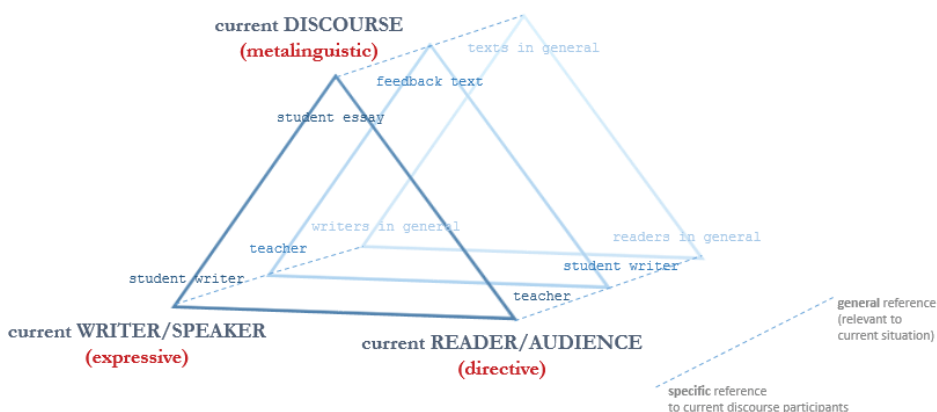
Figure 1. The reflexive triangle in a multidimensional representation (based on Ädel, 2017, p. 56).

---

5   Note, however, that research into metadiscourse involves more than two single, and dichotomous, approaches (cf. Ädel, 2006, pp. 26;197-8; Hyland, 2017, p. 19).

and also potentially the writer-speaker persona (the expressive function), and the real or imagined audience (the directive function). An important point here is that the referential function is excluded, as it refers to entities in the "real" world, outside the world of discourse.

Even if metadiscourse is a fuzzy discourse phenomenon, we can make the definition more explicit, which in turn makes the identification of metadiscourse more reliable. Thus, specific criteria are applied (Ädel, 2006, 27ff), involving the "world of discourse" and the "current discourse". The "current discourse" criterion (cf. Mauranen, 1993) means that, in order for a linguistic unit to count as metadiscourse, it needs to refer to the ongoing text rather than to other, unrelated texts. References to other texts are considered intertextual and not metadiscursive. The criteria of the current writer-speaker and the current reader/audience mean that—in personal types of metadiscourse, where there is explicit reference to a discourse participant—the reference needs to be made to the current discourse participants and in their roles as discourse participants, and they need to be carrying out actions, or doing things, in the world of discourse (as in: *as I mentioned earlier*) and not in the "real" world (as in: *I am so happy to be in Cyprus*). To put it differently, the discourse participants' roles as communicators rather than as agents in the "real" world are foregrounded. The reflexive triangle, together with the criteria of the current discourse/writer-speaker/audience, help restrict the concept of metadiscourse and keep the focus on reflexivity, which is considered key.

In some types of data, the reflexive triangle becomes highly multidimensional, as indicated in Figure 1. This is the case in teacher feedback on student writing, which is a type of discourse which will be in focus later in this article. The backgrounded parts in the figure indicate that the feedback text is part of a larger "genre chain", which makes the concept of the "current discourse" more complex, as discussed in 4.1. They also indicate that the writer and reader roles are unusually complex in the case of feedback (cf. Ädel, 2017, p. 65).

When applying the model to real-language data, manual analysis is necessary. In corpus-based studies when lists of potential metadiscourse can be systematically and automatically searched for, it may be the case that a relatively large proportion of the retrieved items (such as instances of "I", which only potentially refer to the current writer in his or her role as writer) do not meet the criteria of the model and thus do not qualify as metadiscourse (cf. e.g. Ädel, 2010).

Second Person "You" across Genres

Next we will take a closer look at second person "you" in metadiscourse across genres. All of the genres that will be referred to come from the academic domain. First, we will briefly consider how "you" is typically treated in studies of metadiscourse.

In the interactive approach to metadiscourse, second person "you" is classified as "commentary" or as an "engagement marker". Vande Kopple's (1985) "commentary" is "used to address readers directly and draw them into an implicit dialogue". Hyland's "engagement marker" (2001) is also called a "relational marker" in Hyland (1998, p. 444), following Crismore et al. (1993). It includes "devices that explicitly address readers, either by selectively focusing their attention or by including them as participants in the text situation", through second person pronouns, imperatives, question forms and asides. We can note the reliance on *writing* in these definitions.

How does the reflexive model presented above treat "you"?[6] First of all, single occurrences of "you" *per se* are not counted as part of a specific subcategory, but they are rather seen as and analysed as part of extended units, which can be seen to fulfil some kind of discourse function (as in 3.2 below). In other words, the frequency of "you" with metadiscursive reference is reported on (as in 3.1 below), but it is not considered a subcategory of metadiscourse as such. Furthermore, a unit involving "you" would be classified as "personal" (rather than "impersonal") metadiscourse given that there is an explicit reference to a discourse participant—this is a distinction that is important to maintain, and there is likely to be a great deal of interesting variation along personal and impersonal types.

Furthermore, not all occurrences are considered relevant, so there is no blanket acceptance of "you" as metadiscourse, but all examples need to be analysed in their context. Quoted material is not included, as it is the current writer-speaker's discourse that is of interest. Even if the writer-speaker strictly speaking has produced the text, there are cases that are excluded, as in (1), where the writer provides a backtranslation of an example in another language.

(1)   Tu prends quel train demain? **you** take which train tomorrow

Also, we want to apply a discourse-internal focus, so in metadiscursive uses, the reference needs to be made to the current discourse participants and in their roles as discourse participants, carrying out actions in the world of discourse primarily.

Generic uses of "you" form an interesting case. With generic "you", there is no specific reference to a discourse participant (the expressive and/or directive functions are not explicitly activated), but the unit in which "you" occurs can still be situated in the world of discourse (the metalinguistic function is activated). Thus, generic "you" can be metadiscursive, as is the case in (2), marked by the discourse verb SAY, from a research article in Literary Studies.

(2)   Johnson once said that a man wasn't on oath in epitaphs. **You** could say the same about book-plates.

---

6   This sentence is a good example of 'you' used as metalanguage and not as object language. While such examples are metalinguistic, they are not classified as metadiscourse.

Quantitative Analysis

What do we find in terms of variation across genres if "you" is considered quantitatively? To begin with, let us contrast two genres which (among those considered for this study) represent extremes at either end of the scale with respect to second person "you": on the one hand, research articles, and, on the other, written teacher feedback on student writing. Expressions involving "you" are telling of the extent to which metadiscourse can vary across different types of academic discourse. In research articles, second person "you" practically does not occur, while in the feedback material, it is by far the most frequently occurring personal pronoun.

Second Person in Research Articles and in Feedback

Table 1 shows how the second person pronoun is essentially non-existent in the research article (RA) material. It represents the least frequently occurring personal pronoun; the frequency of occurrence of first person pronouns is included for comparison. The material represents writing in the Humanities, specifically History [Hist], Linguistics [Ling] and Literary Studies [Lit], where this type of audience address is more likely to happen at least when compared to areas in the hard sciences (see e.g. Hyland, 2005a[7]). A distinction is also made between regional variety (British and US-American English) as a variable potentially affecting the use of metadiscourse. Each row in the table is represented by 16 RAs, for which the total number of words is found in the first column.

Table 1
Frequency Comparison of Metadiscursive Uses of Personal Pronouns in RAs; Raw Numbers and Normalised Frequency per 10,000 Words

Corpus size	Corpus material	*I*		*we*		*you*	
		n	f/10,000	n	f/10,000	n	f/10,000
160,204	**Hist** *(BrE)*	20	1	8	0	0	0
263,693	**Hist** *(AmE)*	136	5	93	4	0	0
210,274	**Ling** *(BrE)*	487	23	673	32	21	1
135,591	**Ling** *(AmE)*	253	19	195	14	6	0
113,415	**Lit** *(BrE)*	52	5	119	10	3	0
172,963	**Lit** *(AmE)*	224	13	259	15	4	0

One single author accounts for the majority of examples of "you" in Linguistics, so it really is extremely low-frequency and not used across the board.[8]

By contrast to the research articles, "you" is very highly frequent in the feedback material, as seen in Table 2. The material is from the context of a first-term course

---

7   "It is clear that writers in different disciplines represent themselves, their work and their readers in different ways, with those in the humanities and social sciences taking far more explicitly involved and personal positions than those in the science and engineering fields" (Hyland, 2005a, p. 187).

8   It is also interesting to note that the use of metadiscourse involving personal pronouns *I* and *we* varies both across disciplines and varieties of English (cf. Ädel, 2018).

on academic writing in English Studies at a university in Sweden. The feedback is given electronically by different teachers on a range of different tasks. The number of words amounts to just over 40,000, counting the feedback only and not the student texts.[9] The table includes first person pronouns for comparison. It is clear that "you" is the most common personal pronoun in personal metadiscourse, showing that the student writer ("you") is considerably more visible than the teacher giving feedback (representing "I"). Interestingly, these pronoun distributions in feedback are corroborated in Rodway (2018). Also, there were relatively few exclusions, but the number of relevant metadiscursive uses was considerably higher in the feedback data than in other types of academic discourse. The likelihood that "you" will be referring to the current audience is unusually high, so the world of discourse is more salient than the "real" world.

Table 2

Frequency of Metadiscursive Uses of Personal Pronouns in Written Teacher Feedback (based on Ädel, 2017)

	I		*we*		*you*	
	n	f/10,000	n	f/10,000	n	f/10,000
Feedback corpus	237	**57**	71	**17**	1,094	**262**

Further Comparison of Second Person "You" across Genres

To further illustrate how metadiscourse may vary across genres and discourse types, Table 3 shows further quantitative data involving metadiscursive "you". In addition to research articles at the top in the table—with the humanities disciplines lumped together by regional variety (British English and US-American English)—and teacher feedback on student writing at the bottom of the table, the comparison includes university student essays of different kinds and spoken university lectures from the Michigan Corpus of Academic Spoken English, MICASE. The L2 student essays are argumentative essays from the International Corpus of Learner English (ICLE) and written by Swedish university students who are advanced learners of English. The L1 student essays come from the Locness corpus, designed to be comparable with the L2 ICLE essays. Like the research articles, these have also been split by regional variety, as speakers of both British and American English are represented. The L1 proficient student texts come from the Michigan Corpus of Upper-level Student Papers, MICUSP, and exemplify top-grade writing of varying genres by graduate and final-year undergraduate students. See Ädel (2017) for details about the corpora. As above, results for first person *I* and *we* are included for the sake of comparison

---

9   For more information about the material, and more specific findings, see Ädel (2017).

Table 3
The Frequency of "I", "We" and "You" in Metadiscursive Units across Corpora (partly based on Ädel, 2017)

	I		we		you	
Corpus material	n	f/10,000	n	f/10,000	n	f/10,000
Humanities (Ling; Hist; Lit) research articles (*BrE*)	559	**12**	800	**17**	27	**1**
Humanities (Ling; Hist; Lit) research articles (*AmE*)	613	**11**	547	**10**	13	**0**
L2 student essays (*Swicle*)	347	**17**	84	**4**	110	**5**
L1 student essays (*AmE*)	72	**5**	38	**3**	57	**4**
L1 student essays (*BrE*)	20	**2**	29	**3**	3	**0**
L1 proficient student texts	425	**11**	234	**6**	33	**1**
University lectures	794	**31**	735	**29**	1,869	**73**
Feedback corpus	237	**57**	71	**17**	1,094	**262**

A graphical representation of proportions will make the differences even clearer. Table 4 shows the normalised frequencies of personal metadiscourse involving "you" in the same genres and discourse types as in the table above, ordered by frequency.

Table 4
Occurrences of Personal Metadiscourse Involving "You" Contrasted across Discourse Types (Each asterisk represents 10 occurrences per 10,000 words, while an asterisk in parentheses represents a value close to 10)

	Metadiscursive "you"
Humanities RAs *BrE*	-
Humanities RAs *AmE*	-
L1 student essays (*BrE*)	-
L1 proficient student texts	-
L1 student essays (*AmE*)	-
L2 student essays (*Swicle*)	(*)
Spoken university lectures	*******
Written feedback	**************************

It is interesting to note that the dividing line here is not between spoken and written modes, as we might expect. This gives partial support to Mauranen's (2010, p. 37) observation that metadiscourse plays a "much more important role" in spoken discourse than written prose because the "need to manage spoken interaction in real time" is greater. But it seems that the discourse management that is a key feature of the written feedback data has a considerable effect on the frequency of metadiscourse. The spoken mode is only represented by one genre (lectures) here, which happens to be of a type that is not very interactive, but where there is a certain amount of discourse management.

Qualitative Analysis

In previous work I have looked at audience orientation involving "you" from the perspective of the discourse functions in which it is involved. This type of analysis is inspired by work by Kuo (1998) and Vassileva (1998), among others. Ädel (2012b) investigated how the audience is addressed in three different monologic academic

registers: (i) published academic prose ("drawn from e.g. books and research articles in different subject areas" from the BNC—including popular science), (ii) proficient student texts and (iii) spoken lectures.[10] A randomly selected dataset of 150 examples was taken from each of these three types of discourse and each example was coded based on a taxonomy from Ädel (2010), based on spoken lectures and written student essays. The results showed that the distribution of discourse functions was similar in the three discourse types, but that the highest frequency of metadiscourse was found in the spoken lectures and not in the written modes.

There is not sufficient space to go into all of the different discourse functions here, but we will consider selected examples of a few of them, taken from the subcategory "References to the audience". This is meant to give a sense of some of the qualitative differences in the use of metadiscourse across genres, as the taxonomy of discourse functions will be contrasted to, first, the research article material (below) and, second, the feedback material (in Section 4). The work of coding the data for discourse functions is still ongoing, so information about how prevalent the functions are across genres is not given here.

What happens if research articles are considered from this perspective? To begin with, the method of taking a randomly selected dataset of 150 examples did not work, given how infrequent "you" is, even in a corpus of over one million words. A second observation is that, despite the sparse data, it was possible to classify the "you" units in the research articles on the basis of the taxonomy, even if it was originally developed for other types of academic discourse. A large proportion of the occurrences in the RAs involved the discourse function "Imagining scenarios", as in (5) below. However, the data came mostly from one single author, so the dispersion was poor.

Next follow some examples of ways in which units including "you" are used. Given how infrequent "you" units are in the research article material, examples from the other written genres referred to above will also be included. See Ädel (2012b) for more information about definitions and for further examples. The discourse function called Reviewing seen in (3) is used to point backward in the discourse. It is used by the speaker-writer to remind the audience about something which has already taken place in the discourse.

(3)   (a) *…her thought processes (in a way which **you** did not in (44)* [research article; Linguistics]

    (b) *If **you** look back to (97), you will notice that…* [research article; Linguistics]

    (c) *…with the constraint it encodes. In particular, **you** will recall the incidents earlier in the…* [research article; Linguistics]

---

10 Category (i) is not included in the genre comparison above, whereas (ii) and (iii) are: (ii) overlaps with the MICUSP material and (iii) with the MICASE university lectures.

(d) *This is, as **you** may recall, just a simple matter of underdetermination of Physics.* [proficient student writing]

(e) ***You may remember** that we discussed the distinction between...* [published academic prose]

ENDOPHORIC MARKING[11], exemplified in (4), is used to point to a specific location in the discourse; it refers to cases in which it is not clear or relevant whether what is referred to occurs before or after the current point (unlike PREVIEWING and REVIEWING), as for example when the audience is instructed to look at a table, or turn to a specific point in a handout.

(4)   (a) *From this figure, **you** can see that all of the CIR defects occur when using supplier B.* [proficient student writing]

(b) *...but if you are new to this area **you** would do better to wait until you have read ch. 9.* [published academic prose]

IMAGINING SCENARIOS, exemplified in (5), asks the audience to see something from a specific perspective, often in an engaging fashion, and often adding a narrative flavour. It allows speaker-writers to make examples or descriptions more vivid and pertinent to the audience, often using a hypothetical, "picture this" technique.

(5)   (a) *Imagine that, for some terrible accident **you** lose your tongue.* [proficient student writing]

(b) *Consider this scenario: **you** are in a casino with a friend. [...] **You** reply to your friend, "I think she won the jackpot."* [student writing]

ANTICIPATING THE AUDIENCE'S RESPONSE[12], exemplified in (6), attempts to predict the audience's reaction to what is said, often by attributing statements to the audience as potential objections or counterarguments. It shows the speaker-writer's concern with the audience's reception and processing of what is said.

(6)   (a) *From the planet's surface **you** might think there is an eastward force,* but *there....* [published academic prose]

(b) *...find out how much it is likely to cost, if necessary by one of the high street printing chains. **You** will probably find you are very surprised by how little that cost may be.* [published academic prose]

Next, we will see to what extent it worked to apply the taxonomy of discourse functions also to the feedback data.

---

11 Term from Hyland (1998, p. 443).

12 Early work on metadiscourse talked about "Anticipating the *reader*'s reaction" (e.g. Crismore, 1989).

Second Person "You" in the Feedback Material

In what follows, I will focus specifically on the feedback material and some of the insights it has provided with respect to metadiscourse. When the taxonomy of discourse functions was applied to the feedback data, it quickly became clear that it was not fully applicable. This is not surprising, as discourse functions are likely to vary across genres, as speaker-writers and audiences have different needs and operate under different circumstances. What is surprising, however, is the extent to which the metadiscourse in the feedback is different from the other academic types of text serving as a point of reference. If we consider uses of "you", specifically, and a set of common collocations[13] referring to the student as a writer (material in brackets is optional), for illustration:

(7)   *what [it is] you are trying to say*
        you could…
        you could have…
        you don't…
        you have…
        you haven't…
        [what/do/did] you mean…
        you [really] need [to] …

In most of these strings, it looks as if the teachers are criticising the students for having done X or for not having done Y, which is verified by a close analysis of the individual examples. Many of these strings would be quite face-threatening in many contexts. The metadiscourse in feedback is about directing the reader [the student] *not* regarding how to read the current text, but regarding how to write or, more generally, how to communicate. Below is an example with more context included:

(8)   *What do <u>you</u> want to show us by using this examples [sic]. I think it is good that <u>you</u> use these but the reader does not automatically know what <u>you</u> want to tell us but [by] including these examples.[14]*

The final analysis of specific discourse functions is not yet ready, so it is too soon to present a revised taxonomy. However, if we consider general functions, it is still possible to report on general patterns in the feedback material. The two main patterns identified were: (i) metadiscourse is used to refer to/respond to an interlocutor's discourse and (ii) metadiscourse is used to solve communication problems. With respect to (i), we can note that the reference here is specific rather than general, in that the "you" referent tends to be a known entity—a specific student, to whom the teacher directs feedback; cf. Ädel (2017). There is an interesting parallel to Mauranen's category of "altricentric discourse", which is described as dialogic and

---

13 These are sufficiently common to appear as 'clusters' when searching for patterns involving 'you' in the concordance program AntConc (see http://www.laurenceanthony.net/software/antconc/, accessed April 2018).

14 There are a large number of typos in the feedback material, as evident in this example.

referring to specific interlocutors.[15] As a consequence of (i), we can also note that the metadiscourse in the feedback material is not the prototypical kind (for writing), whereby the current writer is organising his or her own ongoing discourse (cf. Ädel, 2017, p. 64). Instead, it can be said to be "dialogic" (using a label from Mauranen, 2001) or "contextual" (using a term from Luukka, 1994), that is, referring and responding to another speaker's [the student's] discourse. Table 5 shows the three subtypes that are included in two general classifications from previous work, which were created for spoken metadiscourse:

Table 5
General Classifications Used in Mauranen (2001) and Luukka (1994) for Spoken Metadiscourse (taken from Ädel, 2010, p. 74)

Subtypes in Mauranen (2001)	Subtypes in Luukka (1994)
monologic (organising the speaker's own ongoing speech)	*textual* (used by author to structure text)
dialogic (referring and responding to interlocutor's talk)	*contextual* (used by author to comment on the communicative situation or the text as a product)
interactive (eliciting response from interlocutor, e.g. asking questions, choosing the next speaker)	*interpersonal* (used to signal attitudes towards the content of the text or people involved in the communication situation)

The monologic or textual type is not common in the feedback material, but it represents prototypical metadiscourse according to present-day research. The interactive or interpersonal types, which are also key functions in the interactive approach to metadiscourse, are found, however. More systematic analysis is needed to assess this, but my impression is that these tend to be secondary to the "dialogic"/"contextual" types. Work done by Schiffrin (1980) on metatalk is also relevant here, especially the term "evaluative brackets", which refers to elements that allow the speaker to for example give her opinion about what has been said or to request an explanation (Schiffrin, 1980, p. 218). Schiffrin's taxonomy includes "organisational elements" which regulate the discourse and "evaluative elements" which serve to assess or react to the discourse—and the metadiscourse in the feedback material is evaluative to a great extent.

With respect to the second pattern, that (ii) metadiscourse is problem-solving, the work of Roman Jakobson (referred to in Section 2 above) has turned out to be highly relevant to the feedback material. When Jakobson describes the metalinguistic function, what he does is really to focus on potential problems in communication being resolved. He mentions making sure that the channel is working—it is about removing actual and potential obstacles to the communication. This seems to be the quintessential function of teacher feedback, at least in a written proficiency context: to solve problems in the communication. We find comments (i) pointing to problems/ unclarities, as in (a)-(b); (ii) asking for changes to problematic items, as in (c)-(d); and (iii) suggesting changes to problematic parts, as in (e)-(f):

---

15 Term used at the above-mentioned MAG 2017 conference.

(9)   (a) *It is good that **you** use secondary sources but how does this fit in here?*

(b) *Sometimes **you** use inappropriate linking expressions Ahmed but it is good that **you** try to use them and this will improve with practice.*[16]

(c) *I agree that this is a great quote, but **you** are using an usually large amount of quoted material in your introduction. Keep in mind that this is your text--try to use your own words to a greater extent.*

(d) *Instead of repeating this three times, think of what **you** could do to save words*

(e) ***you** could soften this a little as **you** are only speculating here: "One explanation for the different frequencies of swearwords might be that adults..."*

(f) *These quotes from Eckert don't quite work at the beginning of the introduction, when **you** haven't yet stated the topic. If **you** want to use them, put them elsewhere or re-phrase them.*

Examples (a) and (c) follow the rather frequent pattern [POSITIVE evaluation] *but* [NEGATIVE evaluation]. This may also be reversed, as in (b), such that the negative evaluation comes first. In the feedback material collected for this study, it is generally the case that the negative feedback by far exceeds the positive feedback. Positive feedback also occurs, and it typically points to especially elegant solutions, or stresses ways in which the communication has worked (particularly) well. The positive evaluation often takes the form of a description of what the student has done, sometimes not even including an evaluative element, as in the following examples:

(10)   (a) ***You** have paraphrased using your own words.*

(b) ***You** have kept the text concise*

(c) ***you** also use <u>appropriate</u> linking expressions*

With no explicit evaluating language, it may be difficult for students to know how to respond (Should I keep doing this or not?).

To sum up, many of the examples of metadiscourse revolve around the question *how is the channel working: not so well or very well?* We can see the teacher giving feedback as a mediator, whose task it is to assure felicitous communication; specifically, to make sure that the text communicates what it is intended, and supposed, to communicate (cf. Ädel, 2017, p. 64).

On the Complexity of Metadiscourse in Feedback

The metadiscourse in the feedback material is complex in ways having to do with what might be called the "genre chain" (Ädel, 2017, p. 65; cf. also Figure 3 in Rodway,

---

16 The material has been anonymised, so the student's actual name has been replaced.

2018), which is at times quite apparent in the feedback. There are vertical links, in that the teacher's comments are added to an already existing text. Here, the genre chain involves the original text, possibly several drafts of it, which is commented on and the feedback (again, possibly several iterations of it, even given by different people—sometimes also by other students, as in peer feedback). The teacher feedback is not a stand-alone genre, but is intrinsically connected to the original text, and even to specific *points* in the original text—in this way, it is indexical and similar to footnotes. It can be seen as a *supporting* (part-)genre, dependent on other texts and part-texts.

The feedback material shows that we cannot always in a straightforward way apply the criterion of "the current [or ongoing] discourse". (Keep in mind that the reflexive model makes a distinction between current discourse and intertextual discourse, with the latter category representing and/or referring to other texts which makes it by definition not metadiscourse.) Similar complexity is found, for example, in the context of spoken lectures, where there is often good reason "to consider a class or a lecture series as one and the same "speech event" or "text", even though it is spread out in time and space" (Ädel, 2010, p. 75). This position is also suggested by Mauranen (2001, p. 204), who states that "[a] good deal of discourse organising talk refers to previous or later events which can be in an important way thought to be part of the ongoing discourse - as for instance in the case of a lecture series". In more recent work, Mauranen has labelled this a "non-immediate" type.[17]

There are also horizontal links (if we see time as linear) in the genre chain, with references to future writing by the student and to previous drafts and feedback commentary, as in (a) and (b).

(11)   (b) You need to rewrite this Esmeralda as it is very difficult to understand what you are saying. If you have a friend or relative who can read it for you before **you** hand it in this might help you fix some of the problems.

(c) As I said in **your** first draft it is better to put the table first (overall results) then put your examples and discuss them. We normally start with the general and then go to the specific.[18]

Conclusion

By way of conclusion I would like to offer a few reflections on the value of studying metadiscourse in feedback and what the implications may be for all of us working on metadiscourse. Commentary on text "in the form of teacher feedback on student writing can be said to serve the reflexive function of language *par excellence*

---

17 This was mentioned in a plenary talk at the MAG conference in Cyprus 2017.

18 While there were no examples in the feedback material involving an explicit 'you' referring to previous drafts, there were a few examples of this involving possessive 'your'.

as discourse itself is the topic of discussion and the text itself is at centre stage" (Ädel, 2017, p. 55). In other words, it should contain large amounts of metadiscourse—and Ädel (2017) shows that this is indeed the case, which is also supported in Rodway's (2018) analysis of feedback—and this makes it an ideal type of discourse to study from the perspective of metadiscourse. Unlike previously studied material, teacher feedback on student work is neither a very visible nor a high-prestige type of discourse. Yet it is a frequently occurring type of discourse in many different educational contexts around the world, and teachers spend a great deal of their time producing it. It is also under-researched as a type of discourse in its own right.

Teacher feedback represents a very interesting type of writer-reader "interaction"—one that is more truly interactive than texts written for a more or less anonymous audience. In fact, it supports quite explicit "co-construction and negotiation of meaning between participants", as suggested by Rodway (2018). In feedback, "there is a specific recipient, who is typically urged to act in specific ways, vis-à-vis the specific text that the feedback is dependent on and responds to" (Ädel, 2017, p. 55). This makes it especially rich in data on second person "you".

Looking at metadiscourse through the lens of this new type of data has provided valuable insights. As I hope to have shown, the metadiscourse in teacher feedback is rather different from the metadiscourse found in much previous research: rather than being about "organis[ing] a discourse or the writer's stance toward either its content or the reader" (Hyland, 2000, p. 109), it is much more about the writer-speaker responding to an interlocutor's discourse in a problem/solution-oriented way (Ädel, 2017). In the introduction, the point was made that the work that has been done on metadiscourse in academic discourse in English investigates predominantly written genres at the monologic end of the continuum—and it can be argued that this has very much shaped our view of what metadiscourse is: prototypically, it is seen as a way for the writer to signal the organisation of the text to the reader and tell the reader how to respond to the text. This written bias is found in most definitions of metadiscourse.

This is acceptable only if we wish to see metadiscourse as a phenomenon restricted to written academic discourse of the type that is published and where there are no possibilities for face-to-face or asynchronous interaction between discourse participants (cf. Ädel, 2017, p. 55). While this is an approach that has taught us a great deal about interactive and reflexive features in academic writing, we need to take a broader view to learn more about metadiscourse as a linguistic phenomenon, as it can be realized in all sorts of discourse. This also means that we need to adjust our conceptualisations of metadiscourse accordingly. To obtain a more accurate picture of what metadiscourse is and how it works, we need to keep studying it in a range of different genres—considering different variables in a systematic way—and we need to keep making comparisons across genres.

References

Ädel, A. (2006). *Metadiscourse in L1 and L2 English*. Amsterdam, NL: John Benjamins.

Ädel, A. (2010). "Just to give you kind of a map of where we are going": A taxonomy of metadiscourse in spoken and written academic English. *Nordic Journal of English Studies, 9*(2), 69–97.

Ädel, A. (2012a). Metadiscourse. In C. A. Chapelle (Ed.), *Encyclopedia of Applied Linguistics*. Oxford, UK: Wiley-Blackwell.

Ädel, A. (2012b). "What I want you to remember is…": Audience orientation in monologic academic genres. *English Text Construction, 5*(1), 98–124.

Ädel, A. (2017). "Remember that your reader cannot read your mind": Problem/solution-oriented metadiscourse in teacher feedback on student writing. *English for Specific Purposes*, *45*, 54–68, http://dx.doi.org/10.1016/j.esp.2016.09.002

Ädel, A. (2018, March). *Writer/reader visibility in research articles: Variability across language, regional variety, discipline and gender*. Paper presented at the American Association for Applied Linguistics 2018 Conference, Chicago, IL. Abstract retrieved from http://www.diva-portal.org/smash/record.jsf?pid=diva2%3A1220653&dswid=3023

Ädel, A., & Mauranen, A. (2010). Metadiscourse: Diverse and divided perspectives. *Nordic Journal of English Studies*, *9*(2), 1–11.

Akbas, E., & Hardman, J. (2018). Strengthening or weakening claims in academic knowledge construction: A comparative study of hedges and boosters in postgraduate academic writing. *Educational Sciences: Theory & Practice, 18,* 831–859. http://dx.doi.org/10.12738/estp.2018.4.0260

Alotaibi, H. (2018). Metadiscourse in dissertation acknowledgments: Exploration of gender differences in EFL texts. *Educational Sciences: Theory & Practice, 18,* 899–916. http://dx.doi.org/10.12738/estp.2018.4.0247

Biber, D., & Conrad, S. (2003). Register variation: A corpus approach. In D. Schiffrin, D. Tannen & H. E. Hamilton (Eds.), *Handbook of discourse analysis* (pp. 175–196). Oxford/Malden, MA: Blackwell.

Boggel, S. (2009.) *Metadiscourse in middle English and early modern English religious texts: A Corpus-based Study*. Frankfurt, DE: Peter Lang.

Bondi, M. (1999). *English across genres: Language variation in the discourse of economics*. Modena, Italy: Edizioni Il Fiorino.

Bondi, M. (2001). Small corpora and language variation. Reflexivity across genres. In M. Ghadessy, A. Henry & R. L. Roseberry (Eds.), *Small corpus studies and ELT* (pp. 135–174). Amsterdam, NL: John Benjamins.

Bondi, M. (2010). Metadiscursive Practices in introductions: Phraseology and semantic sequences across genres. *Nordic Journal of English Studies*, *9*(2), 99–123.

Correia, R., Eskenazi, M., & Mamede, N. (2015). Lexical level distribution of metadiscourse in spoken language. *Proceedings of the First Workshop on Linking Computational Models of Lexical, Sentential and Discourse-level Semantics* (pp. 70–75). Lisbon: Association for Computational Linguistics.

Crismore, A. (1989). *Talking with Readers: Metadiscourse as rhetorical act*. New York, NY: Peter Lang.

Crismore, A., Markkanen, R., & Steffensen, M. (1993). Metadiscourse in persuasive writing: A study of texts written by American and Finnish University students. *Written Communication*, *10*, 39–71.

Dahl, T. (2004). Textual metadiscourse in research articles: A marker of national culture or of academic discipline? *Journal of Pragmatics*, *36*, 1807–1825.

Flowerdew, J. (2015). Revisiting metadiscourse: Conceptual and methodological issues concerning signalling nouns. *Ibérica*, *29*, 15–34.

Harwood, N. (2005). "Nowhere has anyone attempted… In this article, I aim to do just that": A corpus-based study of self-promotional *I* and *we* in academic writing across four disciplines. *Journal of Pragmatics*, *37*, 1207–1231.

Hyland, K. (1998). Persuasion and context: The pragmatics of academic discourse. *Journal of Pragmatics*, *30*, 437–455.

Hyland, K. (1999). Disciplinary discourses: Writer stance in research articles. In C. Candlin & K. Hyland (Eds.), *Writing: Texts, processes and practices* (pp. 99–121). London, UK: Longman.

Hyland, K. (2000). *Disciplinary discourses: Social interactions in academic writing*. London, UK: Longman.

Hyland, K. (2004). Disciplinary interactions: Metadiscourse in L2 postgraduate writing. *Journal of Second Language Writing*, *13*(2), 133–151.

Hyland, K. (2005). *Metadiscourse: Exploring interaction in writing*. New York, NY: Continuum.

Hyland, K. (2005a). Stance and engagement: A model of interaction in academic discourse. *Discourse Studies*, *7*(2), 173–192.

Hyland, K. (2017). Metadiscourse: What is it and where is it going? *Journal of Pragmatics*, *113*, 16–29.

Hyland, K., & Hyland, F (Eds.) (2006). *Feedback in second language writing: Contexts and issues*. Cambridge, UK: Cambridge University Press.

Hyland, K., & Jiang, F. (2016). Change of attitude? A diachronic study of stance. *Written Communication, 33*(3), 251–274. https://doi.org/10.1177/0741088316650399

Jakobson, R. (1990 [1960]). The speech event and the functions of language. In L. R. Waugh & M. Monville-Burston (Eds.), *On language* (pp. 69–79). Cambridge, UK: Harvard University Press.

Kuo, C.-H. (1998). The use of personal pronouns: Role relationships in scientific journal articles. *English for Specific Purposes*, *18*(2), 121–138.

Luukka, M.-R. (1994). Metadiscourse in academic texts. In B-L Gunnarsson, P. Linell, & B. Nordberg (Eds.), *Text and talk in professional contexts. Selected papers from the international conference "Discourse and the Professions* (pp. 77–88). Uppsala: ASLA, The Swedish Association of Applied Linguistics.

Lyons, J. (1977). *Semantics* (Vol. 1). Cambridge, UK: Cambridge University Press.

Mauranen, A. (1993). *Cultural differences in academic rhetoric: A textlinguistic study*. Frankfurt, DE: Peter Lang.

Mauranen, A. (2001). Reflexive academic talk: Observations from MICASE. In R. Simpson & J. Swales (Eds.), *Corpus linguistics in North America: Selections from the 1999 Symposium* (pp. 165–178). Ann Arbor, MI: University of Michigan Press.

Mauranen, A. (2010). Discourse reflexivity a discourse universal? The case of ELF. *Nordic Journal of English Studies*, *9*(2), 13–40.

Mauranen, A. (2012). *Exploring ELF: Academic English shaped by non-native speakers*. Cambridge, UK: Cambridge University Press.

Molino, A. (2018). "What I'm speaking is almost English…": A Corpus-based study of metadiscourse in English-medium lectures at an Italian university. *Educational Sciences: Theory & Practice, 18,* 935–956. http://dx.doi.org/10.12738/estp.2018.4.0330

Mur-Dueñas, P. (2011). An intercultural analysis of metadiscourse features in research articles written in English and in Spanish. *Journal of Pragmatics*, *43*, 3068–3079.

Pérez Llantada, C. (2010). The discourse functions of metadiscourse in published academic writing: Issues of culture and language. *Nordic Journal of English Studies*, *9*(2), 41–68.

Pérez-Llantada, C. (2006). Signalling speakers" intentions: Toward a phraseology of textual metadiscourse in academic lecturing. In C. Perez-Llantada & G. R. Ferguson (Eds.), *English as a glocalisation phenomenon: Observations from a linguistic microcosm* (pp. 59–88). Valencia, Spain: University of Valencia.

Rodway, C. (2018). Metadiscourse use in a dialogic feedback practice. *Educational Sciences: Theory & Practice, 18,* 797–812. http://dx.doi.org/10.12738/estp.2018.4.0043

Salas, M. (2015). Reflexive metadiscourse in research articles in Spanish: Variation across three disciplines (Linguistics, economics and medicine). *Journal of Pragmatics*, *77*, 20–40.

Sanderson, T. (2008). Interaction, identity and culture in academic writing: The case of German, British and American academics in the humanities. In A. Ädel & R. Reppen (Eds), *Corpora and discourse: The challenges of different settings* (pp. 57–92). Amsterdam, NL: John Benjamins.

Schiffrin, D. (1980). Metatalk: Organizational and evaluative brackets in discourse. *Sociological Inquiry: Language and Social Interaction*, *50*, 199–236.

Taavitsainen, I. (2000). Metadiscursive practices and the evolution of early English medical writing (1375-1550). In J. Kirk (Ed.), *Corpora Galore: Analyses and techniques in describing English: Papers from the Nineteenth International Conference on English Language Research in Computerised Corpora (ICAME 1998)* (pp. 191–207). Amsterdam, NL: Rodopi.

Thompson, S. E. (2003). Text-Structuring metadiscourse, intonation and the signalling of organisation in academic lectures. *Journal of English for Academic Purposes*, *2*, 5–20.

Tse, P., & Hyland, K. (2008). "Robot Kung Fu": Gender and professional identity in biology and philosophy reviews. *Journal of Pragmatics*, *40*, 1232–1248.

Vande Kopple, W. J. (1985). Some exploratory discourse on metadiscourse. *College Composition and Communication*, *26*, 82–93.

Vassileva, I. (1998). Who am I/who are we in academic writing: A contrastive analysis of authorial presence in English, German, French, Russian and Bulgarian. *International Journal of Applied Linguistics*, *8*(2), 163–185.

Zare, J., & Tavakoli, M. (2017). The Use of personal metadiscourse over monologic and dialogic modes of academic speech. *Discourse Processes*, *54*(2), 163–175. https://doi.org/10.1080/0163853X.2015.1116342

Zhang, M., Sun, W., Peng, H., Gan, Q., & Yu, B. (2017). A multidimensional analysis of metadiscourse markers across spoken registers. *Journal of Pragmatics*, *117*, 106–118. https://doi.org/10.1016/j.pragma.2017.06.004

Research Article

Metadiscourse Use in a Dialogic Feedback Practice[*]

Claire Louise Rodway[1]
Griffith University

Abstract

A socio-constructivist approach to writing pedagogy recognises the importance of participant relationships in argumentation in disciplinary writing, although awareness of the rhetorical resources available to achieve this dialogic partnership between writer and reader can be difficult to teach. The highly metadiscursive nature of feedback commentary, however, offers the potential to scaffold such learning as part of a dialogic feedback cycle. Taking as its starting point, the concept of feedback as genre, this study investigated metadiscourse use in feedback data from the researcher's own teaching practice. A corpus of 627 formative comments, comprising 16,660 words and providing feedback on argumentation in first-year undergraduate texts, was analysed with reference to Ädel's (2017, 2018) recent findings and observations, which called for a re-defining of the function and definition of metadiscourse. Findings from the current study include a similarly high frequency of metadiscourse use in feedback to that found in Ädel's work and corroborate the validity of her suggested multidimensional model of metadiscourse. Additionally, examples from the corpus show the complexity and fluidity of the writer and reader roles. Frequencies of types of metadiscourse markers varied depending on purpose, reflecting either the response of "teacher as reader and dialogue partner" or the pedagogical response of "teacher as knowledge resource". Responses worked "intratextually" and "intertextually" by extensively referencing both "current text" and earlier stages of the wider feedback discourse chain when identifying and providing rationale and resolution for problems in the development of argument in the text.

Keywords

Feedback • Argumentation • Second language writing • Metadiscourse use in feedback • Writing pedagogy

---

edam

Participant relationships are crucial elements of argumentation in disciplinary academic writing. Writers have discursive responsibilities to their readers which require them to position and construct a dialogic partnership with an audience based on their assumptions about, and awareness of, their readers' expectations, needs and rhetorical preferences (Aull & Lancaster, 2014; Hyland, 2001, 2005b; Swales, 1990), demonstrating both subject knowledge *and* successful development of argument. Text, therefore, needs to be understood as not only propositional information, but also in terms of the relationship between those ideas, and between writer, reader and the surrounding text as it unfolds and develops (Hyland, 2005a, 2016). This socio-constructivist and reader-oriented approach to writing (Hyland, 2016), however, can be challenging for novice writers, especially second language writers, where a previously experienced text-oriented approach with focus on accuracy can distance the writer from their role as participant. This can result in writing that fails to realise "internal" argument or criticality and the dialogic awareness required to enable the reader to *cohere* the intended line of reasoning (Bublitz, 1999; Hyland, 2004). Promoting this awareness of the dialogic partnerships that are so key to successful argumentation through pedagogy, however, can be difficult.

Despite the well-documented central role of feedback provision in writing pedagogy, providing feedback in the context of a course that proposes to develop and evaluate both language proficiency and academic literacy skills is complex. In their roles as feedback providers, teachers have to address language issues both above and below clause and sentence level, as well as those related to subject content and research. In this context, when the reader is typically positioned in a role as "assessor" of language accuracy, the concept and implications of writing as a social action, dependent on interaction between writer and reader, can be especially difficult to "get across" in the classroom (Goldstein, 2005). Argumentation or the "process of arguing" (Andrews, 2010) in academic writing requires the maintenance of this dialogic interaction with audience, however. For second language writers, focusing on support for an argument, rather than its development, can lead to writing that lacks criticality and analysis (Bacha, 2010; Rodway, 2017b; Wingate, 2012). Prior instruction which may have oversimplified argument development can elide the importance of these interpersonal or metadiscoursal elements of writing (Hyland, 2005a) in fully developing and progressing an idea. This can be evidenced in problems such as failure to justify support, weak internal argument with an overuse of transition signals to order propositional material rather than develop argument, and a lack of criticality with an overreliance on attribution resulting in descriptive rather than analytical writing (Rodway, 2017b). As the realisation of interactions between writer and reader, metadiscourse markers explicitly "organise a discourse or the writer's stance towards either its content or the reader" (Hyland, 2005a, p. 4), relating text to context by directing readers to retrieve the preferred organisation, connections and interpretations of the writer.

Annelie Ädel (2017), in her recent article "*Remember your reader cannot read your mind*", has drawn attention to the metadiscursive features of feedback on student writing (see also Ädel, 2018). Her corpus analysis of comments from five teachers on 375 student assignments revealed the problem/solution orientation of metadiscourse in feedback which is different to the typically discourse-organising function of metadiscourse in academic writing. Ädel (2017) suggests "[i]t is as if the teachers are evaluating whether the [communication] channel is working not so well or very well … to see to it that the text communicates what (they believe) it is intended and supposed to communicate" (p. 64). It is precisely this highly metadiscursive nature of feedback that gives it the potential to communicate the response of a reader (in addition to that of teacher or "knowledge resource") to the unfolding line of argument. In other words, a dialogic writer/reader interaction, with student and teacher assuming both roles, is mediated through feedback comments. This type of interactional dialogic written commentary feedback can function as a form of "*metasemiotic mediation*" (Coffin & Donohue, 2014), scaffolding deep reflection and, in turn, interactive dialogic texts. This is realised in the metadiscursive features of the feedback comments themselves, articulating where an intended line of argument breaks down, and rationale and resolution for the problem. Within a dialogic framework, such feedback functions intratextually referencing the "current" text and intertextually referencing the wider feedback discourse which, although outside of the current text itself, comprises elements in the feedback process.

Method

Research Design

In this study, analysis of metadiscourse use in written commentary feedback on argumentation was carried out as part of a larger practitioner inquiry to develop a *praxiology* (Elliot, 1991), or principled framework for a dialogic feedback practice. This framework was based on an adaptation of Beaumont, Shannon, and O'Doherty's (2011) Dialogic Feedback Cycle and Hammond and Gibbons's (2005) interactional contingent scaffolding model as shown in Figure 1. Here, feedback as a "supporting genre" (Ädel, 2017) operates across three phases of a cycle: preparatory guidance, in-task guidance and performance feedback. At the macro level, active participation of *both* student and teacher is encouraged to promote dialogic feedback and feedback literacy in the wider context of feedback discourse. Within this macro cycle, dialogic feedback scaffolds at a micro level to realise improvements to students" argumentational skills of the current text.
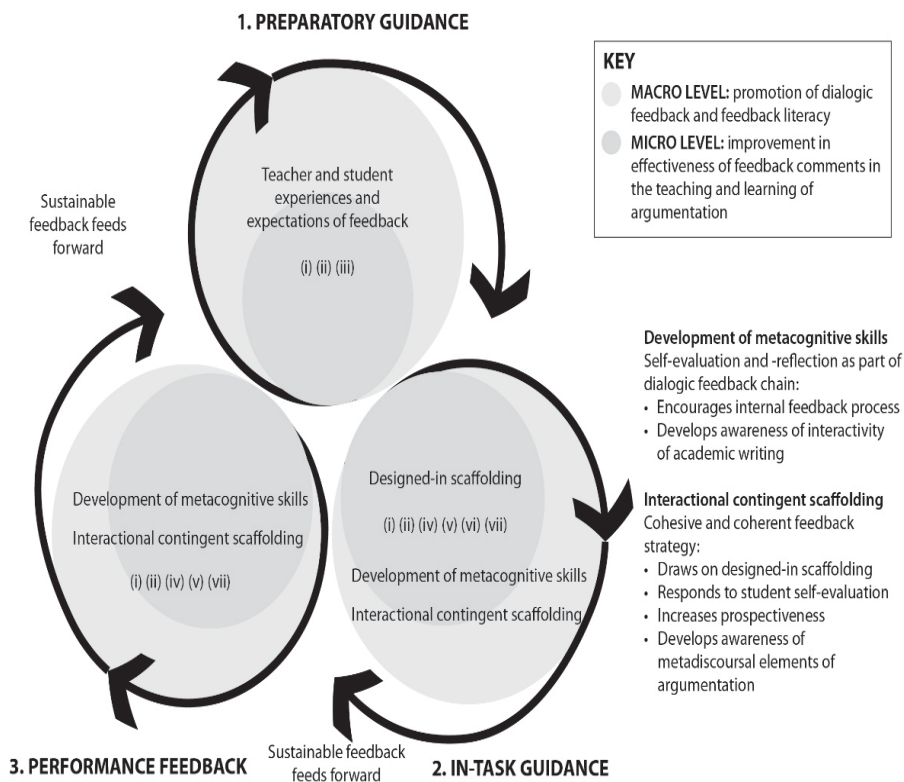
Figure 1. A framework for written commentary feedback within a dialogic feedback cycle.

At both macro and micro level, metadiscourse functions to realise interaction between writer and reader (whether as writer of feedback and/or original text or reader of feedback/original text) as participating members of a feedback discourse community. Practical strategies were designed to operationalise seven theoretical principles across the three phases of the cycle. These principles were:

(i)   Effective written commentary feedback should be dialogic and collaborative

(ii)   Dialogic feedback can help to bring awareness of the interactive nature of academic writing

(iii) Expectations of feedback need to be managed

(iv)   Effective feedback strategies should promote self-reflection and self-assessment for and as learning

(v)   Feedback that supports students working within their ZPD can best facilitate improvements in argumentation

(vi)   Metadiscoursal awareness is key in successful argumentation

(vii) Dialogic written commentary feedback can be used to scaffold metadiscoursal awareness

In Hammond and Gibbons's (2005) model, interactional contingent scaffolding is conceptualised as being the unplanned teacher-student dialogue that occurs in the classroom. Elements of this model, however, can also be realised through dialogic written commentary feedback. These elements are *increasing prospectiveness* and *linking to prior experience/pointing forward*. In the Initiate Respond Feedback (IRF) sequence of moves in the classroom, feedback can be used to request clarification, encourage explanation, and reflect on thinking, drawing on the planned or "*designed-in*" (Hammond & Gibbons, 2005) scaffolding of prior learning and teaching. In this way, the teacher "returns" the responsibility to continue dialogue back to the student, thereby "increasing prospectiveness", a term Hammond and Gibbons take from Wells (1996). Written commentary feedback that is dialogic can also function in the same way to scaffold students' awareness and understanding of the interactive and interpersonal qualities of argumentation in their writing, reflecting a reader's and teacher's response to the text as both dialogue partner and knowledge resource. In the adapted cycle, feedback also draws explicitly on the designed-in scaffolding from classroom instruction. Such pedagogy is aimed at increasing awareness of the metadiscoursal elements of argumentation following this researcher's socio-constructivist approach to teaching writing. This forms part of the context at the micro level, realising supporting feedback discourse in the in-task guidance phase of the cycle.

Corpus Materials and Analysis

A small corpus of 2,087 feedback comments was compiled from 49 written assignments from two first-year first semester tutorial classes - Language and Communication for Business (comprising twenty-six students – Semester 2 2015 [LCBSem22015]) and Language and Communication for Arts and Social Sciences (comprising twenty-three students – Semester 1 2016 [LCASSem12016]). These full credited courses are integrated into existing programmes within each of the university's major academic groups and designed to improve international students' language and academic literacy skills (see Fenton-Smith, Humphreys, & Walkinshaw, 2017; Fenton-Smith, Humphreys, Walkinshaw, Michael, & Lobo, 2015). These are compulsory core courses for EAL [English as an additional language] students, who come via a range of pathways including high school entry, IELTS testing or similar, diploma, or a direct entry pathway from the university's language school. Their language proficiency levels were similar (ranging from an IELTS 6 (or equivalent), which was the university's minimum entry requirement at the time of the study, to an IELTS 6.5 (or equivalent)). The main written assessment task on these courses

required students to write a research essay, submitted initially as a draft in week 7, on which students received formative feedback only, and then again in week 11, at which point the task was graded. Both feedback and grading were focused on four criteria: *task fulfilment, coherence and cohesion, grammar*, and *vocabulary*.

Feedback was provided electronically by the researcher as course tutor through Turnitin's Grade Mark facility. In this computer-mediated feedback facility, sentence-level form-focused lexical and syntactic errors were identified using indirect coding (e.g. VF to indicate an error with verb form), which included an explanation of the error and a hyperlink to further information. This type of written corrective feedback was not included in the present data analysis. Written commentary was provided as margin and as overall comments categorised by criterion in a "text comment" box (see Figure 2). In all data, students' names have been redacted or a pseudonym has been used.
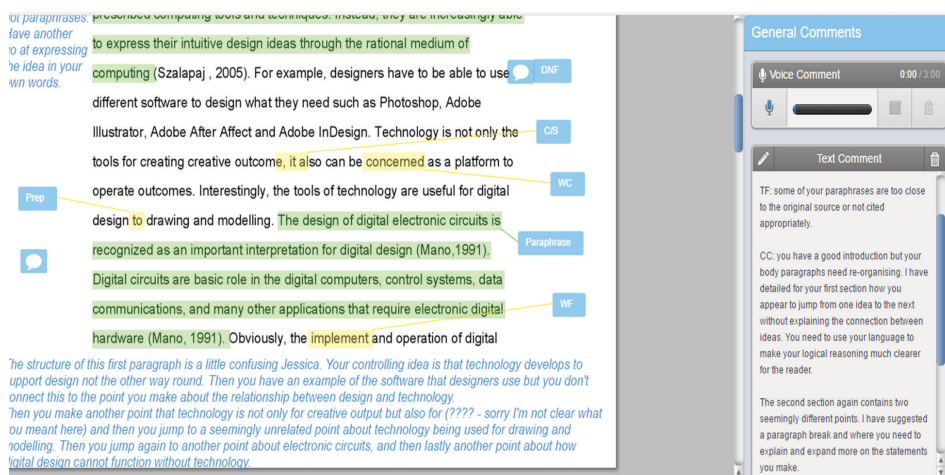
Figure 2. Screenshot of feedback comments in Turnitin's GradeMark facility.

A strategy was adopted by the researcher to provide feedback as interactional contingent scaffolding, drawing from a typology from Mahboob (2015), in which the degree of explicitness and/or rationale is modified in line with students' individual needs. This *external* feedback was just one stage of a feedback process initiated by the student's own *internal* feedback articulated through an interactive self-evaluation cover sheet based on principles of assessment as learning[2] (see Rodway, 2017a for more details). This complexity of feedback as both "(i) a comment on the current text and (ii) a text in its own right" Ädel (2017, p. 64) suggests, means that it can be described as a "genre chain" (p. 65) feeding "back" as well as "forward". Such a process mediates a co-construction and negotiation of meaning between participants

2 Rodway (2017a) evaluates the effectiveness of an interactive self-evaluation essay cover sheet developed for student and teacher reflections as part of a supporting feedback framework.

in this feedback discourse. Metadiscourse in other elements of the process, such as the interactive cover sheet, is not analysed in this paper. Figure 3 illustrates the "links" in the feedback chain and the reciprocal writer/reader roles for both student and teacher in the process.

Interactive self-evaluation cover sheet (internal feedback)	Teacher formative comments on draft (external feedback)	Student (internal) reflection on external feedback	Final submission (summative external feedback)
Student/reader Student/writer	Teacher/reader Teacher/writer	Student/reader Student/writer	Teacher/reader Teacher/writer Student/reader
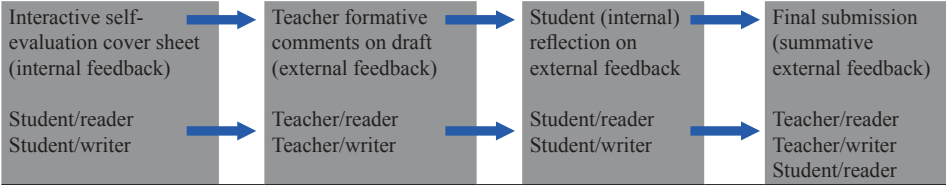
Figure 3. Feedback chain with reciprocal roles for discourse community members.

Data Analysis

An initial corpus of 2,087 formative feedback comments was compiled from the researcher's feedback on the 49 draft assignments from the two classes LCBSem22015 ($n = 26$) and LCASSem12016 ($n = 23$). Table 1 shows the breakdown for this across the two classes, with totals for each marking criterion.

Table 1
Feedback Corpus ($N = 2087$)

Class	Average word length per assignment	No. of comments	TF	CC	GRA/V	Other**
LCBSem22015	928	1129	230	331	517	51
LCASSem12016	605	958	108	353	459	38
Totals	776 [average]	2087	338	684	976	89

Note. Task requirements allowed students to submit work in progress or a complete essay. Draft length varied, therefore, between 250 and 1000 words per text.
Note. ** Generalised evaluative comments such as "Well done" or "This is disappointing" were coded as Other.

From this initial corpus, two sub corpora were extracted, which comprised only embedded in-text feedback comments that were related to argumentation (as rated by the researcher as teacher and feedback provider). One of these, AFBK1, which contained argumentation feedback comments from all drafts ($n = 627$), is the subject of this paper. Positive comments were included in this corpus where they offered "specific praise" (Vines, 2009), (i.e. implicit signalling to apply what has been done well to other paragraphs). A written feedback comment is defined here as one or more clauses/sentences relating to one issue. For example, "*Your analysis and discussion of Burns's leadership styles needs much more referenced support to convince the reader. Try to find more specific examples of her styles 'in action'*" was coded as one comment expressing problem/solution and rationale for the issue of use of sources. Comments relating to argumentation were grouped in categories as shown in Table 2.

Table 2
Argumentation Categories

Categories of argumentation	Number of comments (N=627)	Examples from corpus
Organisation of ideas	181 (29%)	*You need some background information here to contextualise the topic before you move into your thesis statement.* *I need a topic sentence here with a controlling idea so I know what this paragraph is about.*
Logical reasoning	141 (22%)	*You haven't made any connection between that and productivity. In other words, you need to develop this point with examples of what she did to actualise this belief and how that benefited the organisation to enable me to see how you draw this conclusion.*
Developing ideas	104 (17%)	*I think you need to more fully explain "internal variations" for this to be a logical progression of your argument Becky.*
Use of sources	101 (16%)	*Your analysis and discussion of Burns's leadership styles needs much more referenced support to convince the reader. Try to find more specific examples of her styles "in action".*
Logical connectives	100 (16%)	*You need to link these two points more explicitly if there is a connection Miko.*

Note. Task requirements allowed students to submit work in progress or a complete essay. Draft length could vary, therefore, between 250 and 1000 words per text.
Note. * feedback comments on argumentation categories

Analysis of the metadiscoursal markers in the feedback comments was carried out on corpus AFBK1 ($n = 627$). Frequency data for this corpus, including number of tokens, are shown in Table 3. Frequency data for corpus AFBK1 and for Ädel's (2017) feedback corpus material are presented together in Table 4 for comparison. Ädel's corpus material comprised written comments from five teachers; averages from this corpus, therefore, are shown in the comparison data.

Table 3
Overall Frequency Data for Argumentation Feedback Corpus AFBK1

Class	No. of texts	Average word length per text	No. of comments*	% of total no. of comments (N = 2087)	Average no. of comments* per text	No. of tokens**	Average no. of tokens** per comment
LCBSem22015	26	928	303	14.5	12	4,760	16
LCASSem12016	23	605	324	15.5	14	11,900	37
Totals	49	776 [average]	627	30	13 [average]	16,660	27 [average]

Note. Task requirements allowed students to submit work in progress or a complete essay. Draft length varied, therefore, between 250 and 1000 words per text.
Note. * argumentation feedback comments; **number of tokens per argumentation feedback comment

Table 4
Comparison of Frequency Data

Corpus material	Number of texts	Number of words: tokens	Number of words: types	Average no. of words/text
Argumentation feedback corpus	49	16,600	1,064	338
Feedback corpus (Ädel, 2017)	375	41,776	3,618 [average]	111 [average]

The average number of words in feedback comments provided per text in the argumentation feedback corpus AFBK1 was just over three times that in Ädel's corpus. This seems especially high when one considers that this corpus comprised only comments related to argumentation. However, this researcher's feedback strategy was to provide comprehensive scaffolding of argumentation, and as such the comments used would have included high numbers of tokens. The number of word types, as shown in Table 4, is small compared to the number of word tokens in both corpora, indicating the repetition of vocabulary that is common in teacher feedback.

