CERLIS
Centro di Ricerca sui Linguaggi Specialistici
Research Centre on Languages for Specific Purposes

Stefania M. Maci & Michele Sala (eds.)

GENRE VARIATION IN ACADEMIC COMMUNICATION

Emerging Disciplinary Trends

1

CELSB

CERLIS Series

Series Editor: Maurizio Gotti

ISSN 2532-2559

Editorial Board

Each volume of the series is subjected to a double peer-reviewing process.

CERLIS Series
Volume 1

Stefania M. Maci & Michele Sala (eds)

Genre Variation in Academic Communication
Emerging Disciplinary Trends

CELSB
Bergamo

CERLIS SERIES Vol. 1

CERLIS
Centro di Ricerca sui Linguaggi Specialistici
Research Centre on Languages for Specific Purposes
University of Bergamo
www.unibg.it/cerlis

GENRE VARIATION IN ACADEMIC COMMUNICATION. EMERGING DISCIPLINARY TRENDS
Editors: Stefania M. Maci, Michele Sala
ISBN 978-88-89804-22-3
Url: http://hdl.handle.net/10446/27156

Published in Italy by CELSB Libreria Universitaria
Via Pignolo, 113 - 24121, Bergamo, Italy

Contents

Variation within genres and communicative practices

STEFANIA M. MACI / MICHELE SALA

Introduction

This volume, which opens the CERLIS series, is welcome for at least two reasons: on the one hand, it focuses on research trends and perspectives in the area of genre analysis; on the other, it reveals how content and choice of linguistic variants are employed to meet the communicative needs of diverse professional and academic audiences, whose identities are adapted to a common globalised framework of values and shared behaviours.

The increasing globalisation of communicative practices aided by information technology has determined an evolution of English professional and disciplinary discourses, in terms of communicative purposes characterizing genres, where the socialisation of knowledge plays a crucial cohesive role. This process is most evident in such domains as academic, technical, scientific and legal communication, whose textualisation mirrors the professional world at work within a set of cultural values shared by the members of the discourse community under consideration. This volume, therefore, while confirming that language use is seldom if ever culturally neutral (Kuper 1999), investigates genres in Academia and in their diachronic development as a source of valuable evidence regarding the language-culture interface, a relationship addressed by several ethnographic and sociolinguistic studies (Swales 1990, 1998, 2004; Bhatia 1993, 2004; Berkenkotter / Huckin 1995; Bondi 1999; Cortese / Hymes 2001; Gillaerts / Gotti 2005), both at the textual level and in the development of interpretative schemata that shape the semantic-pragmatic traits of the professional community involved.

At a time when genre analysis is being challenged by various authors (Askehave 1999; Askehave / Swales 2001; Candlin 2006) because of its allegedly simplistic interpretations and applications, this volume contributes to offering an in-depth understanding of academic

and professional genres (and their ongoing change in response to the evolving cultural-economic context), as employed internationally, between native and non-native speakers, within various specialised domains such as science, business and economics, politics, European institutions and the law.

To achieve this, research has been carried out on authentic texts, retrieved according to the principles of modern corpus analysis (Stubbs 1996; Biber *et al*. 1998; Tognini-Bonelli 2001; Hunston 2002; Baker 2006; Bondi / Scott 2010), from public-domain sources as well as from private organisations contacted by the authors, in view of a quantitative and qualitative investigation incorporating background research conducted by our team on various aspects of textual instability in academic and multimodal communication (Campagna 2004; Gotti / Giannoni 2006; Giannoni 2006; Fairclough *et al*. 2007; Garzone *et al*. 2007; Garzone / Sarangi 2008.)

The exploration of the points of tension within genre sets in the targeted domains can determine which textual features (whether on the sociorhetorical, discoursal, semantic or pragmatic level), have been most affected by the impact of such changes. In addition, it suggests whether generic changes within a discourse community are manifestations of a common trend shared by various types of specialised discourse or limited to the domain concerned. Furthermore, such investigation may determine the extent to which genre fluctuation is perceived and textualised as a productive phenomenon by the community members or rather as a dysfunctional aspect and a source of rhetorical insecurity, especially in intercultural settings. This could account for a greater awareness of the multifunctionality of genres, their structures and communicative purposes which are becoming increasingly elusive and difficult to pinpoint.

Special attention has also been given to the reinterpretation of existing genres in online communication, which reflects the phenomenon of 'genre migration' and in a few cases the emergence of totally new genres in response to the particular needs of an online environment (Kress / van Leeuwen 2001, 2006; O'Halloran 2004; LeVine / Scollon 2004; Scollon / Wong Scollon 2004; Ventola *et al*. 2004). While traditional models and categories of linguistic/textual analysis are not in themselves inadequate for this purpose, their use

calls for a multimodal conceptual framework incorporating analytical categories that include not only text, but also non-linguistic, non-linear elements (i.e. visual, iconic and functional content).

In the light of such data, a theorisation can be offered of what academic, professional and sociocultural variables permit discourse communities to exploit generic norms which are widely shared by their variously positioned members. The complex interaction that opposes or reconciles local/global needs, values and standards is conductive to the increasing textual hybridity and instability of domain-specific communities.

Contents of this issue

The contributions to this volume investigate the ways in which disciplinary genres in professional and academic English exhibit conventionality or variation in terms of such variables as rhetorical strategy, writer stance, interpersonal engagement, and argumentation. Clearly, the different ways in which social comunicative practices influence linguistic choices vary within disciplines and this is reflected in the microlinguistic analysis of the discourses offered here.

The first part of the volume deals with variations across genres and context and opens with an examination of cross-linguistic variation in the genre of business research articles (RAs) offered by Malavasi. The comparative perspective of the investigation is based on the assumption that rhetoric, hence rhetorical variation, is a crucial aspect in academic communication since, on the one hand, language is meant to reflect discipline-specific epistemological conventions, thus exerting a normalizing function upon discourse and content-representation practices. On the other hand, specific national cultures, the associated language-related constraints or even very localized academic traditions represent a potential source of linguistic idiosyncrasies even within the boundaries of the same research domain. As evidenced in this chapter, the variation in language use found in the closing sections of business RAs written in English

(Discussion) and in Italian (*Conclusioni*) is symptomatic of the way the different cultures present content material, assess its relevance and establish authorial ethos by differently resorting to metadiscursive elements, discourse connectors, evaluation and relevance markers.

Fazio investigates sports science discourse in the genre of MA theses (for a European Master Degree in Health and Physical Activity), with a specific focus on the contamination of 'formal' academic discourse produced by native speakers onto non-native 'informal' textualizations in didactic contexts. The comparison between standard academic sports science RAs and non-native MA theses is carried out through a corpus-based analysis by which the conceptual variation between the two contiguous genres is measured both according to quantitative parameters (i.e. occurrence and collocation) and qualitative ones (i.e. keyness), which offer a basis to place the genre of sports science MA theses at the crossroads between general disciplinary standards and linguistic practices, on the one hand, and didactic, thus local, requirements and constraints, on the other.

The contamination between contiguous oral genres in scholarly communication, namely research conference presentations and English-taught lectures in internationalisation programmes, is examined by Mariotti. This generic contiguity may be pre-theoretically assumed on the basis of the fact that non-native academics are likely or expected to resort to their familiarity with the conference presentation template in order to organize their material for didactic settings. However, beyond this generalization, the two genres have very distinctive and hardly overlapping purposes and audiences, the presentation being an instance of expert-to-expert communication, with a marked informative and persuasive pragmatic function and an overt argumentative character, whereas lectures, typically targeted to novices, have a pedagogical function, limited to and only functional within asymmetrical teaching contexts. On these grounds, Mariotti offers a contrastive analysis of the two genres in a systemic-functional perspective, assessing both cross-generic regularities and genre-specific peculiarities in terms of Field (the discipline related conventions), Mode (the contamination between spoken and written or monological and interactional dimensions, and the degree of redundancy and explicitness), and Tenor (the author's

stance and engagement).

A different and yet important viewpoint is offered by Banks, whose diachronic perspective of scientific discourse analysis is carried out by investigating the editorial moves and operational choices adopted in the first two academic periodicals, namely the (French) *Journal des Sçavans* and the *Philosophical Transactions*, which both first appeared in 1665. The author evidences that language and genre-related choices were not (only) necessitated by knowledge dissemination purposes, on the basis of cognitive criteria (i.e. transparence, intelligibility, coherence, etc.), but rather strongly biased by the historical and ideological surrounding context. Even lexico-semantic features such as the expression of process types (i.e. the degree of variation between the representation of knowledge-as-discourse vs. knowledge-as-experimentation), theme semantics (i.e., the topicalization of intertextuality and mention vs. knowledge-object focalization) and modality (i.e. the resorting to epistemic vs. deontic markers) are the result of contextually bound and ideologically biased operation, namely, encyclopedic orientation (the desire to cover the whole human knowledge) and the need of knowledge-framing and control, on the one hand, and a more circumscribed scientific focus yet reflecting the interests of the community of reference, on the other.