In addition to a comparison of corpora, quantitative and qualitative analysis was conducted on AFBK1 corpus alone to explore how the researcher's feedback comments (teacher as writer and student as reader) realised: i) the reader's response (teacher as reader and dialogue partner); and ii) a pedagogical response (teacher as knowledge resource) to the writer's (student as writer) argumentation in the text at the micro level of the proposed framework within the dialogic feedback process outlined in Figure 1 and 3 above. Instances of potential metadiscourse were identified through a combination of manual analysis and software NVivo 11 (2016) and WordSmith Tools v.7 (Scott, 2017).

As in Ädel's (2017) approach, first and second person pronouns, references to *author** and *reader**, and References to Text/Code (Ädel, 2006) were searched for. To measure the reader response role that had been adopted, first and second person pronouns, and the nominal references *author* and *reader* were considered. The following indicators and terms were considered in the analysis: indicators of a pedagogical response were *essay*, *paragraph**, *sentence**, and concept terms were *idea**, *logic**, *argument**, *develop** as References to Text/Code that specifically referenced the development of ideas in the text. The code gloss *mean**, (e.g. I think what you <u>mean</u> is…) and endophoric references pointing to the current text and other elements/links in the feedback genre chain were also searched for (e.g. <u>Look back at</u> the feedback on your first paragraph). Code glosses add information by rephrasing, elaborating or explaining to recover writer's intended meaning; endophoric references are interactive resources to refer to other parts of the text (Hyland, 2005a). Any combinations (e.g. in <u>your</u> second <u>paragraph</u> ...) were coded separately for the quantitative analysis.

Findings

Responding as Reader and Dialogue Partner

In order to promote awareness of the metadiscursive nature of academic writing, the researcher's feedback strategy involved the explicit signalling of the dialogue partnership between writer and reader. First and second person pronouns, *I*, *me*, *you*, *we, my*, *your*, *our,* were searched for initially, as markers of reader response in the feedback comments. Some of the examples of their use included references to dialogue partnership, as "*In your cover sheet, you wrote that you were confused about …*", which functioned intertextually to endophorically reference other elements of the supporting feedback chain beyond the current text. As this was a key strategy in the framework, and additionally realised writer/reader interactivity within the broader feedback discourse, it was important to include these. However, examples of this type are counted separately in the frequency tables below; the use of endophoric markers to reference planned classroom scaffolding or parts of the current text, as part of a pedagogical response, is discussed further in the next section.

Table 5 and Table 6 present the raw frequencies of the personal pronouns in metadiscursive units across the corpus AFBK1. Raw and relative frequencies across the two corpora, AFBK1 and Ädel's are shown in Table 7.

Reader response was most explicitly marked in the examples of the use of personal pronoun *I* in the corpus. The first person pronoun *me* was also used in this way but far less frequently. Although use of *you* was more frequent, this was typically used to refer to current text structure and to provide rationalisation and/or explicit solutions for revision; in other words, as a pedagogical response. The use of *we* was rare

Table 5

Frequencies for Metadiscursive Use of I, Me, You, and We in AFBK1 Corpus with Examples

I		me		you		we	
n	*Example*	*n*	*Example*	*n*	*Example*	*n*	*Example*
84	When I read this, I feel like I'm reading a shopping list of points … I can clearly see your development of idea here – well done!	18	… and then explain to me how Kelly's support for women connects to Legge's observation	394	You've got more than 1 controlling idea here	1	…we need to speak about how you've used this resource
0*				11*	Like you, I found this section hard to follow**	4*	Look at the work we did on structuring arguments in your paragraph – TEEL*
84				405		5	

Note. * Endophoric use to refer to other elements in feedback discourse chain.
Note. **Reference to comment student made on their interactive cover sheet

and only found once in endophoric references to the current text and four times in references to designed-in scaffolding in the in-task guidance phase of the cycle. All these examples realised a pedagogical response.

Table 6
Frequencies for Metadiscursive Use of My, Your, and Our

my	*Example*	your	*Example*	our
n		n		n
10	Refer to <u>my</u> earlier comments on your use of logical connectives Amy	385	The majority of <u>your</u> supporting sentences are just specific evidence	0
0*		22*	On <u>your</u> cover sheet …	0*
10		407		0

Note. * Endophoric use to refer to other elements in feedback discourse chain.

Possessive pronouns were also almost exclusively used pedagogically in reference to the current text, either pointing to earlier feedback comments (e.g. "See my earlier comments"), or providing explanations for problems with argumentation (e.g. "Your use of 'however' is illogical here Steven. This is not a relationship of contrast"). Only *your* was used endophorically to point back to other elements in the feedback discourse, usually to refer to the students' comments on their interactive self-evaluation cover sheets. No examples of metadiscursive use of *our* were found in the corpus.

Table 7 presents the raw and normalised (per 1,000 words) frequencies of personal pronouns in AFBK1 in comparison to Ädel's (2017) feedback corpus. Frequencies are normalised per 1,000 words because of the small size of the corpora. It can be seen that the visibility of personal pronouns is similar across the two corpora in the normalised frequencies with the exception of *your*, which is higher in the AFBK1 corpus. This can be attributed, however, to the extensive use of this possessive pronoun to refer endophorically to other elements in the discourse chain as part of the overall feedback strategy.

Table 7
Comparison of Frequencies of Personal Pronouns in Metadiscursive Units across Corpora

Corpus material	I		you		we		my		your		our	
	n	f/1,000	n	f/1,000	n	f/1,000	n	f/1,000	n	f/1,000	n	f/1,000
AFBK1 corpus (16,600)	84	5	405	24	5	<1	10	<1	407	24	0	0
Feedback corpus (41,776) (Ädel, 2017)	237	6	1,094	26	71	2	54	1	413	10	<1	<1

Nominal references to *reader** and *author** were also searched across the corpus. There were no examples of *author**, however. The noun *reader* (*n* =111) was used as an alternative to *I/me* to indicate a general reference to "a" reader's response and/or a

specific reference to "the" reader's (i.e. of the current text) response, as in examples (1), (2) and (3). As identified by Ädel (2017), this concurrent general and specific referencing, adds to the complexity of metadiscourse use in feedback. Table 8 shows a comparison of occurrences of these nominal references between AFBK1 and Ädel's corpus.

(1) *This makes it very confusing for your <u>reader</u>*

(2) *…as your <u>reader</u>, I must be able to ...*

(3) *…to make a link for the <u>reader</u> ...*

Responding as Teacher and Knowledge Resource

Pedagogical feedback responses as interactional contingent scaffolding referenced the current text and the designed-in scaffolding of the in-task guidance phase of the dialogic feedback cycle. Uses of metadiscourse here were highly reader-oriented (student as reader - teacher as writer), directing action for revision.

Table 8

Comparison of Frequencies of Nominal References Reader and Author* in Metadiscursive Units across Corpora*

Corpus material	reader(s)		author(s)	
	n	f/1,000	*n*	f/1,000
AFBK1 corpus (16,660)	111	7	0	0
Feedback corpus (41,776) (Ädel, 2017)	92	2	12	<1

References to Text/Code and concept terms that specifically referenced argumentation in the text, as illustrated in examples (4) to (9), were recurrent throughout the corpus. References to current text were mainly to identify problems, as in examples (4) and (6), suggest solutions, as in examples (7) and (8), and provide rationale, as in examples (5) and (9). There were also examples of positive response (e.g. *Nice concluding sentence linking back to your thesis*), although less common.

(4) *Which of these is the thesis for your <u>essay</u>?*

(5) *A topic <u>sentence</u> needs a clear controlling <u>idea.</u>*

(6) *I can't see the relationship between your <u>ideas</u> here Owen.*

(7) *… better <u>logical</u> connectives would help to <u>develop</u> your <u>idea</u> here …*

(8) *… start a new <u>paragraph</u> …*

(9) *"However" is illogical here at the beginning of the <u>sentence</u> as the reader would expect to find a contrasting <u>idea,</u> but this information is additional.*

References to designed-in scaffolding, as in examples (10) and (11), were used to direct students to resources for revision solutions from the in-task guidance phase of the cycle, in the earlier part of the feedback chain.

(10) *Look back at the work we did on paragraph structure in week 4.*

(11) *Review the activities on developing an argument in your paragraphs.*

Frequencies of references to the current text and to earlier parts of the feedback discourse chain are shown in Table 9. Raw and normalised frequencies for totals are also provided for comparison with Ädel's (2017) corpus for similar text/codes.

Table 9
Frequencies of References to Text (Pedagogical Response to Argumentation)

References to Text/Code and concept terms	Current text	Endophoric reference to designed-in scaffolding	Total	AFBK1 corpus (16,660)	Feedback corpus (41,776) (Ädel, 2017)	
	n	n	n	f/1,000	n	f/1,000
essay	55	19	74	4	92	2
paragraph*	229	32	261	16	230	5
sentence*	75	23	98	6	386	9
idea*	181	17	198	-	-	
logic*	32	26	58	-	-	
argument*	53	73	126	-	-	
develop*	97	34	131	-	-	
Total	722	224	946	-	-	

With the exception of *argument**, the frequency of references to current text was much higher than to the designed-in scaffolding in the earlier phase of the feedback genre. Problems with development of argument/argumentation were often collocated with *develop** in the corpus and appeared to require more "hand-holding" type (increased explicitness and rationale) comments (Mahboob, 2015), and thus more direction to refer back to earlier resources. References to *paragraph** were much higher in the AFBK1 corpus than Ädel's (2017) feedback corpus, evidencing the specific pedagogical focus of the comments in the AFBK1 corpus.

The code gloss *mean** was also searched for in the corpus ($n = 12$; f/1,000 = <1). Examples showed a similar use to Ädel's (2017) analysis ($n = 109$; f/1,000 = 3) revealing its function for negotiating meaning; however, in the AFBK1 corpus, this code gloss was exclusively used to refer to the logic of the development of ideas in the current text. As with other pedagogically-oriented feedback, the comments indicate the action students could take to improve their text either by explicitly suggesting a solution, as in example (13), or implicitly doing so, as in examples (12) (14) and (15), thereby "returning the dialogue" to the student and thus increasing "prospectiveness" (Hammond & Gibbons, 2005; Wells, 1996).

(12) *Fashion itself is not a problem. I think you <u>mean</u> how to define fashion is the problem.*

(13) *You need to explain what you <u>mean</u> by "people believed in carpe diem" …*

(14) *What did this <u>mean</u> for the transformation of this period?*

(15) *Do you think this <u>meant</u> the impact was not so important then?*

Evidence of Socratic questioning as in examples (14) and (15) was infrequent. In Mahboob's (2015) typology, these types of feedback comments are categorised as "base jumping" providing low explicitness and low rationale, hinting at what may be needed to improve. Their use is identified as "risky" unless students can understand the "what, why and how" in order to respond successfully, which was the case for this text.

The findings show the ways in which endophorics variously directed attention towards the current text or the wider feedback discourse chain. Frequencies of endophorics used deictically to point to a specific area of the current text or imperatively to instruct students to refer to previous feedback (either given on the current text or in earlier phases of the process) were high, and this finding concurs with Ädel's (2017) observations. The four main endophorics used were *here*, *see*, *look* and *review*. Frequencies for these endophorics are shown in Table 10. Normalised frequencies for *here* are also provided, for comparison with Ädel's (2017) feedback corpus.

Table 10
Frequencies for Main Endophorics: Here, See, Look and Review

Endophorics	Reference to current text	Reference to designed-in scaffolding	Total	AFBK1 corpus (16,600)	Feedback corpus (41,776) (Ädel, 2017)	
	n	*n*	*n*	f/1,000	*n*	f/1,000
here	32	0	32	2	272	6
see	20	3	23	-	-	-
look	0	11	11	-	-	-
review	0	7	7	-	-	-

(16) *I can't understand the connection <u>here</u> Joy.*

(17) *<u>See</u> my earlier comments about unclear referents.*

(18) *<u>Look</u> back at work we did in week 6 on introductions.*

(19) *<u>Review</u> the examples of paragraph structure we looked at in week 5.*

The endophorics *here* and *see* were extensively used to refer to the current text. The endophoric *here* was solely used to point to a specific aspect of the current text, as in example (16), whereas *see* was mainly used to point back to earlier comments on the current text, as in example (17); *look* and *review*, as in examples (18) and (19) were used to point back to earlier resources in the designed-in scaffolding.

Summary

Ädel (2017, 2018) has called for analysis of larger corpora to investigate her important findings and assess variation of feedback across a larger group of teachers. This study has compared her findings to those from this researcher's own feedback practice and, as such, has utilised a much smaller corpus. Despite this, however, the findings re-enforce her suggested implications for revisions in the definition and modelling of metadiscourse in the context of a principled feedback framework. A dialogic feedback practice, where feedback as a supporting genre is realised as part of a cyclical process, requires that the interpersonal relationship –the dialogic partnership between reader and writer– is fluid and extends beyond just that of "current text". As participants in a feedback discourse community, both student and teacher have agency and visibility as writers and/or readers of feedback, making these roles within this feedback genre particularly complex.

The reciprocity of this writer/reader relationship in feedback also reflects the interactivity of argumentation, where awareness of audience is essential in successful criticality in writing. Comments in the role of dialogue partner provided feedback that emphasised the "personal" response of the *reader* with the use of first person *I* or specific references to the *reader*. Comments in the role of "teacher as knowledge resource" had a more explicitly pedagogical function directed towards suggested improvements to the text by realising rhetorical consciousness and metadiscoursal awareness. Here, the student as writer was foregrounded through the use of second person pronouns *you/your,* and with general references to *reader* which drew attention to the expectations of a wider discipline audience. These comments also referenced other elements in the feedback supporting chain.

Feedback praxis is typically individualised and informed by many variables. Variation in the metadiscourse use shown in this study, therefore, is reflective only of the specific materials and practices in the context of this sample. The insights provided by undertaking the metadiscourse analysis in this study have, nevertheless, highlighted the pragmatics that underpin the proposed praxiology for a dialogic feedback practice to improve students' argumentational skills in L2 writing.

References

Ädel, A. (2018). Variation in metadiscursive 'you' across genres: From research articles to teacher feedback. *Educational Sciences: Theory & Practice, 18*, 777–796. http://dx.doi.org/10.12738/estp.2018.4.0037

Ädel, A. (2017). Remember that your reader cannot read your mind: Problem/solution-oriented metadiscourse in teacher feedback on student writing. *English for Specific Purposes, 45*, 54–68. http://dx.doi.org/10.1016/j.esp.2016.09.002

Ädel, A. (2006). *Metadiscourse in L1 and L2 English*. Amsterdam, NL: John Benjamins Publishing.

Andrews, R. (2010). *Argumentation in higher education. Improving practice through theory and research*. London, UK: Routledge.

Aull, L., & Lancaster, Z. (2014). Linguistic markers of stance in early and advanced academic writing: A corpus based comparison. *Written Communication, 31*, 151–183. http://dx.doi.org/10.1177/0741088314527055

Bacha, N. N. (2010). Teaching the academic argument in a university EFL environment. *Journal of English for Academic Purposes, 9*, 229–241. http://dx.doi.org/10.1016/j.jeap.2010.05.001

Bublitz, W. (1999). Views of coherence. In W. Bublitz, U. Lemk, & E. Ventola (Eds.), *Coherence in spoken and written discourse: How to create it and how to describe it* (pp. 1–11). Amsterdam, NL: John Benjamins.

Coffin, C., & Donohue, J. (2014). *A language as social semiotic-based approach to teaching and learning in higher education*. Chichester, UK: John Wiley & Sons.

Fenton-Smith, B., Humphreys, P., & Walkinshaw, I. (2017). On evaluating the effectiveness of university-wide credit-bearing English language enhancement courses. *Journal of English for Academic Purposes, 31*(1), 72–83. http://dx.doi.org/10.1016/j.jeap.2017.12.001

Fenton-Smith, B., Humphreys, P., Walkinshaw, I., Michael, R., & Lobo, A. (2015). Implementing a university-wide credit-bearing English language enhancement programme: Issues emerging from practice. *Studies in Higher Education, 42*(3), 463–479. http://dx.doi.org/10.1080/03075079.2015.1052736

Goldstein, L. M. (2005). *Teacher written commentary in second language writing classrooms*. Ann Arbor, MI: University of Michigan Press.

Hammond, J., & Gibbons, P. (2005). Putting scaffolding to work: The contribution of scaffolding in articulating ESL education. *Prospect: An Australian Journal of Teaching/Teachers of English to Speakers of Other Languages (TESOL), 20*(1), 6–30.

Hyland, K. (2001). Bringing in the reader: Addressee features in academic articles. *Written Communication, 18*, 549–574.

Hyland, K. (2004). Patterns of engagement: dialogic features and L2 undergraduate writing. In L. J. Ravelli & R. Ellis (Eds.), *Analysing academic writing: Contextualised frameworks* (pp. 5–23). London, UK: Continuum.

Hyland, K. (2005a). *Metadiscourse: Exploring interaction in writing*. London, UK: Continuum.

Hyland, K. (2005b). Representing readers in writing. Student and expert practices. *Linguistics and Education, 16*, 363–377.

Hyland, K. (2016). *Teaching and researching writing* (3rd ed.). Oxon, UK: Routledge.

Mahboob, A. (2015). Understanding and providing 'cohesive' and 'coherent' feedback on writing. *Writing and Pedagogy, 7*(2), 401–422.

Rodway, C. (2017a). Encouraging active participation in dialogic feedback through assessment as learning. *Journal of Response to Writing, 3*(2), 74–92.

Rodway, C. (2017b). Opening up dialogic spaces: Rethinking the prescriptive paragraph structure in L2 writing pedagogy. *Asian EFL Journal, 19*(1), 130–158.

Swales, J. M. (1990). *Genre analysis: English in academic and research settings*. Cambridge, UK: Cambridge University Press.

Vines, A. (2009). Multivoiced e-feedback in the study of law: Enhancing learning opportunities? In R. Krumsvik (Ed.), *Learning in the network society and the digitized school* (pp. 225–255). New York, NY: Nova Science.

Wells, G. (1996). Using the tool-kit of discourse in the activity of learning and teaching. *Mind, Culture and Activity, 3*(2), 74–101. http://dx.doi.org/10.1207/s15327884mca0302_2

Wingate, U. (2012). 'Argument!' Helping students understand what essay writing is about. *Journal of English for Academic Purposes, 11*(1), 145–154. http://dx.doi.org/10.1016/j.jeap.2011.11.001

Young Researchers Writing in ESL and the Use of Metadiscourse: Learning the Ropes[*]

Vesna Bogdanović[1]
University of Novi Sad

Ivana Mirović[2]
University of Novi Sad

Abstract

Entering the world of academic writing can be a troublesome experience for young researchers, especially for those writing in ESL. In addition to mastering the specific language of their disciplinary community, they also have to adopt an array of metadiscourse features which help them organize their writing and position themselves towards their content and their readers. Research on the use of metadiscourse in academic writing has indicated that ESL writers generally do not use metadiscourse elements to the same extent and in the same way as native English speakers. The paper will focus on the process of developing the awareness of metadiscourse features with young researchers and will attempt to gain an insight into how they adopt and apply these linguistic elements in their writing. It is based on a case study with three young researchers from the Faculty of Technical Sciences in Novi Sad, Serbia, whose research articles will be analyzed in relation to the correct usage of metadiscourse as well as its potential absence, using Hyland's framework. In the subsequent analysis, a questionnaire and interviews will be used to determine the degree of young authors' awareness of their use of metadiscourse and their approach to applying it in their writing. The triangulation between the corpus analysis and the questionnaire and interview data will try to address the issues of the reasons for using specific markers, the importance they attach to the use of metadiscourse in relation to the content of the research articles, and the methods of learning them, in order to unfold the correlation of beginnings of academic writing and the use of metadiscourse. It is hoped that the results of the analysis can be applied in teaching academic writing.

Keywords

Metadiscourse • Hyland's taxonomy • Young researchers • Academic writing • ESL

As the world of modern academia becomes more international and consequently more competitive, young researchers who want to publish their results in international journals face an increasingly demanding task. This is particularly true if English, the language they write in, is not their first language. These young researchers need to possess adequate language proficiency and acquire specialized vocabulary related to their field, but they also have to achieve additional, highly advanced language competences. As part of their secondary socialisation, these novices entering academic community need to learn certain conventions and literary forms specific for academic discourse (Mauranen et al., 2010)

Research in the areas of composition, reading and text structure has indicated that metadiscourse has an important function in academic writing. It has shown that metadiscourse is highly significant in "facilitating communication, supporting a writer's position and building a relationship with an audience" (Hyland, 1998a, p. 438). It helps a writer to "guide, direct and inform" (Crismore, 1989, p. 64) the reader and their reaction to the text. This suggests that metadiscourse represents a feature of academic writing which has considerable relevance for young researchers entering academic community.

At the same time, metadiscourse may be difficult to grasp, as it is a very heterogeneous phenomenon (Hyland, 2010): metadiscourse elements can serve different functions such as organizing a text, building a persuasive argument, presenting author's position or building a reader-writer relationship. These functions can be achieved through a range of linguistic devices and cannot be reduced to a set of standardized forms. For that reason, the adequate use of metadiscourse can be particularly challenging for second language writers (Mirović & Bogdanović, 2016). In addition, metadiscourse use shows considerable variation across cultures and L2 writers cannot rely on standard practice in their L1 when writing for international publication (Mauranen, 2007). All these characteristics, which will be further discussed in the next section, make metadiscourse a significant area of research for both theoretical and practical reasons.

This paper will examine how young researchers in the fields of mathematics, electrical engineering and computing from Serbia approach this aspect of academic writing. It will attempt to determine their awareness of metadiscourse features and the approach towards applying particular metadiscourse elements in their writing. The study will also try to gain an insight into how they acquire and develop their skills in relation to specific metadiscourse elements.

Theoretical Framework

In theoretical approaches, metadiscourse has progressed from statements that it can "help readers to organize, classify, interpret, evaluate and react" (Vande Kopple, 1985, p. 83) to the information (i.e. propositional material) presented in the text, to "the cover

term for self-reflective expressions used to negotiate interactional meanings in a text, assisting the writer (or speaker) to express a viewpoint and engage with readers as members of a particular community" (Hyland, 2005a, p. 37). Metadiscourse has been recognized as a valuable tool, both for the writer/speaker and the reader/listener.

It has therefore attracted a lot of attention in research. Studies have researched the use of metadiscourse expressions in textbooks (Bondi, 2010; Crismore, 1989; Hyland, 2000), dissertations (Akbas & Hardman, 2018; Alotaibi, 2018; Hyland, 2004; Swales, 1990), annual corporative reports (Hyland, 1998b), oral and written conference presentations (Luukka, 1994), textbook and research article introductions (Bondi, 2010), and so on. Metadiscourse expressions can be found in many languages, used in different genres, different cultures, in speech and writing, by learners and native speakers, by different gender (Alotaibi, 2018), and in different disciplines (Mauranen, 2007).

Although metadiscourse has been studied a lot in recent decades, it is still difficult to define and categorize it, as it is essentially a fuzzy category (Adel, 2006; Hyland, 2005a). Metadiscourse can be realized in text though different linguistic forms, which can range from single words, phrases or clauses to whole paragraphs. Sometimes even the use of an exclamation mark can be identified as metadiscourse and often one and the same form can function as metadiscourse in some texts but not in others (Hyland & Tse, 2004). The study of metadiscourse cannot rely on its surface forms as metadiscourse is primarily a functional category. Whether a particular item can be interpreted as metadiscourse or not depends on how it is used in its co-text (Hyland, 2005a). In addition, some researchers have indicated that metadiscourse expressions can be multifunctional (Adel, 2006; Crismore et al., 1993) and may have two or more functions at the same time. It is also an open category to which new items can be added according to the needs of the context. All this makes metadiscourse a challenging research topic, but also a difficult area to grasp and apply by non-native speakers.

Contrastive studies have indicated that the use of metadiscourse varies in different languages. In comparison to English, metadiscourse is used less in German (Clyne, 1987), Finnish (Mauranen, 1993), Turkish (Akbas & Hardman, 2017, 2018; Hatipoğlu & Algı, 2018), and Slavic languages such as Polish (Duszak, 1994), Slovene (Pisanski Peterlin, 2005) and Serbian (Blagojević, 2005; Bogdanović & Mirović, 2013). This fact has significance for non-native English writers, particularly researchers who wish to participate in a wider academic community. Given the interactive character of academic writing, the correct use of metadiscourse becomes crucial for credible representation of one's work and for establishing relations with the readers. In fact, metadiscourse can be described as a "central pragmatic feature" (Hyland, 1998a, p. 453) of academic writing which enables writers to organize and present their arguments and findings in a way which is accepted in their disciplinary communities.

However, studies focusing on the use of metadiscourse elements by Serbian researchers writing in English (Blagojević, 2005; Bogdanović & Mirović, 2013) found that these authors do not use metadiscourse sufficiently, which can potentially affect their chances of publication. The results of a recent study by Mirović and Bogdanović (2016) are more reassuring in that they suggest that same authors were able to vary and adapt their use of metadiscourse depending on whether they wrote in Serbian or in English. Conversely, their follow-up interviews revealed that these authors were not consciously aware of how they use metadiscourse in their writing and sometimes actually had some wrong assumptions regarding the use of metadiscourse. The pervasiveness of metadiscourse in academic writing and its critical role in successful academic communication calls for further investigation into the use of metadiscourse by L2 writers.

Methodology

This paper focuses on three L2 writers' perceptions of the role and importance of metadiscourse in their writing and considers the process of acquiring the skills of metadiscourse use in ESL. Using the triangulation between a questionnaire and the interviews with three young researchers which were partly based on the analysis of these researchers' published research articles, the study seeks to examine how metadiscourse elements are learnt and used by successful young researchers.

The paper addresses two research questions:

i) To what extent are young researchers aware of the need to use metadiscourse in their writing?

ii) How did these researchers learn to perceive and use particular metadiscourse expressions?

Metadiscourse Taxonomy

The paper is established on Hyland's taxonomy which divides metadiscourse into interactive and interactional categories (Hyland, 2005a; 2010). This classification is based on functional approach where the emphasis is on the manner the writer refers to the text, to themselves and to the reader. In this taxonomy, metadiscourse is related only to the context in which it occurs and the interaction between elements is always present. The model is presented in the following manner:

Interactive expressions help to guide the reader through the text and include:

- Transitions (express relations between main clauses): e.g. *in addition, but, thus, and*;

- Frame markers (refer to discourse acts, sequences or stages): e.g. *finally, to conclude, my purpose is*;

- Endophoric markers (refer to information in other parts of the text): e.g. *noted above, see Fig., in section 2*;

- Evidentials (refer to information from other texts): e.g. *according to X, Y 1990, Z states*;

- Code glosses (elaborate propositional meanings): e.g. *namely, e.g., such as, in other words*.

Interactional expressions involve the reader in the text, i.e. allow writers to conduct interaction by intruding and commenting on their message. These include:

- Hedges (withhold commitment and open dialogue): e.g. *might, perhaps, possible, about*;

- Boosters (emphasize certainty or close dialogue): e.g. *in fact, definitely, it is clear that*;

- Attitude markers (express writer's attitude to proposition): e.g. *unfortunately, I agree, surprisingly*;

- Engagement markers (explicitly build relationship with reader): e.g. *consider, note that, you can see that*;

- Self mentions (explicitly refer to author(s)): e.g. *I, we, my, our*.

Participants

The participants in the study were three young researchers from the Faculty of Technical Sciences, University of Novi Sad, Serbia. The three researchers, who were known to the authors of this paper since they work at the same University, were asked to participate in the study on the basis of several criteria. They were selected as representatives of their colleagues in the fields of mathematics, electrical engineering and computing, the fields which are successfully researched at the University of Novi Sad. Although still considered young, they are not academic novices and have had significant experience in writing and publishing in English. In addition, the authors of this paper knew, through previous contacts with these researchers, that they paid considerable attention to improving their English language skills and attaining high quality in their writing.

Detailed information about the participants was collected in the first part of the questionnaire. Two of them started learning English at the age of eleven, while the third one began at the age of four. They learned English at school and attended English courses at the university; however, neither of them had any instruction in English for

academic purposes or, more precisely, in the use of metadiscourse. Based on years of learning English, as well as the analysis of their research papers, it can be stated that they have an excellent knowledge of the English language, both general and professional. They have been working at the University for the period of 8 to 15 years, and during that time each of these researchers has written (authored or co-authored) more than 20 research papers in English. They provided three of their published papers (published in international journals) which were analysed by the interviewers for the discourse-based interview in order to be able "to compare participants' stated perspectives and beliefs about writing with actual discursive strategies evident in the text" (Olinger, 2014)

Data Collection Materials and Procedures

The data collected in this study came from a questionnaire and semi-structured interviews which the two authors conducted with the participants.

The questionnaire consisted of three parts. The purpose of the first part was to collect general information about the participants, and the information collected in this way has been presented in the previous section. This data demonstrates their writing competence and presence in the academic community.

The second part of the questionnaire was concerned with the participants' perception of the role of metadiscourse. After a brief introduction on the meaning of this term, the participants were asked to provide answers to several questions about the use of metadiscourse in their writing. The questions dealt with the awareness of metadiscourse elements and their deliberate use, the amount of attention these elements received in participants' writing, and the importance the participants attached to their use. They were also asked about specific forms of metadiscourse, which they might incorporate regularly in their writing, as well as whether they paid additional attention to metadiscourse when they re-read and improved their papers. Most of the questions were simple factual questions.

In the third part of the questionnaire, they were presented with Hyland's (2005a) ten metadiscourse categories accompanied with short description of each and typical examples. The examples were presented for the clear and explicit understanding of the types of markers discussed. Participants were asked to grade, on a so-called basic Likert scale (from one to five) what they believed to be the frequency of their usage of individual metadiscourse categories. The additional purpose of this section was to further familiarize the participants with different types of metadiscourse and exploit this as a starting point for the subsequent interviews. During the discourse-based interviews, to be certain what the interviewers asked, they would simply look into the examples and categories prior to answering the question.

After the data from the questionnaires were collected, each of the participants was asked for an interview with the two authors of this paper. The interviews were in-depth and semi-structured, since these allow the interviewers to express their own experiences and their opinion (Cohen, Manion, & Morrison, 2007; Petrić & Hardwood, 2013). All the interview segments began with the questions from the questionnaire, moving along as a response to the participant's answers and opinions. Hence, on the one hand, the similarities between answers given by different participants could be easily underlined, while at the same time, more detailed descriptions could be provided for each individual answer. The question which was regularly asked concerned the participants' reasons for using a particular type of metadiscourse as the interviewers wanted to establish whether the interviewees were aware of the role that the particular type of metadiscourse had within the research article. Other frequently asked questions were: "Why do you use this type of expression often? /Why don't you use it often?", "How important is X (a particular metadiscourse category) for good writing?", "Do you think about the potential readers when you write?", or "Is there a place for you/ your opinion in the research article?".

The participants were also regularly asked how they had learned to use a particular metadiscourse category or expression, and what strategies they employed to remember them or use them correctly. Finally, they were asked what kind of help they thought would improve their L2 writing skills (regarding the use of metadiscourse elements) and what sort of advice they would give to their younger colleagues.

In addition, the interviews were structured to include elements of discourse-based interviews (Odell, Goswami, & Herrington, 1983). This meant that the research papers written by the participants were analyzed prior to the interviews with the aim of finding instances of metadiscourse elements and highlighting them. The findings of this analysis are not presented in this paper, as the current investigation does not focus on the participants' actual use of metadiscourse in research papers. Instead, the participants' research articles were analysed so that the actual examples of metadiscourse usage could be employed by the interviewers in order to form the basis for the discourse-based interviews. In this way, they helped them answer the research questions related to the awareness and perceptions in using metadiscourse as young researchers. During the interviews, the participants were asked questions like: "Why did you use these expressions here?", "Did you have any alternative for this expression used here or was it your first and only choice?", and the like. The participants responded to features they actually used in papers and they had to recollect the reasons for using them. These questions provided the knowledge of how considerate writers actually were in relation to their possible readership, as well as the intentions, direct or indirect, they had while writing. Discourse-based interviews are beneficial since they allow the writer to interpret meanings, reconstruct motivation

and evaluate rhetorical effectiveness (Hyland, 2005b, p. 182) of their own pieces of academic writing. These questions were then followed by additional questions, prepared in advance, about the selected instances of metadiscourse (e.g. "I noticed you used the same expression several times in a row. Is it the only expression used in your field of research or is it only your personal preference?").

The interviews were conducted in Serbian to help the interviewees express themselves as accurately as possible. All interviews were audio-recorded, transcribed and subsequently translated into English.

Results and Discussion

The corpus obtained through questionnaires and interviews was analysed focusing on the main interests of this study:

i) Researchers' perception of metadiscourse. The authors wanted to investigate whether these researchers, who came from Serbian language background (the language that uses metadiscourse less than English), were aware of the role and importance of adequate metadiscourse use in English academic writing. Additionally, the research aimed at determining what metadiscourse categories were considered relevant (and why) by the researchers in the area of mathematics and engineering.

ii) Acquiring the knowledge of metadiscourse use. The authors were interested in how these researchers, who have published successfully in English, learnt to use metadiscourse, particularly in view of the fact that this area is usually not explicitly taught in ESL classes.

The information from the questionnaire confirmed that the participants received no instruction in the area of metadiscourse use (or academic writing in general); however, two of them (who are longer in the academic world) stated that they used metadiscourse elements consciously, paying attention to the expressions they used and making corrections and alterations in the subsequent versions of the paper. The third participant, an engineer, reported using a smaller range of metadiscourse elements, not doing that with full awareness and usually not correcting these expressions later in the process. All three stated that they had expressions and phrases they used regularly. Answering the question which determined their views on the importance of metadiscourse on Likert scale, they described it as important, but not crucial element in their writing (3.67/5).

Perception of Metadiscourse Categories

More detailed insight concerning the participants' perception of different metadiscourse categories was gained during the interviews. Regarding their writing,

all participants reported that they used interactive categories (4.3/5) more than interactional ones (2.46/5). This can be related to their disciplines (mathematics and engineering). Further enquiry into interactive metadiscourse demonstrated that the participants placed a lot of emphasis on evidentials and endophoric markers. They seem to be sure about the importance of evidentials (5/5) in positioning authors in their discourse community:

(1)　　I have to show that I'm familiar with what others have done and that my works represent a significant contribution to the field. (Participant B)

Participant B also correctly noticed that he would mostly use evidentials in introduction and literary review sections. According to Participant A, evidentials "have to be there", and, as she explains:

(2)　　We always try to put a lot of them because we always refer to somebody else's results so we don't want to be accused of that [plagiarism]. (Participant A)

Similarly, the use of endophoric markers is regarded as standard practice (4.3/5) adopted early in learning to write. This was aided by the fact that these expressions could be easily translated from Serbian and do not need to be varied to a greater extent (Participant A). Participant B places their use in the context of their discipline:

(3)　　We [in engineering] need that a lot. (Participant B)

The analysis of participants' papers revealed certain variations in the forms of evidentials and endophoric markers (whether they write shorter or longer versions of these expressions, integral or non-integral ways of citation); hence, we asked them to comment on this. Participant C provided some interesting insights. Although he finds the use of these two categories necessary in supporting his argumentation by drawing on the information presented elsewhere in the text (in the case of endophoric markers, which he says he uses a lot) and for establishing his position as a knowledgeable participant in the discourse community (in the case of evidentials, which he considers "obligatory"), he usually keeps them as short as possible and would frequently put them in parenthesis. He explains:

(4)　　They [endophoric markers] interrupt the sentence. (...) I prefer to make evidentials as short as possible so that they do not interfere with the flow of the text. (Participant C)

This is an interesting example of a competent writer who adapts the use of metadiscourse elements to suit his personal writing style.

Participant B provided a different explanation for choosing between longer or shorter version of a metadiscourse expression, particularly endophoric markers and evidentials. Talking of evidentials, he says:

(5)   Sometimes I pay attention to formatting. And then, if there is a graph going to the next page and makes troubles, then I begin to leave something out, er, and then in brackets I only put: Figure X. (...) And vice versa. If I have a hole in the text and I have to fill it in with something, I begin to expand these sentences and then it will be: In figure X, this and that is presented. (Participant B)

As for evidentials which he uses in introductions, he says that he uses non-integral way of citation when he feels that the introduction of a particular article is already too long. This again speaks of a writer who understands the role of metadiscourse use and adapts it to his own needs.

Transitions are also considered to be used very frequently (3.66/5), although Participant A admitted that she relies on a few expressions that she knows well. Participant B, on the other hand, uses a wide range of transitions and tries to vary them so that "the sentences do not look alike". Participants B and C find the use of transitions very important in their writing and search for the right expression which would correctly link the ideas (one can compare their opinion to the use of transitions in the pieces of academic writing by Chinese writers in the research by Gardner and Han (2018)).

The function of frame markers seems to be clear to the participants of this study. They mention that they "help the reader" (Participant B). Nevertheless, one of the explanations for their usage was the following:

(6)   I saw that everybody else is writing like that. (Participant A)

The use of code glosses seems to vary among the participants. Participant A, a mathematician, uses them a lot. She describes the role of these expressions as necessary to give a precise and exact meaning of the expression or formula given. This is just an example from her writing:

(7)   For semirings of the first and third classes, i.e., for semirings with idempotent pseudo-addition, the total order is induced by the following (Participant A's paper 1)

This is typical for her discipline. Similarly, Participant C sees the role of code glosses in supplying additional information to the reader and reports frequent uses of expressions like e.g. or i.e., which he puts in parentheses. Participant B, on the other hand, does not regard code glosses as an aid in conveying his ideas clearly. He seems to regard them as a sign of imprecise writing, which impairs good comprehension. Even though the interviewers suggested the potential usefulness of incorporating code glosses in writing, he kept his position that sentences should be clear and understandable without additional explanation. For that reason, he frequently rewrites sentences or even whole paragraphs if he (or his colleagues) finds them unclear, instead of incorporating code glosses. It seems that he does that with a reader in mind:

(8)   I try to write it to be comprehensive. ... If it is not comprehensive I'm afraid that the person reading will not understand it. This first impression is important. If someone does not understand what it is about, what is the possibility they will reread it and read it again? It's not likely. (Participant B)

Overall, the participants seem to be familiar with interactive metadiscourse and its appropriate use in a research article. In addition, they exhibited some disciplinary and individual preferences.

Interactional categories of metadiscourse are used to a lesser extent, which again may be interpreted as a consequence of the participants' disciplines and is in accordance with findings of other researchers (Hyland, 1998a; Hyland & Tse, 2004).

All three participants agree that hedging does not have a prominent place in their writing. In explanation for this, Participant A notices that their papers are very exact and focused on particular, clearly defined mathematical problems; hence, if the results cannot be interpreted with absolute precision, the whole investigation would be pointless. Similar opinion is expressed by informants in the study on metadiscourse in pure mathematics by McGrath and Kuteeva (2012).

Participant C reports that he sometimes felt the need to use some hedging devices, but decided to avoid them as "it is not recommended". When asked to comment on hedging expression "to the best of our knowledge" (Participant C's paper 2) in the introduction of one of his papers, he interpreted hedging of this sort as related to projecting a certain level of humility and not overstating his claim. He stated that he would not use that when interpreting a research. Participant B, also an engineer, is confident in his attitude that hedging should be avoided as it "diminishes our results". He explains:

(9)   If that something is the result of my work, then it is not good to say it might, it could be because then it means that I'm unsure in what I was doing. (Participant B)

Similarly, the participants found no place for boosters in their research articles and little room for attitude markers. Participant A expresses her opinion that, although she sometimes finds these expressions in other people's writing (also confirmed by McGrath & Kuteeva, 2012), she does not think this is appropriate for research articles. Participant B was unsure whether boosters and attitude markers, which he uses in correspondence with reviewers to stress the contribution his research is making to the field (e.g. "significant novelty", "important contribution"), might sometimes be useful in the research articles themselves.

(10)   If I needed these expressions in writing to the reviewers then this might suggest that there was some need for this in the article. I should have stresses that. (Participant B)

The use of engagement markers is not prominent with the two engineers (Participants B and C); nevertheless, Participant A (a mathematician) thinks that she uses them a lot.

However, she was not sure whether this was used to establish actual contact with the reader or it represented merely a convention of mathematical discourse. These are two examples (of many) of engagement markers identified in her papers:

(11)   Consider the following two interval-valued functions with border functions of the same monotonicity (Participant A's paper 1)

(12)   Note that the notion of a simple function coincides with the notion of an elementary function. (Participant A's paper 3)

Similarly, there are a number of examples of the use of pronoun 'we', such as:

(13)   If we consider a semiring from the second class, the pseudo-operations are given by the generator g and the ⊕-measure µ has the form (...). (Participant A's paper 3)

(14)   Let us consider the g-semiring on the interval [0,∞] with the generating function g(x). (Participant A's paper 2)

However, the use of the pronoun is rather specific for the rhetoric of mathematical argumentation and not used in the same way as self mentions in Hyland's classification. Other than conventional expressions like this, Participant A feels that she should not use personal pronouns or possessive adjectives in her writing. Participant B echoes this attitude stating that he would "avoid it [self mentions] whenever possible". Participant C agrees with them, adding that he might use self mentions in the form of possessive adjectives (e.g., "our system"). The use of first person singular is perceived as unacceptable by the participants. All of them explain this by the dominant opinion in their discourse communities which was imposed on them through suggestions by reviewers, IEEE guidelines or examples from the papers they had read. The participants stress that they are often instructed to be impersonal and for that reason prefer to use passive voice instead of self mentions.

Learning about Metadiscourse

One of the questions in the questionnaire enquired how the participants had learnt to use metadiscourse; the same question was frequently asked during the interviews in relation to particular metadiscourse categories. The summaries of each participant's answers are presented here.

The participant who pays the least attention to applying metadiscourse, and acquiring metadiscourse expressions, is Participant A. This fact, once again, may be interpreted in relation to her field, mathematics, where discourse is constructed through "standardised code" (Hyland, 2005c, p. 189). For example, talking about transitions, she says that she relies only on a set of known expressions. Since the paper reviewers never commented on the transition words, she does not feel the need to learn more.

Throughout the interview, participant A indicated that most of her knowledge was based on the papers she had read and that she tried to follow the manner in which other authors write. Her very simple explanation is the following:

(15)   I saw that everybody else writes like that. (Participant A)

Her suggestion on how to help young researchers learn metadiscourse expressions is to provide examples in sentences, not just a list of words, pointing out that examples are clearer and more easily remembered.

Participant B, on the other hand, is very careful about the phrases and forms he uses, and, while proofreading his papers, he tries to improve his metadiscourse as well. He is self-taught in his use of metadiscourse and, like participant A, he also learnt from other papers in the field (electrical engineering). He says: "You read and read…" In addition, he considers internet a great source of information for finding advice on how to write. At the same time, he seems to appreciate social strategies as well and acknowledges the role of his colleagues or co-authors in indicating parts of the text that "don't work".

As participant B expressed the opinion that metadiscourse has an important role in facilitating communication about one's research, we were interested in his position on including instruction on metadiscourse in a course of academic writing as a form of help for young researchers. He was in favour of this idea, though felt that this would have to be closely related to these researchers' actual writing in order to be successful.

Participant C, who started learning English at the age of four, stresses the role of his Master thesis supervisor in developing his academic skills, including the skill of using metadiscourse in his writing. Although he did not receive any language instruction, this participant feels that his supervisor's emphasis on the organization of ideas within a research article and on the logic of building one's arguments directed his attention to the use of metadiscourse elements. Talking about the use of endophoric markers which he finds prominent in his writing, he describes how he learnt about them very early in his career:

(16)   When my supervisor was talking about the organization of a research article, and gave me some examples, I noticed this paragraph at the end of Introduction. I have adopted this ever since. (Participant C)

He also feels that the fact that he had to read a large number of research articles during his doctoral studies (he mentions reading 100 research papers in a year) had the consequence that he adopted metadiscourse features in his writing. "Some of this happens subconsciously", he adds. However, he strongly feels that formal instruction on metadiscourse would be beneficial for young researchers. He himself has watched tutorials on the internet to help him improve his writing. In addition, he relies on the

instructions for authors provided by the journals, although they do not always cover the use of metadiscourse.

Conclusion

The analysis of the data obtained in this study reveals that the participants, successful researchers from the University of Novi Sad, are very much aware of metadiscourse in research articles, although the term itself was not familiar to them prior to this study. They consider metadiscourse useful in their writing and relate its use to the accepted practice in their discourse communities. Discussing particular metadiscourse categories, the participants repeatedly said that they "have to be used", or "are obligatory". The reasons for this were found in being more successful in the communication of research results.

The explanations these participants provided for the use of particular metadiscourse categories were similar to those found elsewhere in the literature (Crismore, 1989; Mirović & Bogdanović, 2016), frequently echoing Hyland's (2005a) explanations. For example, they express the position that frame markers, "help the reader" and are aware of how referring to the works of others in the literature review section of their paper positions them within a particular discourse community. In general, the participants reported more use of interactive than interactional elements of metadiscourse in their writing, which can also be interpreted in view of their research disciplines (Hyland & Tse, 2004). Furthermore, the participants' clarification of the use of particular metadiscourse elements sometimes reflects their awareness of the specific characteristics of their research fields as well. Conversely, their use of particular forms of metadiscourse also showed individual preferences, which we interpreted to be the result of their advanced language proficiency and confidence in their L2 language skills.

When asked how they learnt certain metadiscourse features that they use in their writing, the participants invariably mentioned other research articles in their field, which provided a model to be followed, particularly in the early phases. Internet, writing tutorials and guidelines for authors provided by some journals are also considered useful. Therefore, as suggested by Akbas and Hardman (2018) and Molino (2018), integrating authentic materials and activities in line with the needs of the learners would boost up the awareness of metadiscourse. Social strategies also have a role (particularly in co-authored papers), and sometimes reviewers are mentioned as people who provide useful feedback. Reviewers are also seen as the most important readers of the paper. As a conclusion, all participants agree that instruction in metadiscourse can be beneficial for improving their writing skills.

The pedagogical implications of this study with three researchers from Serbia are related to the instruction into the use of metadiscourse. The results in this paper suggest that these researchers adopted metadiscourse expressions both consciously and

subconsciously. The fact that they frequently think about metadiscourse expressions, seek advice on the internet and react to the recommendations provided by reviewers or journal guidelines suggests that teaching in this area has its place within the course of academic writing. For the young researchers from Serbian language background who wish to publish in international journals, the instruction in the appropriate use of metadiscourse would provide valuable aid in gaining acceptance for their writing.

References

Adel, A. (2006). *Metadiscourse in L1 and L2 English.* Amsterdam, NL: John Benjamins.

Akbas, E., & Hardman, J. (2017). An exploratory study on authorial (in)visibility across postgraduate academic writing: Dilemma of developing a personal and/or impersonal authorial self. In C. Hatipoglu, E. Akbas & Y. Bayyurt (Eds.), *Metadiscourse in written genres: Uncovering textual and interactional aspects of texts* (pp. 139–174). Bern, Switzerland: Peter Lang. https://doi.org/10.3726/b11093

Akbas, E., & Hardman, J. (2018). Strengthening or weakening claims in academic knowledge construction: A comparative study of hedges and boosters in postgraduate academic writing. *Educational Sciences: Theory & Practice*, *18*, 831–859. http://dx.doi.org/10.12738/estp.2018.4.0260

Alotaibi, H. (2018). Metadiscourse in dissertation acknowledgments: Exploration of gender differences in EFL texts. *Educational Sciences: Theory & Practice, 18*, 899–916. http://dx.doi.org/10.12738/estp.2018.4.0247

Blagojević, S. (2005). What should a non-native speaker of English be aware of when writing in English for academic purposes? *Romanian Journal of English Studies*, *2*, 11–20.

Bogdanović, V., & Mirović, I. (2013). Upotreba metadiskursa u saobraćajnom inženjerstvu: Analiza naučnih radova pisanih na engleskom kao maternjem i engleskom kao stranom jeziku [Metadiscourse in traffic engineering: An analysis of research articles written in English as a first language and in English as a second language]. In G. Dimković-Telebaković (Ed.), *Strani jezik u saobraćajnoj struci i nauci* (pp. 73–92). Beograd: Saobraćajni fakultet.

Bondi, M. (2010). Metadiscursive practices in introductions: Phraseology and Semantic sequences across genres. *Nordic Journal of English Studies*, *9*(2), 99–123.

Clyne, M. (1987). Discourse structures and discourse expectations: Implication for Anglo-German academic communication in English. In L. E. Smith (Ed.), *Discourse across cultures* (pp. 73–83). Hawaii, HI: East-West Centre, Institute of Culture and Communication.

Cohen, L., Manion, L., & Morrison, K. R. (2007). *Research methods in education* (6th ed.). London, UK: Routledge Falmer.

Crismore, A. (1989). *Talking with readers: Metadiscourse as rhetorical act*. New York, NY: Peter Lang.

Crismore, A., Markkanen, R., & Steffensen, M. (1993). Metadiscourse in persuasive writing: A study of texts written by American and Finnish university students. *Written Communication*, *10*(1), 39–71.

Duszak, A. (1994). Academic discourse and intellectual styles. *Journal of Pragmatics, 21*(3), 291–313.

Gardner, S., & Han, C. (2018). Transitions of contrast in Chinese and English university student writing. *Educational Sciences: Theory & Practice, 18*, 861–882. http://dx.doi.org/10.12738/estp.2018.4.0067

Hatipoglu, C., & Algi, S. (2018). Catch a tiger by the toe: Modal hedges in EFL argumentative paragraphs. *Educational Sciences: Theory & Practice, 18,* 957–982. http://dx.doi.org/10.12738/estp.2018.4.0373

Hyland, K. (1998a). Persuasion and context: The pragmatics of academic metadiscourse. *Journal of Pragmatics, 30*, 437–455.

Hyland, K. (1998b). Exploring corporate rhetoric: Metadiscourse in the CEO's letter. *International Journal of Business Communication*, *35*(2), 224–244.

Hyland, K. (2000). *Disciplinary discourses: Social interactions in academic writing*. London, UK: Longman.

Hyland, K. (2004). *Genre and second language writing*. Ann Arbor, MI: University of Michigan Press.

Hyland, K., & Tse, P. (2004). Metadiscourse in academic writing: A reappraisal. *Applied Linguistics, 25*(2), 156–177.

Hyland, K. (2005a). *Metadiscourse: Exploring interaction in writing*. London, UK: Continuum.

Hyland, K. (2005b). Digging up texts and transcripts: Confessions of a discourse analyst. In T. Silva & P. Matsuda (Eds.), *Second language writing: Perspectives on the process of knowledge construction* (pp. 177–189). New Jersey, NJ: Lawrence Erlbaum.

Hyland, K. (2005c). Stance and engagement: A model of interaction in academic discourse. *Discourse Studies*, *7*(2), 173–192.

Hyland, K. (2010). Metadiscourse: Mapping interactions in academic writing. *Nordic Journal of English Studies*, *9*(2), 125–143.

Luukka, M. R. (1994). Metadiscourse in academic texts. In B. L. Gunnarsson, P. Linell, & B. Nordberg (Eds.), *Text and talk in professional contexts. Selected Papers from the International Conference "Discourse and the Professions,"* (pp. 77–88). Uppsala: ASLA, The Swedish Association of Applied Linguistics.

Mauranen, A. (1993). Cultural differences in academic discourse – problems of a linguistic and cultural minority. *AFinLAn Vuosikirja, 23*(51), 157–174.

Mauranen, A. (2007). Discourse reflexivity and international speakers – how is it used in English as a Lingua Franca? *Jezik in Slovstvo*, *52*(3–4), 1–19.

Mauranen, A., Hynninen, N., & Ranta, E. (2010). English as an academic lingua franca: The ELFA project. *English for Specific Purposes, 29,* 183–190.

McGrath, L., & Kuteeva, M. (2012). Stance and engagement in pure mathematics research articles: Linking discourse features to disciplinary practices. *English for Specific Purposes*, *31*(3), 161–173.

Mirović, I., & Bogdanović, V. (2016). Use of metadiscourse in research articles written in L1 and L2 by the same authors. In S. Plane, C. Bazerman, F. Rondelli, C. Donahue, A. N. Applebee, C. Bore … D. Russell (Eds.), *Recherches en écritures: Regards pluriels. Recherches Textuelles, No. 13* (pp. 435–456). Metz: Université de Lorraine.

Molino, A. (2018). "What I'm speaking is almost English…": A corpus-based study of metadiscourse in English-medium lectures at an Italian University. *Educational Sciences: Theory & Practice, 18*, 935–956. http://dx.doi.org/10.12738/estp.2018.4.0330

Odell, L., Goswami, D., & Harrington, A. (1983). The discourse-based interview: A procedure for exploring the tacit knowledge of writers in non-academic settings. In P. Mosenthal, L. Tamor, & S. A. Walmsley (Eds.), *Research on writing: Principles and methods* (pp. 221–236). New York, NY: Longman.

Olinger, A. R. (2014). On the instability of disciplinary style: Common and conflicting metaphors and practices in text, talk, and gesture. *Research in the Teaching of English, 48*(4), 453–478.

Petrić, B., & Harwood, N. (2013). Task requirements, task representation, and self-reported citation functions: An exploratory study of a successful L2 student's writing. *Journal of English for Academic Purposes, 12*, 110–124.

Peterlin, A. P. (2005). Text-organising metatext in research articles: An English-Slovene contrastive analysis. *English for Specific Purposes*, *25*, 307–319.

Swales, J. (1990). *Genre analysis: English in academic and research settings*. Cambridge, UK: Cambridge University Press.

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

Appendix–Questionnaire

Part 1: General information:

1. How long have you been studying English? _____ years

2. Have you ever attended a course in Academic English?

| yes | no |

3. When did you begin working at the Faculty? In _____

4. How many scientific papers in English have you published?

    a) Less than 10

    b) 10 – 20

    c) More than 20

Part 2: Information related to metadiscourse:

1. Have you had any training related to the use of metadiscourse when writing a research paper?

| yes | no |

2. Do you premeditate the use of metadiscourse while writing research papers?

| yes | no |

3. How much attention do you attribute to metadiscourse when writing research papers?

(**1** – none attention, **2** – rare attention, **3** – some attention, **4** – quite an attention, **5** – a lot of attention

| 1 | 2 | 3 | 4 | 5 |

4. Are there any expressions, any examples of metadiscourse, that you regularly use while writing a research paper?

| yes | no |

If yes, list them: _____

5. How did you learn to use metadiscourse expressions present in your papers?

_____

6. Do you subsequently add metadiscourse expressions in the draft versions of the paper?

| yes | sometimes | no |

If your answer is positive, write why you do it and which expressions you add most often. _____
_____

7. What is the significance you attribute to the use of metadiscourse in writing your research papers? (from 1 to 5; 1 being the smallest and 5 the highest value)

_____

Part 3: Detailed metadiscourse analysis:

How often do you use the following expressions when writing research papers:

1 – I don't use them at all,

2 – I rarely use them,

3 – I occasionally use them,

4 – I use them quite often,

5 – I always use them

a) Expressions that express semantic relation between main clauses and main sections in the paper (but, thus, in addition, consequently)

1	2	3	4	5

b) Expressions that refer to paper organization, express sequence, label text stages, announce discourse goals, or indicate topic shift (finally, to conclude, the purpose is, first, next)

1	2	3	4	5

c) Expressions that refer to information in other parts of the paper (noted above, see Fig., in section 2)

1	2	3	4	5

d) Expressions that refer to the source of information from other texts/papers/books (according to X, Z 1990, Y states, as shown in [1])

1	2	3	4	5

e) Expressions that restate and explain information for better understanding (namely, e.g., such as, in other words)

1	2	3	4	5

f) Expressions that withhold your full commitment to the information (might, perhaps, possible, about, approximately, to some extent)

1	2	3	4	5

g) Expressions that emphasise your certainty in the information stated (in fact, definitely, it is clear that)

1	2	3	4	5

h) Expressions that explicitly express your attitude towards an information in the paper (unfortunately, I agree, surprisingly, promising idea, important contribution)

1	2	3	4	5

i) Expressions that build relationship with the reader (consider, note that, you can see that)

1	2	3	4	5

j) Expressions that explicitly refer to you as the author (I, we, my, our)

1	2	3	4	5

Strengthening or Weakening Claims in Academic Knowledge Construction: A Comparative Study of Hedges and Boosters in Postgraduate Academic Writing

Erdem Akbas[1]
Erciyes University

Jan Hardman[2]
University of York

Abstract

From a cross-linguistic and cross-cultural perspective, this paper reports on the findings of an exploratory study examining the features of the academic texts produced by three groups of postgraduates: native speakers of Turkish (TL1), English (EL1) and Turkish speakers of English (EL2). To this end, the study involves a micro-discourse analysis of a corpus of ninety discussion sections of dissertations to identify and classify the choices made by the authors for expressing commitment/detachment in presenting knowledge claims. The results indicated interesting similarities and differences across the groups in the ways in which writers qualified their level of commitment to a higher level and detachment from the claims in their writing. In other words, this can be described as a cline from the highest to the lowest, even intentionally withholding their commitment. By looking at the hedging and boosting devices contributing to the interactive side of academic writing, the discourse constructed by Turkish L1 writers appeared to be slightly less interpersonal but highly authoritative overall. In contrast, the results suggested that the Turkish writers of English were similar to their English L1 counterparts in terms of building a significantly more cautious strategy for presenting knowledge claims and making use of relatively fewer boosting devices when presenting their claims. It is hoped that the implications of the findings can be useful for teaching of academic writing to postgraduates within the contexts of the study.