The second part of the volume, which is devoted to the analysis of variation within genres and communicative practices, starts with a very appealing examination by Cesiri who examines generic features of research articles in the field of Cultural Heritage (CH) studies, an extended (and yet under-investigated) interdisciplinary research domain consisting of different focus areas ranging from history to the arts (history and criticism) and archaeology, and including also sub-domains specifically dealing with techniques of art preservation and restoration. The purpose of this chapter is to define and describe CH research artefacts on the basis of their dominant linguistic features. In consideration of the complexity of the domain, Cesiri distinguishes CH RAs into three thematic macro-categories − namely, Archaeology (A), Art History and Criticism (AHC), Cultural Heritage Preservation and Restoration (CH Pres/Rest) − and offers a quantitative analysis of the texts primarily on the basis of the use of epistemic modality markers (hedges and boosters) which are indicative of the type of voice, the stance and the style which are recognized as appropriate and

effective to represent given content material. This provides sound criteria to measure CH RAs generic hybridization (since they resort to both representation practices typical of the humanities and hard sciences) and their generic specificity.

A fairly recent genre in scholarly communication, the PowerPoint-aided conference presentation, is the topic deat with by Degano, who shows how such a generic hybrid combining slides and speech elements is realised as a coherent communicative event. This contribution fills an evident research gap since existing literature merely focuses on PowerPoint (PPT) textualizations and highlights the associated problematic aspects, such as content-fragmentation, schematization and (over-)simplification, often neglecting contextual evidence concerning the fact that PPT presentations − unlike RAs − are hardly self-standing, self-sufficient and autonomous, but are most likely part of an articulated performance where speech is meant to compensate for the inadequacies of the PPT format, conferring to what is primarily a visual construct the sense of texture, the coherence and cohesion which are crucial features in scholarly communication. The corpus-based analysis provided in this chapter posits as a generic salient feature for effective visually-supported presentations the synergy between text and talk, where the former provides a scaffolding frame for global coherence and the latter elaborates on specific points and clarifies meaning relations between notions, ideas and, ultimately, slides.

Ardizzone and Pennisi's contribution discusses the genre of law RAs, a particular area of legal research dealing with constitutional and public law and administration, which is particularly crucial in the context of the European Community and the associated interplay between law-related matters and politics. Especially in consideration of the need to reinforce the basis for EU legitimation, consolidate the Community's constitutional identity and establish or corroborate the idea of the European common core, the authors investigate the use of epistemic modality markers in Community law journal in terms of frequency as well as typology, collocation and rhetorical function. The analysis provides interesting insights into the strategies which are exploited to balance confidence and caution by means of varyingly resorting to overt argumentation, polemic stance or depersonalization in response to changing community norms and ideologies.

Interesting insights into a relatively novel academic sub-genre, i.e. the meta analysis (MA), is offered by Agostini and Santulli. The MA is a special type of research paper aimed to synthesize and discuss existing literature in a given research domain, assessing a large number of studies on a very specific topic on the basis of statistical methods with the purpose of tracing the progress over a given issue and possibly anticipating research directions. Although used in various scientific domains, the MA holds a specific status and pragmatic role in the case of biomedicine. As a matter of fact, whereas in social sciences this sub-genre is solely relevant within the boundaries of the discipline, biomedical MAs have a marked impact also on the lay community and the larger media context. On this basis the authors investigate whether this factor bears consequences on MA textualizations, especially in terms of text-organization, rhetorical choices and linguistic features. Focussing on a specific case ignited by a paper reporting results of a MA on the supposed uneffectiveness of homeopathy, equated to placebo treatments, Agostini and Santulli examine the language used in the original MA-related paper and editorial and compare it with the ensuing counterclaiming papers rejecting that view. The results indicate that generic traits are crucially affected and varyingly interpreted according to the authorial attitude as well as the ideological positioning of the reading public.