Keywords

Postgraduate academic writing • Metadiscourse • Hedges and boosters • Discourse analysis and corpus linguistics • Commitment and detachment

1 **Correspondence to:** Erdem Akbas (PhD), Department of English Language Teaching, Erciyes University, Kayseri 38039 Turkey. Email: erdemakbas@erciyes.edu.tr

2 Department of Education, University of York, United Kingdom of Great Britain and Northern Ireland. Email: jan.hardman@york.ac.uk

In this widely explored topic, many researchers have paid considerable attention to how the viewpoints of writers are expressed with differential control over the force of propositions in written discourse. Strengthening or weakening the force of a proposition by means of linguistic items helps the author encode information in a format expected to be received in the way that is intended. That is why the focus of such research has mostly been on subjective or epistemic certainty so that researchers can examine various degrees and functions of writers' implications regarding the truthfulness status of propositions by means of linguistic signals.

The linguistic devices signaling a writer's commitment to or detachment from knowledge claims can be evaluated as a component which is likely to change the level of confidence of the writer within the immediate context if the item is substituted or removed from the sentence. The following example from the sub-corpus of Akbas (2014b) shows that the author of the sentence attempted to assert his/her view regarding teaching efficacy as *definitively* as possible by employing a very strong verb 'found' rather than signaling that "the writer is not prepared to personally guarantee the proposition" (Hyland, 1998, p. 173) by the use of such verbs as *suggested*, *implied* or *indicated*:

> The current study found that teaching efficacy could not be predicted by whether the participant was an in-service teacher or a student teacher (EL1-1).

It can be noticed that this was likely to have been a conscious linguistic choice by the writer of the text, and substituting the strong verb "found" with one of these weakening verbs would simply result in a hedged point of view with a decrease in the level of certainty and confidence. Nevertheless, as can be seen and felt, the writer in the above example presented his/her finding in a confident and indisputable way to underline and boost the importance of the scientific contribution to the academic community. Although this can be regarded as a face-threatening act because it makes him/her fully committed to the proposition, the writer did not attempt to soften the claim and leave some room for the reader to evaluate the possibility of the knowledge claim being true or not.

Thomas (1983) suggested that there is a strong association between pragmatic competence and successful communication for particular contexts. With this in mind, potential variations in the linguistic forms used for academic purposes in building an authorial presence, evaluation or stance can result in violating the consensus of the discourse communities over the specific uses of language in the form of accepted conventions. This idea has fueled the investigations of how communication is provided in academic texts with rhetorical choices made in the discourse. Ädel (2018) also pointed out that academic genres with respect to *metadiscourse* investigations have received much attention by the researchers in the field. To illustrate, a great deal of

research has explored linguistic elements signalling metadiscourse functions in order to reveal tendencies in writing practices across different discourse communities (regarding language, culture and discipline) and genres (Akbari, 2017; Crawford Camiciottoli, 2010; D'Angelo, 2008; Hatipoğlu & Algı, 2017; Hu & Chao, 2015; Liu & Buckingham, 2018; Molino, 2010). Nevertheless, the research examining academic discourse in terms of such expected and accepted norms has mainly been related to what experienced scholars follow in their academic writing (for example, Koutsantoni, 2004, 2005; Vassileva, 2001). In other words, there are studies which have compared the publications of experienced writers with a focus on various interpersonal relations in academic texts and this can be quite crucial for helping other members of these discourse communities to find what is generally accepted. There are also other studies which have contrasted professional and inexperienced writers without focusing on the question of genre as what is contrasted are generally two different genres, that is, research articles as opposed to dissertations. However, novice writers have rarely been the main focus so far (*see* Akbas & Hardman, 2017; Andresen & Zinsmeister, 2018; Bogdanović & Mirović, 2018; Gardner & Han, 2018; Ho & Li, 2018; Kawase, 2015; Vergaro, 2011). Considering the fact that novice writers of any discourse community are both novice with regard to their academic performance and managing authorial strategies to meet the expectations of experienced members of the academic community, that is the examiners, postgraduate writers will definitely need more instruction and guidance on how authorial strategies need to be managed in their particular contexts. Therefore, the fact that postgraduate students are novice writers due to having very little experience in corresponding to the expected academic practices has been the main concern for the present research. With an exploratory and comparative design towards the potential effect of language and culture on the writing of postgraduate students, this study aims to fill the identified gap of modelling postgraduate academic writing by thoroughly investigating the rhetorical choices made by writers from selected contexts for strengthening and weakening the force of propositions.

To recap, with a corpus-driven approach, the present study was designed to identify the linguistic resources and rhetorical strategies used by three groups of novice writers to qualify their commitment/detachment for the sake of creating a fairly effective *ethos*[3] in order to persuade their examiners about their knowledge claims. By analyzing a reasonably representative corpus of successfully completed dissertations written by novice writers, a range of strategies and preferences for displaying stance could be identified. As far as we are concerned, such a model would also be of great importance in contributing to the understanding of how postgraduate writers achieve signaling their commitment and detachment and express their viewpoints about propositions in order to engage with the target audience. The results of the present

---

3   Cherry (1988) distinguished ethos and persona in building an authorial presence in texts and by following this distinction, *ethos* has been used to refer to instances in which the author attempts to attain a level of credibility.

exploratory study could therefore characterize some strategies and be used to guide future postgraduate writers in the contexts chosen.

Review of the Literature

There is increasing awareness among writers that academic practices vary based on the genres and the norms of the discourse community being contributed to. This essentially results in a case that the authors are expected to follow a range of accepted practices in presenting knowledge through scholarly work. Apart from the quality of their work, this involves orientating their own writing to the norms of a targeted discourse community (Hyland, 2005; Varttala, 2001), not just at the textual level (organization) but also at the level the propositional content. At the same time, the rhetorical choices would basically influence the interpretation and acceptance of the propositional content by the intended audience as far as the reliability and accuracy of the content are concerned. Assuming this, how the propositional content is conveyed seems to allow writers to gain credibility by projecting their writer-self (Hyland, 2002). This is perfectly in line with the argument of Coates (1987), suggesting that propositional content is presented after being epistemically-qualified (for example, *it is possible that, this might be, it is obvious that*). As far as the epistemic qualification is concerned, this chiefly allows the intended audience to assess the reliability and accuracy of the claims presented and the writer's stance. The linguistic and rhetorical choices made by the writers, therefore, need to match the expectations of the discourse community so that the intended audience can interpret the propositional content easily from the way in which it is conveyed.

Strengthening or weakening the force of propositions in academic knowledge construction is of enormous importance in terms of qualifying and packaging the information in the way in which the writers intend it to be comprehended by the audience. Such practices are labelled and discussed in a variety of ways in the literature. As an example, Stubbs (1986) refers "modality markers" to explore evaluative elements in texts, whereas Hunston and Thompson (2000) use the term "evaluation" in a broader sense to characterize discrete expressions signalling a writer's beliefs, judgements and attitudes; Silver (2003) discusses in terms of a *writer's stance*, to examine the linguistic items stressing the degree of confidence over propositions with the help of epistemic certainty.

No matter what terms have been used to explore such relations in discourses, the qualification of a noticeable *degree of commitment/detachment* while conveying meaning through utterances can be used in packaging the knowledge claims and the representation of stance in academic writing. The linguistic resources employed to highlight a degree of commitment/detachment are considered primarily to be hedges and boosters. Aull and Lancaster (2014) suggest that "hedging and boosting allow writers to express more or less commitment to their claims, and they are regularly

featured in research on academic stance" (p. 159). Although the functions of hedges and boosters could well be linked to issues of politeness, authorial caution (Varttala, 1999), vagueness, modesty of claims (Crompton, 1997) and/or (un)certainty, both elements signal a noteworthy level of commitment/detachment. Following Stubbs (1986), Akbas (2014b) clarified the distinction between commitment and detachment with the concepts of hedges and boosters as follows:

> *Expressing a degree of commitment* occurs when the author attempts to signal a confident voice of authority and indicate a higher level of certainty towards the truthfulness status of the propositions. This can also be regarded as reinforcement of the truth value with a boosting effect in the statements via a range of linguistic items that can also be classified as *boosters*. On the other hand, *expressing a degree of detachment* occurs when the author withholds commitment so that a degree of doubt and hesitancy can be included in the presentation of the propositions. This can also be regarded as avoiding the presentation of definitive and factual knowledge claims, to open up the alternative voices for the reader's consideration. The linguistic items classified as *hedges* can be used for explicitly qualifying a degree of detachment from what is asserted (p. 39).

Even though Crismore, Markkanen, and Steffensen (1993) and Grabe and Kaplan (1997) stated that hedges and boosters are inseparable concepts, various researchers have intentionally undertaken studies related to the hedging concept only (for example, Atai & Sadr, 2006; Crompton 1997, Falahati, 2004; Hyland, 1996; Kranich, 2011; Lewin, 2005; McLaren-Hankin, 2008; Peterlin 2010; Šeškauskiene, 2008; Varttala 1999, 2001). Conversely, research examining the concept of boosters for expressing a high level of certainty has been limited to very few studies (such as, Bondi, 2008; Heiniluoma, 2008; Koutsantoni, 2005; Vázquez & Giner, 2009).

Hyland and Milton (1997) carried out a comparative study with regard to hedges and boosters in the written discourse (exam scripts) of native and non-native speakers of English with a corpus totaling approximately 1,000,000 words.[4] They found that the non-native speakers failed to employ epistemic commitment by representing a more authoritative stance in English whereas the L1 writers of English portrayed a more balanced presentation of their degree of commitment/detachment. In particular, one of their most significant results was related to the relationship between tone of writing and band scores of the L2 students: the lower the band of the student, the more authoritative and the less tentative the voice. Nevertheless, this finding has not been linked to any potential cultural transfer issue (if any) as L1 texts of these writers were not included in their study.

Vassileva's (2001) crucial study elegantly highlighted the general routes of the expert writers of English (L1), Bulgarian (L1) and Bulgarian English (L2) in terms of the notions of commitment and detachment by limiting the study to three important parts of research articles, the Introduction, Discussion and Conclusion. Despite the concept of interlanguage

---

4   As the participants were from different contexts and the writing tasks seemed to be not identical, such issues can reduce the validity of the comparable corpus.

theories, the overall results revealed that the English L1[5] and Bulgarian L1 texts appeared to have more hedges resulting in detachment compared with the Bulgarian English texts. Regarding commitment, the Bulgarian English texts seemed to present a highly authoritative style with far more boosting devices than hedges whereas the English L1 writers preferred to construct a more tentative discourse in negotiating knowledge claims. What is more interesting is related to the extraordinary route of the Bulgarian English (L2) writers' texts: they started with a highly committed style and closed with an intensely hesitant style. In other words, they seemed to rely on the convention of employing high-certainty resources –that is, boosters– in their introductions and discussions; however, they offered relatively more softened and tentative knowledge claims in their conclusion sections. This cross-sectional analysis suggested that Bulgarian English writers simply contradicted what English L1 writers did and Bulgarian (both L1 and L2) expert writers equipped their knowledge presentations with a rather assertive nature in general, which highlighted a cultural tendency of Bulgarian writers.

Exploring the effect of culture on the avoidance of uncertainty or on employing certainty markers, Koutsantoni (2005) attempted to characterize rhetorical variations across three groups, Greek L1, Greek speakers of English and English L1, in the field of engineering by looking at research articles and conference papers.[6] The inclusion of L1 texts to understand the nature of the L2 texts contributed to the finding of the Greek writers' (L1 and L2) high-certainty style and confirmed that the English L1 writers avoided making too authoritative claims in their discourses with fewer boosters. However, a potential question to be addressed is linked to the idea of whether a writer's authoritative and high-certainty style can be explored by ignoring the notion of weakening claims with hedges in the data of the study. It could be the case that the Greek writers balanced their willingness to express their certainty by hedging their bets through uncertainty devices in their articles; but it is hard to draw such a conclusion as the researcher did not search for such expressions in her corpus. This is why the current study treated certainty and uncertainty equally and merged them to probe the phenomenon of expressing commitment/detachment.

Considering the previous research designs (mostly on expert texts and exploring only one side of the coin) and issues (ignorance of L1s, mismatch between genres, and groups), a relatively detailed study is deemed to be essential to determine how language and culture can give a direction to the writing conventions of different

---

5   The articles gathered from English L1 speakers were from British and American writers, and this could be quite speculative in a study in which the researcher is attempting to differentiate conventions across cultures as British and American writers may potentially follow different rhetorical strategies.

6   The data of Koutsantoni (2005) seemed to be troublesome and not representative as the three data sets did not match very well in order to be comparable, when comparable corpus design by Moreno (2008) is taken into account. There were research articles written by the English L1 and Greek speakers of English whereas the Greek L1 texts included unpublished conference papers which were four times shorter, according to the given numbers of lines in her study. In addition, the data collected from the English L1 writers did not seem to belong to one group of writers, as happened in Vassileva's (2001) study and was highlighted in the previous note. The English L1 texts were from British, American, Australian and Canadian English speakers and they were treated as native texts although the indicated group of L1 writers might also follow different conventions in scientific writing and it could be quite hard to draw conclusions by treating them as the same group.

groups regarding expressing certainty towards propositions. Before elaborating on the methodological considerations of the present study in the next section, it is useful first to stress that 'the postgraduate writers' labelled in the present study consisted of a representative sample of English L1 writers from the UK, Turkish L1 writers from Turkey and Turkish writers of English from Turkey at masters' level.

Corpus and Methodology of the Study

The intention in this section is to shed light on a range of significant points and considerations in the data collection, analyses (pilot and main analyses) as well as an analytical framework.

The Research Procedures of the Study

The present study was exploratory in nature and a triple comparative approach was used for investigating how postgraduate students from different discourse

Figure 1. Overall view of the research procedures (Akbas, 2014b).

communities qualified their commitment or detachment in their academic writing. Figure 1 shows the overall research design followed while carrying out the PhD research (Akbas, 2014b), starting with building the corpus of the study and ending with comparisons across the groups.

As can be seen, the study followed reasonably detailed steps in order to achieve a better understanding of the phenomenon under investigation. The study and consequently the findings gained greater significance after a pilot analysis using Nvivo 10 and a way of compiling a list of linguistic resources unique to the postgraduates, and the application of second-coder analysis in order to provide solid and consistent results.

Corpus of the Study and the Research Question[7]

Relying on a combination of the *comparable corpus design* by Moreno (2008) and *maximum similarity across sub-corpora* by Chesterman (1998), a corpus consisting of 30 *discussion sections* from successfully completed master's dissertations (in the Social Sciences) for each sub-corpus was compiled. The thesis center in Turkey (http://tez2.yok.gov.tr) was used to download the open-access dissertations of Turkish L1 (TL1) and English L2 (EL2) with a traditional format[8] in order to include sections with the same communicative purposes. The English L1 (EL1) texts of British students who had studied in the UK, on the other hand, were accessed through White Rose eTheses Online (http://etheses.whiterose.ac.uk) as well as personal contacts using the snowballing method. Then the discussion sections of the dissertations collected were separated. As shown in Table 1, the sub-corpus of Turkish L1 (Tcorp) writers had 71,581 words, the English L2 (TEcorp) texts had 122,161 words and the English L1 (Ecorp) texts had 102,361 words, making a total corpus of nearly 300,000 words.

Table 1
The Sizes of the Sub-corpora (TL1, EL2 and EL1)

	Total number of words	Average number of words	Average number of sentences
Tcorp	71.581	2386	103
TEcorp	122.161	4072	159
ECorp	102.361	3412	126

Considering the fact that since the emergence of the concept of genre there have been many studies (Akbas, 2012; Bruce, 2014; Cakir, 2016; Hu & Cao, 2015; Gillmore & Millar, 2018; Kafes, 2017; Karahan, 2013; Martín, 2003; Samraj, 2002; Tanko, 2017; Tessuto, 2015) which have looked at the rhetorical organizations of scientific writing in general or have focused on particular sections of genres (such as research article abstracts, introductions and results), there has been relatively less attention

7   This study used the corpus of a successfully completed PhD project at the University of York (UK) in 2014, titled *''Commitment-detachment and authorial presence in postgraduate academic writing: A comparative study of Turkish native speakers, Turkish speakers of English and English native speakers''*

8   The traditional format comprises "Abstract, Introduction, Literature, Methodology, Results, Findings, Discussion, and Conclusion or similar communicative purposes with different labels" (Akbas, 2014b, p. 78)

given to the exploration of the nature of discussion sections (Akbas, 2014a; Akbas & Hardman, 2017; Basturkmen, 2009; Hopkins & Dudley-Evans, 1998; Samraj, 2013) in dissertation/thesis writing. For this reason, only discussion sections were chosen to be examined in the present study. The rationale behind limiting the study to discussion sections is also strongly linked to a few factors. Discussion sections, in the traditional dissertation format, are significant in the sense that the stance and voice of the author are unique, given the communicative purpose of the section. Other parts of the dissertations are generally designed with a role more of giving information and reporting. To illustrate, introduction sections are structured to introduce the research and the topic in a brief way; literature sections generally review and report what is already in the literature in a critical manner, whereas the writers are expected to exhibit the interpretation of the results and present potential links critically to the available literature to discuss the findings. This essentially requires a relatively more persuasive and communicative style on the way to justifing claims before a writer finalizes his/her study with a proper conclusion section.

The research questions designed to be answered through this exploratory study were:

RQ1. How do postgraduate students (L1 writers of Turkish, of English, and Turkish writers of English) display their commitment/detachment towards their propositions in their academic texts?

1.1. What are the most commonly employed linguistic means of qualifying commitment/detachment in the postgraduate texts?

1.2. Are there any similarities or differences across the groups in terms of commitment/detachment in achieving different discourse acts?

As already explained, the investigation of discussion sections in the present study is heavily based on the fact that writers are expected to present a unique stance and voice in their discussion sections in comparison with the other parts of the dissertations which have a more informative nature. In addition, other parts of academic texts, such as abstract, introduction and conclusion, have received a great deal of attention since the notion of genre appeared, which has left the discussion sections in academic writing relatively unexplored.

In the next section, we shall give details of the analytic framework followed in the present study in order to highlight how linguistic items were categorized for the pilot and the main analyses.

Analytic Framework

One of the earliest models of certainty categorization was that proposed by Holmes (1982; 1984), who set out a scale of linguistic resources as *Certain, Probable* and *Possible* and used this to indicate the level of commitment shown by writers. Rubin, Liddy,

and Kando (2006) added two extremes to Holmes's continuum (*absolute certainty* and *uncertainty*) in order to explain "certainty" in English. Taking into consideration both the continuum which Holmes used to categorize a wide range of linguistic devices and the modification made by Rubin et al. (2006), a broader approach was preferred in this current study for reassessing the level of certainty conveyed by a writer by using a free and not a predetermined scale. This was mainly due to the fact that the present research involved two languages (Turkish and English) and it was considered that a broader conceptualization would contribute to our understanding of how writers modify the illocutionary force by emphasizing or weakening it.

A great many terms have been used to refer to such strategies of language use by writers, such as "hedges and boosters", "certainty markers", "downtoners", "epistemic modality", and "emphatics". The connection between such labels and concepts demonstrates that they are mainly used to signal a particular degree of commitment/ detachment even though there are linguistic devices which can be used to highlight *vagueness*, *tentativeness*, *uncertainty* or *positive/negative politeness strategies*. The approach followed in this study for exploring such strategies resulted in a broader distinction of the phenomenon of commitment/detachment, as is also suggested by Stubbs (1986), formulating the propositional content with varying degrees of certainty ranging from (1) very weakened propositions, resulting in *detachment* from what is presented, to (2) very assertive propositions, resulting in a higher *commitment* of the writer. Following the concept of hedges and boosters established by Aull and Lancaster (2014), various ways of enhancing or mitigating the propositional content can well be explained by the concept of commitment/detachment to indicate interpersonal functions, as each linguistic resource can signal a noticeable degree of commitment or detachment. The examples below (cited from Akbas, 2014b, p. 36) provide a straightforward clarification of what is proposed:

(1) The bird flu might spread if the infected birds are shedding the virus in their nasal secretions.

(2) It is clear that the bird flu will spread when the infected birds shed the virus in their nasal secretions.

As can be seen, the information in (1) and (2) has clearly been packaged and qualified in two different styles in two context-free sentences. It is highly plausible to interpret the propositional content within its authentic context; however, by analyzing the linguistic choices in the examples signaling certainty/uncertainty, we can propose that example (1) (modified by a modal verb and a conditional sentence) demonstrates a rather detached stance towards the truthfulness status of the proposition in comparison with example (2) (modified by the expression *it is clear that*) displaying a higher degree of certainty and commitment. In line with this perspective, Akbas (2014b) followed

Crismore, Markkanen, and Steffensen (1993) and used a cline for the sake of locating propositions signaling commitment/detachment, as shown in Figure 2.
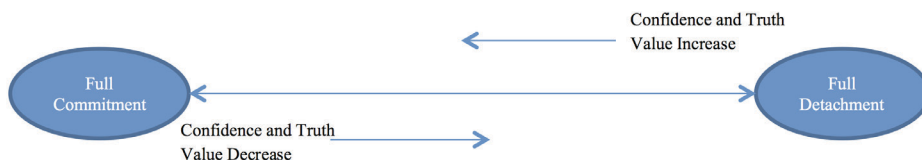
Figure 2. 'The cline of commitment and detachment' of Akbas (2014b).

It can be a reasonable argument to state that propositions with varying degrees of detachment through hedging resources are likely to exhibit a partial level of commitment; nevertheless, the leading goal of the author can be assumed to be withholding the proposition by the use of linguistic clues. Following this, on the one hand, the propositions are classified and labelled as 'commitment' with the help of linguistic resources, namely boosters, when the author deliberately flags a higher degree of commitment to present "*assured* and *reinforced* information" or to "make his/her perspective prominent within the discourse appeal to the reader's attention" (Akbas, 2014b, p. 110). In such cases, the author is assumed to take full responsibility for what is being asserted rather than mitigating it, as is shown in the following example:

(3)   *It is evident that* each participant has developed both their classroom practice and their organizational presence and confidence significantly since starting their course.[9]

On the other hand, with the help of linguistic choices of hedges by the writers, the propositions were labelled "detachment" when the writers deliberately toned down their assertions to signal hesitancy or a lack of certainty and confidence. Such a strategy of disclosing one's distance from a higher level of commitment simply places the propositions in the middle of the scale or closer to "full detachment", as shown in Figure 3. This helps writers to present *opinions rather than actual information*, to show *complete or a little doubt and hesitancy over the content* and to *open up other possibilities and voices* for achieving dialogic expansion. The following example (4) indicates how a writer showed detachment from the proposition in order to implicitly underline that the claim seemed good-looking but might stay unproven because of potentially inadequate evidence.

(4)   *Overall, the data would suggest that* all participants provided an adequate and relatively comparable learning experience, using Mohan, Leung and Davison's (2001) suggestions for evaluation.

The occurrences signaling various degrees of commitment and detachment based on the cline were categorized by analyzing the contexts as they appeared qualitatively,

---

9   Due to inexperience, some postgraduate writers may prefer to sound more confident in order to make the reader accept what is presented as taken for granted without supplying enough evidence to support the knowledge claim. However, this study did not intend to evaluate how appropriately the writers used the evidence to support the knowledge claim, but focused only on explicit markers to indicate the truth-value of the propositions in postgraduate writing.

and this led to a better differentiation and grouping of what such linguistic means has accomplished within the texts of postgraduate writers.

A Closer Look at the Pilot, Second-coders and Main Analyses

Initially, a random-sampling manual analysis –with seven texts from each group, twenty one texts in total– was applied in order to identify and categorize the means of hedges and boosters in the sub-corpora of the study. With the help of computer-assisted qualitative data analysis software (Nvivo 10), a systematic and detailed contextual analysis assigning nodes to different occurrences was completed manually. Not only did the manual analysis enable us to come up with a reliable list of search items to be used in the main analyses of the whole corpus, it also gave the opportunity to test the items in their contexts in order to examine whether they performed the functions looked for. Rather than compiling a list of potential linguistics devices functioning as hedges or boosters from the available literature, this more efficient way helped to create a list of items unique to the corpus of the study, employed by postgraduates, to use in the main investigation of the study.

Before the main analyses, an intercoder analysis was considered to be fundamental in order to validate how effective the coding system and categorization would be. This was simply because it was crucial to decrease the subjectivity of the assessment of the decisions of the linguistic items performing hedge and booster effects as well as the categorization in the researcher's coding system. Therefore, as shown in Table 2, five people with previous experience in corpus studies as researchers/second coders were invited to participate in an inter-rater reliability phase and to code sample extracts. A codebook was developed for this purpose as the second-coders needed some training in the notions of the research and the coding scheme. These five independent coders were asked to code instances, in total 700, within the original context of these extracts, and the coding process was completed online after they had studied the codebook.

Table 2
Intercoder Agreement Results Regarding Commitment-detachment

	Coder 1 & Researcher	Coder 2 & Researcher	Coder 3 & Researcher	Coder 4 & Researcher	Coder 5 & Researcher	All Coders & Researcher
Number of extracts	100*	150**	150**	150**	150**	700
Matched choices	87	135	143	136	141	642
Unmatched choices	13	15	7	14	9	58
Agreement on choices (%)	87.0%	90.0%	95.3%	90.6%	94.0%	91.7%
Cohen's Kappa Agreement	**0.736**	**0.798**	**0.906**	**0.813**	**0.879**	**0.826*****
Significance	0.000	0.000	0.000	0.000	0.000	0.000

* Coder 1 coded only English extracts (100)
** Coders 2 to 5 coded both English and Turkish extracts (150)
***The kappa was computed by comparing the arithmetic mean of all coders with that of the researcher, as suggested by Light (1971)

As suggested by Lombard, Snyder-Duch and Bracken (2005), the evaluation of the independent coders for the sample extracts was compared with our identification system in order to calculate the intercoder agreement. The overall agreement among the independent raters and the researcher indicated the consistency of the values or functions assigned (Green, 1997). In line with this, we carried out Cohen's kappa statistics for calculating the degree of agreement, instead of just relying on the simple percentage of matches among raters. As revealed by the intercoder agreement results shown in Table 2, there was a promising agreement both among raters and between raters and the researcher. This result not only validated the consistency among the raters in assigning linguistic items with their functions but also showed that our categorization was sufficiently reliable and practical to use for the main study.
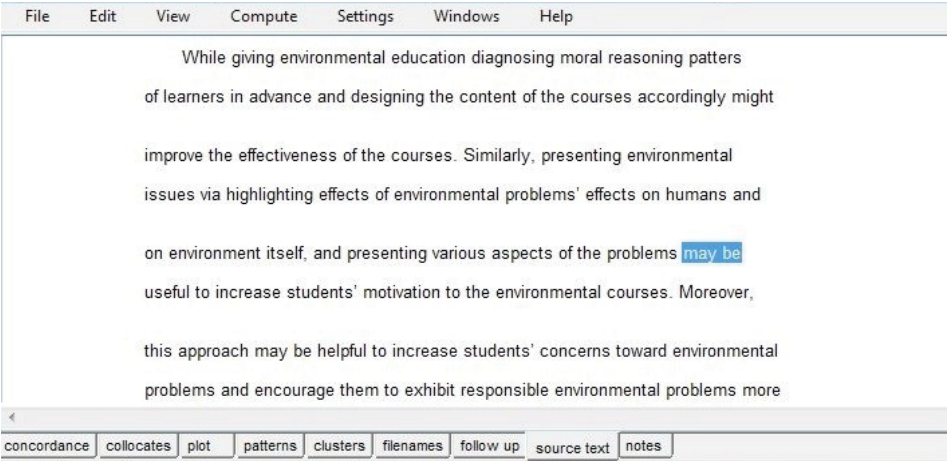
Figure 3. The immediate context analysis for "may" in the data.

The main analyses of the corpus in relation to linguistic means of signaling commitment/detachment were conducted using WordSmith Tools 5.0 and the compiled list of linguistic devices from the pilot study. Detailed analyses were then conducted to validate whether the items performed the functions of hedges or boosters. A closer examination of the occurrences was essential for identifying lexical items of certainty, uncertainty or none. As can be seen from Figure 3, *may* was used as a hedging resource to weaken the force of the claim; nevertheless, there were some cases of *May* as the month of the year and they needed to be excluded in order to finalize the raw number of occurrences in each group.

There was a range of comparisons across groups from a quantitative perspective in relation to observed and normalized distributions, mean frequency and statistical differences. In order to see whether the differences were statistically significant, a non-parametric test, the Kruskal Wallis test, was used and statistically significant or not significant results across the three groups were determined. Nevertheless, the test

did not reveal which group had caused the significant results. In consequence of this, regarding the statistical analysis, there is also a further point to be considered and the groups were regrouped by the variables of *culture* and *language* and compared using the Mann-Whitney U test. In other words, another test was applied to the groups sharing the same culture as opposed to the other culture (Turkish L1 writers + Turkish writers of English as opposed to English L1 writers) and the groups writing in the same language as opposed to the other (Turkish L1 writers as opposed to Turkish writers of English + English L1).

An equally significant aspect of the comparisons across the groups was related to the qualitative consideration of the findings. Many researchers (Hyland, 1996, 1998; Martin-Martin, 2008) have managed to identify some functions of hedges (such as signaling a lack of complete commitment) and boosters (such as indicating higher confidence) in academic prose; nevertheless, it could be rather difficult to connect particular functions with the linguistic expressions as far as the polypragmatic nature of resources is concerned. Noting the compelling nature of this, a relatively bold strategy was applied: stressing commitment or decreasing it to signal a lack of commitment (resulting in detachment). With the assistance of this perspective, it became possible to identify a pattern in relation to how authoritative the three groups of postgraduates sounded while accomplishing pragmatic functions in the discussion section.

Results and Discussion

In the light of the discussions in the previous sections, this section now presents the quantitative and qualitative results of the commitment/detachment choices made by postgraduates while performing discourse acts along with a discussion of the findings and responses to research questions.

Quantitative Findings

The quantitative analysis of the linguistic items indicated that Turkish writers of English employed relatively more hedges and boosters (24.2 per 1000 words) to strengthen or weaken the knowledge claims in the discussion sections. Not only did the Turkish L1 writers differ in terms of relatively fewer instances in general but also they seemed to favor a completely different style in comparison with the English L1 and L2 writers. As can be seen in Figure 4, similar to the results of Akbas (2012), the Turkish L1 writers mostly preferred to present their knowledge claims with a more definitive and authoritative nature through the use of more boosters than hedges whereas the balance of hedges and boosters in the discussion sections of the English L1 and L2 writers was observed to be greater with respect to hedges. In other words, the latter group of writers showed a more tentative style in presenting knowledge claims. Even though the place of interlanguage users (EL2) regarding the

use of boosters was somewhere between the Turkish L1 and the English L1 writers, it should be noted that the case of the Turkish writers of English in signaling academic modesty seemed to be different, with a greater number of hedging resources compared with their linguistically-linked peers (EL1).

	Tcorp	TECorp	Ecorp
Hedges	8.2	16.4	14.2
Boosters	11.4	7.8	6.2
Total	19.6	24.2	20.4
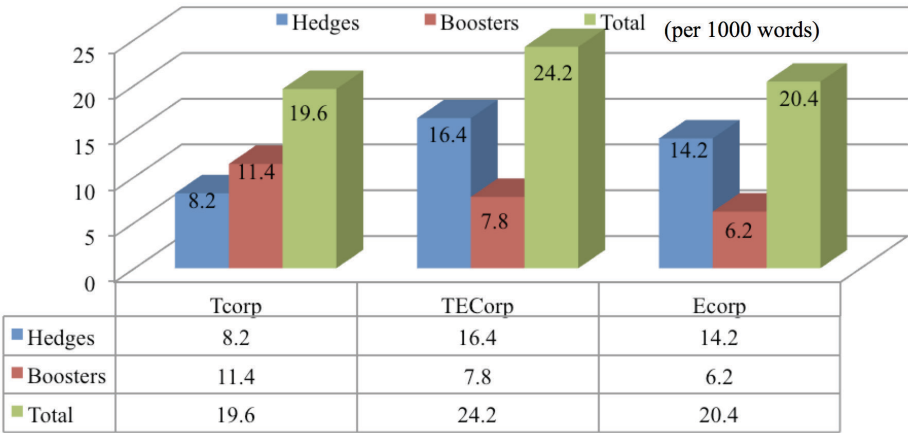
Figure 4. Mean frequency of hedged and boosted sentences (per 1000 words).

In terms of commitment signaled by boosting resources, the Kruskal Wallis test revealed that there was a statistically significant difference across the three groups of postgraduates (H (2): 22.198, $p = .00$); however, it was not clear which group(s) created the significant difference. Therefore, two Mann-Whitney U tests were run over the data grouped as cultural (T1+T2 vs E1) and language (T1 vs EL2 + EL1) pairs to determine whether any of these variables had had an influence on the use of boosters across groups. According to the results of the Mann-Whitney U tests based on the culture variable, a statistically significant difference was found between Turkish postgraduates (TL1 and EL2) and British postgraduates. Similarly, the test regarding the language variable also resulted in a statistically significant difference between Turkish L1 writers and English L1 and L2 writers. Considering both of these results, it is highly possible to say that it was the Turkish L1 writers who caused the difference across the groups regarding the resources used for strengthening the claims. This slightly higher use of boosters over hedges by the TL1 writers constructed a distinctive style in their discussion sections.

Under research for almost four decades, the concept of weakening a propositional meaning seems to help writers to achieve a variety of rhetorical functions ranging from stating doubt to academic modesty and avoiding preciseness. Martin-Martin (2008) clearly stated that hedges as the linguistic means of such functions contribute to the voice of the authors of the texts. In line with this, the results of the current research highlighted that both the EL2 and the EL1 writers preferred to follow a more

detached way of qualifying their claims with the help of varied means such as modal verbs (5-6), full verbs (7) or some formulaic expressions (8-9).

(5) Applying these two ideas to the situation in Greater Manchester, we *might* expect linguistic features to spread from urban Manchester/Salford to the suburban towns of Greater Manchester (EL1-12).

(6) So, this *may* lead teachers to soften or change their comments related [to] children in [the] evaluation part (EL2-29).

(7) This finding *seems* fairly reasonable as far as [the] characteristics of the region are taken into consideration (EL2-25).

A range of formulaic sequences (such as ''is likely due to'', ''it is possible that'') appeared to signal the perspective of the writers towards the accuracy of the information, no matter how restricted such uses were to a combination of a few adjectives or nouns to create multi-word units as in:

(8) In an evolved network, *it is probable that* two similar agents possessing similar traits belong to a similar group –i.e. are close together in the network (EL1-9).

(9) *From the perspective of teachers*, lack of science centers and related materials prevents them from properly implementing science activities (EL2-29).

Interestingly, however, both groups employed modal verbs so frequently as the major means of expressing detached meaning that the use of modal verbs in the EL2 and EL1 texts constituted more than half of all hedged sentences (53.1 % and 51.5% respectively). Conversely, for the TL1 writers, a particular suffix (-ebilir/-abilir as in (10) below) used for expressing detachment accounted for more than 70% of all hedging cases in the Turkish sub-corpus (5.72 per 1000 words). This can be linked to what (2018) discussed with respect to multi-functional linguistic items with relatively more precise semantic meanings in L2. Since the rest of the hedging instances were very limited, this can indicate a relatively monotonous style of marking tentativeness over knowledge claims by the TL1 writers.

(10) Özetle şiddet içerikli bilgisayar oyunu oynayan oyuncu "bir başkası" tarafından engellendiğini düşünüp daha fazla stres *yaşamış olabilir*.[10] (TL1-10).
(A player, especially playing a computer game containing violence, "can may/might have had" more stress by thinking s/he was stopped by "anyone else".)

As can be seen in Figure 5, similar to the case with hedging resources, the Turkish L1 writers relied heavily on suffixes (–mIştIr, -mAktAdIr, -AcAktIr) rather than lexical words (8.8 per 1000 words), without leaving any room for the reader to form an opinion, to close down any other potential interpretations and boost the knowledge

---

10 The suffix –ebilir/-abilir in Turkish is represented by "can", "could", "would", "may" or "might" in English with different strengths of epistemic meaning. However, as this is a translation of the original extract, it is thought that it should be free of bias.

claims presented as reliable. A typical example of such an assertive tone is presented in (11), which simply strengthens the illocutionary force with a definite meaning and indicates that the writer prefers to sound authoritative:

(11) Bu nedenle yukarda saydığımız eksiklikler bir an *önce çözülmesi* mevcut kaygı ortamının da ortadan kalkmasını *sağlayacaktır* (TL1-26).
(*For this reason, correcting the deficiencies, which are stated above, immediately "is going to enable" the present anxiety environment to come an end.*)
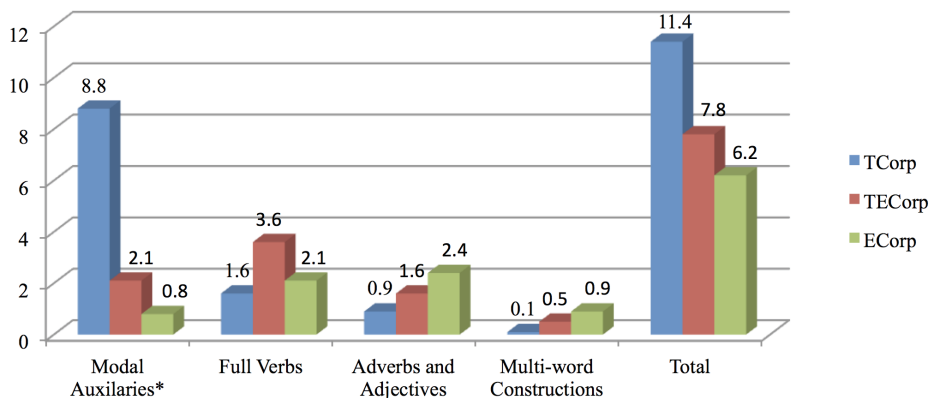
Figure 5. Linguistic realizations of boosters across groups (per 1000 words).[11]

In contrast, for both the EL1 and the EL2 writers, there was a widespread preference for lexical verbs over other means of expressing certainty such as auxiliary verbs, adverbs or multi-word constructions. Among many, the three most employed epistemic verbs in these groups were *find*, *show* and *reveal* to signal a notably higher level of commitment about the knowledge claims, as in (12) and (13):

(12) The study *did find* that overall experience was a predictor of teaching efficacy and that with more experience efficacy increased (EL1-1).

(13) The study *revealed* that materials provide the basis for language input, and choosing the materials is a vital phase of curriculum planning (EL2-26).

When summing up the quantitative findings and means of expressing commitment/ detachment, we should note that the three groups of postgraduates involved in this current study showed different tendencies in producing knowledge claims and negotiating them with the intended reader. We reached a statistically significant key-contrast between the Turkish postgraduates (TL1 and EL2). This indicated that the Turkish writers of English sounded more tentative and withheld their commitment towards their propositions whereas the TL1 writers preferred to qualify a considerably higher level of commitment. In addition, the tone of the EL2 writers appeared to be

---

11 Modal auxiliaries in Turkish do not occur as in English; however, some of the suffixes from Turkish are included as modal auxiliaries for comparison purposes.

reasonably similar to that of the EL1 writers, deviating from their counterparts writing in Turkish. On the other hand, the findings regarding the EL1 writers are in line with the idea (Atai & Sadr, 2006; Hyland, 2005) that native writers of English tend to employ more hedging resources so as to protect themselves from potential reader-criticism.

Qualitative Findings

Noting the difficulty of matching linguistic choices with specific acts, linking the hedges and boosters in the sub-corpora of the study to particular functions seemed to be relatively easier with respect to the rhetorical features of the discussion sections. In order to boost the quantitative results of the study, the linguistic occurrences signaling commitment or detachment were also analyzed with a special focus on their pragmatic functions accomplishing similar discourse acts. Keeping the communicative essence of discussion sections in mind, a qualitative analysis of occurrences was implemented and a range of discourse acts, for which postgraduates favored committing or detaching themselves, were identified. The commonly performed discourse acts[12] with varying degrees of commitment/detachment in the discussion sections of postgraduate writers consisted of (i) *presenting and interpreting the results*, (ii) *evaluating previous research findings and comparing results,* (iii) *promoting research and particular findings*, (iv) *mentioning methodological considerations*, and (v) *elaborating an argument.*

Presenting and interpreting the results. The first of the moves identified in the corpus, namely, *presenting and interpreting the results*, is thus of great importance. However, the way in which the postgraduates increased or decreased their levels of certainty as to presenting and interpreting the results has a vital role in the acceptance of the knowledge claim by the readers. In order to achieve ratification by the target audience, the writers may prefer to modify the certainty degree of the knowledge claims which they present depending on the evidence with which the propositions are put forward. According to Varttala (2001), the nature of the knowledge claims in a discussion sections calls for them to be relatively hedged by means of the linguistically detached stance taken by the writers. This is essentially in parallel with the idea that the section seems to have a dynamism of speculative inferences leading to further conclusions drawn from the data. Example (14) illustrates how the writer managed to present his/her proposition as "left open to readers' judgement" (Hyland, 1998, p.182) in order to flag a lower level of certainty in rationalizing a particular case:

(14)　*It seems to me* that the more proficient L2 group was indeed exposed to negative evidence in certain ways, i.e. in class or through explicit instruction, but the low level L2 learners were not. I propose that the low level L2 learners *may be making* use of the Avoidance Strategy (Dörnyei & Scott, 1995a, 1995b) (EL2-1).

12　The rhetorical discourse acts were based on the preliminary examination of the sample texts in the pilot study and realised in the texts to develop a convincing overall argument, through the discussion of findings and elaborating claims.

It is also evident that the writer in the example above developed his/her stance towards interpreting a very specific case by highlighting his/her putative contribution to the readership without marking it as factual. Even so, there have been various instances in relation to indicating a higher degree of commitment while making a deduction confidently, as in (15):

(15)   *Clearly*, this is a practical and understandable tendency as their initial teaching responsibilities will be relatively narrow and contained (EL1-2).

Evaluating previous research findings and comparing results. Regarding *evaluating previous research findings and comparing results*, the data suggested that the TL1 writers overwhelmingly treated knowledge claims rooted in the literature as accepted factual information. To put it another way, as (16) shows, the level of certainty and assurance with respect to the work of others in the field was substantially higher compared with the English L1 and L2 writers:

(16)   *Hand ve Prain (2002)* konuyla ilgili yaptıkları çalışmada, yazmanın kavramlara ilişkin yanılgıları ortaya çıkardığı ve kavramsal öğrenmeyi gerçekleştirmede etkili olduğu *sonucuna varmıştır.* Benzer şekilde *Bulloc (2006)* yaptığı çalışmada, yazmanın kavramlara ilişkin ön bilgileri ortaya çıkardığını ve kavramsal değişimi sağlamada etkili olduğunu *ispatlamıştır. Reilly (2007)* de öğrencilere matematik dersinde konu ile ilgili yazı yazdırılmasının, öğrencilerin matematiksel kavramları öğrenmelerinde büyük katkı sağladığını *ortaya çıkarmıştır* (TL1-29).
(*Hand and Prain (2002) revealed* in their study about this subject that writing reveals delusions/errors regarding concepts and it is effective in performing of conceptual learning. Similarly, *Bulloc (2006) proved* in his study that writing reveals foreknowledge about concepts and it is effective in providing conceptual change. *Reilly (2007) revealed* that making students write about the subject in maths classes contributes hugely in learning mathematical concepts.)

The discussion sections of the TL1 writers seemed to have a dominant use of the same pattern as in (16) by evaluating previous studies by means of the use of strong positioning verbs combined with suffixes in Turkish, such as *ispatlamıştır* (proved that), *ortaya* çıkarmıştır (revealed that) and *sonucuna varmıştır* (concluded that). This significantly leads to their presentation of reported content as if it were accredited knowledge, rather than strategically indicating a weaker positioning towards it. In contrast, the EL1 and EL2 texts seemed to operate widespread use of speculative language in order to imply that the content reported is somewhat true, but that the authors are relatively hesitant about it. The examples below (17-18) clearly demonstrate how the authors tackled the presentation of other people's work by underlining their detachment from the source claims, which produces a conveyance of a partial agreement.

(17)   Although related literature *tended to report somewhat similar results*, slight variations *can be found* with respect to age, socio-economic status, values, culture, location, occupations, and knowledge about environmental issues (EL2-25).

(18)   Huckle (2008) *argued* upon four reasons why he believed New Labour's eight doorways had failed. *I would agree with Huckle to a certain degree* that the systems of competition and privatization at face value do appear not to promote sustainability (EL1-25).

Promoting research and particular findings. The help of hedges and boosters, as noted by Halliday (1978), in building a firmer relationship between writer and reader can also be considered to be highly key to another discourse act identified as *promoting research and particular findings*. Nevertheless, both the TL1 and the EL2 writers were in favor of self-promotion whereby they relied on particular lexical verbs to create a sense of conviction as to what they had achieved:

(19)   *I have shown* that causal wh-phrases in Turkish have a weakening effect on intervention effects. Furthermore, I have shown that lexically marked focus phrase with the focus particle *sadece* "only" provides evidence for Göksel and *Özsoy's* (2000) claim (EL2-6).

(20)   All these findings *clearly reveal the need* for a change in function of environmental education from just transmitting ecological knowledge to bringing out the emotions of learners regarding the value of nature and its elements (EL2-23).

The way in which the Turkish writers created such a sense of conviction contributed to a less tentative discourse with no reservation to hesitation when presenting their research and findings to their discourse community. Even so, as exemplified by (21) and (22), the English L1 writers signaled comparably more mitigation for the purpose of politeness in the course of expressing what their research had achieved:

(21)   *This study was an attempt* to explore the use of wikis in L2 academic writing workshops (EL1-11).

(22)   *This study attempted* to simulate very simplistic models of language contact situations in groups of artificial agents (EL1-7).

In addition, for the EL1 writers, it was another prevailing use of hedging resources to decrease the force of the propositions while coming up with a non-factive reasoning for disproving previous results, views and/or hypotheses:

(23)   *I suggest that the reasons for this* are that these dyads had established a successful method of constructing tangrams without the need for dialogue; therefore, introductory mentions of referents in the speech part of the experiment did not need to be as intelligible, and this hypothesis is rejected. (EL1-17)

Mentioning methodological considerations. Another evident discourse act identified throughout the corpus was *mentioning methodological considerations*, in which the postgraduates directly or indirectly evaluated their study in terms of the methodology (the participant(s), method or approach) in order to open up a dialogue for recommendation for further research. Signaling their level of commitment or detachment by linguistic realizations also played a vital role in coding the information

for the readership. As an example, (24) attempts to indicate that the qualitative findings to some extent were fallible because of the non-existence of some methodological issues, which can be, in a way, considered as a suggestion to future researchers:

> (24) The classroom practices of more teachers working at different educational settings and with different student levels may provide us with more insights about their beliefs and practices. In addition, the qualitative findings of the study *could have been* more reliable if teachers kept diaries and the observed lessons were video-recorded and then followed by a think-aloud procedure (EL2-14).

The writer in (24) did not refer to this methodological consideration sufficiently strongly to be protecting his face; instead, the recommendation-oriented self-criticism was produced by displaying tentativeness about what 'could have been' achieved and not committing him/herself to such a consideration. There were similar cases in the texts of the Turkish L1 writers, when the writers chose to be rather less confident in explaining methodological considerations and their outcomes. For instance, the following example (25) can be presented as an illustration of how a writer linked a particular finding to a previous methodological consideration by being tentative enough to get ratified:

> (25) Öğrenmenin kalıcılık düzeyinin deney grubu lehine olmasının beşinci nedeni olarak araştırmada ontest ve sontest olarak kullanılan akademik başarı testinin kalıcılık testi olarak da kullanılması *gösterilebilir* (TL1-22).
> (The fifth reason why the experimental group had a higher level of permanence of learning "can/could/would/may/might be explained" by the academic success test which was used as pretest and posttest and also used as permanence test in the research).

On the other hand, among very few examples in the EL1 data, some postgraduates sounded highly confident so as to strengthen the truth value of the propositions and appeal to the target reader's acceptance. To illustrate, the next excerpt (26) explicitly demonstrates the commitment of the writer to the way of asserting his/her projection by employing a strong verb followed by a construction boosted with an auxiliary-verb pattern, that is "do vary":

> (26) Through conducting a range of biographical case studies with people across different age groups *I have established* a number of areas where influences on career choices and aspirations *do vary* across generations, and also some areas where these differences are less obvious (EL1-22).

Elaborating an argument. The last of the strategies found in the discussion sections of the postgraduate texts under investigation here is *elaborating an argument*. That is, the postgraduates in the study attempted to create a rhetorical effect in the text through the employment of markers signaling certainty and doubt in their claims. This component of the discussion section is relatively essential for writers to be able to gain the credibility of the audience by means of presenting their knowledge

claims as needing to be decoded and accepted as possible depending on the tone of the claims. As highlighted by Akbas (2014b), postgraduate writers can provide their readers with the "established and confidently presented knowledge claims to contentiously worded and low committed opinion-based claims in the texts" (p. 183). There was a striking difference among the groups in elaborating arguments which can lead to building a disciplinary knowledge; the TL1 writers mostly sounded quite authoritative by relying on more boosters to signal a confident tone (as in 27) whereas the EL1 and EL2 writers marked their involvement in as detached a way as possible as in (28) and (29):

(27) 2005 eğitim *öğretim* programının uygulamaya başlamasının üzerinden her ne kadar 5 yıl geçmiş olsa da hali hazırda daha yapılandırmacılık yaklaşımını tanımayan öğretmenler bulunmaktadır. Bu da hizmet içi eğitim ile bu açığın en kısa sürede kapatılması gerektiğini *göstermektedir* (TL1-26).
(Although it has been five years since the application of the 2005 educational curriculum, currently there are teachers who do not recognize the constructivist approach. "This shows that" there is an urgent requirement for eliminating the deficit with in-service training.)

(28) The problems that preschool teachers face in the curriculum implementation showed no significant difference with respect to preschool teachers' educational level. This situation *may be* due to [the] level of education studied, in other words, it is a consequence of dealing with early childhood education (EL2-29).

(29) *By looking at this data, it is possible to argue* that the use of the online forum affects several aspects of pupils' opinions and perceptions of learning (EL1-8).

The qualitative analysis in this exploratory study with a special focus on discourse acts indicates that the Turkish L1 writers were more prone to producing fairly assertive claims whereas the sub-corpora of the EL1 and EL2 writers preferred to promote a higher level of deference with their more detached style towards presenting claims and achieving the intentions of the discussion section. We can therefore suggest that the quantitative and the qualitative findings are parallel in showing the level of commitment/detachment across the texts of the postgraduates.

Concluding Remarks

Taking a closer look at the three different groups both quantitatively and qualitatively, we attempted to investigate how the meanings of their knowledge claims were strengthened or weakened. Adapting the view of Varttala (2001), a broader treatment and categorization of hedges (a reduced degree of commitment) and boosters (a strengthened commitment) was explored with the help of morphological (only for Turkish), lexical and multi-word-unit linguistics resources. The data suggest that, when TL1 writers are compared with EL1 and EL2 writers, the ways in which

the writers qualified their level of commitment or withheld it to signal detachment showed major differences. Hyland (2000) raised our awareness with respect to the contribution of hedges and boosters to creating a more interpersonal discourse; in line with this, it seems that the Turkish L1 writers (19.1 per 1000 words) created a discourse which was comparatively less interpersonal than those of the EL1 and EL2 writers (20.4 and 24.2 per 1000 words respectively).

With respect to signaling commitment or detachment, the TL1 and EL1 writers constructed overwhelmingly divergent academic prose texts. In particular, it was surprising to find that the EL2 writers, despite sharing a cultural background with the TL1 writers, seemed to favor a significantly more modest tone of expressing their knowledge claims, similar to what the EL1 writers did by employing fewer boosters and signaling commitment to the propositions. In other words, it is obvious that the tone adopted by the EL2 writers was statistically detached and more cautious than that of the TL1 writers. This is likely to be linked to a prevalent academic convention descending from Anglophone practices and the potential familiarity of the EL2 writers with such practices through instruction or self-development. This contradicts the best articulated assumption of Contrastive Rhetoric (Kaplan, 2000) in which the rhetorical organization and choices followed by the learners are noted to stem from native culture/language. Thus, the present study contributes to our understanding of how the rhetorical practices of L2 writers of English can be in parallel with the norms in the target language if supported, since it is wise to argue that the EL2 writers in the study were assumed to have been instructed or to have developed themselves in terms of the target language practices/conventions to produce such an important piece of academic writing.

In contrast with a few studies (*see* Hu, Brown, & Brown, 1982; Hyland & Milton, 1997; Koutsantoni, 2005; Vassileva, 2001) in which L2 learners of English were claimed to have constructed a more strongly committed discourse than native speakers of English, the knowledge claims of the Turkish writers of English (L2) at postgraduate level sound fairly detached, as was also found by Onder-Ozdemir and Longo (2014), resulting in developing more tentative epistemic strategies. It appears to be a completely contradictory style in comparison with the style of their peers writing in Turkish. This highlights not only the fact that the EL2 writers showed an awareness of academic conventions divergent from their native language, but also that they adopted it themselves in order to accomplish more interpersonal academic prose for the readership.

Implications and Limitations of the Study

The writer of an academic text is expected to "construct a pseudo-dialogue with readers in order to gain their acceptance of the argument" (Hyland, 2012, p. 146), for the intended readers to be able to follow in the footsteps of the writer by designing a

space for negotiation. One of the ways of doing this is for writers to express caution or confidence over their own propositions, and it has been evidenced by the previous studies that such practices in different academic genres vary. Nevertheless, to the best of our knowledge, there have been very few investigations on Turkish academic discourse, and postgraduate writers have not received a great deal of attention, which has made this study an initial endeavor to shed light on the textual and rhetorical practices of Turkish postgraduate writers as far as the commitment/detachment phenomenon as a part of stance-making is concerned. As can be anticipated, each study has its own limitations; however, before considering the limitations of this current study, it is important to note the implications of the study.

Given the significance of constructing stance in written academic prose, a range of authentic academic materials can be designed and used to assist postgraduates as novice writers in the field in order that they can accomplish interpersonal relations in their dissertation writing, especially for L2 writers, who really need guidance in accomplishing the communicative purposes of this particular genre. This is essentially because, as Molino (2018) suggested, "activities that draw from authentic experiences with the aim of stimulating reflection on appropriate uses in specific setting" (p. 952) can contribute to the use of such devices for particular purposes. One of the central issues to be considered here is to let novice writers be aware of the particular practices and expectations of the academic community to which they are about to contribute. In relation to linguistic markers signaling commitment/detachment and revealing stance, Hyland (2000) suggested that "a clear awareness of the pragmatic impact of hedges and boosters, and an ability to recognize them in texts, is crucial to the acquisition of a rhetorical competence in any discipline" (p. 193). This can also be achieved by providing authentic materials with in relation to metadiscourse devices (*see* Alotaibi, 2018; Bogdanović & Mirović, 2018) so that writers can acquire particular linguistic patterns as well as their functions and integrate them into the rhetorical organization of their own texts.

Indeed, there is no shortage of disagreement among scholars that novice writers will simply follow some rhetorical organizations of their native language and culture, and this might sometimes result in the rejection of their style by the intended audience (examiners, in this case). In order to see whether Turkish writers of English follow some rhetorical and linguistic styles of Turkish, more three-angled-research (TL1, EL2 and EL1), as in the current study, is needed. In particular, the more academic work of Turkish writers of English and English L1 writers is scrutinized from different perspectives, the easier it would be to design a course assisting EL2 writers to match their style with that of native writers through potential writing courses comparing practices and general tendencies. Also, a writing course facilitated through corpus-informed teaching would essentially provide various insights by presenting distinctive language practices and applications from authentic texts written by previous novice writers. Considering the advantages of presenting authentic

language uses and choices in teaching, integrating corpora into teaching academic writing could become an effective instructional tool and a trigger for learner autonomy by making novice writers more aware of discipline-sensitive writing conventions.

References

Ädel, A. (2018). *Variation in metadiscursive 'you' across genres: From research articles to teacher feedback. Educational Sciences: Theory & Practice, 18,* 777–796. http://dx.doi.org/10.12738/estp.2018.4.0037

Akbari, N. (2017). Analysis of stance in the writing of non-native speaker university students in business communication. In C. Hatipoglu, E. Akbas, & Y. Bayyurt (Eds.), *Metadiscourse in written genres: Uncovering textual and interactional aspects of texts* (pp. 201–222). Bern, Switzerland: Peter Lang. https://doi.org/10.3726/b11093

Akbas, E. (2012). Exploring metadiscourse in master's dissertation abstracts: Cultural and linguistic variations across postgraduate writers. *International Journal of Applied Linguistics & English Literature, 1*(1), 12–26. http://dx.doi.org/10.7575/ijalel.v.1n.1p.12

Akbas, E. (2014a). Are they discussing in the same way? Interactional metadiscourse in Turkish writers' texts. In A. Łyda, & K. Warchał (Eds.), *Occupying niches: Interculturality, cross-culturality and aculturality in academic research* (pp. 119–133). London/Berlin: Springer. http://dx.doi.org/10.1007/978-3-319-02526-1_8

Akbas, E. (2014b). *Commitment-detachment and authorial presence in postgraduate academic writing: A comparative study of Turkish native speakers, Turkish speakers of English and English native speakers* (Doctoral dissertation). Retrieved from http://etheses.whiterose.ac.uk/7083/

Akbas, E., & Hardman, J. (2017). An exploratory study on authorial (in)visibility across postgraduate academic writing: Dilemma of developing a personal and/or impersonal authorial self. In C. Hatipoglu, E. Akbas, & Y. Bayyurt (Eds.), *Metadiscourse in written genres: Uncovering textual and interactional aspects of texts* (pp. 139–174). Bern, Switzerland: Peter Lang. https://doi.org/10.3726/b11093

Alotaibi, H. (2018). Metadiscourse in dissertation acknowledgments: Exploration of gender differences in EFL texts. *Educational Sciences: Theory & Practice, 18,* 899–916. http://dx.doi.org/10.12738/estp.2018.4.0247

Andresen, M. & Heike Zinsmeister (2018). Stylistic Differences between Closely Related Disciplines: Metadiscourse in German Linguistics and Literary Studies. *Educational Sciences: Theory & Practice, 18,* 883–898. http://dx.doi.org/10.12738/estp.2018.4.0042

Atai, R. M., & Sadr, L. (2006, July). *A cross-cultural genre study on hedging devices in discussion section of Applied Linguistics research articles.* Paper presented at the 11th Conference of Pan-Pacific Association of Applied Linguistics, Kangwon National University, South Korea.