Abbamonte and Cavaliere examine the much under-investigated part-genre of academic book chapters (BCs), and focus on the way in which BC authors choose to (re)present and support their research methods among existing alternative but competing models. The justification of methods is indeed the arena where the argumentative skills of researchers play an essential role. Such discursive effort (not limited to the method sections) gradually unfolds in BCs both through reference to shared knowledge or mentions of disciplinary accepted practices, and, also, by disclosing authorial stance, engagement and attitude towards the content as well as by construing authoritativeness towards their audience. Based on a corpus of academic volumes in cognitive and medical sciences, the authors measure linguistic variation in discourse-analytical terms, focussing on such knowledge resources as conditional reasoning patterns (Hypothetical-deductive vs. Probabilistic) and personalization, devising a spectrum of variation ranging from an interactional and negotiatory use of the language in

cognitive sciences BCs to a more data-driven and depersonalized style in medical BCs.

Finally, the study by Polese and D'Avanzo investigates the academic discourse 'put into action' by the European Union (EU) as a supranational institution through the hybridisation of discourses, i.e. academic, institutional and promotional. To this purpose, a corpus has been built which comprises Erasmus brochures published in a time-span from 2007 to 2010. Such texts, which are meant to popularise the Erasmus programme on the Web, have been examined with particular reference to the social dimension in the EU academic programme. A quantitative-qualitative analysis has been carried out with a special focus on students as EU social actors and the construction of social inclusion, a gateway to identity, through consensus building which relies on students' involvement and participation in academic actions promoted by the institution. The analysis has revealed the impact of hybridisation on legitimation, self-promotion and self-representation of the institution which is made possible because students as European social actors feel at one with the EU on its actions and values.

The various methodological approaches and theoretical frameworks offered by the contributions to the present volume clearly represent the complexity deriving from any interpretation about linguistic phenomena within and across genres in professional and academic English. As a whole, they show that generic conventionality or variation are shaped not only by the disciplinary object but, more importantly, by such variables as rhetorical strategy, writer stance, interpersonal engagement, and argumentation that enable authors to fully participate in their community of practice.

References

Askehave, Inger 1999. Communicative Purpose as Genre Determinant. *Hermes* 23, 13-23.

Askehave, Inger / Swales John M. 2001. Genre Identification and Communicative Purpose: a Problem and a Possible Solution. *Applied Linguistics* 23/2, 195-212.

Baker, Paul 2006. *Using Corpora in Discourse Analysis*. London: Continuum.

Berkenkotter, Carol / Huckin, Thomas N. 1995. *Genre Knowledge in Disciplinary Communication: Cognition / Culture / Power*. Hillsdale, NJ: Erlbaum.

Bhatia, Vijay K. 1993. *Analysing Genre. Language Use in Professional Settings*. London: Longman.

Bhaia Vijay K. 2004. *Worlds of Written Discourse: A Genre-based View*. London: Continuum.

Biber, Donald / Conrad, Susan / Reppen, Randi 1998. *Corpus Linguistics*. Cambridge: CUP.

Bondi, Marina 1999. *English Across Genres*. Modena: Il Fiorino.

Bondi, Marina / Scott, Michael (eds) 2010. *Keyness in Texts* Amsterdam: Benjamins.

Campagna, Sandra 2004. *Discoursal Strategies On-line: an Intercultural Approach to the Language of Charities*. Turin: Cortina.

Candlin, Chistopher N. 2006. Accounting for Interdiscursivity: Challenges to Professional Expertise. In Gotti, Maurizio / Giannoni, Davide S. (eds). *New Trends in Specialized Discourse Analysis*. Bern: Peter Lang, 21-45.

Cortese, Giuseppina / Hymes, Dell (eds) 2001. *'Languaging' in and across Human Groups. Perspectives on Difference and Asymmetry. Special issue of Textus* 14/2.

Fairclough, Norman / Cortese, Giuseppina / Ardizzone, Patrizia (eds) 2007. *Discourse Analysis and Contemporary Social Change*. Bern: Peter Lang.

Garzone, Giuliana / Sarangi, Srikant (eds) 2008. *Discourse, Ideology and Ethics in Specialized Communication.* Bern: Peter Lang.

Garzone Giuliana / Poncini, Gina / Catenaccio, Paola (eds) 2007. *Multimodality in Corporate Communication. Web Genres and Discursive Identity*. Milan: Franco Angeli.