Aull, L. L., & Lancaster, Z. (2014). Linguistic markers of stance in early and advanced academic writing: A corpus-based comparison. *Written Communication, 31*(2), 151–183. https://doi.org/10.1177/0741088314527055

Basturkmen, H. (2009). Commenting on results in published research articles and masters dissertations in Language Teaching. *English for Academic Purposes, 8*(4), 241–251. https://doi.org/10.1016/j.jeap.2009.07.001

Bogdanović, V., & Mirović, I. (2018). Young researchers writing in ESL and the use of metadiscourse: Learning the ropes. *Educational Sciences: Theory & Practice, 18,* 813–830. http://dx.doi.org/10.12738/estp.2018.4.0031

Bondi, M. (2008). Emphatics in academic discourse: Integrating corpus and discourse tools in the study of cross-disciplinary variation. In A. Ädel & R. Reppen (Eds.), *Corpora and discourse: The challenges of different settings* (pp. 31–55). Amsterdam: John Benjamins. https://doi.org/10.1075/scl.31.04bon

Bruce, I. (2014). Expressing criticality in the literature review in research article introductions in applied linguistics and psychology. *English for Specific Purposes, 36*, 85–96. https://doi.org/10.1016/j.esp.2014.06.004

Cakir, H. (2016). Native and non-native writers' use of stance adverbs in English research article abstracts. *Open Journal of Modern Linguistics, 6*, 85–96. http://dx.doi.org/10.4236/ojml.2016.62008

Coates, J. (1987). Epistemic modality and spoken discourse. *Transactions of the Philological Society, 85*(1), 110–131. https://doi.org/10.1111/j.1467-968X.1987.tb00714.x

Crawford Camiciottoli, B. (2010). Discourse connectives in genres of financial disclosure: Earnings presentations vs. earnings releases. *Journal of Pragmatics, 42*(3), 650–663. http://dx.doi.org/10.1016/j.pragma.2009.07.007

Crismore, A., Markkanen, R., & Steffensen, M. S. (1993). Metadiscourse in persuasive writing: A study of texts written by American and Finnish university students. *Written Communication, 10*, 39–71. http://dx.doi.org/10.1177/0741088393010001002

Crompton, P. (1997). Hedging in academic writing: Some theoretical problems. *English for Specific Purposes, 16*(4), 271–287. http://dx.doi.org/10.1016/s0889-4906(97)00007-0

D'Angelo, L. (2008). Gender identity and authority in academic book reviews: An analysis of metadiscourse across disciplines. *Linguistica e Filologia, 27*, 205–221.

Falahati, R. (2004). *A contrastive study of hedging in English and Farsi academic discourse* (Master's thesis). Retrieved from https://dspace.library.uvic.ca/bitstream/handle/1828/714/falahati_2004.pdf

Gardner, S., & Han, C. (2018). Transitions of contrast in Chinese and English university student writing. *Educational Sciences: Theory & Practice, 18,* 861–882. http://dx.doi.org/10.12738/estp.2018.4.0067

Gilmore, A., & Millar, N. (2018). The language of civil engineering research articles: A corpus-based approach. *English for Specific Purposes, 51*, 1–17. https://doi.org/10.1016/j.esp.2018.02.002

Grabe, W., & Kaplan R., B. (1997). On the writing of science and the science of writing: Hedging in science text and elsewhere. In R. Markkanen & H. Schroder (Eds.), *Hedging and discourse: Approaches to the analysis of a pragmatic phenomenon in academic texts* (pp. 151–167). Berlin/Boston: De Gruyter. https://doi.org/10.1515/9783110807332.151

Green, A. (1997, March). *Kappa statistics for multiple raters using categorical classifications*. Paper presented at the 22nd Annual Conference of SAS Users Group, San Diego, CA. Retrieved from http://www2.sas.com/proceedings/sugi22/POSTERS/PAPER241.PDF

Halliday, M. A. K. (1978). *Language as a social semiotic: The sociological interpretation of language and meaning*. London, UK: Arnold.

Hatipoğlu, Ç., & Algı, S. (2017). Contextual and pragmatic functions of modal epistemic hedges in argumentative paragraphs in Turkish. In C. Hatipoglu, E. Akbas, & Y. Bayyurt (Eds.), *Metadiscourse in written genres: Uncovering textual and interactional aspects of texts* (pp. 85–108). Bern, Switzerland: Peter Lang. https://doi.org/10.3726/b11093

Hatipoğlu, Ç., & Algı, S. (2018). Catch a tiger by the toe: Modal hedges in EFL argumentative paragraphs. *Educational Sciences: Theory & Practice, 18,* 957–982. http://dx.doi.org/10.12738/estp.2018.4.0373

Heiniluoma, M. (2008). *Boosting future prospects of softening promises of success? The use of emphatics and hedging in the letter to shareholders sections of annual reports* (Master's thesis). https://www.utupub.fi/bitstream/handle/10024/39022/gradu2008heiniluoma.pdf

Ho, V., & Li, C. (2018). The use of metadiscourse and persuasion: An analysis of first year university students' timed argumentative essays. *Journal of English for Academic Purposes, 33*, 53–68. https://doi.org/10.1016/j.jeap.2018.02.001

Hu, G., & Cao, F. (2015). Disciplinary and paradigmatic influences on interactional metadiscourse in research articles. *English for Specific Purposes, 39*, 12–25. https://doi.org/10.1016/j.esp.2015.03.002

Hu, Z., Brown, D. F., & Brown, L. B. (1982). Some linguistic differences in the written English of Chinese and Australian students. *Language Learning and Communication, 1*(1), 39–49.

Hunston, S., & Thompson, G. (2000). Evaluation: An introduction. In S. Hunston & G. Thompson (Eds.), *Evaluation in text: Authorial stance and the construction of discourse* (pp. 1–27). Oxford, UK: Oxford University Press.

Hyland, K. (1996). Writing without conviction? Hedging in science research articles. *Applied Linguistics, 17*(4), 433–454. https://doi.org/10.1093/applin/17.4.433

Hyland, K. (1998). *Hedging in scientific research articles*. Amsterdam/Philadelphia: John Benjamins.

Hyland, K. (2000). Hedges, boosters and lexical invisibility: Noticing modifiers in academic texts. *Language Awareness, 9*(4), 179–197. https://doi.org/10.1080/09658410008667145

Hyland, K. (2002). Authority and invisibility: Authorial identity in academic writing. *Journal of Pragmatics, 34*, 1091–1112. https://doi.org/10.1016/S0378-2166(02)00035-8

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

Hyland, K. (2012). Undergraduate understandings: Stance and voice in final year reports. In K. Hyland & C. Sancho-Guinda (Eds.), *Stance and voice in written academic genres* (pp. 134–150). Basingstoke: Palgrave Macmillan. https://doi.org/10.1057/9781137030825_9

Hyland, K., & Milton, J. (1997). Qualification and certainty in L1 and L2 students' writing. *Journal of Second Language Writing, 6*(2), 183–205. https://doi.org/10.1016/s1060-3743(97)90033-3

Kafes, H. (2017). An intercultural investigation of meta-discourse features in research articles by American and Turkish academic writers. *International Journal of Languages' Education and Teaching*, *5*(3), 373–391. https://doi.org/10.18298/ijlet.1823

Kaplan, R. (2000). Contrastive rhetoric and discourse analysis: Who writes what to whom? When? In what circumstances? In S. Sarangi & M. Coulthard (Eds.), *Discourse and social life* (pp. 82–102). Harlow, UK: Longman.

Karahan, P. (2013). Self-mention in scientific articles written by Turkish and non-Turkish authors. *Procedia - Social and Behavioral Sciences, 70*, 305–322. https://doi.org/10.1016/j.sbspro.2013.01.068

Kawase, T. (2015). Metadiscourse in the introductions of PhD theses and research articles. *Journal of English for Academic Purposes, 20*, 114–124. https://doi.org/10.1016/j.jeap.2015.08.006

Koutsantoni, D. (2004). Attitude, certainty and allusions to common knowledge in scientific research articles. *Journal of English for Academic Purposes, 3*(2), 163–182. https://doi.org/10.1016/j.jeap.2003.08.001

Koutsantoni, D. (2005). Certainty across cultures: A comparison of the degree of certainty expressed by Greek and English speaking scientific authors. *Intercultural Pragmatics, 2*(2), 121–149. https://doi.org/10.1515/iprg.2005.2.2.121

Kranich, S. (2011). To hedge or not to hedge: The use of epistemic modal expressions in popular science in English texts, English–German translations, and German original texts. *Text & Talk, 31*(1), 77–99. https://doi.org/10.1515/text.2011.004

Lewin, B. A. (2005). Hedging: an exploratory study of authors' and readers' identification of 'toning down' in scientific texts. *Journal of English for Academic Purposes, 4*(2), 163–178. https://doi.org/10.1016/j.jeap.2004.08.001

Liu, Y., & Buckingham, L. (2018). The schematic structure of discussion sections in applied linguistics and the distribution of metadiscourse markers. *Journal of English for Academic Purposes, 34*, 97–109. https://doi.org/10.1016/j.jeap.2018.04.002

Lombard, M., Snyder-Duch, J., & Bracken, C. (2010). *Practical resources for assessing and reporting intercoder reliability in content analysis research projects*. Retrieved from http://matthewlombard.com/reliability/

Martin-Martin, P. (2003). A genre analysis of English and Spanish research paper abstracts in experimental social sciences. *English for Specific Purposes, 22*(1), 25–43. https://doi.org/10.1016/S0889-4906(01)00033-3

Martin-Martin, P. (2008). The mitigation of scientific claims in research papers: A comparative study. *International Journal of English Studies, 8*(2), 133–152. Retrieved from http://revistas.um.es/ijes/article/view/49201

McLaren-Hankin, Y. (2008). 'We expect to report on significant progress in our product pipeline in the coming year': Hedging forward-looking statements in corporate press releases. *Discourse Studies, 10*(5), 635–654. https://doi.org/10.1177/1461445608094216

Molino, A. (2010). Personal and impersonal authorial references: A contrastive study of English and Italian Linguistics research articles. *Journal of English for Academic Purposes, 9*(2), 86–101. https://doi.org/10.1016/j.jeap.2010.02.007

Molino, A. (2018). "What I'm speaking is almost English…": A corpus-based study of metadiscourse in English-medium lectures at an Italian university. *Educational Sciences: Theory & Practice, 18*, 935–956. http://dx.doi.org/10.12738/estp.2018.4.0330

Onder-Ozdemir, N., & Longo, B. (2014). Metadiscourse use in thesis abstracts: A Cross-cultural Study. *Procedia - Social and Behavioral Sciences, 141*, 59–63. https://doi.org/10.1016/j.sbspro.2014.05.011

Peterlin, A. P. (2010). Hedging devices in Slovene-English translation: A corpus-based study. *Nordic Journal of English Studies, 9*(2), 171–193. Retrieved from http://ojs.ub.gu.se/ojs/index.php/njes/article/view/419

Rubin, V., Liddy, E., & Kando, N. (2006). Certainty identification in texts: Categorization model and manual tagging results. In J. Shanahan, Y. Qu, & J. Wiebe (Eds.), *Computing attitude and affect in text: Theory and applications* (pp. 61–76). Dordrecht: Springer. https://doi.org/10.1007/1-4020-4102-0_7

Samraj, B. (2002). Introductions in research articles: variations across disciplines. *English for Specific Purposes, 21*(1), 1–17. https://doi.org/10.1016/S0889-4906(00)00023-5

Samraj, B. (2013). Form and function of citations in discussion sections of master's theses and research articles. *Journal of English for Academic Purposes, 12*(4), 299–310. https://doi.org/10.1016/j.jeap.2013.09.001

Šeškauskiene, I. (2008). Hedging in ESL: A case study of Lithuanian learners. *Studies about Languages (Kalbų Studijos), 13,* 71–76. Retrieved from https://www.kalbos.lt/zurnalai/13_numeris/10a.pdf

Silver, M. (2003). The stance of stance: A critical look at ways stance is expressed and modeled in academic discourse. *Journal of English for Academic Purposes, 2*, 359–374. http://dx.doi.org/10.1016/S1475-1585(03)00051-1

Stubbs, M. (1986). 'A matter of prolonged fieldwork': Notes towards a modal grammar of English. *Applied Linguistics*, *7*(1), 1–25. https://doi.org/10.1093/applin/7.1.1

Tankó, G. (2017). Literary research article abstracts: An analysis of rhetorical moves and their linguistic realizations. *English for Specific Purposes, 27,* 42–55. https://doi.org/10.1016/j.jeap.2017.04.003

Tessuto, G. (2015). Generic structure and rhetorical moves in English-language empirical law research articles: Sites of interdisciplinary and interdiscursive cross-over. *English for Specific Purposes, 37*, 13–26. https://doi.org/10.1016/j.esp.2014.06.002

Thomas, J. (1983). Cross-cultural pragmatic failure. *Applied Linguistics, 4*(2), 91–112. https://doi.org/10.1093/applin/4.2.91

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. https://doi.org/10.1016/s0889-4906(98)00007-6

Varttala, T. (2001). *Hedging in scientifically oriented discourse. Exploring variation according to discipline and intended audience* (Doctoral dissertation). Retrieved from http://acta.uta.fi/pdf/951-44-5195-3.pdf

Vassileva, I. (2001). Commitment and detachment in English and Bulgarian academic writing. *English for Specific Purposes, 20*(1), 83–102. https://doi.org/10.1016/s0889-4906(99)00029-0

Vázquez, I., & Giner, D. (2009). Writing with conviction: The use of boosters in modelling persuasion in academic discourses. *Revista Alicantina de Estudios Ingleses, 22*, 219–237. Retrieved from http://rua.ua.es/dspace/handle/10045/13822

Vergaro, C. (2011). Shades of impersonality: Rhetorical positioning in the academic writing of Italian students of English. *Linguistics and Education, 22*(2), 118–132. https://doi.org/10.1016/j.linged.2010.11.001

Transitions of Contrast in Chinese and English University Student Writing[*]

Sheena Gardner[1]
Coventry University

Chao Han[2]
Lanzhou University

Abstract

One of the fundamental ways in which knowledge develops is through contrast. This applies not only to the development of ideas and theories in argumentative texts, but also to the contrasting of new findings with old in experimental reports. Contrast, then, is central to the development of academic knowledge. A common finding in contrastive analyses is that the transition *however* is used significantly more by English than Chinese writers. This has been explained through suggestions that Chinese writers may be culturally less willing or linguistically less able to express contrast. Our objective was to identify which transitions of contrast are used more by Chinese students and to understand where and how they are used. In the closely matched Han CH-EN corpus of similar texts written by successful Chinese and English students at British universities, we identified four transitions that are used significantly more ($p < .05$) by Chinese writers: *while, whereas, on the other hand,* and *in contrast.* Through examining contexts of use and specific examples, we argue that Chinese students employ a greater variety of transitions than English students to achieve a similar amount of contrast in their writing. The paper concludes with seven implications for teaching academic writing in English.

Keywords
Metadiscourse • Transitions of contrast • Academic writing • English for academic purposes (EAP) • Chinese students • Corpus linguistics

---

Contrast is fundamental to the development of academic knowledge. It is important to build new knowledge in argumentative writing through highlighting differences in theories, ideas and opinions, and it is important in research and scientific writing to compare new findings with current knowledge. It is thus expected that all academic writing contains a substantial amount of contrasting information, but the extent to which these contrasts are made visible and explicit may well vary across different types of writing and across different educational cultures.

One of the linguistic means of indicating contrasts in academic writing is through transition markers, or transitions. In our study we follow Hyland's approach where transitions are "mainly conjunctions and adverbial phrases which help readers interpret pragmatic connections between steps in an argument." (2005, p. 50). These have been examined from different theoretical perspectives, including metadiscourse (Cao & Hu, 2014; Han & Gardner, 2017), linking adverbials (Biber, Johansson, Leech, Conrad, & Finegan, 1999; Chen, 2006; Gao, 2016; Lei, 2012; Liu, 2008; Peacock, 2010), logical connectives (Milton & Tsang, 1993), conjunctive cohesion (Field & Yip, 1992) and conjunctive ties (Gardezi & Nesi 2009). While each of these categories has a slightly different focus, and may include overlapping sets of linguistic items, they can all shed light on how notions of contrast are expressed in academic writing in English.

In this paper we aim to compare the use of transitions of contrast in a closely-matched corpus of successful writing by Chinese and British students in order to inform the teaching of academic writing. We first examine the use of contrast transitions quantitatively as a group, then investigate specific items more qualitatively through examples in context. The specific research questions are found at the end of the Methodology section, which follows a review of relevant literature.

Previous Research on Transitions of Contrast

Previous research can usefully be explored from two main perspectives: First, how transitions of contrast are used in different types of academic text; and secondly how they are used by different writers, with a focus on writing in English by first language (L1) Chinese and L1 English writers.

Register, Genre and Discipline

Contrast transitions are generally more frequent in written language than in spoken language. For example, Liu's (2008) study of spoken and written registers in the British National Corpus found that adversative linking adverbials in academic writing are about a third more frequent than in spoken English (3028 vs 2202 per million words). This finding is not repeated for each item, however. So, while *however*, which

is one of the most frequent contrast transition markers, occurred more than twelve times as frequently in academic writing than in speaking (1217 vs 89 per million words), the occurrence of *yet* in the two registers was the same (307 per million words). Despite this apparent similarity, it was found that in sentence initial position *yet* is substantially more frequent in academic writing (116 per million words) than in speaking (8 times per million words). A comprehensive analysis of transitions of contrast therefore should explore not only the set of contrast transitions as a group, but also the frequency and behavior of individual items.

Within academic writing, it is also important to differentiate texts by genre. For example, Hyland (2005) found that transitions occur more than twice as frequently in text books than in research articles (28.1 vs 12.3 per 1,000 words). It seems that the greater use in text books is to guide the reading process and clearly indicate to students the relationship between information or arguments in the text.

Other studies have examined contrast transitions in research articles and found differences across disciplines. Peacock (2010) first compared two disciplinary groups and found significantly fewer contrast transitions in the science disciplines of Chemistry, Computer Science, Materials Science and Neuroscience compared to the non-science disciplines of Economics, Language & Linguistics, Management and Psychology (2426 vs. 3172 per million words). In terms of individual disciplines, he found, for instance, that Chemistry used significantly fewer, while Neuroscience used significantly more contrast transitions. This could be explained by the predictable format of much writing in Chemistry, which focuses on reporting factual data within agreed theories, so explicit markers of contrast are not needed as much as they might be in a newer and more contested area of research, such as Neuroscience.

Similarly, Cao and Hu (2014), who compared across disciplines and across paradigms, found that comparative transitions were used significantly more in the discipline of Applied Linguistics than in Psychology, both in papers that adhered to a quantitative paradigm (3.16 vs 2.60 per 1,000 words) and in papers that adhered to a qualitative paradigm (2.73 vs 1.79 ptw). They explained the differences between the orientations of these disciplines in that, following Maton (2007), Applied Linguistics is more knower-oriented, while Psychology is more knowledge-oriented. One characteristic of knower-oriented disciplines is that they emphasize difference rather than similarity, which explains why significantly more contrast transitions occurred in Applied Linguistics to "emphasize the knower's distinct voice, align or dis-align readers with alternative positions, and create knowledge claims in the knower code" (Cao & Hu, 2014, p. 28).

A more surprising finding from Cao and Hu's study was that the quantitative papers use significantly more comparative transition markers than the qualitative papers in both disciplines. This appears to contradict earlier explanations where sciences

use fewer contrast transitions than non-sciences (Peacock, 2010). They explain this with reference to the frequent use of comparative transitions to highlight results that contrast expectations. "We expected …. This was not confirmed. *On the contrary, ...*" (2014, p. 22). These differences reinforce the importance of comparing like for like in terms of genre and discipline, as well as the importance of examining specific items in context.

Chinese and English Writers

The tradition of comparing student writing to published journal articles allows researchers to compare texts within broadly the same disciplines and identify potential areas for development in the student writing. The findings of two such studies that explore the writing of Chinese students in English are briefly reviewed here. Lei (2012) compared Chinese PhD students' dissertations with journal articles in Applied Linguistics and found that student papers use substantially fewer adversative adverbials than published papers (2568 vs 3016 per million words). He suggests that adversative adverbials such as *however, despite this/that,* and *in/by contrast* may be difficult for Chinese writers to use. Chen (2006) compared writing across a range of Chinese MA TESOL student texts with Applied Linguistics journal articles and also found that the student writers used proportionally fewer adversative adverbials (21% vs 37% of all conjunctive adverbials). One difficulty with these studies relates to the lack of genre comparability. It may well be that the more concise journal articles use more contrast transitions simply because they are shorter, and more condensed. Studies that compare writing across the same genres could produce more definitive findings. This point was well made in Milton and Tsang's (1993) study of undergraduate student writing, which is also critical of the way discourse connectors are taught using lists of connectors in each category, and short text extracts that make it difficult to really understand the role of these transitions over longer stretches of text. A further difficulty in comparing these studies is that the lists of items identified vary. For instance Milton and Tsang (1993) focused on *nevertheless* and *although*, and found they were both "overused" by their student writers, which ostensibly contradicts the more recent studies such as Lei (2012) and Chen (2006). Thus, in addition to the issues with lack of comparable genres, the methodologies used are different, as are the lists of items examined.

These studies indicate that there is more to be discovered about the role of contrast transitions in student writing, and that a study that compares like with like in terms of discipline, genre and level of study should help resolve inconsistencies in the findings reviewed above and also provide worthwhile insights for teaching.

Methodology

The Han CH-EN corpus was developed to compare "like with like" and focus on differences between L1 Chinese and L1 English student writers. The corpus was built by selecting from the British Academic Written English (BAWE) corpus of successful student writing from four English universities (Gardner & Nesi, 2013) those texts written by students who declared a variety of Chinese as their first language, and who were not educated in the UK prior to university. All the BAWE texts are "successful" in that they were submitted as part of regular university degree coursework, and received high marks (e.g. Merit and Distinction) from the subject lecturers. The texts by Chinese students not educated in Britain prior to university were then matched for discipline, genre family and level of study with texts by students who declared English as their first language and who were educated entirely in Britain. For example, a first year Economics Essay from a Chinese student would be matched with a first year Economics Essay by an English student. In some cases, an exact topic match was found when students answered the same question; in others, as close a topic match as possible was found. Inevitably, this resulted in an uneven spread in terms of disciplines and genre families, but it is one that reflects the most frequent assignments written by Chinese students at British universities. In order to avoid idiosyncratic use, it was decided to focus only on the top five disciplines and top five genre families when specifically investigating disciplinary and genre family use. These are shaded in Table 1.

Genre Families are groups of genres with a similar purpose and organisation. The five most populated genre families are Essays, such as expository and discussion essay genres, where students develop a personalized argument or thesis with the support of evidence from the discipline; Methodology Recounts, which include Lab Reports and similar reports of experimental activity; Critiques, which include book reviews, product evaluations and film reviews, are largely descriptive and evaluative; Case Studies, which are common in Business and in Medical Sciences and involve the analysis of a single exemplar with recommendations for future practice; and Explanations, which provide an account of how things work or are organized. These and the other genre families are described in detail in Nesi and Gardner (2012).

This resulted in the Han CH-EN corpus (Table 1), which consists of 156 assignments: 78 texts (170,227 words) by Chinese writers, and 78 texts (204,608 words) by English writers. This immediately shows that the English writers tended to write more than the Chinese for the same assignments. The corpus was loaded onto Sketch Engine (Kilgarriff et al., 2014) where items could be easily examined in context.

Table 1

Number of Texts in the Han CH-EN Corpus Showing Distribution by Discipline and Genre Family

	Essay	Methodology Recount	Critique	Case Study	Explanation	Design Specification	Proposal	Literature Survey	Problem Question	TOTAL
Engineering	2	12	2	4	2	8	0	0	2	**32**
Food Sciences	2	22	0	0	0	0	0	2	0	**26**
Biology	0	10	2	0	6	0	2	0	0	**20**
Business	10	0	0	6	0	0	0	0	0	**16**
Law	10	0	2	0	0	0	0	0	0	**12**
Sociology	8	0	2	0	0	0	0	0	0	**10**
Hospitality, Tourism & Leisure Management	4	0	2	4	0	0	0	0	0	**10**
Linguistics	6	0	4	0	0	0	0	0	0	**10**
Economics	4	0	2	0	0	0	0	0	0	**6**
Politics	4	0	0	0	0	0	0	0	0	**4**
Agriculture	2	0	0	0	2	0	0	0	0	**4**
Publishing	0	0	0	0	0	0	2	0	0	**2**
Cybernetics/ Electronic Engineering	2	0	0	0	0	0	0	0	0	**2**
Psychology	0	0	2	0	0	0	0	0	0	**2**
Total	**54**	**44**	**18**	**14**	**10**	**8**	**4**	**2**	**2**	**156**

Transition markers were identified automatically based on a corpus query search for sentence initial items and items following a semi-colon. All instances of these items were then manually weeded through to ensure only those functioning as transition markers were retained. For example, *rather* and *however* can function as adverbial modifiers, as in "rather quickly" or "however quickly", so such instances were excluded. Moreover transitions create internal relations in the discourse (Halliday & Hasan, 1976, p. 241), so items being used "externally", as part of the propositional meaning of the text (e.g. temporal *while*) were excluded. This resulted in items from two main grammatical categories (conjunctions and adverbial phrases), with conjunctions (e.g. *but, while*) typically functioning syntactically to join two clauses, and adverbial phrases (e.g. *in contrast*) typically functioning syntactically to modify one clause. Both function pragmatically in the discourse to connect steps in an argument.

Significant differences were calculated using independent-samples *t*-test in SPSS. The standard *p*-value of less than 0.05 was used to determine statistically significant difference.

Hyland (2005) has three main categories of transition marker: Addition, Comparison and Consequence. Comparison marks arguments as either similar or different, and our focus is on those that mark difference, which we refer to here as transition markers of contrast, or contrast transitions.

The study reported here aims to first provide an overview of the occurrence of contrast transitions in the Han CH-EN corpus across disciplines and genre families,

and then to examine in more detail the use of those individual contrast transitions that emerge as being employed significantly more by Chinese writers.

Specifically, it aims to answer these questions:

1. Is there a difference in frequency of use of contrast transitions between Chinese and English student writers?

2. Are there differences within specific disciplines?

3. Are there differences within specific genre families?

4. Are there differences for specific contrast transition items?

5. Where differences are found, are there observable patterns of use in the discourse?

6. Where patterns can be observed, how might these be explained?

Findings

Variation in Contrast Transitions by Chinese and British Student Writers Overall and across Disciplines

The observed absolute frequency of contrast transitions in the Chinese and English components of the Han CH-EN corpus (Table 2) was similar (644 vs. 648), and there was also no significant difference in terms of relative frequency (3.58 vs. 3.27 per 1000 words) ($p > .05$).

Table 2
Frequency of Contrast Transitions in the Han CH-EN Corpus

	Chinese	English	*p*-value
Contrast Transitions (N)	644	648	
Mean (per 1000 words)	3.58	3.27	$p = .309$

The Han CH-EN corpus includes texts from thirteen disciplines and nine genre families, but some are more populated than others. In this and the subsequent section, therefore, in order to ensure meaningful comparisons across academic disciplines and genre families, disciplines and genre families with fewer than five pairs of texts are not counted. This results in a robust comparison across five disciplines and five genre families. These reflect courses where there are more Chinese students and genre families that are more popular for assignments in those courses.
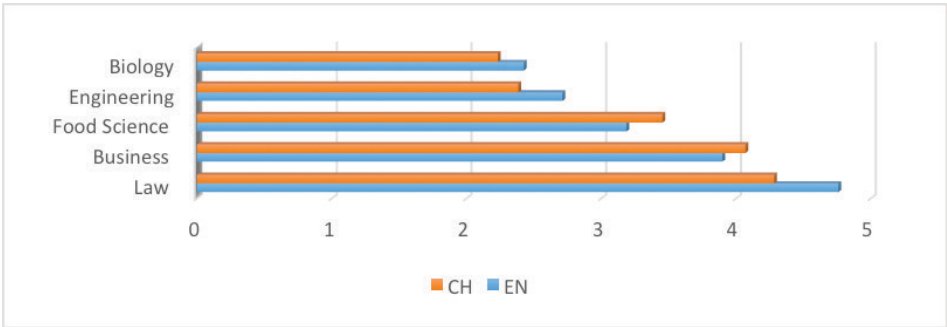
Figure 1. The use of contrast transitions by Chinese and English students across the five main disciplines.

As the bar lines in Figure 1 suggest, no statistically significant ($p > .05$) differences were found (Table 3) in the use of contrast transitions between the Chinese and English writers across disciplines.

Table 3
The Use of Contrast Transitions by Chinese and English Students across the Five Main Disciplines

Disciplines	CHinese	ENglish	
	Mean per 1000 words		p-value
Law (LAW)	4.284	4.761	.701
Business (BUS)	4.071	3.899	.821
Food Science (FS)	3.455	3.188	.767
Engineering (ENG)	2.385	2.713	.556
Biology (BIO)	2.232	2.425	.710

An examination of the use of contrast transitions across the five main disciplines (*see* Table 3) demonstrates that Chinese and English student writers are both following similar patterns of disciplinary variation (Figure 1). It was found that the non-science disciplines of Law and Business contain higher frequencies of contrast transitions than the science disciplines of Food Science, Engineering, and Biology.

Variation in Contrast Transitions by Chinese and British Student Writers across Genre Families

The use of contrast transitions varies across the five main genre families of Explanation, Methodology Recount, Case Study, Essay and Critique (Figure 2), with no statistically significant differences found between Chinese and English writers (*see* Table 4). For both groups of students, the more discursive genre families of Essay and Critique use more contrast transitions than the more technical genres of Methodology Recount and Explanation.
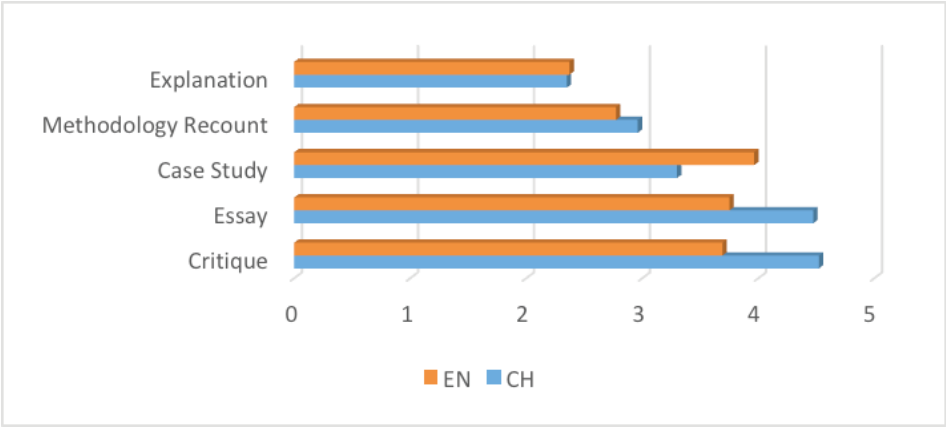
Figure 2. The use of contrast transitions by Chinese and English students across the five main genre families.

The discursive vs technical pattern breaks down for Case Studies, which at more than 3.5 pmw for the English writers are similar to the discursive genres and at less than 3.5 pmw for the Chinese writers are similar to the technical genres.

Table 4
The Use of Contrast Transitions by Chinese and English Students across the Five Main Genre Families

Genre Families	CHinese	ENglish	
	Mean per 1000 words		*p*-value
Critique (CR)	4.522	3.690	.435
Essay (ES)	4.473	3.751	.147
Case Study (CS)	3.299	3.964	.394
Methodology Recount (MR)	2.961	2.773	.763
Explanation (EX)	2.349	2.373	.831

No statistically significant ($p > .05$) differences were found (Table 4) in the use of contrast transitions between the Chinese and English writers across genre families.

Variation in Contrast Transitions by Chinese and British Student Writers for Specific Contrast Items

14 different contrast transitions were identified in the Han CH-EN corpus (Table 5). The three most frequent items, *however*, *but* and *while*, account for more than 80% of contrast transitions in the entire Han CH-EN corpus.

Table 5
Frequency of 14 Contrast Transitions

Contrast transitions	CH		EN		p-value
	AbsFreq	per 1000	AbsFreq	per 1000	
however	244	1.440	**364**	**1.911***	0.047
but	188	0.937	189	0.907	0.873
while	**99**	**0.553***	27	0.130	0.000
on the other hand	**38**	**0.206***	9	0.037	0.000
whereas	**26**	**0.189***	14	0.069	0.024
in contrast	**11**	**0.070***	3	0.012	0.025
on the contrary	10	0.043	2	0.017	0.311
rather	8	0.028	7	0.034	0.737
meanwhile	6	0.045	0	0.000	0.100
at the same time	5	0.028	3	0.008	0.298
conversely	4	0.022	6	0.035	0.490
by contrast	3	0.012	1	0.007	0.684
alternatively	2	0.010	6	0.029	0.360
whilst	0	0.000	**17**	**0.075***	0.001
Total	644	3.583	648	3.271	0.309

* indicates a significantly greater value ($p < .05$).

Although no significant differences were observed between Chinese and English writers across the five main disciplines, the five main genre families or the entire set of transitions in the Han CH-EN corpus, Table 5 shows where there are significant differences for individual contrast items. Two items are used more by English writers (*however, whilst*), one frequent item (*but*) is used to a similar extent, and four items are used more by Chinese writers (*while, on the other hand, whereas, in contrast*). As the number of contrast transitions as whole is similar (Table 2), Table 5 shows that Chinese writers are using a greater variety of transitions, where English students rely more on *however*. It is therefore not true to suggest that Chinese students are less culturally willing to express contrast relationships, and it may be that their use of a greater variety of transitions is effective.

Individual Transitions Favored by Chinese Writers

The detailed analysis here will focus on the four items used more by Chinese writers, *while, whereas, on the other hand* and *in contrast*. The aim is to understand how each item is typically used and to explore other uses and related transitions particularly, but not exclusively, in the Chinese writing.

While

While has three main senses: temporal, contrast and concession (Lea et al., 2014, p. 900), but our focus here is on contrast, as in these examples:

(1)   To conclude, we can say that Britain succeeded in making the transition into "modern economic growth" *while* the Dutch did not. (CH1ESECO-0071a)[3]

---

3   In these codes, the first two letters indicate CHinese or ENglish, the number indicates level of study, the next two letters indicate genre family (*see* Table 1), the next two or three letters indicate discipline (*see* Table 1), the next four numbers identify the student and the final letter identifies the student's text.

(2)   It is interesting that the control sample was also translucent *while* the unpasteurized control sample was still cloudy. (EN2MRFS-6004d)

In (1), the Chinese first-year Economics student uses *while* to reinforce the contrast between Britain succeeding and the Dutch not. In (2), the English second-year Food Sciences student uses *while* to reinforce the contrast between the translucent sample and the cloudy sample. Both these are typical contrastive uses of *while*.

Less conventional uses are also found, as in (3).

(3)   In commodity-capitalist society, exchange-process seems to be dominant, *while* in fact, production plays a more decisive role in determining the magnitude of value. (CH4ESSOC-0319a)

There is clearly a contrast being made that the writer wants to highlight, but as Swan explains, *while* is typically used to "balance two facts or ideas that contrast, but do not contradict each other", while the contrast *but* is used to counter an argument (2005, pp.157-158). In the Sociology Essay (3), the Chinese writer presents a counter argument, so *but* would be more appropriate. Evidence from collocation in the Written Books and Periodicals section of the British National Corpus (BNC) is also persuasive in that *but in fact* occurs 298 times compared to *while in fact* which occurs only eight times.

In terms of syntax, *while* typically introduces a second main clause in a sentence, and follows a comma, as in the Sociology example (3) above. In approximately a third of the Chinese instances, and half of the English instances the comma before *while* is omitted, as in the Economics and Food Sciences examples (1) and (2) above. Occasionally in the Chinese writing the comma is replaced by a semi-colon, which may not be strictly "correct" according to a recent corpus-informed reference work for academic English (Lea et al., 2014, p. 25) which states that semi-colons should be used between two main clauses not joined by a conjunction (such as *while*). Nevertheless, using *while* to join clauses that balance facts even without a comma as in (1) and (2) is preferable to its rare appearance as a sentence adverbial attached to a single clause, as in this Politics Essay (4):

(4)   The former emphasizes the importance of the state intervention in economic development. *While* the latter claims that the less state intervention can make the national economy more competitive. (CH4ESPOL-0257d)

It is worth briefly mentioning *whilst* here as it basically has the same meaning as *while* and although its use is in decline, as a search over the decades in historical corpora such as COHA or google books confirms (*see* Appendix 1), it is the fourth most frequent contrast transition used by English students (*see* Table 5), as in this Economics example (5):

(5)   The results of the simply supported beam are displayed in Table 1, *whilst* the cantilevered beam results are displayed in Tables 2 and 3. (EN1MRENG-0249h)

Even when larger corpora have been consulted, no semantic or syntactic patterns have emerged that could explain the choice between *while* and *whilst*. If we count *while* and *whilst* together, and remove those Chinese examples which are infelicitous, we are still left with a preference for *while* in Chinese vs English student writing.

Whereas

Whereas is another frequent transition marker. In the Han CH-EN corpus it is typically used to join two clauses and "to compare or contrast two facts" (Lea et al., 2014, p. 900), as in (6) and (7):

(6)   The competence motive assumes that people have faith in their own ability to influence the surrounding environment, *whereas* the achievement motive assumes that individuals are devoted to maximizing abilities and achieving set goals. (CH1ESBUS-0271c)

(7)   Content theories are context free and assume the situation has little impact, *whereas* process theories assume that personalities have little impact and that people are able to make a logical assessment of likely outcome probabilities when making decisions. (EN4CSBUS-0289b)

In such cases, *whereas* could easily be replaced by the contrastive *while* (Huddleston & Pullman 2002, p. 737).

Whereas usually occurs at the beginning of the second clause in a sentence, as in (6) and (7), but it can also occur at the beginning of the first clause, where it performs the same subordinating function, as in these two examples (8 and 9) from Law Essays:

(8)   *Whereas* the English abortion debate has been dominated by the question of whether or not abortion should ever be justified in law, the more difficult moral questions arise in distinguishing circumstances in which abortion should not be permitted from those in which it should. (CH3ESLAW-0410d)

(9)   *Whereas* the decision in Broadway Cottages assumed that the application of the maxim "equity is equality" would result in equal distribution throughout the beneficial class, Wilberforce LJ turned to the settlor's intentions for guidance: "[e]qual division is surely the last thing the settlor ever intended: equal division among all may, probably would, produce a result beneficial to none". (EN3ESLAW-0397b)

While *whereas* is relatively interchangeable with *while* as a subordinating conjunction, it is also found functioning as an adverbial in the Chinese writing (10 and 11):

(10)   One implication of HRT having for organisation of work is that workers have social needs and managers ought to be aware of and respond to it. *Whereas*, to what extent

their needs affect organisation productivity and how to deal with informal social power are not explicitly mentioned by Mayo. (CH4ESBUS-0124a)

(11) To be more precise, there is no ambiguity in single words or the surface structure; *whereas,* the semantic scope is indefinite due to other elements, for instance, qualification and negation. (CH4ESLIN-6058e)

Here it is not only syntactically problematic, but also semantically. *Whereas* typically introduces a counter-argument, rather than balancing two facts or ideas (Swan, 2005, pp. 157–158). In these semantic contexts, *however* or *but* would probably be a better choice.

A different problem is seen in (12), where *whereas* follows a semi-colon and, as discussed above for *while*, a conjunction is not needed with a semi-colon.

(12) Substitutive compensation may refer to the money substitute for value required to perfect a failed duty a trustee promised to deliver; *whereas* reparative compensation may refer to the money required to make good losses occasioned by a trustee's breach of trust, including a trustee's imprudent investment. (CH3ESLAW-0410a)

The writing could be improved either by replacing the semi-colon with a comma, or by introducing a sentence adverbial such as *however* or *in contrast*.

Our examination of *while, whilst,* and *whereas* has shown that these three are all subordinating conjunctions. The greater use by Chinese writers can be partially explained by syntactic errors when these conjunctions are used as if they were sentence adverbials, but their appropriate use is noteworthy and supports the hypothesis that Chinese writers are effectively using a greater variety of contrast transitions. It has also shown that the three are relatively interchangeable semantically (when they are being used contrastively). We now turn to the sentence adverbials that are used more by Chinese writers.

On the Other Hand

On the other hand in its contrastive sense is used four times more often by Chinese writers than English writers (Table 5). In (13) and (14), it is used appropriately to contrast two notions.

(13) *On the other hand*, the other group of people usually works with poor service quality. (CH1ESHLTM-3018d)

(14) Tesco and Asda, *on the other hand*, have a smaller range which allows them to have more of those particular products and therefore rarely go out of stock. (EN1ESAG-6021c)

In (13), one group of previously mentioned people is contrasted with another group introduced here. In (14), Tesco and Asda are contrasted with Sainsbury's, a previously

mentioned supermarket. In the majority (82.6%) of Chinese instances, however, *on the other hand* was not used in this way. It was used to add to an argument, as in (15):

(15) *On the other hand,* Herzberg and Abraham Maslow proposed two content theories based on McGregor's Theory Y. (CH1ESBUS-0271c)

This example (15) is a very typical use of *on the other hand* in Chinese students' texts. Here *on the other hand* occurs in the initial position of a paragraph, where this paragraph is the first one in a section entitled "ii. MCGREGOR'S THEORY Y". The previous section is entitled "i. MCGREGOR'S THEORY X". This means that *on the other hand* in the initial position of this section is used to introduce Theory Y, following Theory X in the previous section. Thus, *on the other hand* does not play the role of indicating a contrastive relation, but it is used to add an argument in a text.

This use of the item *on the other hand* by Chinese students to add an argument is explicitly shown with words like *also*, and *and* in a sentence. For example,

(16) In addition, under the British Colonialism, several large international enterprise such as HSBC, Jardine Matheson, and Swire group were well-developed before 1950. *And on the other hand*, the large foreign enterprises did not take away the capital from HK to their country. (CH4ESPOL-0257e)

(17) *On the other hand*, it could *also* deduce that the potential growth of IHG is experiencing saturation (Koch, 2000). (CH3CRHLTM-3018e)

In (16) and (17), *on the other hand* is not only superfluous as the relationship between the sentences is already indicated by *also* and *and,* but it is rather misleading, as readers are looking for a contrast and trying to find such meaning in the text. This use of *on the other hand* to add an argument occurs nine times in five texts from three Chinese students, which provides some explanation for the greater use of *on the other hand* in Chinese writing, but not the full picture.

A similar collocation is found with *firstly*. Here too, *on the other hand* is used to add an argument. That an argument is being added is further highlighted by the *also* in the second sentence:

(18) *Firstly*, as dividends and tax liabilities are cash transactions, there are risks that IHG would be incapable to pay the proposed dividends to shareholders. *On the other hand*, it also implies that there would be financial problems for IHG to repay the amounts owning in the short term to their suppliers. (CH3CRHLTM-3018e)

Another noteworthy collocation for *on the other hand* might be *on the one hand*, as in (19) where the second *hand* is elided:

(19) There is a dual nature of surplus value in the financial services, therefore, where, *on the one hand* they add no surplus value to money capital but *on the other*, "the capitalist services they themselves provide do create new surplus value". (EN4ESBUS-0073d)

Surprisingly, perhaps, this is the only example of *on the one hand* in the corpus. Instead, in the Chinese writing, we find *on one hand*. For example,

(20) *On one hand* the court had limited the possibilities for tax avoidance, by restricting its jurisdiction to sanction variation of the trust instrument, while *on the other* ensuring that settlements created for tax avoidance purposes were allowed to stand on the basis of a lower threshold for certainty. (EN3ESLAW-0397b)

(21) The system *on one hand* prevents the domination of the majority party in the Legco, *on the other hand* it curtails the power of the Legco members to propose private members' bill (Ma 2001). (CH4ESSOC-0350a)

We shall consider first the meaning, then the form. While the English example from Law (20) is one of four instances used with contrastive meaning, the Chinese example from Sociology (21) does not highlight a meaningful contrast. The two clauses are making a similar point (how the system prevents the domination or curtails the power of Legco) and so an additive transition might be more appropriate. Further investigation suggests that none of the seven Chinese uses of *on one hand* really highlight contrastive meaning.

Chinese writing thus favors pairs of adverbials such as *on one hand* and *on the other hand*. This pattern is used in Chinese, where the equivalent of *on one hand* and *on the other hand* is "一方面 (yī fāng miàn)" and "另一方面 (lìng yī fāng miàn)". A similar pair, found only in the Chinese writing, is *on one side* and *on the other side* which is an alternative English translation of the Chinese 一方面 (yī fāng miàn) and 另一方面 (lìng yī fāng miàn).

(22) *On one side*, investment in joint ventures had a 20.5 per cent rose which had the most important effect on the total fixed asset investments. While, *on the other side*, investment in own shares had a 37.5 per cent fall which had a strong negative effect on total investment. (CH4CRENG-0223d)

In (22), the Chinese writer used *on one side* and *on the other side* to show the contrast between the rise of a 20.5 per cent and the fall of a 37.5 per cent of two types of investment. This ease of transfer from Chinese may partly explain the Chinese student preference for these transition markers. Whether they also relate to concepts of balance, of yin and yang, is of course also possible.

A search for *on one side,* and *on one hand* in BAWE and the BNC shows that *on one side* is rare, while *on one hand* occurs regularly, though less than *on the other hand*. A notable feature of the English student writing that is absent in the Chinese student writing is the collocation of *on the other hand* with other contrast items like *but, while* and *however*. For example,

(23)   There is a dual nature of surplus value in the financial services, therefore, where, on the one hand they add no surplus value to money capital *but on the other*, "the capitalist services they themselves provide do create new surplus value". (EN4ESBUS-0073d)

(24)   On one hand the court had limited the possibilities for tax avoidance, by restricting its jurisdiction to sanction variation of the trust instrument, *while on the other* ensuring that settlements created for tax avoidance purposes were allowed to stand on the basis of a lower threshold for certainty. (EN3ESLAW-0397b)

(25)   *On the other hand, however*, Elson (1979) and Dobb (1971) play down the exploitation interpretation and Dobb (1973) interprets the labor theory of value as "an explanation of equilibrium ... prices in a capitalist economy" (Elson 1979). (EN4ESBUS-0073d)

In all three examples (23-25), the transitions have a contrastive function. The combination of *but/while/however* with the contrast *on the other hand* serves to emphasize the contrastive relationship between the two clauses. As a corpus search (Figure 3 and Table 6) shows, these collocations are well established in student (BAWE) and professional (BNC) writing.
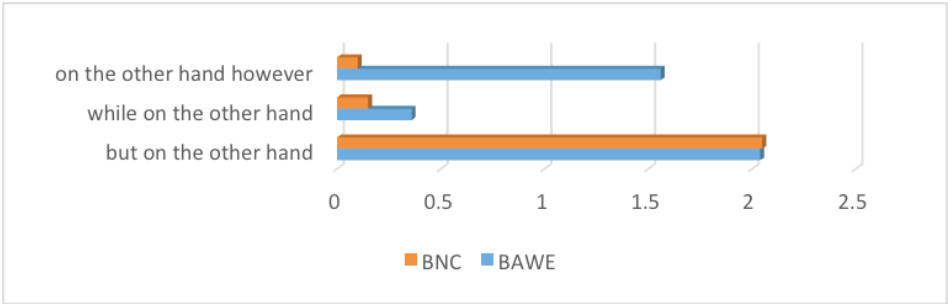
Figure 3. Three collocations with "on the other hand" in BAWE and BNC.

It is noteworthy that the frequency of *but on the other hand* is equally frequent in BAWE and BNC, while the frequency of *while on the other hand* and *on the other hand however* are much more frequent in the student writing in BAWE than in the books and periodicals section of the BNC. The reasons for this are not clear.

Table 6
Three Collocations with "on the other hand" in BAWE and BNC

	BAWE (pmw)	BNC (pmw)
but on the other hand	2.04	2.05
while on the other hand	0.36	0.15
on the other hand however	1.56	0.10

pmw = per million words

One final area of difference relates to sentence position. Chinese students tend to use *on the other hand* more in sentence initial position than their English counterparts (61% vs. 7%), as in examples (13), (15) and (25). It also occurs exclusively in Chinese (i.e., not in English), writing clause initially following a semi-colon, as in (26).

(26)   A theory that is derived from a problem can determine the method; *on the other hand*, the data that is generated from certain methods can modify the theory or the problem in return. (CH4ESSOC-0350c)

English students tend to use *on the other hand* more in non-sentence initial positions (93% vs. 39%), typically between the subject and the verb as in (27) and (28):

(27)   The data connection, *on the other hand*, needs more complex rules due to the variety of data types transferred. (EN4DSENG-0146c)

(28)   Social needs, *on the other hand*, include the need for affiliation, because social needs refer to the "need for satisfactory and supportive relationships with others" (Fincham & Rhodes 2005:195). (CH1ESBUS-0271c)

This pattern has been seen in other studies of sentence adverbials, for instance of *however* (Han & Gardner, 2017), and might also be expected for *in contrast*.

In Contrast

The fourth and final transition marker that occurs statistically more often in Chinese writing in the Han CH-EN corpus is the sentence adverbial *in contrast* (Table 5). The numbers here are relatively small (11 Chinese vs 3 English instances). But if these are taken together with other adverbials such as *on the contrary* (10 vs 2) and *by contrast* (3 vs 1), a pattern emerges that warrants investigation.

As we might now expect, *in contrast* is widely used in sentence-initial position and emphasizes the contrast in meaning between the sentence before and the sentence it introduces:

(29)   Content theories assume that all people have the same set of needs, and that these needs motivate behavior (Fincham & Rhodes 2005:193) *In contrast*, process theories assume that all humans have different needs, and focus on how cognitive processes, or "the way we take in and process information about ourselves and the world," (Fincham & Rhodes 2005:193) influences these needs. (CH1ESBUS-0271c)

In (29), "content theories" are contrasted with "process theories" where the former assume all people have "the same" needs and the latter that they have "different" needs.

Surprisingly perhaps, only one non-sentence initial *in contrast* was identified. It occurs between two clauses in a sentence, following a semicolon:

(30)   The degree of foreign accent of the students highly correlated with AOL but not the LOR factor; *in contrast*, TOEFL results corresponded with LOR of those students but not the age reason. (CH4ESLIN-6058a)

As in other examples of semi-colon use, (30) is from a Chinese student. Thus although the data set here is very small, the same patterns are visible. A search for *in*

contrast in a clause medial position in the BAWE corpus reveals that it also occurs in English writing between the subject and verb.

Like *in contrast, by contrast* typically occurs in sentence initial position with a contrastive sense in both Chinese and English writing. In (31), the student uses *by contrast* to introduce De Haan's model which contrasts with Palmer's model.

(31)   As mentioned earlier in relation to Epistemic modality, Palmer's model is important because of its attempt to achieve cross-lingual adequacy, but simultaneously illustrates the tendency for semantically ambiguous and confusing terms to proliferate in this field of linguistics. *By contrast*, De Haan's (1997) endeavours to develop a model of the relationship between modality and negation across languages, results in the narrow selection of specific modals forms and necessary exclusion of many of the instances of modality discussed here. (EN4ESLIN-6038a)

By contrast was also found following *however,* as in (32)*:*

(32)   Academics and researchers proposed different views about this issue, Bradfield and Crockett (1995) concluded that there is little evidence to suggest that employees' attitudes bear any simple or appreciable relationship to performance on the job. However, *by contrast*, Herzberg et al (1957) provided a quite different conclusion: there is frequent evidence to suggest that positive job attitudes are favourable to increased productivity. (CH4ESBUS-0264a)

While this seems to follow the pattern established for *on the other hand* with *however* (Figure 3), it is noteworthy that this combination of *however* and *by contrast* does not occur elsewhere in BAWE, nor in the BNC (text type: written books and periodicals). It might therefore be considered innovative or idiosyncratic. It is used appropriately from the grammatical and semantic perspectives that we have used to examine the other transitions, but it is distinctive in its uniqueness.

Although there was not a significant difference in the use of *on the contrary* between Chinese and English writers, its pattern of occurrence (Table 5), meaning and use are very similar to *in contrast* and therefore it is included here. The meaning of *on the contrary* involves a contradiction, which goes beyond a contrast. It "introduce[s] a statement that says the opposite of the last one" (Lea et al., 2014, p. 170). Moreover, "you use *on the contrary* when you have just said or implied that something is not true and are going to say the opposite is true" (Sinclair, 2001, p. 328). Strikingly, this is not how *on the contrary* is used by either Chinese or English writers in the Han CH-EN corpus, as in (33).

(33)   Although there was an obvious drop from 2000 to 2001, the debtor collection days were still above 70 days. *On the contrary*, the creditor payment days were constantly below 30 days, and the shortest payment days occurred in 2002 which was only 16.9 days. (CH4CRENG-0223d)

Here the text is descriptive, and the contrast is between two sets of facts. These are relatively independent facts that do not contradict each other so *on the contrary* could be replaced with *by/in contrast*. The value of such examples is that they help us to clarify distinctions in the use of such contrastive transitions.

The greater use of sentence adverbials by Chinese writers examined in this section suggests that there are more inappropriate and unique uses of the sentence adverbials *on the other hand, in/by contrast,* and *on the contrary* than was the case for the conjunctions *while* and *whereas*.

Discussion and Conclusions

The development of the Han CH-EN corpus has provided a closely-matched set of texts in that all texts are successful British university assignments, and each text by a Chinese student writer is matched for genre family, discipline and level of study with one by an English student. In response to the first research question, it was discovered that Chinese and British writers express transitions of contrast to a similar extent (Table 2). This is an important point, and contrary to suggestions from the literature that Chinese students might be culturally reluctant to make contrastive claims explicitly.

Further support for a similar approach to the use of contrast transitions emerges in response to questions two and three, where no significant differences were found between Chinese and English writers in terms of the use of contrast transitions within specific disciplines (Figure 1) or within specific genre families (Figure 2). Both groups used more contrast transitions in non-science disciplines (Law and Business) than in the sciences (Food Science, Biology, and Engineering). One explanation for this is that non-sciences tend to embrace competing theories more than sciences, which are generally more consensual. Our finding is consistent with earlier studies of research articles that found fewer contrast transitions in sciences (Peacock, 2010), particularly those where there is greater consensus (Cao & Hu, 2014).

Both Chinese and English students used more contrast transitions in the discursive Critiques and Essays than in the more quantitative Methodology Recounts and Explanations. This could be explained by the greater use of Essays in non-sciences, and of Methodology Recounts in sciences. Interestingly, however, this is not consistent with Cao and Hu's (2014) finding of greater use of contrast transitions in quantitative papers (which would be more like Methodology Recounts) than in qualitative papers (which would be more like Essays). Further research might be able to explain whether the contradictory nature of these findings is due to differences in genre (assessed student writing vs published journal articles) and/ or the disciplines involved in the data for each study.

It was only when we turned to comparing the use of individual transitions that statistically significant differences in use emerged. As with earlier studies, we also found that *however* was used significantly more by English students, and we have explored this in depth elsewhere (Han & Gardner, 2017). This paper focuses on the important finding that there are four items which Chinese students use significantly more than English students: *while, whereas, on the other hand, in contrast.* In relation to these, we also considered *whilst, on one hand, on the other, by contrast,* and *on the contrary.* This means that Chinese students use a greater variety of transitions than English students to achieve a similar amount of contrast in their writing.

In examination of the specific items, it emerged that Chinese students make effective use of the conjunctive contrast transitions *while* and *whereas,* but are more prone to infelicitous use with the sentence adverbials *on the other hand* and *in contrast.* This provides a context for interpreting Lei's (2012) and Chen's (2006) research. Their findings suggest that Chinese students could use contrastive items like *by/in contrast* more frequently, to bring them up to the levels used in published research. Our finding that successful Chinese students already use these items more than English students means that frequency is not the main issue. The focus should shift to better understanding of appropriate contexts of use, particularly for such sentence adverbials. This could be addressed by complementing corpus and discourse analyses with interviews (*see* Bogdanović & Mirović, 2018).

The following implications for teaching follow from the findings of this paper:

1. *However* is used more frequently by successful English students, so Chinese students should not feel pressured to avoid *however* to use a greater variety of transitions, and should not be picking different transitions simply from a list – they are not all interchangeable syntactically or semantically.

2. The distinction between conjunctions (*while, whereas*) and sentence adverbials (*in contrast, on the other hand*) is worth teaching as it has a number of pedagogical implications. The first is that students should not attempt to use conjunctions as adverbials, or vice versa. Conjunctions are used to join two clauses syntactically; adverbials are used to comment on the propositions in a clause.

3. While conjunctions are used clause initially, sentence adverbials can move and it is helpful to consider what is being contrasted when deciding whether adverbials should occur clause initially or after the subject. If the subject is given information, it can be more effective to put the contrasting adverbial between the subject and the verb. Such instruction is best conducted in the context of extended text, of at least several paragraphs, so that the arguments

and given/new information is clear.

4. Conjunctions can be combined with sentence adverbials (*but in fact*), where two consecutive sentence adverbials is unusual (*however, by contrast*). Examples of effective combinations from the corpus include *but on the other hand; but rather; however, at the same time;* and *and conversely*.

5. Semi-colon use was rare, and varied. This would not be a teaching priority.

6. The semantic distinctions between a notion of balancing contrast (*while/ whereas*), countering an argument (*however*), and contradicting an argument (*on the contrary*) emerged as essential to enabling appropriate use of specific contrast transitions.

7. Activities based on the extracts in this paper could help students understand these syntactic and semantic distinctions and associate them with appropriate contrast transitions.

References

Biber, D., Johansson, S., Leech, G., Conrad, S., & Finegan, E. (1999). *Longman grammar of spoken and written English*. Harlow, UK: Longman.

Bogdanović, V., & Mirović, I. (2018). Young researchers writing in ESL and the use of metadiscourse: Learning the ropes. *Educational Sciences: Theory & Practice, 18,* 813–830. http://dx.doi.org/10.12738/estp.2018.4.0031

Cao, F., & Hu, G. (2014). Interactive metadiscourse in research articles: A comparative study of paradigmatic and disciplinary influences. *Journal of Pragmatics, 66*, 15–31.

Chen, C. (2006). The use of connective adverbials in the academic papers of advanced Taiwanese EFL learners. *International Journal of Corpus Linguistics, 11*(1), 113–130.

Field, Y., & Yip Lee, M. O. (1992). A comparison of internal conjunctive cohesion in the English essay writing of Cantonese speakers and native speakers of English. *RELC Journal, 23*(1), 15–28.

Gao, X. (2016). A cross- disciplinary corpus- based study on English and Chinese native speakers' use of linking adverbials in academic writing. *Journal of English for Academic Purposes, 24*, 14–28.

Gardezi, S. A., & Nesi, H. (2009). Variation in the writing of economics students in Britain and Pakistan: The case of conjunctive ties. In M. Charles, D. Pecorari, & S. Hunston (Eds.), *Academic writing: At the interface of corpus and discourse* (pp. 236–250). London, UK: Continuum.

Gardner, S., & Nesi, H. (2013). A classification of genre families in university student writing. *Applied Linguistics, 34*(1), 1–29.

Halliday, M. A. K., & Hasan, R. (1976). *Cohesion in English*. London, UK: Longman.

Han, C., & Gardner, S. (2017). *Transition markers, however, in a corpus of Chinese and English university student writing* (Unpublished manuscript).

Huddleston, R. D., & Pullman, G. K. (2002). *The Cambridge grammar of the English language*. Cambridge, UK: Cambridge University Press.

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

Kilgarriff, A., Baisa, V., Bušta, J., Jakubíček, M., Kovář, V., Michelfeit, J., & Suchomel, V. (2014). The sketch engine: Ten years on. *Lexicography; Journal of ASIALEX, 1*(1), 7–36.

Lea, D., Bull, V., Webb, S., & Duncan, R. (2014). *Oxford learner's dictionary of academic English*. Oxford, UK: Oxford University Press.

Lei, L. (2012). Linking adverbials in academic writing on applied linguistics by Chinese doctoral students. *Journal of English for Academic Purposes, 11*(3), 267–275.

Liu, D. (2008). Linking adverbials: An across-register corpus study and its implications. *International Journal of Corpus Linguistics, 13*(4), 491–518.

Maton, K. (2007). Knowledge-knower structures in intellectual and educational fields. In F. Christie & J. R. Martin (Eds.), *Knowledge, power and educational reform: Applying the sociology of Basil Bernstein.* (pp. 87–108). London, UK: Continuum.

Milton, J., & Tsang, E. S. (1993). A corpus- based study of logical connectors in EFL students' writing: Directions for future research. In R. Pemberton & E. S. Tsang (Eds.), *Studies in lexis* (pp. 215–246). Hong Kong: HKUST Language Centre.

Nesi, H., & Gardner, S. (2012). *Genres across the disciplines: Student writing in higher education*. Cambridge, UK: Cambridge University Press.

Peacock, M. (2010). Linking adverbials in research articles across eight disciplines. *Ibérica, 20*, 9–34.

Sinclair, J. (ed.) (2001) *Collins COBUILD English dictionary for advanced learners* (3rd ed.). London, UK: Collins.

Swan, M. (2005). *Practical English usage* (3rd ed.). Oxford, UK: Oxford University Press.

Stylistic Differences between Closely Related Disciplines: Metadiscourse in German Linguistics and Literary Studies

Melanie Andresen[1]
Universität Hamburg

Heike Zinsmeister[2]
Universität Hamburg

Abstract

The disciplines of linguistics and literary studies are often considered similar, as they are for instance part of one common study program. However, there are many differences between the two disciplines that concern not only the object of study, but also research methods and writing styles. Consequently, students of, for example, German Studies need to adapt to two academic languages at once. Therefore, we aim to describe the stylistic differences between the languages of the two disciplines. Our study is based on a data-driven n-gram analysis of German PhD theses that reveals a more intense use of metadiscourse in linguistics when compared to literary studies. In the light of these results, we carry out a more in-depth study of metadiscourse in the two disciplines, focusing on the expressions *im Folgenden* ("in the following") and *zusammenfassend* ("summarizing"). We find that literary scholars use both of the above expressions less frequently than linguists. We suggest that this might be due to different aesthetic demands and more influence of English academic language on German linguistics. Also, a higher proportion of the instances found in literary studies turned out to be intertextual rather than metatextual. We therefore argue that it is important to inspect the data behind quantitative results in detail.

Keywords

Metadiscourse • Academic writing • German • Linguistics • Data-driven analysis

---

1 **Correspondence to:** Melanie Andresen, Universität Hamburg, Institut für Germanistik, Grindelallee 46, 20146 Hamburg Germany. Email: melanie.andresen@uni-hamburg.de

2 Heike Zinsmeister, Institut für Germanistik, Universität Hamburg, Überseering 35, Postfach #15, 22297 Hamburg. Email: heike.zinsmeister@uni-hamburg.de

Many universities offer study programs such as German Studies or English Language and Literature. These study programs comprise two disciplines, linguistics and literary studies.[3] From this perspective, these two disciplines appear to be very closely related. However, in other respects these disciplines are very distinct. They ask different questions, use different methods and, and this is going to be the focus of this article, they use language in different ways. This means that students of one of the aforementioned study programs are expected to adapt to the writing conventions of both disciplines simultaneously, e. g. when working on written assignments. To assess the difficulty of this task, we approach the following research question: How do German academic texts of literary studies and linguistics differ stylistically?

In order to answer this broad question, we first conduct a data-driven analysis based on the frequency of (co-occurring) words (n-gram analysis) that will be described in Section 3.[4] One of the results of this data-driven analysis is that several patterns that realize metadiscourse emerge as relevant for the distinction between the disciplines. This is taken as a starting point for two hypothesis-driven case studies that focus on the specific text comments *im Folgenden* ("in the following", Section 4) and *zusammenfassend* ("summarizing", Section 5). We compare the frequency of these expressions as well as different types of use and their combination with modals and main verbs. Both case studies confirm the fact that linguistics and literary studies use metadiscourse differently. Section 6 will present conclusions and elaborate on possible explanations for the differences found between the two disciplines.

Previous Work

In this section, we will first situate our object of study typologically and then discuss previous research on disciplinary differences in metadiscourse. There are two main concepts of metadiscourse (Ädel & Mauranen, 2010): The broader definition of metadiscourse by Hyland (2005, p. 37) refers to "the self-reflective expressions used to negotiate interactional meanings in a text, assisting the writer (or speaker) to express a viewpoint and engage with readers as members of a particular community". In his typology, the expressions we are interested in are part of interactive metadiscourse, whose function is to "help to guide the reader through the text" (Hyland, 2005, p. 49). This is differentiated from the interactional dimension of metadiscourse with the purpose of "involv[ing] the reader in the text" (Hyland, 2005, p. 49). More specifically, we are interested in so-called frame markers, that inform the reader about content and position of elements in the text such as *finally* or *to conclude* (Hyland, 2005, p. 49).

These are also part of the narrower concept of metadiscourse promoted by Ädel (2006), according to whom metadiscourse "is text about the evolving text, or the

---

3 Sometimes also cultural studies are included as a third discipline.

4 This section is part of a larger research project about the potential of n-grams for describing style. *See* Andresen & Zinsmeister (2017) for more details.

writer's explicit commentary on her own ongoing discourse" (Ädel, 2006, p. 2). This definition focuses on the property of reflexivity. She further distinguishes between metatext and writer-reader interaction. Our topic of interest is metatext that "spells out the writer's (and/or the reader's) discourse acts, or refers to aspects of the text itself, such as its organization and wording, or the writing of it" (Ädel, 2006, p. 36). Ädel explicitly distinguishes metadiscourse from intertextuality: The latter features references to texts as well, but to texts other than the current text (Ädel, 2006, p. 28). This distinction will be important for our analysis in sections 4 and 5.

Fandrych and Graefen (2002) discuss the phenomenon at hand under the label "text comments" (without reference to the term metadiscourse). They compare the use of text comments between German and English research articles and suggest a functional typology to further differentiate subtypes. Among other aspects, they consider whether the expression at hand has a forward or a backward orientation, i. e., whether it refers to a part of the text that appears later or earlier in the text. The examples in our case studies in sections 4 and 5 both have a forward orientation, with *zusammenfassend* ("summarizing") being slightly more complex (see Section 5).

There has not been much research on metadiscourse in the two disciplines under investigation. Afros and Schryer (2009) follow the metadiscourse concept posited by Hyland (2005). They compare promotional (meta)discourse between linguistics and literary studies by analyzing rhetorical strategies of how authors publicize their own work in scholarly texts. They find more "pathos appeals" in literary studies, which in this case means that they address aesthetic values of the community. They state that texts in literary studies are sometimes even "transcending borders with literary genres" (Afros & Schryer, 2009, p. 63). Haggan (2004) compares titles of literary studies, linguistics and science. She finds that those in literary studies follow aesthetic principles and often present "an elegant puzzle […] solvable only by reading the paper" (Haggan, 2004, p. 305), rather than just giving information.

Hyland (2005) looks at a wider spectrum of disciplines and finds that "the more discursive 'soft' fields such as applied linguistics[5] employ more metadiscourse overall" (Hyland, 2005, p. 57) in comparison to "hard" fields such as biology. However, for the specific group of frame markers there is no clear tendency between the fields (Hyland, 2005, p. 162).[6]

Most of these studies on metadiscourse are about English academic language only. German academic language has received much less attention (not to speak of many other languages here). While we would generally expect a high transferability between English and German, many studies have shown cultural differences

---

5   Note that applied linguistics is the softest discipline in Hyland's investigation. In our study, we focus on the soft disciplines only and consequently linguistics is the "harder" discipline in relation to literary studies.

6   Note that this finding by Hyland (2005) is based on textbooks.

in academic writing. For instance Clyne (1987) describes German as using more impersonal structures, hedges, nominalizations and syntactically complex structures when compared to English academic language.[7]

In our study, we focus on German academic language and aim at broadening the knowledge about disciplinary differences in the use of metatext. More specifically, we focus on the humanities disciplines linguistics and literary studies. We assume that literary studies is the "softer" of the two disciplines and that it is more firmly rooted in the German academic tradition. This tradition is characterized as valuing theory and membership to schools of thought very highly. This is accompanied by a language that is intended to challenge the reader intellectually and not to maximize understandability (Clyne, 1987).

Data and Data-driven Analysis

In this section we present our data and the n-gram analysis as the first step of our approach. The data used for the present study is a corpus of 60 German PhD theses submitted at German universities, a subcorpus of 30 texts from each of the two disciplines linguistics and literary studies. The texts were accessible as PDF files and were in a first step converted to HTML. The HTML markup was used to semi-automatically extract parts of the text that do not belong to the targeted variety or interrupt the text: tables and figures, footnotes, citations and examples. The resulting plain text version was the input for the n-gram analysis (for more details on the preprocessing see Andresen & Zinsmeister, 2017).

An n-gram analysis is a data-driven approach that was developed in computational linguistics to model characteristics of a language in a bottom-up way (Jurafsky & Martin, 2009). For the purposes of a linguistic study, this method has the advantage of not requiring any hypotheses about the object of investigation. Instead, noteworthy features (in a quantitative sense) of the texts are identified statistically. The building block of this analysis is an n-gram, which is a sequence of *n* elements, where *n* can be any number, usually between 1 and 5. The elements can be, for instance, characters or words or parts of speech. In the present case, the elements under examination

Table 1
N-grams in the Example Sentence I will go hiking (Ignoring Punctuation)

\<s\> I will go hiking. \</s\>		
n=1	unigrams	\<s\> – I – will – go – hiking – \</s\>
n=2	bigrams	\<s\> I – I will – will go – go hiking – hiking \</s\>
n=3	trigrams	\<s\> I will – I will go – will go hiking – go hiking \</s\>
…	…	…

---

7   For an overview of differences in academic writing between English, German and French, see Siepmann (2006).

are words in the sense of surface-based tokens. Table 1 presents all the n-grams of different sizes that are part of the sentence *I will go hiking* as an example. The items *<s>* and *</s>* mark the beginning and end of the sentence, respectively. They are treated just like words.

Our n-gram analysis consists of three steps: First, we count all possible n-grams in each subcorpus; second, we determine the difference in frequencies between the two subcorpora for each n-gram; and third, we rank the n-grams according to this difference (biggest differences are ranked topmost). The rationale behind this procedure is that n-grams that are more frequent in one of the subcorpora contribute to the distinctive characterization of this subcorpus' discipline. Hence, for the comparison of linguistics and literary studies, we want to know which n-grams show the biggest differences in frequencies between the two subcorpora.

There are many different ways of quantifying this difference in frequency with varying advantages and disadvantages (see Rayson (2003) for an overview). The measure for comparison used here is the log-likelihood measure as presented by Dunning (1993). If the log-likelihood ratio is 0, there is no difference in frequency. The higher the ratio, the clearer is the difference between the two groups. A log-likelihood ratio of 10.83 corresponds to $p < .001$.[8] Theoretically, there is no upper limit for the possible values.[9]

Table 2 shows an example result of such an analysis: The ten most distinctive trigrams that are more frequent in linguistics than in literary studies. They are ranked by their log-likelihood score, starting with the most distinctive instances. Even though n-grams are often fragmentary by nature and consequently not fully translatable, Table 2 also gives an approximate English translation. We can see some complete phrases like *in Bezug auf* ("with regard to") and *in der Regel* ("generally speaking"). Other phrases remain fragmentary, as they are longer than three words. For instance, the trigrams on ranks 3 and 5 are both part of the larger structure *in der vorliegenden Arbeit* ("in the present text"). Semantically the results show some general patterns that are more common in the linguistics subcorpus like *in Bezug auf* ("with regard to"), but also more specific patterns like *die Ergebnisse der* ("the results of"). The latter correspond to the different methodologies of the disciplines as linguists are more likely to report empirical studies. The former are harder to explain functionally and might be due to stylistic preferences developed in the community.

---

8   http://ucrel.lancs.ac.uk/llwizard.html, 07.08.2017

9   One relevant property of log-likelihood is the fact that it is based on word frequencies for each subcorpus as a whole. Consequently, if a word is extremely frequent in one text, this can affect the overall result. This has to be kept in mind, but is not a major problem for the current study as the method is used for hypothesis generation only.

Table 2
Most Distinctive Trigrams More Frequent in the Linguistics Subcorpus

Rank	LLR	German Trigram	English Translation
1	262.16	in Bezug auf	with regard to
2	239.69	<s> bei der	<s> At the
3	236.91	der vorliegenden Arbeit	the present text
4	204.73	in der Regel	generally speaking
5	160.46	in der vorliegenden	in the present
6	156.01	Rahmen der vorliegenden	course of the present
7	155.31	im Hinblick auf	with regard to
8	154.09	Bezug auf die	regard to the
9	150.42	die Ergebnisse der	the results of
10	147.15	<s> bei den	<s> at the

Inspecting high-ranking instances across n-gram sizes, it is striking that many of the patterns more frequent in linguistics are related to metatextual expressions. Table 3 presents the most important instances.[10] The first column indicates the size of the n-gram, the second column gives the n-gram's rank in the corresponding list. All of these (sub)patterns function as text comments, informing the reader where some information was or will be presented. Some are very global and provide information about the text as a whole (*im Rahmen der vorliegenden Arbeit*, "in the present text"). Others have a more narrow scope, referring to one specific section, most commonly the next section (*im Folgenden*, "in the following" and *in Kapitel*, "in chapter"). The sparse use of metatext in literary studies is plausible under the assumption that literary scholars prefer aesthetic principles to facilitating understanding for the reader (cf. Section 2).

Table 3
High-ranking N-grams Related to Metatext

Size	Rank	German N-gram	English Translation
2	10	der vorliegenden	the present
2	19	in Kapitel	in chapter
3	2	der vorliegenden Arbeit	the present text
3	27	<s> im Folgenden	in the following
4	1	im Rahmen der vorliegenden	in the present
4	11	<s> im Folgenden werden	in the following […] will be
4	12	<s> zusammenfassend lässt sich	summarizing it can be […]
5	1	im Rahmen der vorliegenden Arbeit	in the present study
5	2	<s> im Folgenden werden die	in the following the […] will be

The n-gram analysis shows that several text comments are more frequent in the linguistics subcorpus than in the literary studies one. We want to stress the fact that this result emerges from a data-driven analysis that is not targeted at metatext specifically. This leads to two conclusions: First, the use of metatext is an important difference between the two disciplines that should and will be examined more closely in the following. Second, metatext (in linguistics) is realized in a very formulaic way,

---

10 The decision which n-grams have a metadiscursive function is based on the judgment of one person only.

frequently using the same patterns. A text function can be very frequent in a text, but if it were always realized in different words, a word-based n-gram analysis would not be able to detect it.

Section 4 and 5 present case studies on the two text commenting expressions *im Folgenden* ("in the following") and *zusammenfassend* ("summarizing") and investigate their frequency and use. The following research questions will be addressed exemplary: Are there significant differences in the use of metatext between literary studies and linguistics? What additional insights can be gained by inspecting the concrete instances behind the quantitative results in detail?

Hypothesis-driven Analysis 1: *im Folgenden* ("in the following")

Figure 1 shows two box plots of the frequency distribution of *im Folgenden* for each disciplinary subcorpus. The red boxes mark the frequency areas, where 50% of the texts of each discipline can be found. For instance, 50% of linguistics texts use *im Folgenden* between 6 and 27 times. The bold black line marks the median and the black dot the mean; outliers are marked as dots in the upper part. Note that we decided against using relative frequencies here. For comments on text organization, it is an open question whether we would expect them to occur more often the longer the text. Alternatively the frequency could be dependent on the number of sections in the text. Therefore, we will inspect the absolute frequencies here.
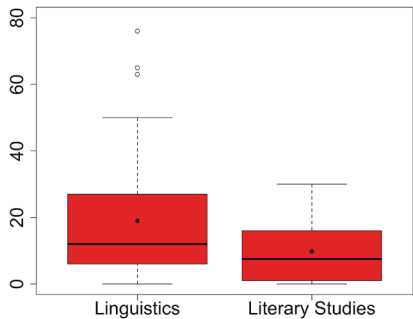
Figure 1. Absolute frequencies of *im Folgenden* ("in the following", n = 30 texts per discipline).

It is visible that the absolute frequencies in linguistics are higher, resulting in a total of 569 instances compared to 294 in literary studies. However, there are several outliers and the boxes also overlap very much, indicating that the frequencies in most texts are in a similar range.

Table 4

Absolute Frequency Distribution of im Folgenden ("in the following")

discipline	mean	sd
Linguistics	18.97	20.17
Literary Studies	9.80	8.95

This is confirmed by the summarizing figures in Table 4: While the difference in mean is considerable, the variance especially in linguistics is also very high, meaning that some authors use *im Folgenden* very often (see the outliers in the upper part of Figure 1) and others hardly at all. Consequently, even though the effect size is high (Cohen's d = 0.59), the difference is not significant (Wilcoxon rank sum test, W = 568.5, p = .08).[11]

However, an important distinction that was presented in section 2 has not yet been applied: The pattern *im Folgenden* can be used metatextually, when the text refers to itself, but also intertextually, when the text refers to another text. The following two examples from the corpus illustrate this distinction:

(1) metatextual

Im Folgenden wird auf mögliche Gründe für diese Unterschiede eingegangen.

"In the following, possible reasons for these differences will be addressed."

(Lin_Dui_13)[12]

(2) intertextual

Im Folgenden führt d'Holbach aus, dass […]

"In the following d'Holbach explains […]"

(Lit_Kob_25)

While sentence (1) announces what is to happen in the very same text, sentence (2) clearly refers to another text. In the present discussion of metatext, only the first type is relevant.

To account for this difference in reading, a random sample of 100 sentences per discipline was categorized as metatextual or intertextual[13] and Figure 2 shows the results. As can be seen clearly, the proportion of intertextual instances (marked in black) is much higher in literary studies and a χ^2 test confirms the high significance of the difference (χ^2 = 19.95, df = 1, p < .001). An odds ratio of 8.14 shows a very clear effect.

---

11 This means that there might be an effect that cannot be verified given the current sample size and it might be worth looking at a larger sample.

12 The name of a source text is a combination of a short form of the discipline, a short form of the university at which the thesis was submitted and a running number.

13 One of the authors performed the classification. Both authors discussed ambiguous instances.

Thus, we can conclude that linguistics uses *im Folgenden* significantly more often in metatextual function than literary studies does, which confirms our results so far.
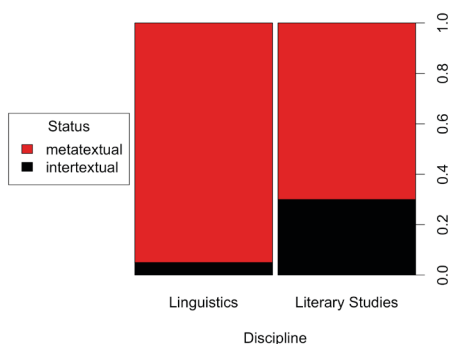
Figure 2. Proportions of metatextual and intertextual use of *im Folgenden* in both disciplines (n = 100 instances per discipline).

Another focus of our investigation is on the verbs used in conjunction with *im Folgenden*. Comparing these verbs in both subcorpora, further differences between the disciplines appear regarding modal verbs on the one hand and main verbs on the other hand.

Modal verbs are very frequent in text comments of German academic language, as Fandrych and Graefen (2002) show when comparing the use of text comments in German and English. The most frequently used modal verb in German is *sollen* (approximately "shall"), which "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" (Fandrych & Graefen, 2002, p. 32). In practice, it is used as a hedging device (e. g. Graefen, 2000), indicating "a lack of commitment on the part of the speaker with respect to [the] entire proposition" (Prokofieva & Hirschberg, 2014, p. 32).
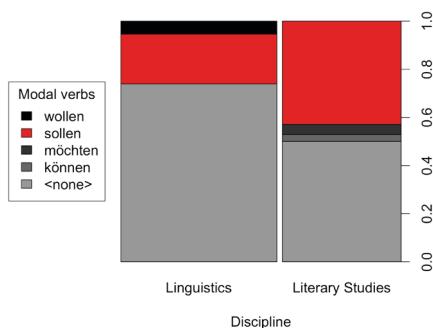
Figure 3. Modal verbs used in metatextual sentences with *im Folgenden* ("in the following", n = 162).

Figure 3 shows the distribution of modal verbs used in sentences with *im Folgenden*. It is a stacked representation of the proportions in which the columns represent the two disciplines. The width of each column is proportional to its discipline's overall frequency counts. Note that *n* is reduced from 200 sentences in the original sample to the 162 metatextual instances only.[14] As literary studies had less metatextual instances, its column is narrower. The two most important groups with respect to modal verbs are sentences without modal verb (segment "<none>") in grey and sentences with *sollen* ("shall") in red. Again, the differences are significant (Fisher's test: $p < .001$): Literary scholars use more modal verbs, especially *sollen*, than linguists. This is in accordance with findings by Hyland (2006, p. 29, among others) that show more use of hedging in the soft disciplines. Even though linguistics would generally be considered a soft discipline, it is less so than literary studies.

The remainder of this section is related to the main verbs used with *im Folgenden*. Table 5 gives an overview of the most frequent verbs for the two disciplines. It is striking that the most frequent verbs in linguistics (*auf etw. eingehen, darstellen, vorstellen,* for translations see Table 5) are communication verbs (also called reporting verbs, among many others by Thompson and Yiyun (1991) and Hyland (2004)), while the most frequent verb in literary studies does not belong to this group (*untersuchen*). This leads us to the hypothesis that linguistics generally uses more communication verbs than literary studies. There is also a theoretical argument for this hypothesis: In linguistics, there is mostly a rather clear distinction between the analysis (as manifest in e. g. data, tables and figures) and the text about this analysis. Literary studies on the other hand use interpretive methods in which this distinction is less clear. The analysis is predominantly manifest in the text itself. We propose that this is why a linguist would rather "present an investigation" in the text while a literary scholar might "investigate" in the text itself.

Table 5
Absolute Frequencies of Main Verbs Used with im Folgenden ("in the following"), Relative Frequencies in Parentheses (Normalized to the Total Number of Sentences)

Verb	Translation	Linguistics	Literary studies
auf etw. eingehen	go into sth.	10 (0.11)	1 (0.01)
untersuchen	investigate	3 (0.03)	10 (0.14)
darstellen	depict	8 (0.09)	3 (0.04)
vorstellen	present	7 (0.08)	2 (0.03)
zeigen	show	6 (0.07)	5 (0.07)
erläutern	explain	5 (0.05)	1 (0.01)
betrachten	consider	4 (0.04)	4 (0.06)
…	…	…	…
	total	92 (1.00)	70 (1.00)

In order to test this hypothesis, we define communication verbs as verbs referring to a situation involving "a speaker S, a listenership H, an utterance with a propositional

---

14 Of originally 165 metatextual instances, three had to be excluded for the following analysis as they did not have a finite verb.

content Sa(P) and a complex communicative attitude of the speaker E(S)" (Harras, Winkler, Erb, & Proost, 2004, p. 9, our translation). Their instantiation is based on two resources: The *Handbuch deutscher Kommunikationsverben* ("Handbook of German Communication Verbs", Harras et al., 2004) and GermaNet (Hamp & Feldweg, 1997). GermaNet is a lexical-semantic net similar to the English WordNet (Princeton University, 2010) that gives a semantic classification of words. One of the verbal semantic classes is "verbs of communication". We consider every verb a communication verb that is listed in one of these resources.[15]
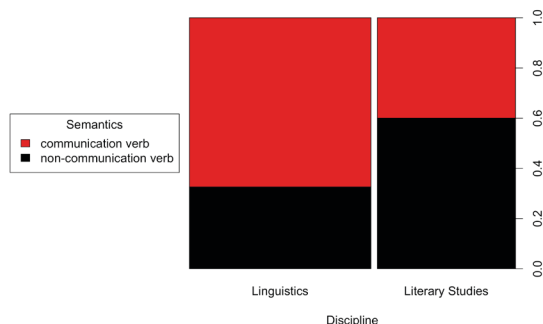
Figure 4. Relation of communication verbs and non-communication verbs in metatextual sentences with *im Folgenden* (n = 162 verbs).

Figure 4 shows the result which indicates a significant difference between the use of communication verbs in metatext between linguistics and literary studies ($\chi^2 =$ 11.00, df = 1, *p* = .001, odds ratio = 3.10). The use of communication verbs with *im Folgenden* can be considered a kind of text comment in itself. Fandrych and Graefen (2002) discuss this type as "[i]ntroductory qualification of speech actions". Consequently, it is in line with the other results showing a general tendency for less metatext in literary studies.

Hypothesis-driven Analysis 2: Zusammenfassend ("Summarizing")

For the second case study, the deverbal adverb *zusammenfassend* ("summarizing") was chosen, because it is also very frequent and complementary to *im Folgenden* with respect to the expected position in the text: *Im Folgenden* tends to occur at the beginning of sections and announces something that is still to come, thus being cataphoric. *Zusammenfassend* can in contrast be expected at the end of a text or chapter. However, usually it also refers cataphorically to something that is to come (a summary of what was said before) and we will see below that the two phrases actually cooccur in many sentences.

---

15 This instantiation is only a rough approximation. First, many verbs have several readings and one of them might relate to communication while the other ones do not. Second, German academic language uses many light verb constructions. In these cases, the verb alone might not relate to communication even though the whole light verb construction does. And third, both resources were not developed for academic language specifically.
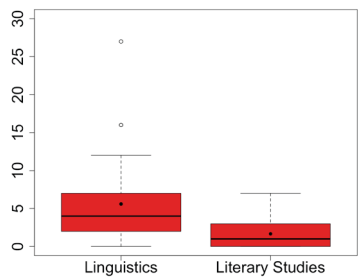
Figure 5. Absolute frequencies of *zusammenfassend* ("summarizing", n = 30 texts for each discipline).

Figure 5 shows boxplots of the frequency distributions of *zusammenfassend* in the texts of both subcorpora. Again, the bold lines mark the medians and the black dots mark the means. Compared to *im Folgenden*, the difference is even clearer as the two boxes hardly overlap. With a total of 167 instances in linguistics and 49 in literary studies, *zusammenfassend* is much less frequent than *im Folgenden*. The numbers in Table 6 confirm the visual impression of a clear difference. There is much less variation than in case study 1, the means differ significantly (Wilcoxon rank sum test: W = 699, $p < .001$) and the effect is relevant in practice (Cohen's d = 0.91).

Table 6
Absolute Frequency Distribution of Zusammenfassend ("summarizing")

discipline	mean	sd
Linguistics	5.60	5.80
Literary Studies	1.67	1.94

The difference between metatextual and intertextual use of *zusammenfassend* is not as big as the one in case study 1. The sample contains again more intertextual instances in literary studies than in linguistics and the difference is significant, but the effect is much smaller (Fisher's Exact test: $p = 0.03$, odds ratio = 3.43).

The comparison of modal verbs reveals a notable difference between the disciplines (Fisher's Exact test: $p = 0.017$). The most prominent difference is in the verb *sich lassen* ("can be")[16], which is about twice as frequent in linguistics as in literary studies. Additionally, the use of modal verbs differs markedly from the one of case study 1. 42.2% of all instances do not use a modal verb. The verb *sich lassen* is at the same time the most frequent verb (71 occurrences, 35.7% of all instances) followed by *können* ("can") with 19.1%. Here, the concluding function of *zusammenfassend* makes it likely to cooccur with modal verbs that focus on possibility, more precisely the possibilities opened up by the study.

---

16 To be exact, *sich lassen* is not a modal verb. Its function is described as an 'alternative to passive constructions with modal verb' (Duden, 2009, p. 549, our translation), more specific with the modal verb *können* ('can'). Because of this functional similarity to modal verbs and its relevance in the data under examination we include it in the analysis.

Table 7

Absolute Frequencies of Main Verbs Used with Zusammenfassend ("summarizing"), Relative Frequencies in Parentheses (Normalized to the Total Number of Sentences)

Verb	Translation	Linguistics	Literary Studies
festhalten	record	56 (0.35)	10 (0.24)
sagen	say	19 (0.12)	11 (0.27)
feststellen	determine	12 (0.08)	2 (0.05)
darstellen	depict	11 (0.07)	1 (0.02)
…	…	…	…
total	158 (1.00)	41 (1.00)

Table 7 lists the most frequent main verbs in metatextual sentences with *zusammenfassend*. The numbers are striking: The verb *festhalten* amounts to more than one third of all instances in linguistics and about one fourth of those in literary studies. The second verb, *sagen*, is also quite frequent, but far less than *festhalten*. 36 of the instances with *festhalten* also use the modal construction *sich lassen*, resulting in the prototypical sentence beginning in (3):

(3)   Zusammenfassend lässt sich festhalten, dass […]
       In summary, it can be said/recorded that […]

This indicates that academic language and especially linguistics employs very formulaic language for the metatextual purpose of indicating a summary (see for example Oakey, 2002). This is stressed even further by the fact that a considerable amount of sentences with *zusammenfassend* does at the same time use *im Folgenden* from case study 1 or a similar expression (e. g. *wie folgt* ("as follows"), or *folgende* ("following") in attributive position). This can be attested for 38 of all 199 metatextual sentences with *zusammenfassend*, and relativizes our initial assumption about the position of *im Folgenden* and *zusammenfassend* in the text. Ten sentences with *zusammenfassend* refer to a figure or table in the text, indicating that these often have a summarizing function. This type occurs in linguistics only, as tables and figures are rather rare in literary studies.

Conclusions

This study shows that candidates for metadiscourse can be identified automatically, but the retrieved instances should be inspected in detail. Especially the case study on *im Folgenden* showed no significant differences between the disciplines of literary studies and linguistics when considering the surface-based token frequencies only. However, the review of a sample revealed that literary scholars use the expression much more often in intertextual function than linguists, resulting in a relevant difference between the disciplines.

Generally speaking, linguists seem to use more metatext than literary scholars. This has been shown by the results of the n-gram analysis as well as the investigation

of the two examples *im Folgenden* and *zusammenfassend*. However, we need to keep in mind that the n-gram analysis can only capture patterns that are repeatedly realized in the same form. Maybe the metatextual function of orienting the reader in terms of text structure is realized in a more variable way in literary studies.

Putting this global difference aside, the review of those instances that are in fact metatextual revealed additional differences between the disciplines. In conjunction with *im Folgenden*, literary scholars use more modal verbs, especially *sollen*. This can be explained by a general tendency to hedging in the soft, interpretive disciplines. Another difference emerged in the type of main verb used in metatext. For linguistics, a significantly higher proportion of communication verbs was attested, which is in line with the other results as they can be regarded as a type of metatext as well.

We will now briefly address possible explanations for the disciplinary differences attested by our analysis. As the studies by Afros and Schryer (2009) and Haggan (2004) indicate, scholars in literary studies might have higher aesthetic demands with regard to their own texts, making the use of many metatextual comments undesirable. With regard to text comments,[17] Clyne (1987) even considers "embarassment [sic!] about this formal adherence to the conventions of an international journal". To confirm this hypothesis, it would be necessary to conduct interviews with the scholars and let them reflect on their motivations. Another reason can be that the research process in literary studies is much less analytical: The research process is less subdividable into distinct steps and at the same time less universal. This could explain why there are fewer references to such steps than in linguistics. Another explanation might be that the German academic language of linguistics is much more influenced by English academic language. As English tends to use more metadiscourse than German (Siepmann, 2006, p. 143), this can be a cause of its higher frequency in linguistics.

With regard to the n-gram analysis, we have to bear in mind that the results are highly dependent on the measures used. The current analysis is based on the log-likelihood ratio. A replication of the analysis using Welch's *t*-test instead yielded rather different results. Many metatextual items were ranked much lower. In contrast to the log-likelihood ratio, the t-test takes the n-grams' distribution across the corpus into account. This might mean that there are some linguistics texts in the corpus that make extensive use of metatext and cause the high scores of the log-likelihood ratio. However, our two case studies have shown that there is indeed a significant difference between the disciplines. For the future, we aim at a comprehensive comparison of the results yielded by the log-likelihood ratio and the *t*-test, respectively.

---

17 Clyne (1987) himself uses the term "advance organizers", defining their function very generally as "explain the path and organization of a paper" (p. 229).

With regard to teaching academic writing, we can draw the following conclusions: First, teachers in programs that combine linguistics and literary studies should be aware of the fact that their students have to adapt their writing to both disciplines simultaneously. This can mean that these students sometimes get contradicting information in their classes. This is why, second, teachers should explicitly draw their students' attention to the disciplinary border in their study program and discuss similarities and differences of the disciplines. Addressing differences in language could be fruitfully combined with a discussion of more general differences in what qualifies as knowledge and how knowledge is created in the two disciplines.

Acknowledgements

References

Ädel, A. (2006). *Metadiscourse in L1 and L2 English*. Amsterdam, NL: Benjamins.

Ädel, A., & Mauranen, A. (2010). Metadiscourse: Diverse and divided perspectives. *Nordic Journal of English Studies*, *9*(2), 1–11.

Afros, E., & Schryer, C. F. (2009). Promotional (meta)discourse in research articles in language and literary studies. *English for Specific Purposes*, *28*(1), 58–68. https://doi.org/10.1016/j.esp.2008.09.001

Andresen, M., & Zinsmeister, H. (2017). Approximating style by N-gram-based Annotation. In *Proceedings of the Workshop on Stylistic Variation* (pp. 105–115). Copenhagen, Denmark: Association for Computational Linguistics.

Clyne, M. (1987). Cultural differences in the organization of academic texts. *Journal of Pragmatics*, *11*(2), 211–241. https://doi.org/10.1016/0378-2166(87)90196-2

Duden. (2009). *Die Grammatik: Unentbehrlich für richtiges Deutsch* (8th ed.). Mannheim, DE: Dudenverlag.

Dunning, T. (1993). Accurate methods for the statistics of surprise and coincidence. *Computational Linguistics*, *19*(1), 61–74.

Fandrych, C., & Graefen, G. (2002). Text commenting devices in German and English academic articles. *Multilingua - Journal of Cross-Cultural and Interlanguage Communication*, *21*(1), 17–43. https://doi.org/10.1515/mult.2002.002

Graefen, G. (2000). *"Hedging" als neue Kategorie? Ein Beitrag zur Diskussion.* Retrieved from http://www.daf.uni-muenchen.de/media/downloads/hedge.pdf

Haggan, M. (2004). Research paper titles in literature, linguistics and science: Dimensions of attraction. *Journal of Pragmatics*, *36*(2), 293–317. https://doi.org/10.1016/S0378-2166(03)00090-0

Hamp, B., & Feldweg, H. (1997). GermaNet – a lexical-semantic net for German. In *Automatic Information extraction and building of lexical semantic resources for NLP applications ACL/ EACL-97 Workshop Proceedings* (pp. 9–15). Madrid: European Commission, Directorale General XIII Luxembourg.

Harras, G., Winkler, E., Erb, S., & Proost, K. (2004). *Handbuch deutscher Kommunikationsverben: Wörterbuch*. New York, NY: De Gruyter.

Hyland, K. (2004). *Disciplinary discourses: Social interactions in academic writing*. Michigan, MI: The University of Michigan Press.

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

Hyland, K. (2006). Disciplinary differences: Language variation in academic discourses. In K. Hyland & M. Bondi (Eds.), *Academic discourse across disciplines* (pp. 17–45). Bern, Switzerland: Peter Lang.

Jurafsky, D., & Martin, J. H. (2009). *Speech and language processing: An introduction to natural language processing, computational linguistics, and speech recognition* (2nd ed.). London, UK: Pearson Prentice Hall.

Oakey, D. (2002). Formulaic language in English academic writing. A corpus-based study of the formal and functional variation of a lexical phrase in different acedemic disciplines. In R. Reppen, S. M. Fitzmaurice & D. Biber (Eds.), *Using corpora to explore linguistic variation* (pp. 111–129). Amsterdam, NL: Benjamins.

Princeton University. (2010). *About WordNet*. Retrieved from http://wordnet.princeton.edu

Prokofieva, A., & Hirschberg, J. (2014). Hedging and speaker commitment. In *Proceedings of the 5th International Workshop on Emotion, Social Signals, Sentiment & Linked Open Data, Reykjavik, Iceland* (pp. 10–13). European Language Resources Association (ELRA).

Rayson, P. E. (2003). *Matrix: A statistical method and software tool for linguistic analysis through corpus comparison* (Doctoral dissertation). Retrieved from http://eprints.lancs.ac.uk/12287/

Siepmann, D. (2006). Academic writing and culture: An overview of differences between English, French and German. *Meta: Journal Des Traducteurs/Meta: Translators' Journal*, *51*(1), 131–150.

Thompson, G., & Yiyun, Y. (1991). Evaluation in the reporting verbs used in academic papers. *Applied Linguistics*, *12*(4), 365–382. https://doi.org/10.1093/applin/12.4.365

Research Article

Metadiscourse in Dissertation Acknowledgments: Exploration of Gender Differences in EFL Texts

Hmoud S. Alotaibi[1]
Shaqra University

Abstract

Metadiscourse, as an important analytic tool, was rarely used to explore the generic structure of Ph.D. dissertation acknowledgments, and within this genre, the role of gender has been unexplored. This study employs interactional resources within the metadiscourse framework (Hyland, 2005) to investigate gender differences in 120 dissertation acknowledgments written by male and female Saudi students at U.S. universities. The results revealed a number of similarities and differences. Both genders employed thanking God, a move that was not detected in English texts analysed by Hyland (2004). The results also showed the absence of hedging devices and engagement markers from all texts. Writers, however, distributed the boosting and attitude markers differently as female writers applied boosters more when acknowledging moral support while male writers used boosters more when thanking for academic assistance, while the opposite occurred with attitude markers. The employment of self-mentions revealed a clearer gender difference as females applied them more with different forms than males did. Overall, the analysis of dissertation acknowledgments using metadiscourse framework showed that metadiscourse boundaries are flexible as they can be adjusted to fulfill the nature of the genre it applies to. Thus, the study recommends that more research should be conducted to investigate different academic genres and part-genres to develop our understanding of the application of metadiscourse. It closes with some pedagogical implications.

Keywords

Gender • Dissertation acknowledgments • Metadiscourse • Interactional resources

Metadiscourse was proved to be an important social theory in academic writing which, according to Hyland (2005), functions as "an important concept for analysing the ways writers engage with their subject matter and readers, allowing us to compare the strategies used by members of different social groups" (p. 41). It is defined generally as "the commentary on a text made by its producer in the course of speaking or writing" (Hyland, 2017, p. 16). Specifically, metadiscourse is understood as "text about the evolving text, or the writer's explicit commentary on her own ongoing discourse, displaying an awareness of the current text or its language *per se*, and of the current writer and reader *qua* writer and reader" (Ädel, 2006, p. 183). Metadiscourse, however, is a fuzzy concept in the sense of delineating its boundaries, i.e. what elements can be counted as metadiscursive and what cannot (Ädel, 2006; Hyland, 2017). Due to this fuzziness, researchers have taken several approaches to investigate metadiscourse. The broad approach (by Crismore et al., 1993; Hyland, 2005; Vande Kopple, 1985, 1988) includes textual and interpersonal resources, while the narrow approach (by Bunton, 1999; Dahl, 2004; Mauranen, 1993) considers only the textual functions. The middle approach (by Ädel, 2006) resembles the broad approach but it excludes stance, i.e., expressions of opinions and attitudes. Ädel (2006) stressed the importance of classifying references to the world from those to the world of discourse, arguing that only the latter function as metadiscourse resources.

The popular taxonomy of the broad approach (as in Hyland, 2005) consists of two main categories: interactive and interactional. The interactive category consists of transitions, frame markers, endophoric markers, evidentials, and code glosses. The interactional category consists of hedges, boosters, attitude markers, self-mentions, and engagement markers. The elements in the interactive category are used to provide organized and coherent text, while those in the interactional category are employed to establish interaction between writers and their readers.

Metadiscourse has been investigated in different genres and contexts such as doctoral dissertations (Bunton, 1999), master's dissertation (Akbas, 2014; Akbas & Hardman, 2017), introductory coursebooks (Hyland, 1999), slogans and headlines (Fuertes-Olivera, Velasco-Sacristan, Arribas-Bano, & Samaniego-Fernandez, 2001), student writing (Gardner & Han, 2018) and research articles (RAs) across disciplines (Blagojevic, 2004) and across languages (Akbas & Hardman, 2018; Alotaibi, 2015, 2016; Zarei & Mansoori, 2007). In order to see how metadiscourse differs across academic languages, Zarei and Mansoori (2007) compared Persian RAs to English texts, focusing on two disciplines, namely computer engineering and applied linguistics. The results showed that interactive resources were used more than interactional elements in both sets of languages. Interestingly, the same results were found by Bogdanović and Mirović (2018) when comparing Serbian and English RAs written by Serbian authors. Further analysis indicated that interactive resources

were used more in Persian texts compared to their English counterparts, while the opposite occurred with interactional resources as they were employed more in English texts. According to the authors, the tendency to use more interactional resources in English texts may indicate that "the writers in English are inclined to have a closer association with the reader" compared to the writers in Persian (p. 32). Another cross-linguistic comparison was made between English and Arabic by Alotaibi (2015) who examined paired abstracts (Arabic and English) published in English RAs written by Arab authors. In terms of metadiscourse features in the interactive category, Arabic abstracts employed more transition markers while English texts favoured frame markers and code-glosses. Concerning the features in the interactional category, it was found that English texts employed hedges, boosters, and attitude markers more than their Arabic counterparts. Similarly, Alotaibi (2016) investigated whether the use of metadiscourse markers differ in texts written in Arabic and in English by native speakers of Arabic. He found that Arab writers used more metadiscourse markers when publishing in English more than when they write in Arabic. Specifically, he found that the introduction sections included more metadiscourse expressions than the conclusions, especially with the use of text-oriented metadiscourse compared to the participant-oriented metadiscourse. Based on these studies, it can be concluded that English texts whether written by native English speakers or EFL researchers are characterized by using more interactional resources than texts in other languages.

Blagojevic (2004) extended the investigation to disciplinary variations. Specifically, she examined the use of metadiscourse in RAs written by English and Norwegian writers in three academic disciplines, namely sociology, psychology and philosophy. Overall, the results have not yielded significant differences in terms of the language background of writers but there were some important disciplinary variations. Specifically, psychology writers showed the highest degree of uniformity in writing, while the opposite was true with philosophy writers who employed different metadiscourse patterns, and sociology writers who took a position between the two. For example, writers of psychology papers "are unwilling to use the explicit ways to announce to or remind the readers to the parts of the material which follows or precedes" and "are also reluctant to use metadiscoursal markers by which they inform the readers about the kind of discourse actions they are going to perform, (using verbs such as *to present*, *to review*, *to give an example*), etc." (p. 66). On the other hand, writers of philosophy papers "are very much inclined to make direct commentaries," i.e. explicitly engaging with readers (p. 66).

Introductory coursebooks was another genre examined by Hyland (1999) who compared the use of metadiscourse in introductory coursebooks and RAs in three academic disciplines, namely biology, marketing, and applied linguistics. The analysis indicated that the interactive elements constituted about 70% of all metadiscourse

in the coursebooks, while both sets of resources (i.e. interactive and interactional) were similar in percentage in the genre of RA. In general, the scarce employment of interactional resources in coursebooks can be attributed to the fact that "the primary goal of textbooks authors is to make intellectual content accessible rather than to provide undergraduates with the means to interact effectively with other community members" (p. 21). While most of the studies focused on the genre of the RA, Bunton (1999) has found the doctoral dissertation to be an interesting genre to explore metadiscourse conventions. The analysis using the model of metatext has detected a high number of metatextual references that were used at chapter level to serve cohesion and coherence. Clearly, these levels of metatext are not found in shorter texts such as RAs which lack chapters.

In addition, metadiscourse has been used to investigate the genre of print advertising to reveal how slogans and headlines are constructed. Fuertes-Olivera, Velasco-Sacristan, Arribas-Bano, and Samaniego-Fernandez (2001) found that metadiscourse was used as a pragmatic strategy to inform and persuade readers in this particular genre. Specifically, they found that "copywriters use person markers, hedges, and emphatics for alerting addressees about the artificial relationship they have with advertisers, and that they also use endophoric markers and evidentials for forming coherent texts and establishing intertextuality" (p. 1305). Gardner and Han (2018) focused on the use of transitions of contrast such as *however, while, on the other hand*, etc. in texts written by Chinese and British students. They found on one hand that Chinese students employed a greater variety of transitions than their English counterparts. On the other hand, they found that the transition *however* was used significantly more by English students.

Metadiscourse was also investigated on the personal level of the author. For instance, Bogdanović and Mirović (2018) investigated the adoption of metadiscourse by young researchers, realizing that this adoption is both conscious and unconscious. The research demonstrated that young researchers frequently thought about metadiscourse expressions, they often sought advice on the internet and they changed metadiscourse expressions after recommendations by reviewers or journal guidelines, which suggests that teaching metadiscourse as an academic discipline has positive pedagogical implications.

Few studies, however, have focused on the influence of gender on the way academic language is used, particularly through metadiscourse lenses. Crismore, Markkanen, and Steffensen (1993) investigated argumentative texts written by male and female students in the United States and Finland. Overall, they found that male students used more metadiscourse than female students. In particular, Finnish males preferred to use hedges compared to US males, and similarly Finnish females used more hedges than US. females. For attitude markers, Finnish females used them the most while U.S. males used them the least.

Tse and Hyland (2008) based their analysis on gender differences in book reviews in the fields of biology and philosophy. They found that both genders had used interactional resources more than interactive ones, with hedges and engagement markers being the most employed. In particular, they found that male reviewers used metadiscourse markers more than their female counterparts, especially hedges, boosters, and engagement markers. Despite these differences, the authors stressed the complexity of the relation between gender and language showing that "there is no one-to-one relation" but there are "multiple relations and meanings cross-cut by discipline" (p. 1246). These gender discrepancies, however, were not found in Yavari and Kashani's (2013) study of metadiscourse in RAs published in top-tier journals in applied linguistics field. In terms of using metadiscourse categories (i.e. interactive and interactional), the study has not found any significant variations between the two genders. In some sections of the RAs, however, some metadiscourse features were used more by one gender group. In the introduction and discussion/ conclusion sections, for example, female authors used more attitude markers, while in the introduction section, male writers employed more evidentials, and in the results section, male writers used more hedges.

In fact, Crismore et al. (1993) highlighted the importance of scrutinizing the use of metadiscourse using linguistic and cultural lenses considering that "studies are needed that analyze the texts of professional writers from various countries, comparing their metadiscourse use to that of inexperienced writers" (p. 69). In response to this suggestion, the present study uses the interactional resources in the metadiscourse model by Hyland (2005) to explore gender differences in acknowledgments accompanying English Ph.D. dissertations written by EFL students. The next section provides a short review of previous studies on dissertation acknowledgment sections and illustrates the generic structure of this important genre.

Generic Structure in Dissertation Acknowledgements

Though studies on dissertation acknowledgments are scarce, the existing literature shows differences in the way researchers approach this academic genre. Hyland (2004) examined English texts across a range of fields to explore the disciplinary variations. The texts were written by Hong Kong university students and consisted of 20 MA and 20 PhD dissertations from six academic fields: applied linguistics, biology, business studies, computer science, electronic engineering, and public administration. Hyland detected three rhetorical moves; Move 1: *Reflecting* move, Move 2: *Thanking* move, which included four steps: Step 1: *presenting participants*, Step 2: *thanking for academic assistance*, Step 3: *thanking for resources*, Step 4: *thanking for moral support*, and finally Move 3: *Announcing* move, which included two steps: Step 1: *accepting responsibility*, and Step 2: *dedicating the thesis*. While the picture seemed

to be complex, disciplinary variations were clearly reflected in the soft sciences fields where there was a high frequency of Move 1, Step 2 of Move 2, and Step 1 of Move 3. Overall, the *thanking* move was the only move found obligatory, and only 12 out of 240 dissertations included all the three moves. While Step 2: *thanking for academic assistance* occurred in all texts, only 20% of acknowledgments included all four steps in the *thanking* move.

Jaroenkitboworn (2014) used Hyland's (2004) model to investigate English acknowledgements in PhD dissertations written by Thai students, particularly the generic structure and linguistic patterns of gratitude expressions used in 70 acknowledgements in the field of English language study. The results revealed the employment of three moves: the *thanking* move, *announcing* move, and *signing-off* move. The first move was obligatory and the remaining ones were optional. Within the *thanking* move, three steps were found obligatory: *thanking for academic assistance*, *thanking for data and documentation work support*, and *thanking for moral support*. The *signing-off* move, where the author writers his or her name at the end of the acknowledgment, occurred in 21 texts (out of 70). In addition to the results of the generic structure, Jaroenkitboworn (2014) showed that the analysis of the linguistic features such as the use of nominalization and passive voice revealed that "Thai culture is different from the English culture in terms of the way in which it shows sincerity and views of politeness, and way of living of the family" (p. 126). This is rather an interesting finding which inspired the author to argue that "even though written in English, acknowledgments, as a genre, have to be in harmony with the sociocultural context where they are generated" (Jaroenkitboworn, 2014, p. 126).

In a similar vein, Al Ali (2006) used Hyland's (2004) model to explore the generic patterns of 100 acknowledgments written in English by Arabic native speakers in a range of fields. The major difference between this study to that by Hyland (2004) was in the employment of *thanking God* which occurred in 19% of the texts, a component that always, when employed, occurred at the outset of the acknowledgment section. The author attributed this finding to the religion and culture of the writers; a similar remark made in Jaroenkitboworn (2014) who detected the influence of Thai culture on sincerity and politeness. In addition, Al-Ali (2006) found that "the Arab writers tend to use a more friendly and emotional tone to foreground their commitment to their kinships and the members of their extended family" (p. 40).

In another study, Al-Ali (2010) focused on 100 acknowledgments written in Arabic by doctoral Arabic native speakers from Jordan. The analysis showed a clear cross-linguistic variation with a move structure of eight rhetorical components. The following are the moves that have been detected followed by their number of occurrences which is out of 100: Opening (n=25), Praising and Thanking Allah

(n=70), Thanking Supervisors and Other Academics (n=100), Acknowledging Access to Resources (n=62), Thanking for Moral Support (n=61), Invoking and Blessing (n=68), Closing (n=52), and Signing off (n=20). According to Al-Ali, however, no single text contained all of these components and presented in this order.

This brief review of studies on dissertation acknowledgments indicates that this genre requires further scrutiny from researchers to unravel the nuances that may affect the way dissertation acknowledgments are structured. Gender is an unexplored variable despite its significant role in academic writing. The present study fills this gap by examining 120 (60 by males and 60 by females) Ph.D. dissertation acknowledgments written in English by native speakers of Arabic. There are several Arab nations in the Arab world where different cultural and religious beliefs may strongly influence the way students use academic writing. Hence, this study controls these variations by restricting the data collection to texts written by Saudi students at U.S. universities during 2014-2015.

Method

The data consisted of 120 dissertation acknowledgments written by doctoral Saudi students (60 females and 60 males) in the United States during 2014-2015. The dissertations belonged to a range of disciplines and were retrieved from the SDL (Saudi Digital Library) website which provided a link to access dissertations by Saudi students in different countries, including the United States, where students upload their dissertations to the Saudi Arabian Cultural Mission in that country. The study explores how doctoral students employ the interactional resources within the metadiscourse model while expressing their gratitude in the acknowledgment sections. For data analysis, two frameworks have been employed. First, Hyland's (2004) model was used to examine the generic structure of acknowledgments. Second, Hyland's (2005) model was used to identify metadiscourse patterns. Also, Ädel's (2006) approach that distinguishes references to the real world from those to the world of discourse has been taken into consideration.

The first examination of the generic structure based on Hyland's (2004) framework showed the employment of the moves and steps provided in the model at different degrees. It also showed the employment of the *thanking and praising God* move which was not found in English texts analysed by Hyland (2004) but was seen in Arabic texts (Al-Ali, 2010) and in English texts written by Arab students (Al-Ali, 2006). In order to focus on gratitude expressions, I focused my analysis on the *thanking* move and excluded the *reflecting* and *announcing* moves. Likewise, Step 2 in the *thanking* move, i.e. *presenting the participants* was removed due to its scarcity and because it does not clearly function as a thanking step and thus was replaced by

thanking and praising God step. Based on these modifications, the model used for the study is represented as the following:

Thanking move

    S1. Thanking and praising God

    S2. Thanking for academic assistance

    S3. Thanking for resources

    S4. Thanking for moral support

The second part of the study was to explore metadiscourse patterns in the texts with a focus on interactional resources: hedges, boosters, attitude markers, self-mentions, and engagement markers.

The texts were printed out and coded and then were analysed manually first for move and step structure and then for metadiscourse resources. For validity and reliability purposes, the analyses were reviewed by a specialist in applied linguistics. While most of the patterns were straightforward, there were some cases that could not be assigned to any of the moves and steps of the model. For example, the openings in (1) and (2), and the closings in (3) and (4).

(1)   Introspective and deductive learning is a privilege that is truly a divine gift. (F43)

(2)   Whoever does not thank people does not thank God. (F58)

(3)   May Allah protect you all and bless you with faith, health, and happiness. (F33)

(4)   I conducted this research not only to earn a degree but also to increase my knowledge. (M25)

Such cases, however, were previously identified in Al-Ali (2010) and he assigned them as *opening* and *closing* moves, respectively. In this study, they are excluded because they do not belong to the *thanking* move which is the only move being analysed.

Regarding the analysis of metadiscourse, I used Ädel's (2006) assertion to exclude markers that refer to people outside the world of discourse. This policy resulted in excluding a high number of engagement markers as they addressed people in the real world. For example, the uses of *you* in (5) and (6) refer to the supervisor and the wife, respectively, not to the general reader.

(5)   I would like to express my deepest gratitude and appreciation to my supervisor… I would like to thank <u>you</u> for your insights… (M2)

(6)   To my beautiful wife…. I cannot thank <u>you</u> enough for your love. (M14).

As will be explained later, Ädel's (2006) methodology was treated with flexibility as there was an overlap between references to people in the real world and individuals in the world of discourse. Thus, cases that clearly address people in real world were excluded but cases that belong to the world of discourse were counted.

Results

The Generic Structure in Male and Female Acknowledgments

The examination of the *thanking* move reflected that *thanking for academic assistance* and *thanking for moral support* were obligatory steps in male and female dissertation acknowledgments. As shown in Table 1, the former step occurred in all texts while around 90% of texts included the latter. The steps of *thanking God* and *thanking for resources* were optional but with clear differences in employment between the two sets of texts. Female authors included each of these steps in nearly half of their texts, while their male counterparts employed *thanking for resources* steps in nearly 70% of the their texts but employed *thanking God* steps in around 40%.

Table 1
Frequency of the Thanking Move in Male and Female Dissertation Acknowledgments

Steps in Thanking move	Male (out of 60)	Female (out of 60)
Thanking and Praising God	23 (38.3%)	31 (51.6%)
Thanking for academic assistance	60 (100%)	60 (100%)
Thanking for resources	41 (68.3%)	31 (51.6%)
Thanking for moral support	52 (86.6%)	54 (90%)

Patterns of Interactional Metadiscourse in Male and Female Acknowledgments

This section reports the findings regarding the employment of metadiscourse patterns found in the steps of the *thanking* move. Surprisingly, the resources of hedges and engagement markers were not found in the corpus. Although there were many cases of *you* which can be counted as engagement markers, the rigorous approach adopted for

Table 2
Frequency of Interactional Resources in the Steps of the Thanking Move in Both Groups

Steps in the Thanking move	Boosters		Attitude Markers		Self-References		Total No. of MD Occurrences	
	Male	Female	Male	Female	Male	Female	Male	Female
Thanking God	11	8	7	5	35	74	53	87
Thanking for academic assistance	57	44	156	166	493	576	706	786
Thanking for resources	4	11	5	11	121	80	130	102
Thanking for moral support	68	78	124	111	320	618	512	807
Total	**140**	**141**	**292**	**293**	**969**	**1348**	**1401**	**1782**

this study (following Ädel (2006)) excluded these instances when they address people in the real world and not readers in general. Hence, only three components found in the interactional category: boosters, attitude markers, and self-references.

As shown in Table 2, female students deployed a higher proportion of metadiscourse items than male authors did (1782 vs. 1401). While both genders used almost the same number of boosters and attitude markers, they distributed them differently. Concerning boosters, Hyland (1998) argued that they "allow writers to express conviction and assert a proposition with confidence, representing a strong claim about a state of affairs" as well as they "mark involvement and solidarity with an audience, stressing shared information, group membership, and direct engagement with readers" (p. 350). As displayed in Table 2, both male and female writers applied boosters almost in same proportions (140 and 141, respectively). In both groups, most of boosting markers appeared in *thanking for moral support* followed by *thanking for academic assistance*. This is not surprising since these two steps occupied most of the space in the acknowledgment sections compared to the other two steps (*thanking God* and *thanking for resources*). An interesting gender difference, however, is that female writers employed boosters more when acknowledging moral support, see examples in (7), (8), (9), while male writers employed boosters more when thanking for academic assistance, see examples in (10), (11), and (12).

(7) I am greatly indebted to my family. <u>Words cannot express how grateful I am</u> for their sacrifices they have made on my behalf. (F31)

(8) I would like to express my sincere and heartfelt gratitude to my parents for their prayers and patience during my studies. <u>I know that whatever I say</u>, I shall not qualify and compensate them. (F37)

(9) <u>I can never</u> thank my family and friends enough for all of their support to me. (F47)

(10) Special thanks go to my secondary supervisor…<u>He has always</u> been at hand to listen and give advice… (M36)

(11) I am greatly indebted to my professors….who even gave me inspiration towards new inroads that I <u>surely </u>would not have found on my own. (M7)

(12) I would like to thank… I also thank…. <u>Without them, this project would not have been possible</u>. (M14)

The attitude markers were also found crucial in the texts. Female writers used more cases of attitude markers when thanking their academic supporters than their male counterparts did, while the opposite occurred with thanking for moral support. Attitude markers "indicate the writer's affective, rather than epistemic, attitudes, encoding an explicit positive or negative value that is gradable (e.g. important/very important to propositions" (Hyland, 2005, p. 149). Martin and White (2005) specified

that attitude deals with "our feelings, including emotional reactions, judgements of behaviour and evaluation of things" (p. 35). Hence, based on these functions, they provided three categories: affect (for emotional reactions), judgement (for judgement on behaviour), and appreciation (for evaluation of things) (p. 35). The extracts in (13), (14), and (15) represent these categories, respectively. The extract in (13) was written by a female writer to acknowledge moral support, while the extract in (14) was also written but a female student but to acknowledge academic assistance, and the extract in (15) was written by a male student to acknowledge for resources.

(13)   About five years ago, I moved to Ann Arbor, Michigan from Saudi Arabia. <u>I was feeling nervous, excited, scared, homesick, blessed, and everything in between</u>. (F20)

(14)   <u>I am very lucky and thankful</u> to have someone like Dr. Lee who always dedicates himself to educate his students. (F1)

(15)   My training would be impossible without the <u>generous</u> financial support from…. (M29)

The examination of self-reference expressions has reflected clearer gender differences as female writers used more self-mentions compared to their male counterparts (1348 and 969, respectively). Male writers employed a higher number of self-references only when thanking for resources. However, in all other steps, female writers used more self-references. In addition, as shown in Table 3, there is another gender variation in the use of self-mention as female writers employed plural forms (our, we, us) quite more than male authors. The use of *our*, for example, was used nine times by female writers but none of the male writers used it.

Table 3
Self-references in Both Groups

Self-reference	Male	Female
I	414	536
My	334	408
Me	210	367
mine	1	1
myself	3	7
our	0	9
we	5	13
Us	1	7
Researcher	1	0

Self-reference expressions were further analysed to show their distribution in the steps of thanking move (see Table 4). As stated earlier, with exception to *thanking for resources*, female writers used more self-references in the *thanking* move. *Thanking for moral support* in particular exhibited a clear difference between the male and female writers.

Table 4
Self-references across the Steps of the Thanking Move

Self-references	Thanking God		Thanking for academic assistance		Thanking for resources		Thanking for moral support	
	Male	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*
I	10	29	207	240	55	32	142	235
My	15	19	179	188	38	27	102	174
Me	10	25	104	140	27	21	69	181
Mine	-	-	-	-	-	-	1	1
Myself	-	1	1	-	1	-	1	6
Our	-	-	-	3	-	-	-	6
We	-	-	-	5	-	-	5	8
Us	-	-	1	-	-	-	-	7
Researcher	-	-	1	-	-	-	-	-
Total	35	74	493	576	121	80	320	618

The most common strategy of using the self-reference *I* is by opening with *I*, then the verb *(would like to) express*, followed by the phrase *my gratitude/gratefulness*. The extracts from (16) to (22) include self-mentions *I* and *my*. Those underlined cases refer to the writer as a producer of the text and thus were considered metadiscursive, while those with asterisk refer to the writer as an experiencer in the real world or refer to individuals and hence were not considered metadiscourse resources.

(16)   I express my gratefulness and thanks to my* parents, my* lovely wife, and my* wonderful son for their love, patience, and support. (M5)

(17)   I thank my* parents who have always reinforced my confidence and helped sustain my ambition. (F14)

(18)   I am greatly indebted to my* family. Words cannot express how grateful I am for their sacrifice… Without their help, encouragement, and unconditional love, I* would not be who I* am today. I thank my brothers and sisters. (F31)

(19)   I would like to express my deep appreciation and respect to my* advisor… for her support, guidance, and patience. She not only taught me to be a good scientist but also to be a good person. She made me a better person and I* will remember her all through my life. I am indebted to her for all the skills that I* learned during the years I* spent in her laboratory. (M6)

(20)   I would like to express my gratitude to…. For their endless trust… whenever I* was lost or helpless in this journey. (M1)

(21)   I would like to express my deepest gratitude for my* adviser…..(F3)

(22)   My gratitude goes out to my* parents…(F34)

The self-mentions of *me* were prevalent in the texts and it was quite challenging to mark the boundary between what refers to the student as a writer of the dissertation acknowledgment and to the student as an experiencer in the real world. These cases of

self-references are exceptionally considered metadiscourse provided that they stress the assistance and support that writers have received and establish clear connection between the writer and the person or entity being acknowledged. The uses of *me* in (23) and (24) appear to be outside the world of discourse and closer to the real world, while the opposite in (25), (26), and (27) as they show direct impact on the writer.

(23)   All praises to Allah, the most gracious and merciful, for countless blessings that were bestowed on <u>me</u> to complete this work. His help and support have guided <u>me</u> not only during the course of dissertation but during my whole life. (M17)

(24)   I would like to express my endless gratitude to my parents for their love, support, understanding, and prayers for <u>me</u>, which have sustained <u>me</u> throughout my life and especially during the long years of my education. (F25)

(25)   I would like to express gratitude to Dr…. for assisting <u>me</u> with the statistical components of this research. She always took time with <u>me</u> and was prompt in responding to my questions. (F26)

(26)   I am also especially grateful to the involved individuals at King Faisal Specialist Hospital and Research Center, who generously shared their experience with <u>me</u> and provided <u>me</u> with helpful related materials. (F43)

(27)   I further would like to thank my committee member Dr…. for his time, feedback, and insightfulness. Dr…. introduced <u>me</u> to a global perspective of higher education showing <u>me</u> how concerns over higher education can be very similar across different nations. (F42)

Likewise, plural self-references, which were used mostly by female authors as shown earlier in Table 3, were counted as metadiscourse, i.e. part of world of discourse, since they have established clear relationship between people being involved and the writer, as exemplified in (28).

(28)   Profound gratitude goes to Dr… <u>Our</u> weekly meeting has been a source of tremendous learning experience, to which I will always be grateful…I am also hugely appreciative to Dr…, although <u>we</u> started working together half way through my PhD and I have only wished <u>we</u> have worked together sooner given how much I learned from him… He gave me the chance to ask tough questions and guided me through many challenges we faced during this project. (F2)

Discussion

The importance of this study lies in using the powerful analytic tool of metadiscourse to examine an under-researched genre, i.e., dissertation acknowledgments written in English by EFL students. The study aimed to address gender differences in conveying gratitude by focusing on interactional markers within the metadiscourse framework (Hyland, 2005). The results showed the absence of hedging devices and engagement markers from all texts. In fact, the study showed a high frequency of engagement markers

but their application was not considered metadiscursive. This finding shows that the acknowledgment section has a considerable amount of interaction yet between writers and people addressed for appreciation and not between writers and generic readers.

The absence of hedges in dissertation acknowledgments implies that there is no place for doubt in this section. Despite the fact that hedging is considered a sign of respect and politeness and thus is expected to occur in this section, hedging specifically was rhetorically not employed. In other words, we assume that the refrain from using hedges in acknowledgments was deliberately rhetorical and not due to the lack of awareness of this feature. It is important to note, however, that some previous studies such as Mingwei (2010) have considered the opening phrase *I would like to* (before the thanking statement) as a hedging device. Indeed, these prefaces are abundant in this study but we have not characterized them as hedging choices but instead as signs of formality and politeness. This ascription was also taken by Jaroenkitboworn (2014) who interviewed the authors. According to Jaroenkitboworn (2014), a graduate student has emphasized that by using such phrase, he intended to be more polite:

> To me, it sounds more polite than saying just "I thank" which is brusque. To extend the statement a bit longer like, say, "I would like to thank" or "I would like to express my gratitude," the statement becomes softer. I didn't think at that time when I wrote it that my intention to thank someone could be weakened. I was just concerned about politeness. (p. 123).

Additionally, the use of the phrase *I would like to* can be attributed to formality. One graduate student in Jaroenkitboworn's (2014) study commented:

> To me, it is sort of a formal language feature. And it's appropriate to address people who are of higher social rank or more powerful like the advisor who is not an intimate friend of the same social distance. Also, there is a distance between me and the reader. I don't know who will read my thesis in the future, so it's better that I make it formal with this pattern. (p. 123)

Jaroenkitboworn (2014) attributed these choices to Thai culture showing that marking gratitude with formality and politeness is due to the influence of Thai culture where students prefer be indirect when conveying gratitude (p. 124). Similarly, the overuse of the modals and mental state verbs such as *I would like to* in this study can be due to cultural perceptions that academic manuscripts require a more formal style. The use of hedges also can be influenced by the nature of the genre. In comparing coursebooks to RAs, Hyland (1999) found hedges to be the most frequent metadiscourse feature in RAs, and cogently argued that this finding may reflect "the importance of distinguishing established from new claims in research writing and the need for authors to evaluate their assertions in ways that their peers are likely to find persuasive" (p. 10).

Male and female writers surprisingly used almost the same number of boosting items. Interestingly, the same finding was reported by Yavari and Kashani (2013) who found that boosting devices were used similarly between male and female authors in

all the four sections of RAs. In this study, however, boosting markers differed at the step level as female writers applied boosters more when acknowledging moral support while male writers applied boosters more when thanking for academic assistance. The opposite was revealed with using attitude markers as female authors used them more when thanking for academic support while male students employed them more when thanking for moral support. The overall use of attitude markers, however, was almost identical in both groups, which was the same finding of boosters. Yavari and Kashani (2013) had a different finding as female authors used more attitude markers, especially in the introduction and discussion/conclusion sections of RAs. Comparing the results in this study and those in Yavari and Kashani (2013), it can be argued that both genders employ attitude markers differently according to the genre while boosters remain neutral.

The case was different with self-mentions as female writers used them more frequently, thus increasing the level of authorial presence. This finding does not match what Tse and Hyland (2008) found with book reviewers where males used far more self-mentions than females. This difference can be attributed to the nature of the genre of dissertation acknowledgment where the writer discusses in detail how certain individuals helped him or her. The present study shows that female writers were more keen on applying this rhetorical option.

Metadiscourse was treated with flexibility in this study as its boundaries were adjusted to match the function of the genre of the dissertation acknowledgment. Certain self-mention elements were excluded when they referred to particular people in the real world while other self-mention resources were considered metadiscursive when they were integrated within the realm of the discourse world. Therefore, the approach adopted for this study falls between the broad approach by Hyland (2005) and the middle approach by Ädel (2006). Hyland (2017) recommended this flexibility caveating that limiting the boundaries of metadiscourse will "run the risk of eliminating much of what makes metadiscourse a powerful analytic tool" adding that what can be considered "metadiscoursal remains controversial and there are good reasons for distinguishing the two ends of the continuum more clearly with different terms to label the management of texts and the management of interaction" (p. 27). In this study, the main motivation behind adjusting the boundaries was the nature of the genre. Hence, more studies on other academic genres and specifically on part-genres will inform us more about the concept of metadiscourse and its boundaries.

Pedagogical Implications

Based on the results of the present study, some ideas related to the teaching of metadiscourse can be offered to teachers, especially teachers of EFL students. As Hyland (2010) has outlined "[a]ssisting students to an awareness of metadiscourse can thus

provide them with important rhetorical knowledge and equip them with ways of making discourse decisions which are socially grounded in the inquiry patterns and knowledge structures of their disciplines" (Hyland, 2010, pp. 141–142). The writers in the examined texts who are doctoral students might have been introduced to metadiscourse use in academic writing in general, but not necessarily in specific genres such as dissertation acknowledgments. As the findings indicated, some metadiscourse features were used while some others were not, and we as researchers are unsure whether these choices were deliberate or came as a result from students' lack of knowledge and understanding of metadiscourse use. Hence, explicit instruction via authentic activities with metadiscourse materials (as is also suggested by Akbas & Hardman, 2018; Bogdanović & Mirović, 2018; Molino, 2018) is essential to increase the awareness of metadiscourse features and specifically the various ways of using them in different contexts and different text types. Additionally, the results, particularly those regarding the use of boosting devices, self-references and attitude markers, have showed that the Ph.D. dissertation acknowledgment is a unique genre in terms of giving writers a freedom to use metadiscursive patterns and employ different techniques. Hence, the dissertation acknowledgment section can be considered a very suitable part for teachers to teach metadiscourse conventions and generally make students conscious of certain genre expectations. Based on the result regarding the employment of "you," for instance, teachers can provide students with samples of Ph.D. dissertation acknowledgments and ask them to identify and analyse the uses of "you;" whether they belong to the real world, hence not a metadiscursive device, or belong to the world of discourse, hence a metadiscursive one. Likewise, some results, especially those pertinent to self-mentions, indicate that metadiscourse is a flexible tool and thus students can be taught how certain patterns and their functions can influence the rhetorical organization of the genre as a whole. It is important to note, however, that by insisting on teaching metadiscourse does not mean simply asking students to overuse it but to use it strategically, as Crismore et al. (1993) have cogently argued "metadiscourse can be used effectively or used ineffectively, so we need to teach students to use all types of metadiscourse rhetorically not mindlessly" (p. 68).

References

Ädel, A. (2006). *Metadiscourse in L1 and L2 English*. Amsterdam, NL: John Benjamins.

Akbas, E. (2014). Are they discussing in the same way? Interactional metadiscourse in Turkish writers' texts. In A. Łyda & K. Warchał (Eds.), *Occupying niches: Interculturality, cross-culturality and aculturality in academic research* (pp. 119–133). London, UK: Springer. http://dx.doi.org/10.1007/978-3-319-02526-1_8

Akbas, E., & Hardman, J. (2017). An exploratory study on authorial (in)visibility across postgraduate academic writing: Dilemma of developing a personal and/or impersonal authorial self. In C. Hatipoglu, E. Akbas & Y. Bayyurt (Eds.), *Metadiscourse in written genres: Uncovering textual and interactional aspects of texts* (pp. 139–174). Bern, Switzerland: Lang. https://doi.org/10.3726/b11093

Akbas E., & Hardman J. (2018). Strengthening or weakening claims in academic knowledge construction: A Comparative study of hedges and boosters in postgraduate academic writing. *Educational Sciences: Theory & Practice, 18,* 831–859. http://dx.doi.org/10.12738/estp.2018.4.0260

Al-Ali, M. N. (2006). *Conveying academic and social identity in graduate dissertation acknowledgments.* Retrieved from https://www.unizar.es/aelfe2006/ALEFE06/1.discourse/6..pdf

Al-Ali, M. N. (2010). Generic patterns and socio-cultural resources in acknowledgements accompanying Arabic PhD dissertations. *Journal of Pragmatics*, *20*(1), 1–26.

Alotaibi, H. (2015). Metadiscourse in Arabic and English research article abstracts. *World Journal of English Language, 5*(2), 1–8.

Alotaibi, H. (2016). Comparison of metadiscourse markers in Arabic and English research articles in the introduction and conclusion sections. *The Linguistics Journal*, *10*(1), 182–202.

Blagojevic, S. (2004). Metadiscourse in academic prose: A contrastive study of academic articles written in English by English and Norwegian speakers. *Studies about Linguistics*, *5*, 1–7.

Bogdanović, V., & Mirović, I. (2018). Young researchers writing in ESL and the use of metadiscourse: Learning the ropes. *Educational Sciences: Theory & Practice, 18,* 813–830. http://dx.doi.org/10.12738/estp.2018.4.0031

Bunton, D. (1999). The use of higher level metatext in PhD theses. *English for Specific Purposes, 18*, 41–56.

Crismore, A., Markkanen, R., & Steffensen, M. (1993). Metadiscourse in persuasive writing: A study of texts written by American and Finnish university students. *Written Communication*, *10*(1), 39–71.

Dahl, T. (2004). Textual metadiscourse in research articles: A marker of national culture or of academic discipline? *Journal of Pragmatics, 36*, 1807–1825.

Gardner, S., & Han, C. (2018). Transitions of contrast in Chinese and English university student writing. *Educational Sciences: Theory & Practice, 18,* 861–882. http://dx.doi.org/10.12738/estp.2018.4.0067

Fuertes-Olivera, P. A., Velasco Sacristán, M., Arribas-Baño, A., & Samaniego Fernández, E. (2001). Persuasion and advertising in English: Metadiscourse in slogans and headlines. *Journal of Pragmatics, 33*, 1291–1307.

Hyland, K. (1998). Boosting, hedging and the negotiation of academic knowledge. *TEXT*, *18*(3), 349–382.

Hyland, K. (1999). Talking to students: Metadiscourse in introductory coursebooks. *English for Specific Purposes*, *18*(1)*,* 3–26.

Hyland, K. (2004). Graduates' gratitude: The generic structure of dissertation acknowledgements. *English for Specific Purpose, 23*, 303–324.

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

Hyland, K. (2010) Metadiscourse: Mapping interactions in academic writing. *Nordic Journal of English Studies, 9*(2), 125–143.

Hyland, K. (2017). Metadiscourse: What is it and where is it going? *Journal of Pragmatics*, *113*, 16–29.

Hyland, K., & Tse, P. (2004). Acknowledgements in graduate dissertations. *International Journal of Applied Linguistics*, *14*(2), 259–275.

Jaroenkitboworn, K. (2014). A study of English acknowledgements written by EFL Thai learners. J*ournal of Language Teaching and Learning in Thailand, 47*, 97–128.

Martin, J. R., & White, P. R. R. (2005). *The language of evaluation: Appraisal in English*. New York, NY: Palgrave Macmillan.

Mauranen, A. (1993). *Cultural differences in academic rhetoric: A textlinguistic study*. Frankfurt am Main: Peter Lang.

Molino, A. (2018). "What I'm speaking is almost English…": A Corpus-based study of metadiscourse in English-medium lectures at an Italian university. *Educational Sciences: Theory & Practice, 18,* 935–956. http://dx.doi.org/10.12738/estp.2018.4.0330

Tse, P., & Hyland, K. (2008). Robot Kung Fu: Gender and professional identity in biology and philosophy reviews. *Journal of Pragmatics*, *40*, 1232–1248.

Vande Kopple, W. J. (1985). Some exploratory discourse on metadiscourse. *College Composition Communication*, *36*, 82–93.

Vande Kopple, W. J. (1988). Metadiscourse and the Recall of Modality Markers. *Visible Language, 22*, 233–272.

Yavari, M., & Kashani, A. F. (2013). Gender-based study of metadiscourse in research articles' rhetorical sections. *International Journal of Applied Linguistics and English Literature, 2*(2), 77–88.

Zarei, G. R., & S. Mansoori (2007). Metadiscourse in academic prose: A contrastive analysis of English and Persian research articles. *The Asian ESP Journal*, *3*(2), 24–40.

Research Article

Modal Markers as Potential Sources of Distortion in Translated Medical Abstracts[*]

Hanna Martikainen[1]
Université Paris Diderot

Abstract

Modal markers, specifically hedges, are frequent in medical discourse. Translation of modal markers is essential for the proper decoding of target language in the medical domain and poses the problem of conferring signals of mitigated claims, as scientific writing conventions differ between languages and cultures. I argue that, in the medical domain, biased translation of modal markers – in particular by more affirmative choices – can distort readers' interpretation of treatment effectiveness and, thus, interfere with the communicative purpose of the text, when these markers are included in specific lexico-grammatical patterns used in the mediation of medical knowledge. This paper explores distortions due to biased translation of modal markers in a corpus of Cochrane Systematic Review Abstracts translated from English into French. The results suggest that modal markers most frequently responsible for distortion in translation are evidential and auxiliary verbs, followed by modal adjectives and adverbs. Moreover, frequent instances of distortion with embedded and overlapping markers (e.g. modal auxiliaries plus change in tense) were observed. It is hoped these findings can benefit the development of domain-specific MT systems and the teaching of specialized translation.

Keywords

Modal markers • Languages for Specific Purposes • Medical discourse • Specialized translation • Distortion

---

Cochrane produces large-scale Systematic Reviews (SRs) on the effectiveness of health care interventions. Cochrane SRs summarize available evidence from clinical trials in order to present practitioners with impartial and up-to-date research results. With an impact factor of 6.754 for the Cochrane Database of Systematic Reviews in 2017 (Clarivate Analytics, 2018), Cochrane SRs are influential in medical decision-making. For each SR, a scientific Abstract is available for free on-line that condenses essential information from the SR in a highly standardized and structured form, alongside a Plain Language Summary (PLS) of essential content. Cochrane SR Abstracts and PLS's are translated from English into various languages by regional Cochrane centers in order to make regularly updated, high-quality medical information available to practitioners around the world. My research deals with the French-language translation of Cochrane SR Abstracts. These translations play an important role in the multilingual diffusion of medical knowledge, as suggested by the 200,000 views per month on average in 2017 for the French-language versions (Cochrane, 2018, p. 7).

Accurate interpretation of research results calls for a precise and objective presentation, a requirement that also applies to the translation of such texts. I have previously argued that, due to the nature of translation as a human activity, translated Cochrane SR Abstracts are likely to include elements that have the potential to distort readers' interpretation of essential characteristics of the SR, for instance the effectiveness of the intervention or the authors' level of confidence in their results (Martikainen, 2018). Thus, distortion in translation interferes with the communicative purpose of these texts, which can be defined as accurate and objective presentation of medical research results in order to facilitate their transfer into clinical practice. Besides certain translation errors, which are a rather obvious source of such distortions, biased translation of lexico-grammatical patterns (Gledhill & Kübler, 2016) was also previously determined to be a potential source of distortion in the interpretation of research results. This is particularly the case for structures containing modal markers because of their importance in specialized languages and the high degree of interpretation associated with their translation. This paper focuses on modal markers as a potential source for distortion in specialized translation.

Modality in Languages for Specific Purposes (LSP)

Modal markers are frequent in LSP, as both deal with the mediation of human knowledge (Vihla, 1999, p. 15). The importance of modal markers in constructing the rhetorical strategies of hedging and boosting that allow authors to position themselves in regard of their text has been extensively studied (*see* for instance Hyland, 1998a, 1998b; Vázquez Orta & Giner, 2008, 2009; or the papers included in the present volume). Hedges, specifically, are characteristic of any specialized discourse (Gnutzmann, 2009, pp. 520–521), which for (1998b, p. 445) reflects

"the critical importance of distinguishing fact from opinion in academic writing". Particularly relevant for the present study is existing research on modal markers in medical language.

Role of modal markers in medical LSP. Hedges are particularly common in medical discourse, as medical writers tend to make claims in a tentative and reserved way (Yang, Zheng, & Ge, 2015). In medical LSP, the presence of epistemic and deontic modals reflects, respectively, the scientific and practical aspects of medicine (Vihla 1999, p. 42). In Cochrane Abstracts, where the purpose is informative and not persuasive, the scientific aspect is more prevalent, and epistemic or possibility modals such as "may" and "can" function as markers of level of proof regarding the effectiveness of the intervention. The practical aspect of the medical discipline is less relevant in Cochrane Abstracts, although recommendations are occasionally formulated using deontic modals (e.g. "the treatment should no longer be used").

Use of modal markers is determined, among others, by the communicative purpose of the discourse and the level of claim the authors wish to make, and directly influenced by medical text type (Salager-Meyer, 1994, p. 1). As stated above, the communicative purpose of Cochrane Abstracts can be defined as accurate and objective presentation of research results in order to facilitate their transfer into medical practice. In that respect, it can be considered that using hedges to convey authors' authentic uncertainty regarding the level of proof of their results actually contributes to more precision, instead of the vagueness and tentativeness traditionally associated with hedging (Vold, 2006, p. 81). The level of claim associated with different modal markers is also related to an evidential use of modal markers, in which the source of knowledge and the reasoning process behind the proposition are manifest (Alonso-Almeida & Cruz-Garcia, 2011, p. 61).

The case of "may" vs "can". To illustrate the difficulties inherent in the interpretation of modal markers in medical LSP, Table 1 below establishes the profile of "may" and "can" in two previous studies, and in Cochrane Abstracts. Salager-Meyer (1992) discusses medical research article and review article abstracts, while Vihla (1999) reports on medical research articles. The data on Cochrane Abstracts is based on the corpus sample used for this study (*see* Methods section for details).

It has been established that "may" is the modal of highest frequency in scientific writing, and much more frequent than "can" in medical discourse (Salager-Meyer, 1992; Vihla, 1999). Views differ, however, on the level of certainty attached to these markers. In the case of "may", they range from a high degree of probability (Salager-Meyer, 1992, p. 105) to possibility (Vihla, 1999, p. 19). Similarly, "can" is considered either as expressing uncertainty (Salager-Meyer, 1992, p. 105) or an inherent ability (Vihla, 1999, p. 27). The function of modal markers appears to be closely related to the rhetorical move or text section (Salager-Meyer, 1992).

Table 1
MAY vs CAN in Medical LSP

	MAY	CAN	Source
Relative Frequency (1,000 words)	3.2	2	Salager-Meyer (1992)
	1.9	0.6	Vihla (1999)
	1.3	0.6	Cochrane Abstracts
Level of proof	Probability	Possibility / Uncertainty	Salager-Meyer (1992)
	Possibility / Doubt	Ability / Potency	Vihla (1999)
	Evidence suggests that lifestyle interventions <u>can</u> benefit cognitive function and school achievement in children of normal weight. Similar beneficial effects <u>may</u> be seen in overweight or obese children and adolescents.		Cochrane Abstracts
Move / Section	Conclusion (12.5) Purpose (9.5)	Data synthesis (7.1) Conclusion (4.2)	Salager-Meyer (1992)
	Background (50%) Conclusions (30%)	Background (65%) Conclusions (25%)	Cochrane Abstracts
Collocations	result in / lead to / help / reduce / improve / be associated with...	result in / cause / help / reduce / benefit / produce / affect...	Cochrane Abstracts

In Cochrane Abstracts, the relative frequencies of "may" and "can" are similar to what has been previously observed in medical discourse (respectively, 1.3 versus 0.6. per 1,000 words). The example included in Table 1 shows that their functions in Cochrane Abstracts appear close to Vihla's (1999) interpretation: while "can" establishes the ability of the intervention to achieve a desired effect, as observed in previous studies, "may" is used to evoke a potential capacity, i.e. the hypothesis under study or the review question. In Cochrane Abstracts, both markers are mainly used in the Background section, as in the example above, as well as the Conclusions section. The comparable collocational profiles of "may" and "can" in Cochrane Abstracts show both are used in a similar epistemic sense, i.e. in evaluating the likelihood of the proposition being true. Usage choices might reflect slight differences in preferential readings received by the two markers: while both can typically receive an epistemic reading, "may" could be characterized by an overlapping evidential reading (Alonso-Almeida & Cruz-Garcia, 2011, p.70), while "can" will more often combine a dynamic reading (Vihla, 1999, p. 47). Also, it seems plausible that "may" would be chosen more often for its lower level of certainty and greater hedging possibilities (Salager-Meyer, 1992, p. 105), so as to avoid any idea of actual ability attached to "can".

Modal Markers as Sources of Distortion in Translation

In light of this complexity, modal markers can be considered essential in the proper decoding of the target language in medical translation (Pilegaard, 1997, p. 178). Because of inter-linguistic and intercultural differences in the expression of modality - indeed, modality is often expressed differently from one language to another (Guillemin-Flescher, 1984, p. 462), modal structures are also a frequent source of uncertainty for students in medical translation (Popineau, 2016, p. 78). In addition, as explained

for instance by Akbas and Hardman (2018), "academic practices vary based on the genre and the norms of discourse community being contributed to" (p. 834). Previous research has indeed shown that French-language scientific texts are less hedged and more authoritative than English texts (Salager-Meyer, Ariza, & Zambrano, 2003, p. 10). In the medical domain, Vold (2006) establishes the relative frequency of hedges at 3.3. and 2.3 per 1,000 words respectively in English and French. This is mainly because English tends to make modality more explicit through the use of auxiliary verbs and imperative forms, while French will prefer infinitive or assertive forms, specifically in the hypothetical domain (Chuquet & Paillard, 1987, pp. 128–129).

Returning to the example of the modal auxiliary "may", it is most often translated by the verb *pouvoir* in the indicative mood, followed by the same verb in the conditional mood. Figure 1 illustrates the correspondences of these forms between English and French, an interpretation in accordance with Popineau (2016), for instance. If the degree of certainty of the markers "might", "may", and "can" is thought as a continuum, the conditional mood *pourrai(en)t* would be somewhere between the first two, and the indicative form *peu(ven)t* between the last two. Thus, translating "may" by the more affirmative indicative form can be considered a typical manifestation of the lesser degree of modality in French.
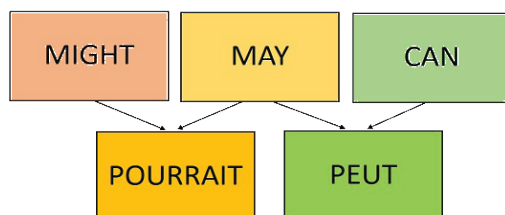
Figure 1. Level of certainty associated with modal markers respectively in English and French.

In some instances, however, these shifts on the continuum of uncertainty can distort readers' interpretation of the degree of certainty of the presented results. For instance, when the modal auxiliary "may" is used within a lexico-grammatical pattern evaluating treatment effectiveness such as:

"[treatment/intervention] + MAY + reduce + [negative outcome]",

then the more affirmative translation can positively impact readers' interpretation of treatment effectiveness, as can be seen in example 1 (b).[2]

(1) (a) (…) carotid patch angioplasty may reduce the risk of perioperative arterial occlusion and restenosis.

(…) l'angioplastie par patch carotidien pourrait réduire le risque d'occlusion artérielle péri-opératoire et de re-sténose.

2 All examples are from the Cochrane Abstracts corpus sample used for the study (see Methods section for details).

[= carotid patch angioplasty MIGHT/MAY reduce the risk of perioperative arterial occlusion and restenosis.]

vs

(b) Carotid patch angioplasty (…) may reduce the risk of carotid artery restenosis and subsequent ischaemic stroke.

L'angioplastie par patch carotidien (...) peut réduire le risque de re-sténose de l'artère carotide et l'AVC ischémique ultérieur.

[= Carotid patch angioplasty (…) MAY/CAN reduce the risk of carotid artery restenosis and subsequent ischaemic stroke.]

The more affirmative translation solution has its origins in the French-language scientific culture and linguistic tradition. Indeed, as stressed by Akbas and Hardman (2018), ''this involves orientating their own writing to the norms of a targeted discourse community'' (p. 834). This is why I consider these translations to be biased, in the sense of a systematic distortion in the presentation of results (Higgins, Altman, & Sterne, 2011), contrarily to translation errors, which represent random instances of distortion. Assessment of such instances of distortion is complex and context-dependent, and needs to balance target language LSP writing conventions with the lexico-grammatical co-text. Indeed, although French-language scientific writing conventions would most often command use of the more affirmative indicative mood, when "may" appears within positive lexico-grammatical patterns related to treatment effectiveness, the conditional mood should be preferred for accuracy in the expression of authors' genuine uncertainty.

Method

Corpus of the Study

In order to establish the frequency and distribution of distortions in translated Cohrane SR Abstracts, a corpus sample was manually annotated for instances of distortion. As one of the larger objectives of the project is the comparison of different translation processes in terms of distortion, the corpus sample is representative of the different processes used for the translation of Cochrane evidence into French, i.e. conventional human translation or machine translation post-edited by professional translators or medical volunteers. Since the focus of this paper is on modal sources of distortion in general, corpus data is here presented globally without the existing subdivisions by production process. The corpus sample consists of 150 Cochrane Abstracts randomly selected from a larger pool, for a total of 85,425 words in the English originals and 107,271 words in their French translations.

Table 2
Characteristics of Corpus Sample

Cochrane Abstracts (CABS) Corpus Sample	
Production process	Mixed (Conventional human translation, MT post-edited by professional transla-tors, MT post-edited by medical professionals)
Number of texts	150
Text selection	Randomized
Text type	Abstract
Production period	2008-2015
Word count	English: 85,425 – French : 107,271
Medium length (words/text)	English: 569.5 – French: 715.14
Translation coefficient	1.26
File format	XML

Annotation typology

The annotation typology was specifically designed for this purpose and a description of its development as well as a first version can be found in Martikainen, 2018. The typology distinguishes lexical and grammatical translation errors from biased translations of lexico-grammatical structures. Among the latter, patterns containing modal markers are further divided into sub-categories by type of marker responsible for the distortion in translation (i.e. auxiliary verbs, evidential verbs, adjectives and adverbs, modal clusters). The focus here is on distortions falling into these four categories. The annotation typology also allows for marking the impact (positive or negative) of observed instances of distortion.

Figure 2. Typology of sources of distortion in translation.

Tools

Files were randomly selected for the corpus sample from a larger pool using the RAND-function in Microsoft Excel. Figure 3 below illustrates how the annotation task was carried out on the online platform BRAT.
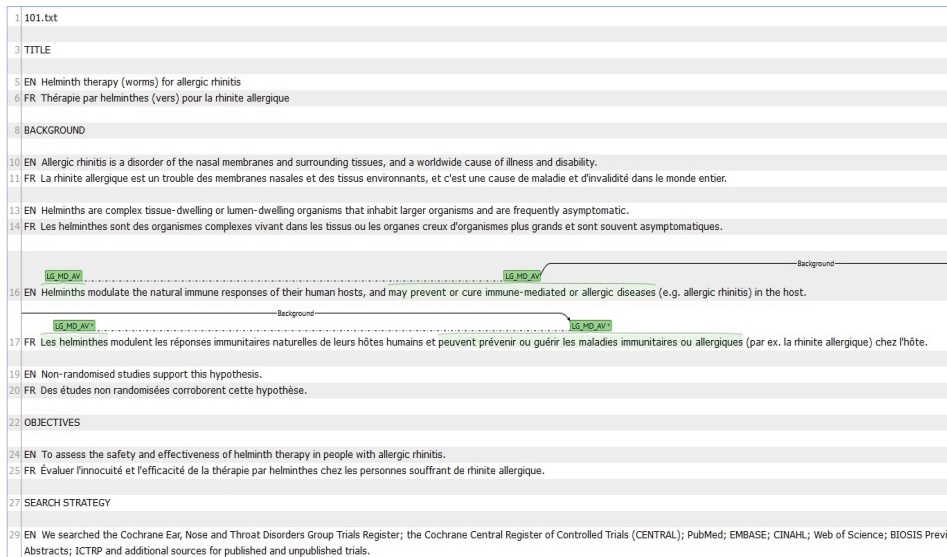
Figure 3. Online platform BRAT used for annotating the corpus sample.

Findings

Table 3 below presents an overview of the different sources of distortion observed in the corpus, broken down by subcategories, as well as relative frequencies by 1,000 words for the main categories of distortion in the annotation typology (i.e. lexis, grammar, and lexico-grammatical patterns). As previously stated, the focus of this paper is on lexico-grammatical distortions specifically due to biased translation of modal markers.

Biased translation of lexico-grammatical patterns involving modal markers represents approximately 18% of all observed instances of distortion in the Cochrane Abstracts corpus sample (65/355). In most of these cases (40/65), the distortion is specifically due to the translation of a modal marker, while in roughly a third of them (25/65), the distortion in translation combines issues of modality with other elements of the lexico-grammatical pattern, such as negation for instance (in Table 3, the latter are included within the meta-category of lexis-grammar).

Table 3
Sources of Distortion in CABS Corpus Sample

	Occurrences	Rel. freq. (1,000 words)
Lexis	**150**	**1.4**
· Omission	(60)	
· Adding	(4)	
Grammar	**61**	**0.6**
· Syntax	(53)	
Negation	**4**	
Numbers	**16**	
Phraseology	**11**	
Lexis-Grammar	**113**	**1**
· Modality	(40)	
- Auxiliary verbs	((17))	
- Evidential verbs	((16))	
- Adjectives & Adverbs	((4))	
- Modal Clusters	((2))	
· Tense	(6)	
· Negation	(37)	
TOTAL	**355**	**3.3**
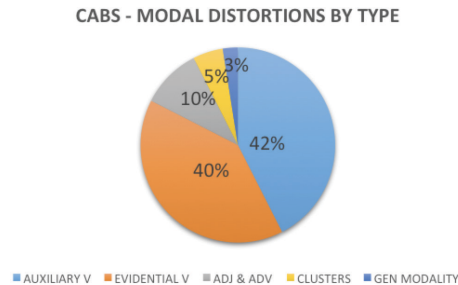
Figure 4. Modal distortions observed in CABS corpus sample by subcategory.

In cases where the distortion is directly imputable to biased translation of a modal marker, main categories responsible for distortion are modal auxiliaries and evidential verbs. The results suggest a tendency towards positively biased translation of modal markers, with approximately 78% (31/40) of observed strictly modal sources of distortion having a positive impact, although the picture is somewhat more nuanced for distortions resulting from biased translation of different types of elements within lexico-grammatical patterns (see below).

Discussion

The different categories of modal markers responsible for distortions in the Cochrane Abstracts corpus sample are discussed below. For each category of markers, typical lexico-grammatical patterns of appearance and their associated communicative functions are presented.

Modal auxiliaries

Auxiliary verbs are involved in roughly 29% (19/65) of lexico-grammatical distortions involving modality, and "may" is the first among them, with 17 occurrences of biased translation in the Cochrane Abstracts corpus sample. Although the auxiliary "may" is mainly translated in the corpus sample by the more affirmative indicative mood of the verb *pouvoir* or other affirmative periphrases (in approximately 2/3 of occurrences), distortion is observed in only 15% of the total occurrences of "may" in the corpus sample (17/111). The typical lexico-grammatical pattern where "may" receives a biased translation with a positive impact is:

"[intervention] + MAY + [have a beneficial effect]".

Within this pattern, almost half of the occurrences of "may" (17/37) receive positively biased translations, shifting readers' interpretation towards more certainty regarding the potential beneficial effects of treatments. In the corpus sample, other modal auxiliaries in epistemic use within the same pattern have unbiased translations that do not distort readers' interpretation of treatment effectiveness: all occurrences of "can" (14) within the pattern are translated by the verb *"pouvoir"* in the indicative mood (see figure 1), while all occurrences of conditional auxiliaries "could" (4) and "might" (4) within the same pattern are translated by the same verb in the conditional mood. These patterns are often incorporated into larger phraseological structures, as in example 2, where the pattern appears in conjunction with the existential structure "There is evidence that", another indicator of level of claim. Here the positively biased translation of "may" is further reinforced by the adding of an evidential verb related to empirical demonstration of proof (*démontrer*, see below for further discussion).

(2)   There is evidence that preoperative smoking interventions including NRT (…) may reduce postoperative morbidity.

Il existe des preuves démontrant que les interventions préopératoires ciblant le tabagisme (…) peuvent réduire la morbidité postopératoire.

[= There is evidence demonstrating that preoperative interventions against smoking (…) MAY/CAN reduce postoperative morbidity.]

In some instances, modal auxiliaries are partially or totally eliminated in the translation, which could be attributed to the tendency to less explicit modality and preference for infinitive or assertive forms in French, as discussed in the introduction. In example 3, although the subjunctive form used in the translation (*soient*) refers to the hypothetical domain, its presence is quite simply required by the previous structure (*il est plausible que*), and the higher degree of uncertainty expressed by the marker "may" is absent from the translation, which is therefore also considered positively biased.

(3)   (…) it is biologically plausible they may be efficacious in the treatment of AD and VaD.

(...) il est biologiquement plausible qu'elles soient efficaces dans le traitement de la MA et de la DVa.

[= it is biologically plausible that they be efficacious in the treatment of AD and VaD.]

In clinically-oriented medical discourse, deontic or necessity modals are used prescriptively (Vihla, 1999, p. 18). Such use is rarely encountered in Cochrane Abstracts, which are not prescriptive in nature. Only a few occurrences of deontic "must" were observed (6), which are always translated by a non-biased choice, the verb *devoir* in the indicative mood. The only biased translation of the deontic modal auxiliary "should" observed in the Cochrane Abstracts corpus sample (example 4) occurs in a highly atypical prescriptive context.

(4)   (…) *early ERCP should be considered in patients with co-existing cholangitis or biliary obstruction.

(...) la CPRE doit être *envisagée chez les patients présentant une cholangite ou une obstruction biliaire coexistante.*

[= ERCP MUST be considered in patients with co-existing cholangitis or biliary obstruction.]

In Cochrane Abstracts, the modal auxiliary "should" typically appears in deontic use in the Conclusions section, within two kinds of patterns. The first pattern:

"[results] + SHOULD + BE + [interpreted cautiously/viewed with caution]"

is an internal disclaimer (Abdi, 2012, p. 362) regarding the results of the SR, while the second concerns recommendations for further studies:

"[future studies/trials] + SHOULD + [fulfill certain requirements]".

Almost half of the occurrences of deontic "should" in the corpus sample are translated by the verb *devoir* in the indicative mood, which is the equivalent of "must" in English, or by other affirmative periphrases (18/41). These more affirmative translations are characteristic of the less hedged scientific writing tradition in French, and do not distort interpretation within their typical patterns of appearance. Nonetheless, the Cochrane Abstracts corpus sample suggests an interesting tendency to politeness in the translation of the auxiliary "should". Indeed, while all occurrences of "should" within the internal disclaimer pattern (6/6) are translated by the command-like choice of the verb *devoir* in the indicative mood (example 5 a), most occurrences of "should" within the external recommendation pattern (7/8) are translated by the more nuanced and polite choice of the same verb in the conditional mood (example 5 b).

(5)   (a) These results should be interpreted cautiously.

Ces résultats doivent être *interprétés avec précaution.*

[= These results MUST be interpreted cautiously.]

vs

(b) Future studies should focus on patient-important outcome measures (…)

Les futures études *devraient se concentrer sur des mesures de résultats importants pour le patient (...)*

[= Future studies SHOULD focus on patient-important outcome measures (…)]

Evidential Verbs

Evidential verbs, which bring to focus the source of knowledge (Vihla, 1999, p. 23), are the most frequent modal source of distortion observed in the corpus sample and partake in 49% (32/65) of lexico-grammatical distortions involving modal markers. On the basis of the evidence involved, evidentials can be considered sensory (e.g. "this observation shows") or quotative (e.g. reporting verbs) (Vihla, 1999, p. 23). One such verb to frequently receive a more affirmative translation in the Cochrane Abstracts corpus sample is "show", which is then likely to positively distort interpretation when it is included in lexico-grammatical patterns such as:

"[intervention] + SHOW + [positive effects]".

In example 6, the positive distortion is due to the translation of "show" by the verb *s'avérer*[3], which could be paraphrased as "turn out to be true".

(6)   Caffeine has shown effectiveness for treating PDPH (…)

La caféine s'est avérée efficace pour traiter la CPPD (...)

[= Caffeine has proven to be effective for treating PDPH (…)]

Another frequently encountered more affirmative translation for "show" is *démontrer*[4], which is in the biomedical domain concerned with empirical demonstrations of evidence (Gledhill, 1999, p. 16). Again, when used within a pattern related to positive treatment effects, i.e.:

"[intervention] + SHOW (passive voice) + [to be effective]",

this more affirmative translation is likely to distort readers' interpretation of

---

3   The root is Latin *verus*, for 'true'. Thus, *'un fait avéré'* is an established fact.

4   *'Démontrer'* concerns a logical demonstration, as in the expression *'démontrer par A plus B'*, which could be translated as 'to prove something through simple logic'.

treatment effectiveness. In example 7, the impact of the lexical choice is reinforced by the choice of tense in the translation, which uses the present perfect of general truth instead of the past perfect.

(7) Parenting programmes have been shown to have an impact on the emotional and behavioural adjustment of children (…)

Il est démontré que les programmes de soutien à la parentalité ont un impact sur l'ajustement émotionnel *et comportemental des enfants (...)*

[= It is proven that parental support programmes have an impact on the emotional and behavioural adjustment of children (…)]

Out of the 19 occurrences of "show" within this type of patterns, 11 (58%) are translated by more affirmative choices than its closest equivalent, the verb *montrer*, which is considered to have a similar role in reporting results as "show" in the biomedical domain (Gledhill, 1999, p. 17). In comparison, neutral translation choices (e.g. *montrer*, *indiquer*) are observed in the Cochrane Abstracts corpus sample for all occurrences of "show" within another typical lexico-grammatical pattern (25), where the source of knowledge is directly indicated, i.e.:

"[comparison/study/data] + SHOW + [positive effects]".

Example 8 illustrates an example of such neutral translation choices.

(8) Pooled data from 2 studies showed the total effectiveness rate in the CHM group was higher (…)

Les données regroupées de 2 études *ont montré que le taux d'efficacité global dans le groupe des PMC* était *plus* élevé *(...)*

[= Pooled data from 2 studies showed that the global effectiveness rate in the CHM group was higher (…)]

In some instances, the elimination of modal markers altogether can again be observed. Although such practices are common in translating from English into French – whether because of the preference of the latter for assertive forms or the less nuanced scientific writing tradition of the target culture – the resulting translations, by eliminating the distance between the authors and the observed results, have the potential to distort readers' interpretation in certain contexts (example 9).

(9) (…) L-epinephrine showed significant reduction compared with racemic epinephrine (…)

*(...) la L-*épinéphrine *entraînait une réduction significative par rapport à l'épinéphrine racémique (...)*

[= L-epinephrine led to a significant reduction compared with racemic epinephrine (…)]

Adjectives and Adverbs

Adjectives and adverbs represent the third category of modal sources of distortion and are involved in approximately 22% (14/65) of lexico-grammatical distortions involving modal markers in the Cochrane Abstracts corpus. A typical lexico-grammatical pattern where biased translation of modal adjectives is encountered is:

"[There was] + no + CLEAR/CONSISTENT + evidence + [of a difference / treatment effect]".

Such patterns are frequently observed in the corpus sample in contexts where some evidence suggests a treatment effect, but the level of proof is not considered strong enough, for instance because of statistically non-significant results, large confidence intervals or study limitations. In example 10, although there is a notable mean difference (MD), the confidence intervals (95% CI) are large enough to include both an important reduction and a notable increase, and the results are based on a single study.

(10)   (…) there was no clear evidence of any effect on the amount of time spent awake after sleep onset (MD -20.41, 95% CI -60.4 to 19.6, one study).

(...) il n'y avait aucune preuve probante d'effet sur le temps passé éveillé *après l'endormissement (DM -20,41, IC à 95 % -60,4 à 19,6, une* étude*).*

[= there was no compelling evidence of effect on the time spent awake after sleep onset (…)]

For this specific pattern, biased translations typically have a negative impact, due to the choice of an adjective such as *probant*, which refers to compelling, probative evidence and therefore downgrades the level of evidence when used within this structure. Comparatively, in instances considered non-biased, the adjective chosen in the translation is most often the closest equivalent *clair*.

Like auxiliaries and evidentials, adjectives and adverbs are also frequently included in larger phraseological structures, where all trace of modality is in some instances eliminated in the translation (example 11).

(11)   The results of the best evidence synthesis shows that there is strong evidence for the efficacy of "instruction on joint protection" (…)

Les résultats de la synthèse des meilleures preuves ont montré que « l'instruction sur la protection des articulations » est efficace (...)

[= The results of the best evidence synthesis have shown that "instruction on joint protection" is effective (…)]

Modal Clusters and Distortions Combining Different Elements

The last category of modal markers in the annotation typology concerns modal clusters, or structures involving several modal markers. Modal clusters are frequently encountered in Cochrane Abstracts, for instance in patterns such as:

"[results/data] + SUGGEST + that + [intervention/treatment] + MAY + [be effective]".

Such structures are, however, not frequent sources of distortion in the Cochrane Abstracts corpus, since biased translation typically occurs on only one marker within the cluster. What is frequently observed in the corpus sample are instances where different kinds of markers contribute to the distortion in translation, for instance when the distortion due to the translation of modal auxiliaries is reinforced with the adding of an evidential verb (see example 2) or a change of tense in the translation (see example 7). Such lexico-grammatical structures with multiple and embedded sources of distortion are highly likely to impact readers' interpretation, as in example 12, where the choice of evidential verb and tense in the translation both contribute to giving a more positive picture of the effectiveness of the treatment than in the source text.

(12)   Statins have been claimed to be effective (…)

On considère que les statines sont efficaces (...)

[= Statins are considered to be effective (…)]

Although the examples presented here mainly concern positive lexico-grammatical patterns (the only exception being example 10), sources of distortion combining different elements more frequently involve negatively oriented lexico-grammatical patterns related to lack of effectiveness of treatments. Therefore, while the more affirmative biased translations have an overwhelmingly positive impact in the case of strictly modal sources of distortion, for these combined sources of distortion, the impact of biased translation is more often negative (20/25).

Conclusion

I have argued that biased translation of modal markers within specific lexico-grammatical patterns has the potential to distort readers' interpretation of essential characteristics of texts in medical LSP. The results show that the cultural and linguistic conventions of scientific writing in French, which is more affirmative and less hedged than English scientific writing, are also visible in translations into French, for instance through the elimination of modality in translation observed in the Cochrane Abstracts corpus sample. In specific contexts related to treatment effectiveness, such more affirmative translation strategies frequently result in positive bias. Main modal

markers found to be responsible for distortions in the present study were evidential and auxiliary verbs, specifically "show" and "may", as well as adjectives such as "clear". Biased translations of modal markers were in the Cochrane Abstracts corpus sample frequently associated with other sources of translational distortion, for instance changes in tense.

While categorizing and counting occurrences in corpus are necessary first steps in defining and establishing the potential for distortion in translated texts, it must be stressed that the individual instances of potential distortion observed in corpus are naturally not expected to mechanically distort readers' interpretation in any quantifiable manner. This is particularly the case for modal sources of distortion, given the complexity involved in their interpretation. I hypothesize, however, that the presence of several embedded sources of distortion specifically in essential sections of the Abstract (i.e. results or conclusions) does indeed have the potential to shift readers' interpretation on the continuum of (un)certainty. While the actual impact of translational distortion in Cochrane SR Abstracts remains yet to be confirmed, first results from a survey currently underway suggest that potential readers are indeed receptive of such subtle differences in expression: on average, approximately 70% of respondents rated the biased translations as being more affirmative than the corresponding neutral versions from which sources of distortion had been removed. Finally, it is hoped these findings can ultimately benefit the teaching of medical translation and post-editing, as well as contribute to the development of specialized machine translation solutions in the medical domain.

Implications

These results could be further exploited for instance in the development of domain-specific MT systems. Preferred translations could be specified for given markers in certain contexts: i.e., when translating from English into French in the medical domain, the preferred translation for the modal adjective "clear" when it occurs in conjunction with the noun "evidence" would be *clair(e)*. Such specifications could be obtained either through the implementation of rules or simply by training the engine with controlled corpora of translated texts. Of course, post-editors and other reviewers working on the machine-translated output would then need to be made aware of such fine-tuning of translation solutions, so as to avoid further preferential changes to the translation of these markers during the editing process.

Moreover, the issues raised in this research are specifically relevant for teaching specialized translation. Indeed, the results support the need to raise students' awareness of the essential role of modal markers in the communication of scientific knowledge as well as their relevance for specialized translation. It is most notably through the use of these markers that the basic functions of LSP texts are achieved,

and as such, they are tangible manifestations of the communicative purpose of the translated text. For instance, for SRs as a subgenre of medical texts, the purpose can be defined as accurate and objective communication of medical research results in order to facilitate their transfer into clinical practice. Thus, the text type here is purely informative and, as such, calls for "translation according to the sense and meaning" (Reiss, 2004, p. 175). Modal markers are directly involved in fulfilling the purpose of these texts, the communication on specialized knowledge, specifically to mark authors' confidence in the results of the SR regarding treatment effectiveness (Glenton et al., 2010, p. 572).

As a first step, it is important to get translation students to reflect on idiomatic use according to text function in their own language, much in the way that Popineau (2016) does for the translation of patient information leaflets. Students should, however, also be made aware of the necessity to carefully balance such language-specific idiomatic use with text genre conventions, taking into account the potentially diverging functions of these markers in specialized contexts. As an example, when translating from English into French, idiomatic use would dictate less hedging and more affirmative choices for modal markers, such as using the indicative form for translating the auxiliary "may" as previously discussed. However, given the possible use of hedges in medical LSP for conveying actual uncertainty, such an affirmative translation solution may not actually be an accurate reflection of the original authors' level of certainty regarding their results. Since precision is the first guiding principle of medical translation according to text function, the purpose of the text might therefore require a more hedged translation than what the conventions of idiomatic language use in French-language scientific writing would suggest.

References

Abdi, R. (2012). Smoothing the rough edges. *Pragmatics, 22*(3), 355–369.

Akbas E., & Hardman J. (2018). Strengthening or weakening claims in academic knowledge construction: A comparative study of hedges and boosters in postgraduate academic writing. *Educational Sciences: Theory & Practice*, *18*, 831–859. http://dx.doi.org/10.12738/estp.2018.4.0260

Alonso-Almeida, F., & Cruz-García, L. (2011). The value of *may* as an evidential and epistemic marker in English medical abstracts. *Studia Anglica Posnaniensia*, *46*(3), 59–73.

Chuquet, H., & Paillard, M. (1987). *Approche linguistique des problèmes de traduction anglais-français*. Editions Ophrys.

Clarivate Analytics. (2018). *2017 Journal Citation Report (JCR)*.

Cochrane. (2017). *Translation Annual Report 2017*.

Gledhill, C. (1999). Towards a description of English and French phraseology. In C. Beedham (Ed.), *Langue and parole in synchronic and diachronic perspective* (pp. 221–237). Oxford: Pergamon,

Gledhill, C., & Kübler, N. (2016). What can linguistic approaches bring to English for Specific Purposes? *ASp. la revue du GERAS*, *69*, 65–95.

Glenton, C., Santesso, N., Rosenbaum, S., Nilsen, E. S., Rader, T., Ciapponi, A., & Dilkes, H. (2010). Presenting the results of Cochrane Systematic Reviews to a consumer audience: A qualitative study. *Medical Decision Making*, *30*(5), 566–577.

Gnutzmann, C. (2009). Chapter 19. Language for specific purposes vs. general language. In K. Knapp, B. Seidlhofer, & H. Widdowson (Eds.), *Handbook of foreign language communication and learning* (pp. 517–544). New York, NY: Mouton de Gruyter.

Guillemin-Flescher, J. (1981). *Syntaxe comparée du français et de l'anglais : Problèmes de traduction*. Editions Ophrys.

Higgins, J. P. T., Altman, D. G., Sterne, J. A. C. (Eds.) (2011). Chapter 8: Assessing risk of bias in included studies. In J. P. T. Higgins & S. Green (Eds.), *Cochrane handbook for systematic reviews of interventions version 5.1.0 (updated March 2011)*. The Cochrane Collaboration. Retrieved from www.handbook.cochrane.org

Hyland, K. (1998a). Boosting, hedging and the negotiation of academic knowledge. *Text-Interdisciplinary Journal for the Study of Discourse*, *18*(3), 349–382.

Hyland, K. (1998b). Persuasion and context: The pragmatics of academic metadiscourse. *Journal of Pragmatics*, *30*(4), 437–455.

Martikainen, H. (2018). A functional approach to translation quality assessment: Categorizing sources of translational distortion in medical abstracts. *Linguistica Antverpiensia, New Series– Themes in Translation Studies*, *16*, 104–119.

Pilegaard, M. (1997). Translation of medical research articles. In A. Trosborg (Ed.), *Text typology and translation* (Vol. 26, pp. 159–184). John Benjamins Publishing.

Popineau, J. (2016). (Re) penser l'enseignement de la traduction professionnelle dans un master français: l'exemple des zones d'incertitudes en traduction médicale. *Meta: Journal des traducteurs/Meta: Translators' Journal*, *61*(1), 78–103.

Reiss, K. (2004). Type, kind and individuality of text: Decision making in translation. In L. Venuti (Ed.), *The translation studies reader* (pp. 168–179). Routledge.

Salager-Meyer, F. (1992). A text-type and move analysis study of verb tense and modality distribution in medical English abstracts. *English for Specific Purposes*, *11*(2), 93–113.

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

Salager-Meyer, F., Ariza, M. Á. A., & Zambrano, N. (2003). The scimitar, the dagger and the glove: Intercultural differences in the rhetoric of criticism in Spanish, French and English medical discourse (1930–1995). *English for Specific Purposes*, *22*(3), 223–247.

Vázquez Orta, I., & Giner, D. (2008). Beyond mood and modality: Epistemic modality markers as hedges in research articles. A cross-disciplinary study. *Revista Alicantina de Estudios Ingleses*, *21*, 171–190.

Vázquez Orta, I., & Giner, D. (2009). Writing with conviction: The use of boosters in modelling persuasion in academic discourses. *Revista Alicantina de Estudios Ingleses*, *22*, 219–237.

Vihla, M. (1999). *Medical writing: Modality in focus* (Vol. 28). Rodopi.

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

Yang, A., Zheng, S. Y., & Ge, G. C. (2015). Epistemic modality in English-medium medical research articles: A systemic functional perspective. *English for Specific Purposes*, *38*, 1–10.

Research Article

'What I'm Speaking is almost English…': A Corpus-based Study of Metadiscourse in English-medium Lectures at an Italian University

Alessandra Molino[1]
University of Torino

Abstract

This paper deals with the use of metadiscourse by Italian university lecturers who teach through the medium of English (EMI, English-Medium Instruction). The objective is to verify whether, irrespective of possible shortcomings in their mastery of the language, lecturers demonstrate sensitivity to the situational demands of the EMI classroom, paying attention to the needs of the audience. A small, specialised corpus of undergraduate university lectures in the fields of Physical Sciences and Technology will be analysed. In particular, the focus will be on references to the discourse, the code, the lecturer as speaker and the students as listeners. I will investigate what discourse functions metadiscourse markers perform, what form-function associations can be identified, and whether signs of dysfluency and non-standard forms can be found in relation to metadiscourse. The pedagogical implications of the findings will be considered and suggestions provided on how to incorporate metadiscourse in teacher training programmes. The paper will conclude with some methodological reflections on how to investigate metadiscourse in university lectures.

Keywords

English-medium instruction • Metadiscourse • Impersonal metatext • Personal metatext • Audience interaction • Non-standard metadiscourse • Undergraduate lectures

Universities across Europe are increasingly adopting the educational policy of English-Medium Instruction (EMI). EMI courses are often implemented to respond to socio-economic demands and limited attention has been paid so far by institutions to the implications of teaching and learning through a non-native language (Costa & Coleman, 2013; Dafouz, Núñez, & Sancho, 2007; Hultgren, Jensen, & Dimova, 2015). Research on EMI in Italy reflects European tendencies, with most studies conducted on the spread of English-taught programmes (Broggini & Costa, 2017; Campagna & Pulcini, 2014; Costa & Coleman, 2013), language policies (Molino & Campagna, 2014), and the attitudes and perceptions of the main stakeholders (Bendazzoli, 2015; Costa & Mariotti, 2017; Pulcini & Campagna, 2015). Investigations documenting actual practices are fewer and at first they focused on training or pedagogic strategies (Costa, 2015; Guarda & Helm, 2016); more recently, studies of language use have also emerged (Broggini & Murphy, 2017; Molino, 2017), although they remain sporadic.

This paper aims to contribute to the description of how language is employed in EMI lectures. To this purpose, it offers an analysis of metadiscourse in six Physical Sciences and Engineering undergraduate lectures held in English by Italian native speaker instructors at a large university in Northern Italy. The study aims to verify whether, irrespective of possible shortcomings in their mastery of the language, lecturers demonstrate sensitivity to the situational demands of the EMI classroom, paying attention to the needs of the audience.

Metadiscourse is investigated following Ädel's (2006; 2010; 2012) reflexive model and using corpus-based methods to identify, classify and quantify relevant markers. The focus is on references to the discourse, the code, the lecturer as speaker and the students as listeners, thus considering both metatextual uses and instances of interaction with the audience. The following research questions will be addressed: (i) What discourse functions do metadiscourse markers perform in EMI lectures?; (ii) What are the preferred association patterns between discourse function and type of metadiscourse (i.e. personal or impersonal) and between function and language form?; (iii) Do performance phenomena of dysfluency and non-native use of English affect the comprehensibility of metadiscourse units?

The primary objective of this study is to gain initial insights into the characterising features of EMI lectures in the context examined in terms of metadiscourse. Nevertheless, the discussion also considers the implications of the findings for teacher training, the effectiveness of corpus-based techniques for the study of metadiscourse and the ability of Ädel's (2006; 2010) taxonomy of functions to identify the uses found in the lectures under scrutiny.

Metadiscourse in University Lectures: Analytical Foci and Approaches

Studies on lingua franca academic English (e.g. Mauranen, 2012) have underscored the importance of metadiscourse as a way to attain discourse explicitness, i.e. to help 'speakers achieve organization within their utterances as well as [...] clarity' (Björkman, 2011, p. 952). It is not surprising, therefore, that metadiscourse is a frequent topic in investigations dealing with the comprehension needs of university students during lectures. Indeed, as lectures are 'detailed and extended monologues' (Lynch, 2011, p. 81) that impose 'heavy cognitive demands' (Field, 2011, p. 108) on the listeners, they are challenging to process, especially for L2 (second language) students.

The aspects of metadiscourse in lectures that have received most attention are discourse structuring devices (Morell, 2004; Thompson, 2003) and relevance markers (Deroey & Taverniers, 2012; Zare & Keivanloo-Shahrestanaki, 2017), with the latter used to simultaneously evaluate and organise discourse. Experimental studies conducted on students to test the efficacy of metadiscourse for lecture comprehension conclude that metadiscourse enhances understanding (Kuhi, Asadollahfamb, & Dabagh Anbarianc, 2014) but more so in students whose level of English is low (Aguilar Pérez & Arnó Macià, 2002, p. 19).

Descriptive studies have taken a variety of approaches: some have opted for a 'narrow' view of metadiscourse focusing on discourse reflexivity (Zare & Tavakoli, 2016), while others have taken a broader view (e.g. Barbieri, 2013) concentrating on 'devices writers use to explicitly organize their texts, engage readers, and signal their attitudes to both their material and their audience' (Hyland, 2010, p. 127). In addition, some investigations have analysed the use of metadiscourse together with other features of language (Deroey & Taverniers, 2012). For these reasons, comparisons across results are not always straightforward.

Among the studies that have adopted a reflexive model of metadiscourse is that of Zare and Tavakoli (2016). Employing Ädel's (2010) taxonomy of functions for personal metadiscourse and concentrating on non-native speakers of English, the authors investigate monologic lectures and dialogic academic discussions, thus allowing for genre-specific features to become evident. Compared to academic discussions, lectures are characterised by a greater focus on terminology and more attention is paid to discourse organisation, with numerous markers of phorics, i.e. items that point to various locations in the unfolding discourse. Zare and Tavakoli also found that text-oriented metadiscourse, or metatext, is more prevalent in lectures than audience involvement, which is more frequent in dialogues.

Methodology

Materials

The sample used for analysis is composed of six university lectures held in English by Italian native speakers.[2] Table 1 illustrates the corpus, providing information about the disciplinary fields included, the number of words per class and the class length in minutes. The small size of the sample will make it possible to analyse all potential manifestations of metadiscourse and to assess the efficacy of both the methodology (i.e. corpus-based analysis) and the analytical framework.

Table 1
Lectures for Analysis

Lectures[3]	Discipline	No. of words	Minutes
LELUNDAI	Ambient Intelligence	11,567	79
LELUNDCH	Chemistry	9,307	77
LELUNDMA	Mathematical Analysis	6,206	67
LELUNDPH	Physics	6,537	70
LELUNDEC	Electronic Circuits	5,911	59
LELUNDCS	Computer Science	5,868	66
Total		45,396	418

Lectures were selected as a genre for analysis for their typicality, as at the time of data collection (i.e. the academic year 2013-2014), most Italian universities offering EMI courses were delivered through formal lectures rather than seminars or other forms of closer student-tutor interaction (Costa & Coleman, 2013).[4] As for the choice of Physical Sciences and Engineering, these disciplines were among the fields in which most EMI programmes were offered in Italy (Costa & Coleman, 2013). The audience is composed of a minimum of 40 students and chiefly includes native speakers of Italian, another feature typical of the Italian academic context (Campagna & Pulcini, 2014). Nevertheless, international students may be present and, when the data were collected, these constituted 12% of the total student population, excluding Erasmus-exchange students. The lecturers are all Italian native speakers, again reflecting the L1 (first language) of most EMI instructors in Italy in 2013-2014 (Costa & Coleman, 2013).

Analytical Framework for the Analysis of Metadiscourse

This study is based on the reflective model of metadiscourse proposed by Ädel in her studies of written learner language (2006) and elaborated in subsequent analyses of

---

2　An informed consent was signed by all lecturers stating that their anonymity and that of their institution would be safeguarded.

3　The codes attributed to the lectures are modelled on those used in MI*CASE (Michigan Corpus of Academic Spoken Engli*sh, retrieved August, 2017, from https://quod.lib.umich.edu/cgi/c/corpus/corpus?page=home;c=micase;cc=micase/). They indicate the size of the class, degree level and discipline: for instance, in LELUNDAI, LEL stands for Large Lecture (i.e. at least 40 students), UND for Undergraduate and AI for Ambient Intelligence.

4　Although the situation today is largely unchanged, for a more recent picture on EMI in Italy (academic year 2014-2015), see Broggini and Costa (2017).

spoken vs. written academic discourse (2010) and audience orientation in monologic academic genres (2012). Ädel's model, grounded in Jakobson's metalinguistic, expressive and directive functions of language, focuses on the ability of language to talk about itself and to refer to addresser and addressees in their roles as speaker/writer and listener/reader.

Ädel distinguishes two categories of metadiscourse: 'metatext' (2006; 2010; 2012) and 'audience interaction' (2010, 2012), called 'writer-reader interaction' in her study of learner writing (2006). Metatext markers explicitly signal the speakers' discourse acts, refer to aspects of the spoken/written text itself, such as its organisation or wording, and mention characteristics of its production. Metatext can be expressed through personal (e.g. *I, you*) and impersonal (e.g. *now, question, term*) markers. On the other hand, audience interaction has to do with addresser-addressee relations. This paper deals with both categories of metadiscourse.

Table 2
Personal and Impersonal Metadiscourse (Ädel, 2006, p. 27)

	Personal metadiscourse			Impersonal metadiscourse
	Participant-oriented	Writer-oriented	Reader-oriented	
Explicitness	+	+	+	+
World of discourse	+	+	+	+
Current discourse	+	+	+	+
Writer *qua* writer	+	+	−	−
Reader *qua* reader	+	−	+	−

In order for items to be recognised as markers of metadiscourse, they should possess specific qualities, as illustrated in Table 2. Language expressions should explicitly comment on discourse and/or its participants; they should relate to the world of discourse rather than the real world; and they should refer to the ongoing discourse and not to other texts. With regard to personal metadiscourse, in particular, linguistic expressions should refer to the speaker-*qua*-speaker and audience-*qua*-audience.

Identifying and Quantifying Instances

Instances of metadiscourse were identified by applying the criteria in Table 2 (i.e. explicitness, world of discourse, current discourse, writer *qua* writer, reader *qua* reader) as carefully as possible. The adoption of a corpus-based approach required starting from a list of potential metadiscourse items to be retrieved. As regards personal metadiscourse, all possible uses of the first person pronouns *I*, *we* and *you* in subject position and their oblique forms (e.g. *my, our, your*) were retrieved and analysed. The items *one* and *speaker* were also included (Table 3). As regards impersonal markers, it was necessary to compile an inventory of items eligible for retrieval. The following steps were taken. A list of items was collected drawing from existing literature (Ädel,

2006; Hyland, 2005; Lorés, 2006; Swales, 2001). Then the lemmatised wordlist of the corpus was examined to check which markers of the initial list were actually present and whether other items could be used metadiscursively. Finally, in order to verify that the analysis of the wordlist was satisfactory, the transcriptions were read multiple times, a step that was feasible given the small size of the corpus. The aim of this step was to ensure that certain non-standard expressions were not omitted due to the L2 nature of the data. No additional items were found through such verification, suggesting that, for impersonal metadiscourse, the analysis of the lemmatised wordlist could be a way to ensure a high 'recall rate' (Ädel, 2006, p. 188).

Table 3
Potential Markers of Personal and Impersonal Metadiscourse

Personal metadiscourse	*I, we, you (subj.); me, my, mine, us/'s, our, ours, you (obj.), your, yours; one; speaker*
Impersonal metadiscourse	*again; answer*; ask*; back to; begin*; break; call*; class*; conclu*; course; defin*; descri*; discuss*; end*; English; example*; final; finish*; first*; follow*; goal*; here; hour*; instance*; introduc*; Italian; jok*; language*; last*; later; lecture; lesson; mean*; mention*; name*; next; now; plan*; point*; present*; previous*; question*; repeat*; say*/said; second*; sense*; sentence*; session*; so far; speak*; start*; stat*; suggest*; sum*; talk*; tell*; term*; thing*; third*; three; time; two; word**

All the items in Table 3 were retrieved using the concord tool of the Sketch Engine (Kilgarriff, Rychly, Smrz, & Tugwell, 2004) and the concordance lines thus obtained were analysed to exclude non-metadiscursive uses. The remaining instances were classified in terms of their function by reading the concordance lines carefully, expanding the context when necessary. Finally, the instances were counted according to the specific discourse function they performed.

Results

Metatext: Personal Forms

Table 4 shows the uses of personal metadiscourse found in the corpus for the category of personal metatext. The taxonomy is based on Ädel's (2010) study of personal metadiscourse. Three metatextual classes can be distinguished: metalinguistic comments, discourse organisation and speech act labels. Only the forms observed in the data are displayed in Table 4. The figures in this table and the subsequent ones are raw.

Table 4
Personal Metatext

Metatext categories		Discourse function	Occurrences per form					Total
			I	*we*	*you*	*me*	*us*	
Metalinguistic comments		Repairing	2	0	0	10	0	12
		Reformulating	28	0	0	6	0	34
		Commenting on linguistic form	1	2	0	3	5	11
		Clarifying	2	1	0	0	1	4
		Managing terminology	12	11	0	1	2	26
		Total	45	14	0	20	8	87
Discourse organisation	Managing topic	Introducing topic	7	0	0	3	6	16
		Delimiting topic	4	7	0	0	0	11
		Adding to topic	0	0	0	1	0	1
		Concluding topic	0	3	0	0	0	3
		Marking asides	1	0	0	0	0	1
	Managing phorics	Enumerating	0	0	0	0	0	0
		Endophoric marking	0	18	13	0	0	31
		Previewing	14	60	0	0	0	74
		Reviewing	33	47	0	0	0	80
		Contextualising	34	22	3	3	0	62
		Total	93	157	16	8	6	280
Speech act labels		Arguing	0	0	0	0	0	0
		Exemplifying	2	1	0	1	0	4
		Saying	15	3	0	0	0	18
		Other speech act labels	8	0	0	0	0	8
		Total	25	4	0	1	0	36
		Total	163	175	16	28	14	396

The most frequent category of personal metatext in the sample (71% of all instances) is discourse organisation. Through this category, speakers manage the topics they are talking about, signalling their beginning and end, adding information, delimiting their 'boundaries' and, if need be, making asides. Discourse organisation is also performed by markers that have to do with phorics. Such units are used for a variety of purposes: to clarify the order of different parts of the current discourse (i.e. 'enumerating'); to direct the audience to specific points in discourse (i.e. 'endophoric marking'); to point forward or backward (i.e. 'previewing' and 'reviewing'); and to allow speakers to comment on the specific situation of discourse production (i.e. 'contextualising').

The results in Table 4 indicate that greater attention is paid to signposting discourse phorics than to managing topics. This finding may be related to the fact that in all the lectures examined, the instructors either use slides or rely on an electronic whiteboard to support their teaching. Hence, the transition from one topic to another may be marked mainly through visual aids. An example of the function of 'introducing topics' is given in (1), while examples (2) and (3) show common visually-aided strategies employed to announce a new (sub)topic.

(1)   S1:<so we have four combinations **let's start** from an input with which is ehh a voltage and an output which is a voltage too> [LELUNDEC]

(2)   S1:<sustainability is really inspiring more and more people to work in this area but not only because it's nice but because there is a huge need of manpower in those eh areas <CHANGE_OF_SLIDE> **and now the concept of green chemistry** you - have you heard about the green chemistry concept> [LELUNDCH]

(3)   S1:<**what happens in the case of h2 second source okay?** i build also for the second source another machine reversible machine> [LELUNDPH]

While in example (2), the transition to the topic of green chemistry is introduced by a change of slide and the impersonal marker *now*, in example (3), the discussion on the second source h2 is announced just after the lecturer has finished writing on the electronic whiteboard. Here the transition mainly relies on 'numerical visuals' (Rowley-Jolivet, 2002, p. 27), specifically the mathematical formula written while speaking. The formula works in connection with the use of prosody whose function is to mark the utterance as a question, thus appealing to the students' attention. Whether these ways of signalling new topics are effective for lecture comprehension in an EMI setting is an issue that cannot be ascertained in this study. Nevertheless, based on Kuhi, Asadollahfamb, and Dabagh Anbarianc's (2014) study showing the positive influence of metadiscourse on lecture comprehension, the hypothesis may be formulated that more explicit ways of signalling transition could improve understanding. The metadiscourse area of topic management, therefore, is one that deserves greater attention in the description of discourse practices in EMI lectures.

The most common functions of personal pronouns for both discourse organisation and in absolute terms are reviewing and previewing. It is interesting to notice that these functions are mainly carried out by means of the participant-oriented metadiscourse marker *we*, suggesting an emphasis on cooperation, whereby the lecturer guides the audience by engaging and 'bonding' with them (example 4). This behaviour is symptomatic of the lecturers' willingness to help students remember important points and develop expectations of the macro phases of the lecture.

(4)   S1:<today […] **we discuss** the concept of entropy> [LELUNDPH]

The second most frequent category of personal metatext is that of metalinguistic comments. When lecturers employ these, they may perform different functions: repairing what they have said to amend mistakes in form or meaning; reformulating their utterances with alternative words or expressions, or commenting on them in terms of, for instance, word selection; clarifying the sense of the message to prevent misunderstandings; or stating the meaning of terms or assigning a specific label to a given phenomenon. The most recurrent functions of metalinguistic comments are 'reformulating' and 'managing terminology'. The relatively high number of reformulations is due to the use of *I mean*

(example 5). This self-rephrase marker was found by Mauranen (2012) to be much more frequent in the *ELFA⁵* corpus than in *MICASE*, with a ratio of almost 9:1. The result obtained here, therefore, seems more related to the use of English as an academic lingua franca rather than to awareness on the part of the lecturers of the need to reformulate concepts for the sake of better learning.

(5)   S1:<then this may becomes simply **i mean** infi- infinitely large> [LELUNDEC]

On the other hand, the function of 'managing terminology' seems to be influenced by the genre under analysis, the university lecture, which favours the explicit transmission of disciplinary knowledge (example 6).

(6)   S1:<this **i will call** discontinuity of the second kind okay? as i said again is just a matter of how we use the names> [LELUNDMA]

The least recurrent category of personal metatext is speech act labels. No instances of arguing verbs were observed, a result which may depend on the broad disciplinary field, i.e. Physical Sciences and Engineering, where more attention is paid to exemplifying or explaining than to proving a point and taking personal responsibility for it. In the list of possible speech act functions in Table 4, the class 'saying' was added to Ädel's (2010) original list of uses. This class includes the verbs SAY, TELL and MENTION, in decreasing order of frequency. The relatively high recourse to such verbs, particularly SAY, reflects the adoption of formulaic expressions (example 7) and is also related to the register (example 8), as SAY is extremely frequent in spoken interactions (Biber, Johansson, Leech, Conrad, & Finegan, 1999).

(7)   S1:<so we are coming out of the middle age and towards times a bit more eh rational **i would say** [...]> [LELUNDCH]

(8)   S1:<again **i say** that this is a removable singularity> [LELUNDMA]

The findings obtained for personal metatext indicate that the Italian lecturers of the sample show audience awareness especially in terms of the need to make discourse organisation explicit. The most frequent form in the corpus is the personal pronoun *we* (see Broggini & Murphy, 2017, for similar results). The association of inclusive *we* with the management of phorics suggests that lecturers explicitly engage students to recognise key passages of the lecture in an attempt to make discourse clear and coherent. While less frequent than *we,* the pronoun *I* is still abundantly exploited. The singular form tends to be used for metalinguistic comments and speech act labels, particularly for reformulations and in association with 'saying' verbs.

From a methodological perspective, the findings suggest that Ädel's (2010) model is effective in covering most uses of metadiscourse in EMI lectures, with the sole

---

exceptions of the function of 'enumerating' and the speech act label of 'arguing', which did not show any occurrence.

Metatext: Impersonal Forms

Table 5 presents the results for impersonal metatext. The classification adopted is based on Ädel's (2006) study of metadiscourse in learner writing. Hence, one goal is to verify the extent to which a taxonomy devised for writing may also be valid for spoken language. In this study, Ädel's framework was adjusted to mirror the one employed for personal metadiscourse, so as to allow the two forms to be compared. In particular, two main changes were made: first, references to the texts and code glosses were grouped together under the category of 'metalinguistic comments'; second, phorics markers were divided into two groups according to their function, i.e. phorics management proper and topic management. Their macro-category was labelled 'discourse organisation'.

Table 5
Impersonal Metatext

Metatext categories		Occurrences
Metalinguistic comments		95
Discourse organisation	Managing topics	19
	Managing phorics	96
	Total	*115*
Discourse labels		179
Total		**389**

Looking at the distribution of uses (Table 5), discourse labels are the most common type of impersonal metatext in the corpus, with 'saying and defining' (Table 6) the most recurrent category (example 9), followed by 'exemplifying' (example 10). This result may be related to both the genre of the lecture and the way knowledge is constructed in the disciplinary fields of this study.

(9)   S1:<so it's a conductance and it will be **called**, transconductance> [LELUNDEC]

(10)   S1:<[…] eh another eh another **example** i'd like to eh to eh to show you […]> [LELUNDEC]

Discourse organisation is the second most frequent category of impersonal metatext (see Table 7 for the items retrieved). As with personal metatext, impersonal forms are more often used to signal phorics than to signal topic management, with 'enumerating' the most recurrent function, which was totally absent in the analysis of personal forms. This use is illustrated in example (11).

(11)   S1:<okay **first of all** eh starting from the efficiency […]> [LELUNDPH]

Table 6
Categories

Discourse labels	Items	Occurrences
	*call**	34
	*mention**	1
	*say**	3
	*speak**/spoke**	2
	*state**	2
Saying and defining	*answer**	1
	*ask**	2
	*question**	19
	*talk**	4
	*defin**	14
	*tell**	2
	*exampl**	27
Exemplifying	*instance*	24
	say	9
Concluding	*conclu**	6
Introducing	*Goal*	7
Other discourse labels	*suggest**	2
	*jok**	2
	summary	1
	*describ**	2
	*discuss**	14
	*repeat**/repetition*	1
Total		**179**

Table 7
Discourse Organisation

Metadiscourse categories	Discourse functions	Markers	Occurrences
Managing topics	Introducing topics	*begin**	2
		*introduc**	4
		*start**	5
	Closing topics	*end**	3
		*final**	3
		*last**	2
		Total	*19*
Managing phorics	Previewing	*following*	9
		later	5
		next	2
		*plan**	1
	Reviewing	*again*	4
		back to	2
		*previous**	1
		so far	2
	Enumerating	*first**	27
		*second**	14
		*third**	4
		three	2
		two	1
	Marking current point	*here*	7
		now	15
		Total	*96*
Total			**115**

Metalinguistic comments are the least frequent function of impersonal metatext. Nevertheless, their uses are interesting from a qualitative point of view. Indeed, in addition to predictable references to the type of event (example 12), there are also a few comments on the code (for instance, during code-switching; see example 13). In particular, a number of references to the lecturers' own *English* were noted, which are articulated using negative politeness strategies, arguably for self-protection, as shown in examples (14) and (15) (see also Table 8). It may be argued that references to the linguistic code are a type of reflexivity that is a distinguishing feature of EMI lectures, and their co-occurrence with face-saving devices may be a trait of EMI, too. This hypothesis finds some support in Dafouz et al. (2007), who notice the use of 'overt *captatio benevolentiae* resources' (p. 660) in L2 lectures.

(12)   S1:<good morning everybody we start, this **lecture** which is the last but one mhm?> [LELUNDEC]

(13)   S1:<he was, eh cultivating things in the country was dispersing copper sulphate verderame is in **Italian** [...]>[LELUNDCH]

(14)   S1:<what i'm speaking is almost **English** more or less if you neglect the accent the rest should be more or less standard English> [LELUNDAI]

(15)   S1:<i am going to ah record every lesson so that you will be able to download eh the eh the file from the from the eh web and you can see me once again so i'm not that pleasant but maybe ehm maybe that is going to help you a bit since maybe i'm not so eh so eh such a good **English** speaker [...]>[LELUNDCH]

Table 8

Metalinguistic Comments: References to the Text/code and Code Glosses

Type of metalinguistic comment	Markers	Occurrences
References to the text/code	*word**	5
	*sentence**	2
	*term**	9
	presentation	2
	*lesson**	4
	*class**	4
	*lecture**	3
	*language**	2
	English	7
	Italian	1
	*hour**	1
	time	7
	*session**	1
	course	38
	break	3
	Total	*89*
Code glosses	*mean**[6]	6
Total		**95**

---

6   Only definitional uses were counted, not consequential ones.

Compared to the distribution of personal metadiscourse, the figures for impersonal forms are lower, especially for phorics and topic management. This result indicates that, overall, lecturers opt for a rather explicit style when conveying metadiscourse meanings; however, as noticed with topic management, some functions are probably less exploited than one would expect in a genre such as the lecture, especially in EMI settings, where the transition from one topic to another is a crucial aspect for the comprehension of content. Impersonal metatext forms are most often used as discourse labels, which arguably assist students in processing the content and in following the lecturer's line of thought.

As for Ädel's (2006) taxonomy of impersonal metatext, as reorganised in this paper, it seems to be effective not only in covering likely uses of these devices in lectures, but also in allowing for comparisons between personal and impersonal metatext.

Audience Interaction

The last category of metadiscourse analysed is audience interaction. The taxonomy of functions in Table 9 is based on Ädel's (2010) study. The function of 'managing comprehension/channel' refers to uses where the speakers ensure that the addressees understand and that the channel allows correct transmission of the message. 'Managing audience discipline' is when speakers tell the audience what to do and comment on their behaviour, whether positively or negatively. 'Anticipating the audience's response' involves pre-empting reactions to the message by conceding points or attributing opinions and arguments to the addressees. 'Managing the message' is when speakers underline the main points of their talk or explain the desired understanding of the message. 'Imagining scenarios' allows speakers to appeal to the audience by asking them to view something from a particular perspective. Finally, 'hypothesising about/inquiring into/verifying audience's knowledge' regards comments where the lecturer expresses concern for the audience's knowledge; this use was added to Ädel's (2010) framework on the basis of the results obtained in this study (see below).

Table 9
Functions of Audience Interaction

Discourse function		Forms				Total
	I	*me*	*you*	*your*	*speaker*	
Managing comprehension/channel	0	0	4	0	0	**4**
Managing audience discipline	4	0	0	2	0	**6**
Anticipating the audience's response	0	0	0	0	1	**1**
Managing the message	3	0	0	0	0	**3**
Imagining scenarios	0	0	0	0	0	**0**
Hypothesising about/inquiring into/verifying audience's knowledge	0	3	21	0	0	**24**
Total	**7**	**3**	**25**	**2**	**1**	**38**

The quantitative data show that, of all the functions identified by Ädel (2010), only 'imagining scenarios' was not found in the corpus. However, in general, the figures for audience interaction are rather low. Examples (16) and (17) illustrate the functions of 'managing comprehension/channel' and 'managing audience discipline' respectively.

(16) S1:<**can you understand** my English? <SOMEONE ANSWERING FROM THE AUDIENCE> eh? sort of mhm?> [LELUNDAI]

(17) S1:<so just give me **your your ten minutes of of brain** because this is important> [LELUNDCS]

The most frequent uses of audience interaction occur when lecturers hypothesise about, inquire into or verify the audience's knowledge (example 18), often through direct questions inviting the students' contribution to the process of meaning-making (example 19). The second person pronoun *you* is the most frequent marker for this function (and in general for audience interaction).

(18) S1:<and it's usually found in the, eh input stage of an operational amplifier **you all know** what an operational amplifier is> [LELUNDEC]

(19) S1:<do **you remember** these points?> [LELUNDPH]

In Ädel's (2010) taxonomy, no function seems to refer to the speaker's concern for the audience's knowledge. This discrepancy is interesting because Ädel's model was developed studying most of the large lectures in *MICASE*. An examination of the setting under scrutiny in this paper may clarify this point. In the university where the lectures were video recorded, attendance is not compulsory, meaning that in each class lecturers might talk to partially different audiences. Metadiscourse may thus be used to ensure that the students possess the information needed to understand the current class. The presence of various markers with regard to the students' knowledge may also be related to EMI, with lecturers making greater efforts to ensure that everybody has the same level of background knowledge. These results point to Ädel's (2018) observation that metadiscourse use is affected not only by genre, but also by a wide range of other variables. In this case, these are the circumstances of production and reception, specifically how much class time is actually shared by lecturers and students, and the degree of background knowledge that can be assumed.

Spoken Production and Non-standard Forms of Metadiscourse

The last aspects addressed in this paper are whether metadiscourse is characterised by features typical of spoken production (i.e. forms of dysfluency), whether they can be partially attributed to the use of a non-native language, whether non-standard English instances can be found, and to what extent they may affect the function of metadiscourse units.

Starting from the features of spoken language, as Biber et al. (1999, p. 1067) observe, oral production is characterised by three principles: keeping talking, limited planning ahead and qualifying what has been said. Hence, speakers (including native ones) are likely to intersperse their utterances with signs of dysfluency such as hesitation, repetition and reformulation. These phenomena occur in order for speakers to maintain the flow of words while retrieving vocabulary from memory; they also relate to the limited time available for speakers to organise their utterances and, thus, to the speakers' need to elaborate retrospectively on what has been said.

In the data analysed for this study, signs of dysfluency are frequent in personal metadiscourse, particularly the subject pronoun *I*. In example (20), the pronoun occurs in a 'repeat' (Biber et al., 1999, p. 1055) sequence, meaning that it is reiterated twice; whereas in example (21) the speaker first repeats the subject+auxiliary structure and then engages in what Biber et al. (1999) call a 'retrace-and-repair' (p. 1062) sequence, that is, an utterance initiated with a construction that is left incomplete and immediately substituted with a new one.

(20)   S1:<but we **i i don't want** to spend the first class to to discuss the exam> [LELUNDAI]

(21)   S1:< **i'm not saying i am_ i i not need** to eh use the same values> [LELUNDCS]

These dysfluency phenomena are normal in spoken language. Not surprisingly, they occur at the start of utterances where speakers experience considerable planning pressure. With the data available, it is not possible to establish whether non-native speakers tend to produce more instances of dysfluency in relation to metadiscourse than native speakers. However, an initial hypothesis can be formulated that this may be the case. By using the 'sample' option of the concordance programme in the Sketch Engine, random samples of 100 occurrences of the pronoun *I* were extracted multiple times. In all 100-line samples, more than one repeat sequence of the pronoun *I* was found. According to Biber et al. (1999), in L1 English it is highly unusual to find more than one repeat sequence every one-hundred occurrences of a word, suggesting that the lectures analysed contain more repeats, at least when it comes to the use of the 1st person singular pronoun. Quite interestingly, the instances of repeats were often found related to stretches of text conveying metadiscourse meanings (see, for example, Figure 1, concordance lines 29 and 34). Therefore, based on these preliminary insights, it would seem that some uses of metadiscourse pose challenges to L2 lecturers. Clearly, this is a tentative supposition, but it points to an issue which, if empirically validated, would have implications for teacher training, and further attention to this aspect of metadiscourse is therefore advisable.

25	well i dont spend time eh on this	i	want to tell you only one thing
26	i - is there any Greek here ?	i	don't think so heh ok no Greeks
27	guess more things but now i will	i	will have to be as precise as
28	important thing for an engineer	i	think . because with chemistry
29	starting eating CO2 the way i	i	told you before exploiting sunlight
30	useful but it's also dangerous	i	collected here three tragedies
31	course , but there are eleven so	i	can tell you others but i would
32	this is a piece of copper ah .	i	used to see ah the tools that
33	sulphate verderame is in Italian	i	don't know what's the name
34	here i 'm not saying i am – i	i	not need to eh use the same values
35	is going to happen here? And	i	say no no no no no no no no no

Figure 1. Sample of concordance lines for *I* in the corpus of EMI lectures.

As regards the use of non-standard forms in metadiscourse units, the main area involved is the verb phrase, with constructions deviating from Standard English in terms of tense (example 22), lexical choice (example 23), syntax (example 24) and collocational profile (25).

(22)   S1:<so, about the definitions **as i say** this is not an easy question> [LELUNDAI]

(23)   S1:< **i recall you that** when we have a machine [...]> [LELUNDPH]

(24)   S1:< **you remember** who was the discoverer of penicillin? he got the Nobel prize> [LELUNDCH]

(25)   S1:<before, seeing the the next topic **i would like to do a remark** [...]> [LELUNDMA]

These utterances are symptomatic of the 'shaky entrenchment' (Mauranen, 2012, p. 217) of target language forms, whereby the lexical and grammatical structures of the English language are less developed and less deeply rooted than those of one's native language. It would be interesting to verify whether metadiscourse works effectively, despite these mistakes and inaccuracies. Judging from the instances obtained in this study, it would seem that the comprehensibility of the overall function of metadiscoursive units is not significantly affected. Thanks to the context (for instance, in example 22) and co-occurring features (in example 23, tense; in example 24, the use of intonation; in example 25, lexico-grammatical items), the audience is likely to recognise what instances perform a prospective or retrospective discourse organisation function, what action is intended and how it is being engaged.

Discussion and Concluding Remarks

This study has explored metadiscourse in six EMI lectures in the fields of the Physical Sciences and Engineering delivered by Italian native speaker instructors. The aim was to shed some light on how metadiscourse is employed in such lectures and identify uses of metadiscourse that may be related to the specific contextual circumstances of EMI.

The discourse functions most often performed by personal metatext are 'organising discourse' (particularly marking phorics by means of the inclusive *we*) and making 'metalinguistic comments' (especially 'reformulating' and 'managing terminology' through the pronoun *I*). On the other hand, the most recurrent forms of impersonal metatext are discourse labels (mainly the 'saying and defining' markers *call*, question** and *defin**) and items that signal discourse organisation (mostly phorics management, e.g. *first**, *second**, *now*). Audience interaction is considerably less frequent than metatext, and the uses identified occur almost exclusively when lecturers engage students in terms of their knowledge of the content of the lecture (the main marker is *you*).

The patterns of metadiscourse observed in this study may be related to three main factors: genre, discipline and the use of English as an academic lingua franca in an EMI setting. The genre of the lecture emphasises the management of terminology and favours the marking of phorics. These uses are among the most frequent in the corpus, a result that confirms the findings of Zare and Tavakoli's (2016) study of monologic and dialogic academic speech. Another genre-related feature is the absence of personal metatext markers for the speech act label 'arguing', probably 'because arguing is more common in written mode' (Zare & Tavakoli 2016, p. 9). However, the variable of discipline may also play a role, with Physical Sciences and Engineering preferring explanatory and descriptive types of teaching to argumentative ones. The extensive use of 'saying and defining' discourse acts, too, may be related to the joint influence of genre and discipline.

Some features of metadiscourse identified in this study could be related to EMI and the use of English as an academic lingua franca. These are the relatively high recourse to reformulations through the self-rephrase marker *I mean*; references to the code, specifically the international and the local language (English and Italian); and comments on the lecturer's own spoken performance, in some cases articulated through negative politeness strategies to prevent criticism. The need to save face vis-à-vis the use of English may be related to the preference of lecturers not to appear as language experts, thus making it clear that English is a lingua franca, that mistakes may occur and that meaning-making is a two-way process involving both lecturers and students. As Dafouz et al. (2007) point out, 'the use of a FL [foreign language] as the vehicle of instruction may act as a catalyst to balance the highly asymmetrical roles performed by teachers and students [...], increasing participation' (p. 660).

Hesitations and repeats were noticed in association with metadiscourse. These are dysfluency features that also characterise L1 spoken language performance. However, it may be argued that the burden that L2 processing entails for working memory makes these forms occur more frequently when lecturing in a non-native language, a hypothesis that needs corroboration in further studies. Finally, various non-standard forms were observed in metadiscourse units but, overall, these L2

features do not seem to affect the comprehensibility of metadiscourse functions thanks to the semantic contribution of the co-text. It should be pointed out, however, that non-standard stretches may be clearer to the Italian part of the audience due to the so-called 'interlanguage benefit' (Bent & Bradlow, 2003), whereby interactants who share the same L1 are likely to understand each other better in a foreign language than those who do not. Hence, further analyses should verify the extent to which intelligibility is affected by inaccuracies and mistakes.

Pedagogical Implications

Metadiscourse is an aspect of language that contributes to effective communication by facilitating understanding of the lecture content and the lecturer's line of thought (Hellekjær, 2017). The importance of metadiscourse becomes even clearer in the EMI classroom, where students may possess varying degrees of proficiency. Given its centrality, it is highly advisable that metadiscourse is included in teacher training programmes.

As various studies have emphasised the need to make teacher training 'an exercise of self-awareness, self-discovery, and personal internalisation' (Costa, 2016, p. 124), EMI instructors should, first of all, be encouraged to recognise the range of meanings that metadiscourse can convey in lectures. Awareness of metadiscourse could be raised through activities that draw from authentic experiences, with the aim of stimulating reflection on appropriate uses in specific settings (the importance of authenticity in the teaching of metadiscourse is also emphasised in Alotaibi, 2018; Akbas & Hardman, 2018; and Bogdanović & Mirović, 2018). For example, EMI instructors could be shown videos of lectures in non-Anglophone contexts and be asked to identify metadiscourse, discussing both successful practices and those which require improvement. While this activity could enhance the lecturers' familiarity with and critical awareness of metadiscourse, it could be difficult to obtain suitable materials (unless the lecturers themselves are willing to provide data by agreeing to be video recorded during their lectures). An alternative to video recordings could be the use of transcriptions from existing corpora of spoken academic discourse, such as MICASE, to familiarise lecturers with possible ways of marking metadiscourse and stimulate discussion on whether these mirror their own experience. Considering the results obtained in this study, attention could be focused, for instance, on ways in which metadiscourse is used for topic management. Lecturers could also be encouraged to work on their personal experience and be asked to complete post-lesson self-reflection grids with their own uses of metadiscourse. Finally, they could receive *ad hoc* 'formative feedback' from trainers based on the assessment of their performance during classes or micro-teaching sessions, i.e. 20-minute simulations of lectures (see Kling & Stæhr, 2011, for the benefits of formative feedback as

awareness raising tool for L2 users). Explicit training in metadiscourse, as Alotaibi (2018) observes, should not merely aim to encourage its use, which may then result in overuse, but rather to promote the strategic deployment of metadiscursive resources in order to make communication more effective. Training in metadiscourse for EMI lecturers should, therefore, go hand in hand with reflections on pedagogy and intercultural communication.

Since EMI lecturers themselves are a population whose levels of proficiency will vary, in some settings (e.g. Italy), lecturer language competence is a relevant issue and improving the language skills of teachers is high on the agenda. Thus, while the data obtained in this study seem to suggest that metadiscourse is an area of language use where formal accuracy is less important than communicative effectiveness, lecturers may nevertheless profit from being presented with a variety of lexical and grammatical resources to express metadiscourse meanings. Form-focused training may improve the lecturers' performance and self-confidence in using metadiscourse, thus reducing mistakes and dysfluency. The teaching of forms, too, may be an awareness raising exercise based on observation, discussion and controlled practice.

Methodological Implications

The use of corpus-based techniques, complemented with initial data-driven analysis to identify likely impersonal metadiscourse markers, proved successful in ensuring the coverage of most metadiscourse meanings. As regards the efficacy of Ädel's (2006; 2010) taxonomy, the data reported in this paper show that the model was capable of identifying almost all uses of metadiscourse in the corpus under scrutiny. While the classification for personal metatext, in particular, needed no amendments, that for impersonal metatext required adjustment to allow personal and impersonal categories to be compared, and audience interaction required the addition of a further function to account for the uses related to the students' knowledge.

This paper took an across-the-board approach to metadiscourse with the aim of providing an initial mapping of such a complex and multifaceted territory, hoping to identify areas for further study in larger corpora or topics needing more focused analysis. Among the strategies that require more empirical data are the use of reformulation markers, the references to the text/code and the macro-function of audience interaction; while the issues that need more deeply focused investigations (possibly in larger-scale studies, too) are topic management and the challenges to non-native lecturers posed by the articulation of metadiscourse meanings.

References

Ädel, A. (2006). *Metadiscourse in L1 and L2 English*. Amsterdam, NL: John Benjamins.

Ädel, A. (2010). 'Just to give you kind of a map of where we are going': A Taxonomy of metadiscourse in spoken and written academic English. *Nordic Journal of English Studies*, *9*(2), 69–97.

Ädel, A. (2012). 'What I want you to remember is...': Audience orientation in monologic academic discourse. *English Text Construction*, *5*(1), 101–127.

Ädel, A. (2018). Variation in metadiscursive 'you' across genres: From research articles to teacher feedback. *Educational Sciences: Theory & Practice*, *18*, 777–796. http://dx.doi.org/10.12738/estp.2018.4.0037

Aguilar Pérez, M., & Arnó Macià, E. (2002). Metadiscourse in lecture comprehension: Does it really help foreign language learners? *Atlantis*, *24*(1), 7–21.

Akbas, E., & Hardman, J. (2018). Strengthening or weakening claims in academic knowledge construction: A comparative study of hedges and boosters in postgraduate academic writing. *Educational Sciences: Theory & Practice*, *18*, 831–859. http://dx.doi.org/10.12738/estp.2018.4.0260

Alotaibi, H. (2018). Metadiscourse in dissertation acknowledgments: Exploration of gender differences in EFL texts. *Educational Sciences: Theory & Practice*, *18*, 899–916. http://dx.doi.org/10.12738/estp.2018.4.0247

Barbieri, F. (2013). Involvement in university classroom discourse: Register variation and interactivity. *Applied Linguistics, 36*(2), 151–173.

Bendazzoli, C. (2015). English medium instruction and the role of language mediation. *Ricognizioni. Rivista di Lingue, Letterature e Culture Moderne*, *2*(4), 157–176.

Bent, T., & Bradlow, A. (2003). The interlanguage speech intelligibility benefit. *The Journal of the Acoustical Society of America*, *114*(3), 1600–1610.

Biber, D., Johansson, S., Leech, G., Conrad, S., & Finegan, E. (Eds.). (1999). *The Longman grammar of spoken and written English*. London, UK: Longman.

Björkman, B. (2011). Pragmatic strategies in English as an academic lingua franca: Ways of achieving communicative effectiveness? *Journal of Pragmatics, 43*(4), 950–964.

Bogdanović, V., & Mirović, I. (2018). Young researchers writing in ESL and the use of metadiscourse: Learning the ropes. *Educational Sciences: Theory & Practice*, *18*, 813–830. http://dx.doi.org/10.12738/estp.2018.4.0031

Broggini, S., & Costa, F. (2017). A survey of English-medium instruction in Italian higher education. An updated perspective from 2012 to 2015. *Journal of Immersion and Content-Based Language Education*, *5*(2), 238–264.

Broggini, S., & Murphy, A. C. (2017). Metadiscourse in EMI lectures: Reflections on a small corpus of spoken academic discourse. *L'analisi Linguistica e Letteraria*, *XXV*(2), 325–340.

Campagna, S., & Pulcini, V. (2014). English as a medium of instruction in Italian universities: Linguistic policies, pedagogical implications. In M. G. Guido & B. Seidlhofer (Eds.), *Textus. English studies in Italy. Perspectives on English as a Lingua Franca*, *XXVII*(1), 173–190.

Costa, F. (2015). English Medium Instruction (EMI) teacher training courses in Europe. *RiCognizioni. Rivista di Lingue e Letterature Straniere e Culture Moderne*, *4*(2), 127–135.

Costa, F. (2016). *CLIL (Content and Language Integrated Learning) through English in Italian higher education*. Milano, Italy: LED, Edizioni Universitarie di Lettere Economia Diritto.

Costa, F., & Coleman, J. (2013). A survey of English-medium instruction in Italian higher education. *International Journal of Bilingual Education and Bilingualism*, *16*(1), 3–19.

Costa, F., & Mariotti, C. (2017). Students' profiles and their reception of English-medium instruction in Italian universities. In C. Boggio & A. Molino (Eds.), *English in Italy: Linguistic, educational and professional challenges* (pp. 160–181). Milano, Italy: FrancoAngeli.

Dafouz, E., Núñez, B., & Sancho, C. (2007). Analysing stance in a CLIL university context: Non-native speaker use of personal pronouns and modal verbs. *The International Journal of Bilingual Education and Bilingualism*, *10*(5), 647–662.

Deroey, K. L., & Taverniers, M. (2012). Just remember this: Lexicogrammatical relevance markers in lectures. *English for Specific Purposes, 31*(4), 221–233.

Field, J. (2011). Into the mind of the academic listener. *Journal of English for Academic Purposes, 10*(2), 102–112.

Guarda, M., & Helm, F. (2016). 'I have discovered new teaching pathways': The link between language shift and teaching practice. *International Journal of Bilingual Education and Bilingualism, 20*(7), 897–913. https://doi.org/10.1080/13670050.2015.1125848.

Hellekjær, G. (2017). Lecture Comprehension in English-medium higher education. *HERMES - Journal of Language and Communication in Business*, *23*(45), 11–34. https://doi.org/10.7146/hjlcb.v23i45.97343

Hultgren, A. K., Jensen, C., & Dimova, S. (2015). English-medium instruction in European higher education: From the north to the south. In S. Dimova, A. K. Hultgren, & C. Jensen (Eds.), *English-medium instruction in European higher education* (pp. 1–15). Berlin, Germany: De Gruyter.

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

Kilgarriff, A., Rychly, P., Smrz, P., & Tugwell, D. (2004). The sketch engine. *Proceedings EURALEX 2004* (pp. 105–116). Lorient, France.

Kling, J., & Stæhr, L. S. (2011). Assessment and assistance: Developing university lecturers' language skills through certification feedback. In R. Cancino, L. Dam & K. Jæger (Eds.), *Policies, principles, practices: New directions in foreign language education in the era of educational globalization* (pp. 213–245). Newcastle upon Tyne, UK: Cambridge Scholars Publishing.

Kuhi, D., Asadollahfam, H., & Anbarian, K. D. (2014). The Effect of Metadiscourse Use on Iranian EFL learners' lecture comprehension. *Procedia - Social and Behavioral Sciences, 98*, 1026–1035.

Lorés, R. (2006). The referential function of metadiscourse: *Thing(s)* and *idea(s)* in academic lectures. In A. Hornero, M. Luzón & S. Murillo (Eds.), *Corpus linguistics: Applications for the study of English* (pp. 315–334). Bern, Switzerland: Peter Lang

Lynch, T. (2011). Academic listening in the 21st century: Reviewing a decade of research. *Journal of English for Academic Purposes, 10*(2), 79–88.

Mauranen, A. (2012). *Exploring ELF. Academic English shaped by non-native speakers*. Cambridge, UK: Cambridge University Press.

Molino, A. (2017). Repetition and rephrasing in physical sciences and engineering English-medium lectures in Italy. In C. Boggio & A. Molino (Eds.), *English in Italy: Linguistic, educational and professional challenges* (pp. 182–202). Milano, Italy: FrancoAngeli.

Molino, A., & Campagna, S. (2014). English-mediated instruction in Italian universities: Conflicting views. *Sociolinguistica: Internationales Jahrbuch für europäische Soziolinguistik*, *28*(1), 155–171.

Morell, T. (2004). Interactive lecture discourse for university EFL students. *English for Specific Purposes*, *23*(3), 325–338.

Pulcini, V., & Campagna, S. (2015). Internationalisation and the EMI controversy in Italian higher education. In S. Dimova, A. K. Hultgren & C. Jensen (Eds.), *English-medium instruction in European higher education* (pp. 65–87). Berlin, Germany: De Gruyter.

Rowley-Jolivet, E. (2002). Visual discourse in scientific conference papers A genre-based study. *English for Specific Purposes, 21*(1), 19–40.

Swales, J. (2001). Metatalk in American academic talk. The cases of point and thing. *Journal of English Linguistics*, *29*(1), 34–54.

Thompson, S. E. (2003). Text-structuring metadiscourse, intonation and the signaling of organization in academic lectures. *Journal of English for Academic Purposes*, *2*(1), 5–20.

Young, L. (1994). University lectures: Macro-structure and micro-features. In J. Flowerdew (Ed.), *Academic listening: Research perspectives* (pp. 159–176). Cambridge, UK: Cambridge University Press.

Zare, J., & Keivanloo-Shahrestanaki, Z. (2017). The language of English academic lectures: The case of field of study in highlighting importance. *Lingua, 193*, 36–50.

Zare, J., & Tavakoli, M. (2016). The use of personal metadiscourse over monologic and dialogic modes of academic speech. *Discourse Processes, 54*(2), 163–175.

Research Article

Catch a Tiger by the Toe: Modal Hedges in EFL Argumentative Paragraphs[*]

Çiler Hatipoğlu[1]
Middle East Technical University

Sedef Algı[2]
Middle East Technical University

Abstract

Writing argumentative paragraphs is challenging even in one's first language (L1) since in order to fulfil their goals writers need to carefully choose among the available metadiscursive tools and skilfully balance their use. Writing in a foreign language (L2) is even more challenging because language learners are usually familiar only with a limited number of metadiscursive markers and functions. Therefore, when unsure, these novice L2 writers tend to fall back to old habits and transfer structures from L1 into their L2 texts. However, structures that are acceptable and may even be the norm in L1 may not be appropriate to use in L2. Consequently, the learners may fail to persuade their readers or to communicate their intended message successfully. Since learners with different language backgrounds may have different problems when writing in L2, each group should be studied closely and their specific challenges should be identified and dealt with when teaching academic writing. The aim of this study is to contribute to this specific area of research by, first, identifying and analysing the number and functions of the modal hedges that native speakers of Turkish learning English employ in their L2 argumentative paragraphs and then, to identify the modals whose employment results in a weaker/abrupt and/or inappropriate argumentation. To fulfil these goals argumentative paragraphs written in English by native speakers (NS) of Turkish with pre-intermediate level of proficiency were collected and the modal hedges in these paragraphs were identified and analysed. The findings of the study show that modal hedges in English are a group of markers particularly problematic for second language learners as they are multifunctional, multilayered and culture dependent, and that some of the inappropriate uses or overuses of modals in L2 can stem from the employed teaching materials and/or lack of proper training related to this domain. The results emphasize once again how vital it is to find a place for the metadiscourse markers in the foreign language writing curricula as well as in the paragraph assessment rubrics used in the institutions.

Keywords

Metadiscourse • Modal hedges • Argumentative paragraphs • EFL • Academic writing • Native speakers of Turkish writing in English

Writing successful persuasive arguments in one's first language (L1) is one of the most crucial and, at the same time, most challenging tasks in academic writing (Wingate, 2012). To accomplish this task writers need to choose, develop and defend a position, to successfully appeal to the readers' logic and passions, to predict in advance and respond appropriately to readers' reactions, and to skilfully align or distance themselves from cited sources (Lee & Deakin, 2016). These writing skills are mainly demonstrated when writing argumentative paragraphs which are an important type of written discourse most commonly taught and required in academic settings (Aull & Lancaster, 2014; Hatipoğlu & Algı, 2017; Hyland, 1990, 2009; Wingate, 2012).

Writing argumentative texts in a foreign language (L2) is even more challenging because language learners usually know a limited number of metadiscourse markers and functions. When they are uncertain, novice L2 writers tend to fall back to old habits and transfer structures from L1 into their L2 texts. However, structures that are expected and acceptable, and are even the norms in L1 may not be appropriate to use in L2.

One specific group of metadiscourse markers that many non-native speakers (NNS) of English find hard to learn and use are the modal auxiliaries. These devices are polysemous and multifunctional, and do not lend themselves easily to classification (Aijmer, 2017, 2018; Hinkel, 2009; Verhulst & Heyvaert, 2015). Scrutiny of some of the more widely used sources shows that many of the 'classic' reference grammar books unfortunately either do not deal with or lack clear guidelines about the use of modals as hedges in specific contexts. What is more, the L2 pedagogical materials employed to teach academic writing frequently fall short of accurately representing the usage of metadiscourse devices in English (Algı, 2012; Hyland & Milton, 1997). As a result, L2 writers often struggle to appropriately express their doubts or to balance their degree of certainty. The issue is complicated further by the fact that L2 learners with different first languages and various educational opportunities experience diverse problems when using modal hedges because they are culture, contexts and topic dependent (Hinkel, 2002, 2009; Kang, 2017; Kwachka & Basham, 1990). Therefore, each L2 learner group should be studied closely and their specific problems should be identified and dealt with when teaching academic writing.

Using these statements as a spring board, the current study examines the frequency, categories and patterns of use of modal hedges by NS of Turkish writing argumentative paragraphs in English and aims to uncover the types of problems they experience in order to suggest a number of pedagogical methods for teaching modal hedges to NS of Turkish. It is hoped that the findings of this study will be useful for foreign language teaching material writers, language teachers as well as assessment experts and curriculum developers.

Theoretical Framework and Literature Review

Metadiscourse is an elusive term which is difficult to define and categorize. It was initially presented and described as the group of signposts that help readers notice, interpret, evaluate and react to the propositional material presented to them in the texts (Kopple, 1985). Later, it changed direction and scope, and was characterized as "the cover term for self-reflective expressions used to negotiate interactional meanings in a text, assisting the writer (or speaker) to express a viewpoint and engage with readers as members of a particular community" (Hyland, 2005b, p. 37). Based on this framing of the term, Hyland (2005b; 2010) has developed a taxonomy dividing metadiscourse into *interactive* and *interactional*. Within the first group of markers, he puts the tools that organize a discourse in a way that ensures the readers are well-guided through the text (e.g., transitions, frame markers, evidential and code glosses) while the latter group includes hedges, boosters, attitude and engagement markers, and self-mentions. These are the expressions that involve the reader in the text and allow the writers to socially engage with them. The hedges (i.e., the linguistic tools used to convey tentativeness to reflect uncertainty, Hyland, 1998a, 1998b) within this second group and particularly its sub-category of modal verbs as used by L2 writers are the focus of this article.

Research on modal use by NNS is becoming more popular and this interest is motivated mainly by two interrelated factors: (i) the "frequency, prominence, and complexity" (Hinkel, 2009, p. 670) of modals in English" and (ii) the fact that they are stumbling blocks for many NNS (Biber et al., 2002; Holmes, 1982; Verhulst & Heyvaert, 2015) since their use is culture, context, topic and discourse dependent (Hinkel, 1995, 2002; Kwachka & Basham, 1990). To make matters worse, there is no agreement on how modals should be classified and/or which modals are preferred in specific usage contexts. The more traditional grammar books classify them into central/principle/core modal verbs and marginal/semi- modals (e.g., *need to, ought to*). The central modals, also called modal auxiliaries, express modality and usually include *must* as well as *can, may, shall, will* and their past/secondary forms (i.e., *could, might, should, would*) (Leech, 2005). In contrast, researchers focusing on semantics divide them into deontic and epistemic modals. That is, into modalities that are performative and include an element of will and/or an action by the speakers or their interlocutors; and those that are agent oriented and express ''speaker stance'' (Biber et al., 1999, p. 485) and his/her believe and knowledge in relation to a proposition (Palmer, 1986:96). Still another classification arranges modals into obligation/necessity and ability/possibility categories depending on the "logical and a practical (or pragmatic) element'' in their meaning (Biber et al., 1999; Leech, 2005, p. 88). Since this classification, according to Biber et al. (1999), shows the clearest contrast in meaning between the groups of modals, it has been adopted and used in many studies examining the pragmatic meanings and functions of modals in NS

texts. More recently, researchers started to make use of these categories to compare and contrast the employment of modals in L1 and L2 wiring.

Earliest studies comparing L1 and L2 texts focused more on the effect of topic and culture on the use of modals and showed that "a preponderance of modal verb uses can be culture- and topic-dependent" (Hinkel, 2009, p. 670; also Hinkel, 1995, 2002). One such group of studies were the ones conducted by Basham and Kwachka (1989; 1991), and Kwachka and Basham (1990). These two researchers examined the use of modals such as *can, could, may* and *should* in the essays of students coming from the Yup'ik or Inupiaq Alaska Eskimo communities, and first-year university students with different backgrounds. The results of the four-year long project demonstrated how Eskimo students consistently "extended the standard functions of modals to encode their own cultural values" (Basham & Kwachka, 1991, p. 44) clearly exhibiting the effect of culture on the use of some of the grammatical structures. In the same vein, Hinkel (2009) studied the modals in 718 essays written on five topics (i.e., parents, grades, major, manner, wealth) by NS of English and NS of Chinese, Japanese and Korean who were very advanced speakers of English. The analysis showed that the frequency rates of obligation and necessity modals were more topic dependent than the ones of possibility and ability, and that topics which necessitate more reliance on personal experiences and socio-cultural background knowledge on the part of the students lead to bigger disparities in the use of modals between L1 and L2 writers.

Later studies in the field focused on the use of modals in the texts of more and less successful L2 writers (Kang, 2017; Lee & Deakin, 2016) and found that essays graded higher usually included a bigger number of epistemic markers. That is, the students who were able to reduce the imposition on the reader and successfully decreased the writer's responsibility by displaying uncertainty or hesitation were perceived as being able to complete the given task better.

A more recent trend in metadiscourse research focuses on decoding how L2 learners of English translate modals from their native tongues into English and vice versa (Aijmer, 2018; Axelsson, 2013). Such studies aim to uncover how different modals and their sometimes multiple functions are mapped and connected in the mother and target languages of the students. By doing this, researchers aim to identify the misconceptions and challenges that L2 learners face and the possible linguistic and non-linguistic factors aiding and/or hindering the learning and utilization of modals in L2. What these studies show is that systematic examination of the forms, functions and contexts of use of modals are needed in the foreign language classes since many of the seemingly unimportant meaning/ function nuances of modals might lead to vague or inappropriate statements violating the conventions of the specific genre (Aijmer, 2018).

In the Turkish context, as far as the authors are aware, no study has so far focused particularly on the use of modals in English essays written by NS of Turkish. There

are also only a few studies that investigated the uses of hedges in Turkish and English texts written by NS of Turkish. One such study was conducted by Can (2006) who worked with monolingual NS of American English (MAS), NS of Turkish (MTS), and English-Turkish bilingual NS of Turkish who were asked to write essays both in Turkish (TBT) and English (TBE). When Can's (2006) findings related to the use of hedges are examined, it looks as if they cannot be explained with either L1 influence or cultural norms. Among the four groups, the biggest number of hedges (which included modals such as *may, might, can* and *could*) were used in the MTS (i.e., essays in Turkish written by monolingual NS of Turkish), then in TBE (i.e., essays in English written by Turkish-English bilinguals), MAS and TBT. That is, differently from the expectations related to English speaking cultures (e.g., Galtung, 1981), where the use of hedges is prevalent and particularly necessary (Myers, 1989), MAS in Can's (2006) study opted for more assertive claims and/or reinforced the truth value of their propositions.

Another comparative study was carried out by Bayyurt (2010) whose participants were freshman year students in the Foreign Language Teaching Departments of two universities in Istanbul. The informants were asked first to write an essay in Turkish and two weeks later they wrote an essay on the same topic in English. Bayyurt (2010) reported that the writers in her study employed boosters with similar frequencies in both their English and Turkish texts but utilized hedges 1.6 times more in their English essays. She also found that the most frequently employed hedges in both corpora were the epistemic hedges (i.e., modals like *can*) and the direct and indirect personal markers. Based on her results, Bayyurt (2010) emphasized that L2 writers should be specifically taught the functions of metadiscourse markers in English and that they should be made aware of the problems that might arise unless their accounts convey the appropriate degree of doubt and certainty.

Interesting results were reported by Akbas and Hardman (2018) in their recent comparative study of the discussion sections of dissertations written by NS of Turkish in Turkish (T1), NS of British English in English (EL1) and NS of Turkish in English (EL2). Among those three groups, EL2 members were the ones who used the highest number of hedges and T1 utilized the highest number of boosters. The behaviour of EL1 writers were somewhat parallel to EL2. The comparison of the uses of the hedge sub-categories revealed even more intriguing results. T1 group's preferred hedges were modals and they rarely employed any of the other three categories (i.e., full verbs, adverbs and adjectives, and multi-word constructions). EL2 group members used full verbs the most but they also benefited from modals as well as adverbs and adjectives while EL1's first choice as downtowners were adverbs and adjectives. The findings of this study showed once again that there are language variations in the certainty with which arguments are expressed. Turkish, it seems, similarly to German and Czech (Bloor & Bloor, 1991) favours a more direct style where writers appear to

be more committed to their propositions. English, on the other hand, endorses a more cautious style that enables writers to shield themselves from potential attacks.

Methodology

Research Context

The data for this study were collected during the Summer school offered by the Department of Basic English (DBE) of Middle East Technical University (METU). METU is a highly competitive state university, where the medium of instruction is English. Before being allowed to progress to their respective undergraduate programs, all students admitted to METU have to sit the METU English Proficiency Test (EPE). The students are considered successful if they score at least 65 out of 100 which is equivalent to 6.5 on the IELTS exam, 79 on TOELF IBT and B1 level in the Common European Framework of Reference for languages (Hatipoğlu, 2013). If they do not get 65 or above, they have to attend the prep classes offered by DBE, where they receive full-time English language training. The students can take the EPE again after a semester or at the end of the academic year if their Yearly Academic Grade (YAG) (i.e., the cumulative mean of all of their exams) is above 64.49. Students whose YAG is between 49.5 and 64.49 are not allowed to take the proficiency exam in June (i.e., at the end of the academic year) but can attend the Summer School offered by DBE. The Summer School starts after the English Proficiency Exam in June and lasts for four weeks during which students receive 120-hours of intensive training in reading, writing, listening and grammar in English.

In their writing classes, students cover the material included in the writing booklet which features an introduction explaining the basics of academic writing, and comprehensive information about the parts of a condensed paragraph in English (i.e., an introductory sentence, topic sentence, major and minor supporting ideas, examples and a concluding sentence). These sections are followed by paragraphs exemplifying the discourse types students are taught during the academic year (i.e., argumentative, compare and contrast, cause and effect, descriptive). In class, students go over the rules that should be followed while writing argumentative paragraphs, for instance, and then, they are asked to write paragraphs on topics selected from TOEFL. Students can write the paragraphs either in class or at home but they are expected to show the finished product to their writing instructors and to get detailed feedback from them. If necessary, students are asked to write a number of drafts and rewrites of their paragraphs.

Participants

The informants in this study were 52 (F=34, M=18) native speakers of Turkish learning English at a prep program in a Turkish English medium university. Their age range was 18-20 years and the majority of them were either Anatolian (46.2%), "Regular" (21.2%) or Teacher Training (11.5%) High School graduates. None of the informants had lived in a foreign country for more than six months. At the time of the data collection process, the participants had already completed their first year at the English prep program at METU and were attending the Summer School offered by the university.

Data Collection

Two data collection tools were used in this study: (i) a background questionnaire and (ii) student argumentative paragraphs. The background questionnaires enabled researchers to collect detailed information related to the participants. They were asked to provide information related to their age and gender, the name and type of the high school they graduated from, the native and foreign languages they spoke, and their levels of proficiency in these languages. Information related to the level of education of their parents and the economic status of the family was also collected.

After completing the background questionnaire students were given six writing prompts from the TOEFL's web page (http://www.ets.org/Media/Tests/TOEFL/pdf/989563wt.pdf) and they were asked to pick one. Most of the students vouched for *'Should children start learning a foreign language as soon as they start school?'* When asked to explain their choice it was seen that students were affected by their experiences. They stated that they thought they failed the METU proficiency exam because they started learning English relatively late, hence they were not able to adequately master the language. Therefore, they believed that this was the topic which they could argue more persuasively for.

To avoid the use of external materials and to elicit students' actual knowledge and ability to use hedges, the argumentative essays were written in class. Before they started writing, students were reminded the rules of writing argumentative paragraphs and were instructed to use related examples and reasons supporting their claims. The 52 argumentative paragraphs written by the students in English had 10.257 words in total.

Data Analysis

The argumentative paragraphs collected for the study were analysed in four stages:

Stage 1

The aim of Stage 1 was to compile a reference search list of hedges. Earlier studies focusing on hedges in English (e.g., Hinkel, 2009; Hoye, 2005; Hyland & Milton,

1997) were scrutinized and the initial version of the list was created. Then, the paragraphs written by the participants in the current study were read carefully by both of the researchers and the hedges missing in the initial list were added to compile a more comprehensive, context specific list to be used in Stage 2.

Stage 2

In Stage 2, the handwritten argumentative paragraphs of the students were digitalized by the researchers and saved in separate folders. Apart from the spelling of the hedges, no punctuation, grammar, cohesion or any other mistakes/problems in the texts were corrected. The incorrect spellings of the hedges were amended in order to uncover the actual number of modals in the corpus and to ensure the reliability and validity of the results.

Next, the digitalized texts were formatted and coded following the conventions of CLAN CHILDES (i.e., Computerized Language Analysis Child Language Data Exchange System, https://childes.talkbank.org/). This program was selected for the analysis of the collected texts since, among other functions, it calculates the frequency (FREQ) of the words in the texts and enables researchers to search quickly and efficiently for specific words or word strings (COMBO). These properties of the program increase the accuracy of the analyses and minimize the chances of missing important items.

Finally, the frequencies and the contextual uses of the hedges in the argumentative paragraphs were identified (see Figure 1).
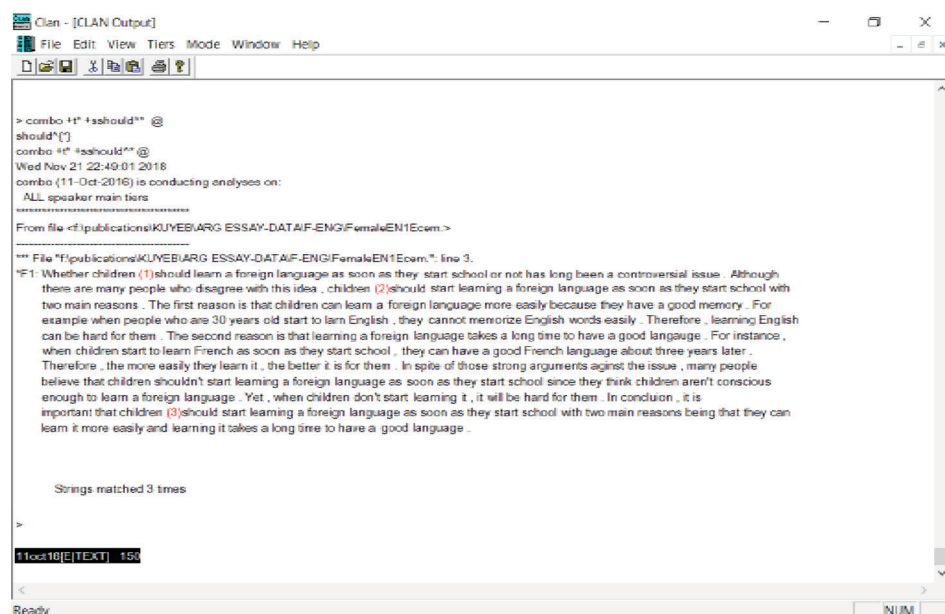

Figure 1. Example COMBO results for "should".

Stage 3

The goal of Stage 3 was to uncover how successful students were in using English modal hedges (Dulay, Burt, & Krashen, 1982; Milton & Hyland, 1999). It was hoped that by achieving this aim, some trends and/or generalizations related to the employment of hedges by NS of Turkish could be identified and these, in turn, would allow researchers to suggest some pedagogical approaches related to the teaching of these devices.

The categories of analysis in this stage were:

(i) Correct use (CU): Appropriate use of the modal allowing writer to show his/her commitment to the proposition.

(ii) Incorrect use (ICU): The incorrect use of a modal to assess the certainty the writer attributes to the proposition.

(iii) Overuse (OU): The presence of a modal where it is not required (see Table 1).

Table 1

Representative Examples of Appropriate Use (CU), Incorrect Use (ICU) and Overuse (OU)

Example	CU	ICU	OU
(i) Although many people believe that children should not start learning a foreign language as soon as they start school, this is not true thing. It CAN be explained two main reasons.	X		
(ii) However, some interest groups claim that children should not begin learning a language as soon as they start school .The opponents have a point but their argument is not strong enough The reason for this is that when old people want to learn languages they CANNOT do so easily as there are a lot of things to concentrate on.		X	
(iii) However, the opponents of the issue claim that children should begin learning a foreign language as soon as they start school because it is very important that children CAN develop themselves			X

The two researchers and an experienced English language teaching expert worked independently to analyse and classify the usages of the modal hedges in the collected essays as shown in Table 1. The interrater reliability was .89 and each discrepancy in the classifications was discussed until the differences were resolved.

Stage 4

The quantitative data collected in the study were analysed using SPSS.

Results and Discussions

The analysis of the data in the corpus was done using the taxonomy developed by Hyland (2005b; 2010) and Hinkel (2005). Scrutiny of the English paragraphs for hedges revealed that the writers who participated in the study used four categories of lexical

devices to soften their propositions: modals, epistemic verbs, adjectives, and nouns. First, the overall distribution of these metadiscoursive tools and then, a more comprehensive analysis of each of the modal hedge categories will be presented and discussed.

Overall Results/Overview

The initial analysis of the 52 argumentative paragraphs written in English by the participants in the study showed that in total 10.257 words were used and 600 of them were hedges. That is, writers used 6 hedges in every 100 words. This finding is both similar and slightly different to the results of some of the more recent studies focusing on the use of metadiscourse markers in the argumentative essays of NS and NNS of English. Bayyurt (2010) who examined the argumentative essays of NS of Turkish writing in English also found that the hedges were the most frequently employed interactional expressions in these essays and that the freshman year students in the English language teaching department employed 5.85 hedges per 100 words. Can (2006) reported slightly different results, however. He worked with freshman year university students who were monolingual NS of American English, and Turkish-English bilingual NS of Turkish. When he examined the metadiscourse markers in the English argumentative essays written by these groups of student, he found that NS of American English used 7.46 hedges while NS of Turkish used 10.58 hedges on average. That is, NS of Turkish used 1.8 times more hedges than the participants in the current study in their English argumentative texts. Lee and Deakin (2016) looked at the hedges used in L1 English university students' essays, and in successful (A-graded) and less-successful (B-graded) argumentative essays written by US-based Chinese ESL students. These researchers once again found that the hedges were the most frequently used interactional metadiscourse markers in the three corpora and that there were more hedges in the A-graded essays than in the B-graded ones.

Scrutiny of the collected paragraphs also showed that four tools were utilized as hedges in the present corpus: modals, adjectives, epistemic verbs and nouns (see Table 2). Among these, the most frequently used category was Modals (53%) which comprised more than half of the hedges in the corpus. With a combined value of 42%, adjectives (23%) and Epistemic verbs (19%) were respectively the second and third most frequently employed categories; while Nouns (5%) were rarely used and accounted for only 5% of the hedge data.

Table 2
Hedge Categories in the Corpus

	N	%
Modals	317	53
Adjectives	139	23
Epistemic Verbs	116	19
Nouns	28	5
TOTAL	600	100

Hyland and Milton (1997), who compared the use of hedging devices in the essays written by Hong Kong students for the A level "Use of English" exam and British school leavers for the GCE A level General Studies exam, found that their participants used not four but five groups of grammatical units as hedges: modal verbs, adverbials, lexical verbs, adjectives and nouns. Both NS and NNS of English used modals the most, then adverbials, verbs, adjectives and nouns, and there was a broad agreement on the use of verbs, adjectives and nouns between the two groups (i.e., both student groups used lexical verbs, adjectives and nouns in similar proportions). However, there were marked differences in the use of modals and adverbials. NNS used modals 1.7 times more than NS, and NS used adverbials 1.3 times more than Hong Kong students. Hyland and Milton (1997) mentioned two plausible reasons for the observed differences: L1 transfer and the L2 pedagogical writing materials. Both of these explanations appear to be valid for the results observed in our study. When Hatipoğlu and Algı (2017) examined the argumentative paragraphs of NS of Turkish written in Turkish, they found that modals formed 67.1% of the hedging devices in the corpus. Scrutiny of the L2 writing materials by Algı (2012) showed that modals were "disproportionately" overrepresented in the teaching materials to which the students were exposed.

Modals

Analysis of the collected argumentative corpus showed that eight modals were used as hedges by the participants in the study (see Table 3). Among these *should* (46%) and *can* (29%) were the most frequently used ones. They both accounted for 75% of all modal verbs in the corpus. The other six modals comprised the remaining 25% of the data. When we look at the distribution of obligation/necessity (i.e., *should, must*) (N=158, 49.4%) vs. ability/possibility (i.e., *can, could, will, would, may, might*) (N=159, 50.6%) modals, however, we see that the split is almost even. That is, the modality attributed claims of the students were marked with both necessity and possibility/ability meanings.

Table 3
Modal Hedge Categories in the Corpus

Rank	Modal verbs	N	%
1.	Should	147	46
2.	Can	91	29
3.	Will	28	9
4.	May	26	8
5.	Must	11	3.4
6.	Might	6	2
7.	Could	6	2
8.	Would	2	0.6
	TOTAL	317	100

Should

Should, the most frequently used modal hedge in our corpus, is a multifunctional polysemous modal auxiliary. It can be used as a social interactional, logical probability (epistemic) or obligation modal (Aijmer, 2018; Celce-Murcia & Larsen-Freeman, 1999; Verhulst & Heyvaert, 2015). When employed as a social interactional modal, *should* (together with *might, could, had better, must* and *will*) expresses "the speaker's degree of authority and/or conviction, or the urgency of advice" (Celce-Murcia & Larsen-Freeman, 1999, p. 85). In this group, *might* is the least authoritative modal (e.g., You *might* see a doctor) while *will* is the most authoritative one (e.g., You *will* see a doctor). *Should* (e.g., You *should* see a doctor) is in the middle of the list.

In its logical probability function *should,* similarly to *could, might, may, must* and *will*, expresses speaker's/writer's knowledge and belief about probability and logical possibility (Bublitz, 1992; Huebler, 1983; Lyons, 1977). In this group *could* and *might* are used to express the lowest levels of possibility (e.g., Someone knocks on the door and John says: That *could/might* be Mary) while *will* shows the most probable prediction (e.g., That *will* be Mary). *Should*, again is in the middle of the probability list showing moderate certainty (e.g., That *should* be Mary).

Finally, *should* can be used to indicate that something is necessary for a situation to actualise (Coates, 1983; Lyons, 1977; Palmer, 1986; Quirk et al., 1985), to talk about obligation and duty (Swan, 2005), or the right and best thing to do (Eastwood, 2005). *Should, must* and *have to* are the most frequently used obligation markers in English and together with *ought to*, *should* is often described as the weaker version of *must* which is "used for orders and commands" (Aijmer, 2018, p. 141).

In our corpus *should* functions mainly as a marker of necessity where, as described by Verhulst and Heyvaert (2015), who examined the use of *shall* in British English, it expresses the speaker's personal opinion in the given contexts (see Examples 1 and 2).

Example 1

F7: I think they SHOULD start learning a foreign language when they start school for two main reasons.

Example 2

M11: Although many people think that children should begin learning a foreign language as soon as they start school, I think this SHOULDN'T be because of two main reasons.

Should was also frequently utilized to underline the importance of foreign language education at an earlier age by writers who strived to maintain their objectivity (see Example 3).

Example 3

F8: Secondly, foreign language may provide good job opportunities in the future. For example, they might study at schools where the medium of instruction is English, they may go abroad for reasons of work in international business. As a result, learning foreign language is important and necessary. Therefore, its importance SHOULD BE GIVEN to children at young ages.

In Example 3, F8 employs *should* to 'reinforce' the second main idea in her argumentative paragraph. The writer uses *should* appropriately (despite the minor problem related to the overall structure) and manages to emphasise the importance of giving children the chance to learn foreign languages at an early age. In line with the expectations of the academic writing genre, F8 also employs a passive voice structure (Biber, 1988; Myers, 1989) which allows her to refrain from directly referring to the speaker or hearer, and imposing or threatening hearer's and/or speaker's positive and/or negative face (Brown & Levinson, 1987).

This frequent use of *should* in our corpus differs slightly from the findings of some of the previous studies. Researchers examining academic texts report that modals of obligation (*must*) and necessity (*should*) are less frequently encountered in formal academic prose than modals of ability and possibility (e.g., *can, will*). In their corpus-based study of oral conversations, fiction, newspaper and academic texts, Biber et al. (1999) have noted that ability and possibility modals are used almost twice more frequently than obligation and necessity modals since the latter group convey strong meanings such as obligation and a sense of duty.

Meyer (1997) argues, however, that using modals such as *should* and *must* brings along the advantage of making writer's claims stronger and, in turn, helps them to communicate a sense of objectivity. Moreover, in their studies of matching corpora from

the 1960s and the 1990s, Leech (2004) and Smith (2003) note that within those 30-years there has been a decline in the use of *must*, "which has associations with direct speaker authority or power" and increase in the use of the modals *need to* and *should*, which are "associated with a tendency to suppress or avoid overt claims to power and authority by the speaker or writer" (Leech, 2004, p. 237). Leech (2004) argues that this tendency might be called "democratization" in writing. So, that trend might be one of the reasons why the participants in our study used such a big number of modal *should* in their paragraphs.

Another plausible reason for the high level of *should* in the collected essays might be the effect of training and the teaching materials to which the participants in the study have been exposed during the last academic year. As mentioned earlier, these students are learning English at METU prep school where, among other genres, they are taught how to write and structure argumentative paragraphs. When the writing handout used to teach argumentative paragraphs was examined it was seen that *should* was the most frequently occurring modal in the instructions and example texts. Almost half of the modals found in the writing handout were *should* (47.9%) (for more detailed information *see* Algı, 2012). That is, there was parallelism between the uses of *should* in the teaching materials and in the students' paragraphs. This finding underlines once again, in our opinion, the importance of the content and quality of the teaching materials in EFL contexts as the materials presented to the students are usually their only reference points or the guides they use the most.

How the writing prompt was phrased might be the third reason why *should* was used so often in the examined argumentative paragraphs. The prompt given to the students was "*Should children start learning a foreign language as soon as they start school?*" It looks as if that students saw the "should structure" in the prompt as a good example and frequently repeated it in the topic, concluding and supporting sentences of their paragraphs (see Table 4).

Table 4
Use of SHOULD in the examined argumentative paragraphs

	N	%
Introduction sentence	25	17
Topic Sentence	41	28
Supporting sentence	33	22
Counter argument	13	9
Refutations	0	0
Concluding section	35	24
Total	147	100

So, this finding in a way supports Hinkel (1995; 2002; 2009) and other researchers (Carlson, 1988; Yarar, 2001; Zuloaga, 2017) who argue that a preponderance of modal verb employment in L2 writing can be topic and context dependent.

Must

Must, similarly to *should,* is an obligation modal (Collins, 1991; Šinkūnienė & Olmen, 2012). Its root meaning (i.e., obligation, necessity and requirement imposed by a source of authority; [Lyons, 1977; Palmer, 1986]) is illustrated in Example 4 below.

Example 4

John must come in (Palmer, 2001, p. 10).

Must is sometimes also used as an epistemic modal where the speakers/writers, as in Example 5, express their knowledge and belief about certainty, probability, and logical possibility of an event (Bublitz, 1992; Huebler, 1983; Lyons, 1977).

Example 5

Liz is not here today. She must be sick.

When describing *must,* Leech (2005, p. 34) emphasises the fact that its use is "suffering a decline in present-day English". Parallel to this observation, we also found that *must* was used much less frequently (14 times less) than *should* (the other obligation modal) in our study. There were only 11 (3.4%) examples of *must* in the corpus and only 10 (19%) of the 52 participants employed it (i.e., 81% of the students avoided using it). *Must* was used correctly 10 times and overused once. In our corpus *must* was always employed as an obligation modal (see Example 6) and no instances of epistemic *must* were encountered. This might have been the effect of the genre (i.e., argumentative paragraphs) in which the students were writing. In argumentative texts writers aim to persuade their readers that what they claim is correct. Therefore, logical deduction would not have been relevant.

Example 6

M2: To sum up, I think that children MUST start learning English language owing to the fact that they can learn easier than elderly and they have more time.

As can be seen in Example 6, *must* attaches the notion of necessity to the expressions within which it is used. In that sense its meaning and functions were closely related to that of *should* in the examined argumentative paragraphs but NS of Turkish were neither willing nor able to use it as frequently or successfully as they used *should.*

> Example 7
>
> M10: Nowadays, there is a discussion about whether children should begin learning a foreing language as soon as they start school. Children ought to learn a foreign language for two important reason. To begin with, a person who learnt a foreign language when he started to primary school can be well-learned and it effects ones bussiness life positively. Recent days companies try to chose a employee knowing a foreign languauge. For example, an international company MUST chose a bi-lingual employee for communicate with their customers easily.

In Example 7, a student overuses *must* while trying to manipulate it as a marker of obligation. M10 first emphasises the importance and necessity of learning foreign languages at a young age, and lists two advantages associated with knowing a foreign language well: (i) those who start learning a foreign language early have the chance of learning it better and (ii) bilingualism affects business life positively. Then, M10 states that international companies prefer employees who speak more than one language. Finally, comes the statement where M10 argues that international companies are bound to (i.e., *must*) choose bi- or multilingual candidates so that they are able to interact easily with their customers. Employing multilinguals in international companies might be a trend valid in general but the international companies are not required/obligated to do so. Therefore, *must* in the last sentence was classified as an example of overuse. By using must in this context, the writer changed the illocutionary force of the statement which led to an ambiguous and vague claim.

Can and Could

The modal verbs *can* and *could* are among the "most frequently" used modals in English (Leech, 2005, p. 114). The first one is a present tense or primary modal auxiliary while the latter (i.e., *could*) is a secondary form auxiliary (Leech, 2005). In written and spoken interactions *can* carries the meanings of ability, possibility and permission (less often) (Celce-Murcia & Larsen-Freeman, 1999; Coates, 1983; Leech, 2005; Palmer, 1990) and together with other linguistic devices, it can mark proposals for future actions, likelihood as well as strategic vagueness and politeness (Chafe, 1986; Channell, 1994; Markkanen & Schroeder, 1997; Perkins 1983). *Could*, on the other hand, can be used to talk about present or future hypothetical possibility or ability. When *could* is employed to show present possibility of a future event as in "*It could happen again*" its interpretation is "It is possible that it will happen, if circumstances permit" (Cook 1978, p. 12). When utilized as a root modal *could* frequently expresses ability to perform a future action (*would be able to*, Cook, 1978, p. 12) if the speakers/writer decides to pursue it or is given the chance.

Can was the second most frequently used modal verb in the examined paragraphs. It formed about one-third of our corpus (N=91, 29%). A closer analysis of the collected data

showed, however, that 10 (19%) of the participants in the study did not use *can* at all. The remaining 81% of the students used it to denote either ability (N=50, 55%) or possibility (N=41, 45%) (see Example 8), and 94.5% (N=86) of these usages were correct. *Can* was overused in 4.4% (N=4) and incorrectly used in only 1.1% (N=1) of the examples.

Example 8

F12: Although many people believe that children should not start learning a foreign language as soon as they start school, this is not true thing. It (1) CAN (possibility) be explained two main reasons. The first reason is that brain activity. That is to say, due to young ages, they (2)CAN (ability) learn more easily than old ages and their brain does not fill up with another things.

Can was the most frequently used modal to express possibility in our corpus. It was used 1.6 times more than *may* (N=26), the second most frequently used possibility marker. There are two plausible explanations for this finding: (i) level of commitment and (ii) recent trends. In an article entitled "Subjective modality", Siebel (1980, p. 16) compares *can* and *may* as possibility modals and states that *can* gives the writer/speaker more freedom than *may* since "the speaker using can is not necessarily committing himself to even a weak conjecture about the realization of the proposition". With *may*, however, there is always a weak guess or a prediction or "at least an assertion on the part of the speaker, although he does not know if a proposition is true or not, has no compelling reason to believe that it is (or was or will be) false in the actual world" (Seibel 1980, p. 16). This "nonbinding" meaning of *can*, might be one of the reasons why it was used more frequently in our corpus. The frequncy difference between *can* and *may* could also be due to what Leech (2003) calls "trends in writing". After examining three decades (1960-1990) of data in four spoken and written corpora of American and British English, Leech (2003) reported that there was a sharp decline in the use of modals such as *may* and *must* while the frequency of use of *can* remained relatively stable in the examined dialects. The students who participated in the study were learning English which meant that they had to read, watch and listen to various materials in English. They might have been affected by the trends in the materials they were exposed to.

Could was utilized substantially less frequently than *can* by the NS of Turkish writing in English. There were only six examples with modal *could* and it formed only 2% of the hedge group in this study. Scrutiny of the paragraphs showed that only two of the participants (4%) employed *could* and five out of the six examples in the corpus were coming from an essay written by F10, a writer who hardly used any other modal. Of the six examples in the data, three were used as hypothetical *could* of ability while the remaining three denoted hypothetical *could* of possibility. Unfortunately, only three of the *could* uses were correct while two of the uses that were intended to express ability and that was that intended to express possibility were incorrect. (*see* Example 9).

Example 9

F10: Today at a new world, everything has also been developing rapidly. People change their minds, habits, lifes and they try to keep up with innovations and developments. Communication and information have been gaining importance actually. At this point, learning and knowing a foreign language especially at an early age for children is very important. There are several reasons for learning a foreign language for children as soon as they start school. To start with, children have brilliant and more active brain than old people. If they take a lesson at an early age, they (1) COULD achieve more easily and quickly that language than middle age or old people. This learning improves brain activity such growing brain curls and growing up their abilities at learning languages. Secondly, they might be good at communicating with other people with ease in their social and job life; that is, they (2) COULD also use foreign language in holiday in order to meet a beautiful girl or a nice boy or have a different friend. In addition, they can use that saying their needs in foreign country if they were here. Moreover, it is not only useful in social life, but also in job life for agreements with companies especially foreign and international companies and sure for investigators which want to earn money. Thirdly, if they learn a foreign language at an early age, this strengthens their ability and they (3) COULD choose to learn more new languages and there are more intellectual people who live in a society and educational level will be high. At an early age, learning foreign language has many beneficial sides contrary to some beliefs for it's confusing for children's minds and they (4) COULDN'T (incorrect) learn best their native language, but it is not logical and it doesn't prove by scientists. If we were give high quality education in every branches at school, our children I am sure (5) COULD (incorrect) do best and learn much than two languages.

In Example 9, the first, second and third uses of *could* are correct. The first one denotes ability (i.e., would be able to) while the second and third examples denote possibility. The fourth and the fifth uses of *could*, however, are incorrect. In (4), F10 used *couldn't* and wanted to express ability which is a function fulfilled by *can't* in negative forms in English (Celce-Murcia & Larsen-Freeman, 1999; Coates, 1983; Cook, 1978). She replaced *can't* with *couldn't,* which according to Celce-Murcia and Larsen-Freeman (1999, p. 87) expresses not the intended meaning of ability but 100% logical probability. The last (5) *could* in the paragraph was classified as an incorrect use due to the grammatical and lexical contexts in which it was employed. The writer first uses "I am sure", which displays a strong conviction in what she is claiming, but then, continues with *could*, which weakens the claim and leaves the reader wondering what the real message is and how the statement should be interpreted. She also used a conditional statement, probably to indicate hypothetical possibility. However, the passive voice in the "if conditional" part is incorrect. This makes the meaning of the statement even more ambiguous and more difficult to decode.

The frequency and level of accuracy with which *can* and *could* were used in the collected paragraphs show that the polygrammatic nature of *could* and the more subtle rules that govern its use were not completely mastered by the participants in our study which, in turn, led to the avoidance of the use of *could*. The findings related to *can* and *could* seem to support Papafragou (1998, p. 377) who argues that "the link between comprehension and production is not as straightforward as it might seem" and similarly to the children who at the early stages of acquiring their mother tongues, L2 learners may "avoid using parts of a linguistic system … until they feel quite confident in the system they have constructed" (Papafragou, 1998, p. 377).

Will and Would

Will is a multifunctional unit in English. It is a future tense marker and at the same time it is one of the central modals in English conveying the meanings of intention, supposition and volition (Lyons, 1977; Ultan, 1972). According to Celce-Murcia and Larsen-Freeman (1999), and Lakoff (1970), within the hierarchy of logical probability modals, *will* is the one that marks the highest degree of certainty. They argue that speakers utter sentences such as *"It will rain tomorrow"* when they are 100% certain.

Leech's (2005) research showed that despite the decline in the level of use of some other probability modals (e.g., *may*), the frequency with which NS of English employ *will* remains relatively stable. In our corpus *will* was the third most frequently employed modal and it formed 9% (N=28) of the overall corpus. All of its uses were correct but only 37% (N=19) of the students found a place for it in their paragraphs. An overwhelming majority of students did not use *will* even once.

Example 10

F18: Secondly, some students may not have enough time for practice in high school or university because they may concentrate on other lessons. On the other hand, IF students begin learning a foreign language as soon as they start school, they WILL have a background so they know more vocabulary and grammar structures.

Scrutiny of the collected paragraphs revealed an interesting co-occurrence pattern for *will*. In half of the contexts (14 out of 28) where it was used, it was combined with if-clauses as in Example 10 by NS of Turkish. In all of these instances it was placed in an affirmative sentence and at firsts glance it looked as if it conveyed strong predictions. The interpretation of the level of certainty and the meaning of these messages was complicated, however, by the fact that students insisted on combining *will* with conditional statements. When used in academic writing, if-clauses are seen as "hypothetical assumptions that are often associated with indirectness, ambiguity, and politeness when the speaker hedges the illocutionary force and presents propositions

and claims as if they would be denied or refused" (Hinkel, 1997, p. 381). That is, *will* in these contexts might have been interpreted as expressing uncertainty as futurity, according to Palmer (1990), always involves some uncertainty. Nonetheless, this meaning was regarded as less likely in the examples in our corpus since as Hyland and Milton (1997, p. 195) emphasise, *will* appears to express "an assessment that the accompanying proposition is valid as far as the writer can be sure" and Coates (1983), maintains that epistemic *will* expresses strong prediction about present, timeless or future events based on previous experience. When we look at the "if-clause + will" examples in our data we see that writers are making clear assessment statements about the problem and many of their claims related to learning foreign languages successfully if children begin young are based on their own experiences (i.e., while choosing the topic for the argumentative essays they argued that they had failed EPE and had to attend Summer School since they did not start learning English at a young age). Because of these, the occurrences of *will* in the corpus were classified as certainty markers that disclose writer conviction.

The results of the current study regarding *will* are different from the findings of some of the earlier studies. Hyland and Milton (1997) who examined the essays written by NS of British English and NS of Cantonese writing in English reported that in the first corpus *will* was the second most frequently employed epistemic modality marker while in the Cantonese NS data *will* was the most frequently utilized device. *Will* formed 30% of the total hedging devices in the Cantonese NS corpus while in our study it formed only 4.7% of the total hedge markers. This means that unlike Cantonese writers, Turkish students who participated in this study refrained from making strong claims that the use of *will* brings along and employed more tentative language to talk about their beliefs and claims.

With only two uses (0.6%) *would* was the least frequently employed modal in our study. Except the two students who utilized *would* only once in their paragraphs, all of the participants avoided using it. This finding is in striking contrast with the use of *would* by NS for whom this is the most preferred modal verb in argumentative paragraphs.

May and Might

May and *might* are two middle-frequency modals whose uses are declining in present-day English (Leech, 2005). Together with *could*, they are used almost exclusively to express logical possibility (Biber et al., 2002) and as hedging devices, *may* and *might*, show doubt and certainty (Holmes, 1988; Hyland & Milton, 1997).

May, with 26 (8%) uses was the fourth most frequently employed modal in our corpus and the second most frequently used modal of logical possibility. Despite that, thirty-six (69%) of the participants avoided using it. The remaining 16 students used

it correctly either once or twice mainly in the supporting sentences (see Example 11) or in the counter argument (*see* Example 12) and refutation sections (see Example 13) of their paragraphs.

Example 11

F12: The second reason is that learning a foreign language is of great importance today. In other words, they aware that they should improve language skills. To illustrate, children MAY watch films, read books and listen to music to develop language ability. (Supporting Sentence)

Example 12

F13: However, the opponents of this issue claim that children should not start learning a foreign language as soon as they start school because they think it MAY affect native language badly when the young student learning a foreign language. (Counter argument)

Example 13

F21: Those who do not favour this proposal might argue that if the age of learning is more early, children will be more successful. Although it MAY be true to a certain extent, this argument is not valid any longer because this situation is not same for every children. (Refutation)

Studies focusing on metadiscourse in spoken and written texts produced by NS of English revealed that *may* was primarily employed as a marker of logical possibility, which is also an important feature of academic texts (Biber et al., 2002). Similarly, Hyland and Milton (1997) who examined the epistemic modality markers in the essays of NS of British English and NS of Chinese writing in English found that *may* was the preferred marker of possibility in these essays. *May* was the second most frequently employed epistemic modality marker in the essays of NNS and formed 17.7% of the corpus and the third most frequently used marker by NS of English forming 11.5% of that corpus. In the corpora examined by Hyland and Milton (1997) *can* was not even among the most frequently used ten epistemic modality markers.

The results of our study are slightly different from the ones reported by Hyland and Milton (1997). Our writers used *can* 3.6 times more than may (can=29%, may=8%). That is, *can* was the primary marker of possibility and *may* was the second marker in our corpus. One reason for the observed difference may be the native culture of the writers and the meaning and importance attached to the modals by the different groups of writers (Hatipoğlu & Algı, 2017; Hinkel, 2009). Hinkel (2009) worked with four groups of participants (i.e., NS of English, Chinese, Korean and Japanese) and asked

them to write essays on five different topics. She reported, for instance, that the ability and possibility modals such as *can* and *could* were found to have higher median rates in the essays of Japanese and Korean speakers on Parents and Majors topics while *may* and *might* were utilized slightly more frequently in the NS data on the same topic.

Conclusion

This study focused on the modal hedges used by NS of Turkish while writing argumentative paragraphs in English, their foreign language. The aim of the study was twofold: to uncover the type, frequency and functions with which the modal hedges were employed by Turkish writers and to compare and contrast these results with the findings of studies conducted with other NNS of English as well as the ones where the writers were NS of different varieties of English.

To be able to fulfil the goals of the study 52 argumentative paragraphs on *"Do you agree or disagree with the following statement: Children should start learning a foreign language as soon as they start school. Use specific reasons and examples to support your position"* topic were collected and analysed. The hedges in the paragraphs were classified using the taxonomy developed by Hyland (2005a; 2010) and Hinkel (2005).

The findings of the research showed that NS of Turkish employed eight modal verbs to hedge their statements (i.e., *should, can, will, may, must, might, could, would*) but they used them with substantially differing frequencies and levels of accuracy. The most frequently employed modal in the current study was *should* and all of its uses were correct. In contrast, modals such as *can* and *could* were used less frequently but also less accurately. In addition, modals such as *would, will* and *may* which showed to be the most preferred modal hedges for NS of English were rarely utilized by the participants in our study. Analysis of the instructional materials utilized in the examined program showed that there was a parallelism between the frequencies and classes of modals in the teaching materials, and the ones utilized by the students in their argumentative paragraphs. Therefore, foreign language teaching material writers should have a careful look at the resources they are creating and should consider revising them in the light of the available research findings and the data coming from the native English corpora such as BNC and ANC.

Foreign language teachers, on the other hand, should be aware of the fact that some modal verbs in English pose more problems for the NS of Turkish than the others. They should identify those and should devote more class time to explaining and practicing them. Our findings showed, for instance, that the functions of *would* and *could*, at least for this group of participants, were the most problematic ones. Our suggestion, therefore, is that foreign language teachers provide clear explanations

and wealth of examples illustrating the uses and functions of modals such as *would* and *could* as hedges in their writing classes. The functions of these verbs could also be introduced together and in comparison to easier possibility modals such as *will* and *might* so that students have more criteria to depend on while questioning the uses of the more difficult modals.

Finally, the study showed once again that modal hedges are a group of markers particularly problematic for second language learners as they are multifunctional, multifaceted and culture dependent (Axelsson, 2013; Hatipoğlu & Algı, 2017; Hinkel, 2009; Hyland, 2005); and that some overuses of modals in English are caused by accepted practices in L1. These findings emphasised once more the importance of detailed training in this field and how vital it is to find a place for them in the foreign language writing training programs as well in the paragraph assessment rubrics. Without being trained and assessed in the use of metadiscourse devices in L2, NS fall back and "catch the tiger by the toe". That is, they start using forms with which they are comfortable in their L1 but unacceptable or inappropriate in L2 (also *see* Bogdanović & Mirović, 2018). This, in turn, leads to the creation of texts in which the sentences are grammatical but are the texts themselves are weak and do not succeed to transfer the intended message, do not succeed in persuading the audience and ultimately fail to establish the longed for bond between the writers and readers.

References

Aijmer, K. (2017). The semantic field of obligation in an English-Swedish contrastive perspective. In K. Aijmer & D. Lewis (Eds.), *Contrastive analysis of discourse-pragmatic aspects of linguistic genres* (pp. 13–32). Berlin, DE: Springer.

Aijmer, K. (2018). The Swedish modal auxiliary ska/skall seen through its English translations. *Bergen Language and Linguistics Studies*, *9*(1), 139–154. http://dx.doi.org/10.15845/bells.v9i1.1523

Akbas, E., & Hardman, J. (2018). Strengthening or weakening claims in academic knowledge construction: A Comparative study of hedges and boosters in postgraduate academic writing. *Educational Sciences: Theory & Practice*, *18*, 831–859. http://dx.doi.org/10.12738/estp.2018.4.0260

Algı, S. (2012). *Birinci ve ikinci dilde yazılmış eleştirel paragraflarda kaçınma sözcükleri (hedges) ve vurgulama sözcüklerinin (boosters) rolü:* İkinci *dilde akademik yazım* öğretimi *için* öneriler [Hedges and boosters in L1 and L2 argumentative paragraphs: Implications for teaching L2 academic writing*]* (Master thesis, Middle East Technical University, Ankara, Turkey). Retrieved from https://tez.yok.gov.tr/UlusalTezMerkezi/

Axelsson, L. (2013). *Translating hedges a study of the translation of hedges from English to Swedish in an academic text*. Retrieved from http://www.diva-portal.org/smash/get/diva2:626883/FULLTEXT01.pdf

Aull, L. L., & Lancaster, Z. (2014). Linguistic markers of stance in early and advanced academic writing: A corpus-based comparison. *Written Communication*, *31*, 151–183.

Basham, C., & Kwachka, P. (1989). Variations in modal use by Alaskan Eskimo student writers. In S. Gass, C. Madden, D. Preston, & L. Selinker (Eds.), *Variations in second language acquisition: Discourse and pragmatics* (pp. 129–143). Clevedon, UK: Multilingual Matters.

Basham, C., & Kwachka, P. (1991). Reading the world differently: A cross cultural approach to writing assessment. In L. Hamp-Lyons (Ed.), *Assessing second language writing in academic contexts* (pp. 37–49). Norwood, NJ: Ablex.

Bayyurt, Y. (2010). Author positioning in academic writing. In S. Zyngier & V. Viana (Eds.), *Avaliaçoes e perspectivas: Mapeando os estudos empiricos na area deHumanas* [Appraisals and perspectives: Mapping empirical studies in the Humanities] (pp. 163–184). Rio de Janeiro: The Federal University of Rio de Janeiro.

Biber, D. (1988). *Variation across speech and writing*. Cambridge, UK: Cambridge University Press.

Biber, D., Conrad, S., & Leech, G. (2002). *Longman student grammar of spoken and written English*. Harlow, UK: Longman.

Biber, D., Johansson, S., Leech, G., Condrad, S., & Finegan, E. (1999). *Longman grammar of spoken and written English*. Harlow, Essex: Pearson.

Bloor, M., & Bloor, T. (1991). Cultural expectations and socio-pragmatic failure in academic writing. In P. Adams, B. Heaton, & P. Howarth (Eds.), *Socio-cultural issues in English for academic purposes* (pp. 1–12). Basingtoke: Modern English Publications/British Council.

Bogdanović, V., & Mirović, I. (2018). Young researchers writing in ESL and the use of metadiscourse: Learning the ropes. *Educational Sciences: Theory & Practice, 18*, 813–830. http://dx.doi.org/10.12738/estp.2018.4.0031

Brown, P., & S. Levinson (1987). *Politeness: Some universals in language usage*. Cambridge, UK: Cambridge University Press.

Bublitz, W. (1992). Transferred negation and modality. *Journal of Pragmatics*, *18*, 551–577.

Can, H. (2006). Üniversite *birinci sınıf* öğrencilerinin *tartışmacı yazım biçimlerinin incelenmesi* [An analysis of freshman year university students' argumentative essays] (Master thesis, Boğaziçi University, İstanbul, Turkey). Retrieved from https://tez.yok.gov.tr/UlusalTezMerkezi/

Carlson, S. (1988). Cultural differences in writing and reasoning skills. In A. Purves (Ed.), *Writing across languages and cultures: Issues in contrastive rhetoric* (pp. 109–137). Newbury Park, CA: Sage.

Celce-Murcia, M., & Larsen-Freeman, D. (1999). *The grammar book* (2nd ed.). Boston, MA: Heinle & Heinle.

Chafe, W. (1986). Evidentiality in English conversation and academic writing. In W. Chafe & J. Nichols (Eds.), *Evidentiality: The linguistic coding of epistemology* (pp. 261–272). Norwood, NJ: Ablex.

Channell, J. (1994). *Vague language*. Oxford, UK: Oxford University Press.

Coates, J. (1983). *The semantics of the modal auxiliaries*. Beckenham, UK: Croom Helm.

Collins, P. (1991). The modals of obligation and necessity in Australian English. In K. Aijmer & B. Altenberg (Eds.), *English corpus linguistics* (pp. 145–165). New York, NY: Longman.

Cook, W. (1978). Semantic structure of the English modals. *TESOL Quarterly*, *12*(1), 5–15.

Dulay, H., Burt, M., & Krashen, S. (1982). *Language two*. New York, NY: Oxford.

Eastwood, J. (2005). *Oxford learner's grammar. Grammar builder/grammar finder*. Oxford, UK: Oxford University Press.

Galtung, J. (1981). Structure, culture and intellectual style: An essay comparing Saxonic, Teutonic, Gallic and Nipponic approaches. *Social Science Information*, *20*(6), 817–856.

Hatipoğlu, Ç. (2013). First Stage in the Construction of METU Turkish English Exam Corpus (METU TEEC). *Boğaziçi University Journal of Education*, *30*(1), 5–23.

Hatipoğlu, Ç., & Algı, S. (2017). Contextual and pragmatics functions of modal epistemic hedges in argumentative paragraphs in Turkish. In Ç. Hatipoğlu, E. Akbaş, & Y. Bayyurt (Eds.), *Metadiscourse in written genres: Uncovering textual and interactional aspects of texts* (pp. 85–108). Frankfurt am Main: Peter Lang.

Hinkel, E. (1995). The use of modal verbs as a reflection of cultural values. *TESOL Quarterly*, *29*, 325–343.

Hinkel, E. (1997). Indirectness in L1 and L2 academic writing. *Journal of Pragmatics*, *27*(3), 360–386.

Hinkel, E. (2002). *Second language writers' text*. Mahwah, NJ: Lawrence Erlbaum Associates.

Hinkel, E. (2009). The effect of essay topics on modal verb uses in L1 and L2 academic writing. *Journal of Pragmatics*, *41*, 667–683.

Holmes, J. (1982). Expressing doubt and certainty in English. *RELC Journal, 13*(2), 9–28.

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

Hoye, L. F. (2005). "You may think that; I couldn't possibly comment!" Modality studies: Contemporary research and future directions. Part II. *Journal of Pragmatics*, *37*, 1481–1506.

Huebler, A. (1983). *Understatements and hedges in English*. Amsterdam: John Benjamins.

Hyland, K. (1998a). Persuasion and context: The pragmatics of academic metadiscourse. *Journal of Pragmatics*, *30*(4), 437–455.

Hyland, K. (1998b). *Hedging in scientific research articles*. Amsterdam/Philadelphia: John Benjamin Publishing Company.

Hyland, K. (2005a). Stance and engagement: A model of interaction in academic discourse. *Discourse Studies, 7*(2), 173–192.

Hyland, K. (2005b). *Metadiscourse: Exploring interaction in writing*. London & New York: Continuum.

Hyland, K. (2009). *Academic discourse: English in a global context*. London, UK: Continuum.

Hyland, K. (2010). Metadiscourse: Mapping interactions in academic writing. *Nordic Journal of English Studies*, *9*(2), 125–143.

Hyland, K., & Milton, J. (1997). Qualification and certainty in L1 and L2 students' writing. *Journal of Second Language Writing*, *6*, 183–205.

Kang, J. (2017). Epistemic stance construction in L1 and L2 undergraduate argumentative writing. *SNU Working Papers in English Linguistics and Language*, *15*, 53–67.

Kopple, W. J. V. (1985). Some exploratory discourse on metadiscourse. *College Composition and Communication*, *36*(1), 82–93.

Kwachka, P., & Basham, C. (1990). Literacy acts and cultural artefacts: On extensions of English modals. *Journal of Pragmatics, 14*, 413–429.

Lakoff, G. (1970). Tense and its relation to participants. *Language*, *46*(4), 838–849.

Lee, J. J., & Deakin, L. (2016). Interactions in L1 and L2 undergraduate student writing: Interactional metadiscourse in successful and less-successful argumentative essays. *Journal of Second Language Writing*, *33*, 21–34.

Leech, G. (2004). Recent grammatical change in English: Data, description, theory. In K. Aijmer & B. Altenberg (Eds.), *Advances in corpus linguistics. Papers from the 23rd International conference on English language research on computerized corpora* (pp. 61–81). Amsterdam/ New York: Rodopi.

Leech, G. (2003). Modality on the move: The English modal auxiliaries 1961-1992. In R. Facchinetti, M. Krug & F. Palmer (Eds.), *Modality in contemporary English* (pp. 223–240). Berlin, New York: Mouton de Gruyter.

Leech, G. (2005). *Meaning and the English verb* (3rd ed.). Harlow, UK: Longman.

Lyons, J. (1977). *Semantics*. Cambridge, UK: Cambridge University Press.

Markkanen, R., & Schroder, H. (1997). Hedging: A challenge for pragmatics and discourse analysis. In R. Markkanen & H. Schroder (Eds.), *Hedging and discourse: Approaches to the analysis of a pragmatic phenomenon in academic texts* (pp. 3–20). Berlin, DE: Walter de Gruyter.

Myers, G. (1989). The pragmatics of politeness in scientific articles. *Applied Linguistics*, *10*, 1–35.

Meyer, P. (1997). Hedging strategies in written academic discourse: Strengthening the argument by weakening the claim. In R. Markkanen & H. Schroder (Eds.), *Hedging and discourse: Approaches to the analysis of a pragmatic phenomenon in academic texts* (pp. 21–41). New York, NY: Walter de Gruyter.

Milton, J., & Hyland, K. (1999). Assertions in students' academic essays: A comparison of L1 and L2 writers. In R. Berry, B. Asker, K. Hyland, & M. Lam (Eds.), *Language analysis, description and pedagogy* (pp. 147–161). Hong Kong: HKUST.

Palmer, F. (1986). *Mood and modality*. Cambridge, UK: Cambridge University Press.

Palmer, F. R. (1990). *Modality and the English modals* (2nd ed.). London, UK: Longman.

Papafragou, A. (1998). The acquisition of modality: Implications for theories of semantic representation. *Mind and Language*, *13*(3), 370–399.

Perkins, M. R. (1983). *Modal expressions in English*. London, UK: Pinter.

Quirk, R., Greenbaum, S., Leech, G., & Svartvik, J. (1985). *A comprehensive grammar of the English language*. New York, NY: Longman.

Seibel, C. (1980). Subjective modality. *Kansas Working Papers in Linguistics*, *5*, 15–20.

Šinkūnienė, J., & Olmen, D. V. (2012). Modal verbs of necessity in academic English, Dutch, and Lithuanian: Epistemicity and/or evidentiality? *Darbai ir Dienos, 58,* 153–181.

Smith, N. (2003). Changes in the modals and semi-modals of strong obligation and epistemic necessity in recent British English. In R. Facchinetti, M. Krug, & F. Palmer (Eds.), *Modality in contemporary English* (pp. 241–267). New York, NY: Mouton de Gruyter.

Swan, M. (2005). *Practical English usage* (3rd ed.). Oxford, UK: Oxford University Press.

Ultan, R. (1972). The nature of future tenses. In J. H. Greenberg, C. A. Ferguson, & E. A. Moravcsik (Eds.), *Universals of human language* (pp. 83–123). Stanford, CA: Stanford University Press.

Verhulst, A., & Heyvaert, L. (2015). Root modal uses of should, ought to and be supposed to in present-day English: From patterns and profiles to proficiency guidelines. *English Studies*, *96*(5), 562–595.

Wingate, U. (2012). 'Argument!': Helping students understand what essay writing is about. *Journal of English for Academic Purposes*, *11*, 145–154.

Yarar, E. (2001). Akademik söylemde belirteçlerin olasılık ve belirsizlik işlevleri [Probability and uncertainty functions of markers in academic discourse]. *Dilbilim ve Uygulamarı*, *1*, 125–136.

Zuloaga, M. B. (2017). Topic-shift discourse markers in L2 Italian. *Language, Interaction and Acquisition*, *8*(2), 173–203.

Formatting and Content Requirements for Manuscripts

General Formatting Requirements

Font
The font used in the entire manuscript should be Times New Roman, font size 10. For tables and figures, see below.

Page Layout
Page margins for bottom, top, right, and left should be pre-set as 0.98 inch. Text should be justified with no hyphenation breaks in words at the end of a line.

Text should be typed as a single-column document.

Paragraphs and headings should not be indented, but aligned with the main text.

Paragraph Format
Paragraph indents should be pre-set in the tabs section as follows:

- ❖ *before* and *after*: 6 pt
- ❖ *line spacing:* 1.5

Page Limit
Manuscripts prepared in compliance with the guidelines should not exceed 25 pages (10.000 words).

Manuscript Sections

Title
Article titles should be boldfaced and centered.

Author(s)'s Names
The main document is used for peer-review, which may include the title, abstract, key words, main body, references, figures and tables and supplementary materials. The names of all authors and their institutions should not be included in the main document.

Abstract
Abstracts should be between 150–200 words.

Main Text Qualitative and quantitative studies should contain the following sections: Introduction, Method, Findings, and Discussion.

The Methods section must include Sampling/Study Population, Data Collection Tools, and Procedure as sub-sections if an original research method has been used.

Literature reviews should elaborate on the problem, analyze the relevant literature, emphasize the gaps and inconsistencies in the literature, and discuss actions toward solving these problems.

Other types of studies can allow slight variations in sections, but they should not contain too many details and sub-sections that could distract readers' attention and compromise readability.

References Both in-text citations and references should comply with the APA guidelines as provided in the *Publication Manual of American Psychological Association* (APA) (6th edition).

For guidelines to follow for References pages, please see *Basic Formatting for References*.

Tables, Figures, and Appendices

Tables and Figures Tables, figures, pictures, graphics, and similar aspects should be embedded in the text, and not provided as appendices.

For tables and figures, use Times New Roman, font size 9.

Under the Paragraph tab, ensure that the indentation is as follows:

❖ *before and after:* 0

❖ *spacing: Single*

Format for Five Levels of Heading

The heading style consists of five possible formatting arrangements, according to the number of levels of subordination. Each heading level is numbered (see below).

Levels of Heading	Format
1	**Centered, Boldface, Uppercase and Lowercase Heading**
2	**Flush Left, Boldface, Uppercase and Lowercase Heading**
3	**Indented, boldface, lowercase paragraph heading ending with a period.** (In a lowercase paragraph heading, the first letter of the first word is uppercase and the remaining words are lowercase.)
4	***Indented, boldface, italicized, lowercase paragraph heading ending with a period.***
5	*Indented, italicized, lowercase paragraph heading ending with a period.*
	More than five levels of headings are not advisable.
Table and Figure Headings	Table and figure numbers should be typed as "Table 1" or "Figure 1"
	Table and figure headings should be in italics.

Other Guidelines

Emphasis	Do not use boldfaced characters in text. Emphasis should be expressed using quotation marks ("") or *italics*.