Giannoni, Davide S. 2006. Evidence of Generic Tension in Academic Book Acknowledgements. In Bhatia Vijay K. / Gotti Maurizio

(eds) *Explorations in Specialized Genres*. Bern: Peter Lang, 21-42.

Gillaerts, Paul / Gotti, Maurizio (eds) 2005. *Genre Variation in Business Letters*. Bern: Peter Lang.

Gotti, Maurizio / Giannoni Davide S. (eds) 2006. *New Trends in Specialized Discourse Analysis*. Bern: Peter Lang.

O'Halloran Kay L. (ed.) 2004. *Multimodal Discourse Analysis. Systemic-Functional Perspectives*. London: Continuum.

Hunston, Susan. 2002. *Corpora in Applied Linguistics*. Cambridge: Cambridge University Press.

Kress, Gunther / van Leeuwen, Theo 2001. *Multimodal Discourse*. London: Arnold.

Kress, Gunther / van Leeuwen, Theo 2006. *Reading Images*. London: Routledge.

Kuper, Adam 1999. *Culture: The Anthropologists' Account*, Cambridge, MA, Harvard University Press.

LeVine, Philippe / Scollon, Ronals (eds) 2004. *Discourse and Technology. Multimodal Discourse Analysis*. Washington: Georgetown University Press.

Scollon, Ronald / Scollon, Susan B. K. 2004. *Nexus Analysis: Discourse and the Emerging Internet*. London: Routledge.

Stubbs, Michael 1996. *Text and Corpus Analysis. Computer-Assisted Studies of Language and Culture*. Oxford: Blackwell.

Swales, John M. 1990. *Genre Analysis. English in Academic and Research Settings*. Cambridge: Cambridge University Press.

Swales, John M. 1998. *Other Floors, Other Voices. A Textography of a Small University Building*. London: Earlbaum.

Swales, John M. 2004. *Research Genres: Explorations and Applications*. Cambridge: Cambridge University Press.

Tognini-Bonelli, Elena 2001. *Corpus Linguistics at Work*. Amsterdam: Benjamins.

Ventola, Eija / Charles, Cassily / Kaltenbacher, Martin (eds) 2004. *Perspectives on Multimodality*. Amsterdam: John Benjamins.

Variation Across Genres and Contexts

DONATELLA MALAVASI

Research Articles in Business and Marketing: A Comparative Analysis of English *Discussions* and Italian *Conclusioni*

1. Introduction

The emergence of a genre-analytic approach in the 1990s has prominently affected research in discourse analysis. From the ESP perspective (Swales 1990, 2004; Bhatia 1993, 2004; Dudley-Evans 1994), a variety of professional and academic genres have been studied in their regularities in terms of communicative purposes, discourse community, intended audience, contents and stylistic choices. In this context, academic discourse has 'catalysed' burgeoning research on a variety of genre realisations, such as the research article (RA), the abstract, the book review, the textbook and the review article (Swales 1990, 2004; Myers 1992; Bhatia 1993; Motta-Roth 1998; Bondi 1999; Hyland 2000; Stotesbury 2003; Diani 2004). In particular, research articles, which are widely accepted to be the central genre of knowledge production, have received extensive attention in genre analysis, and much research has been done on their generic peculiarities, text features such as metadiscourse, and their conventional IMRD structure (Introduction–Methods–Results–Discussion, Swales 1990). More recently, however, the genre-based tendency to highlight commonalities among texts has given way to a new strand of research on academic discourse which accounts for comparative, cross-disciplinary and cross-linguistic patterns. From these viewpoints, RA stylistic and rhetorical variation has been examined across disciplines as the 'manifestation' of their epistemic conventions, or across languages and cultures as the 'reflection' of

their specificities (Mauranen 1993a, 1993b; Hyland 2000; Dahl 2004; Bamford/Bondi 2005; Giannoni 2005; Hyland/Bondi 2006; Mur-Dueñas 2011).

Set against this theoretical background, the chapter sets out to explore the cultural variability of formal and rhetorical variation in the closing parts of RAs written in English and in Italian. In particular, the aim of this study is to highlight argumentative similarities and differences across the final sections of Business and Marketing research articles. As a whole, the RA is to be considered a complex artefact which enables researchers to make the results of their studies public, construct knowledge, and gain readers' acceptance for their work and for themselves as authoritative members of the scientific community they belong to (Swales 1990). Nevertheless, it is the last section of RAs, which is generally labelled as Discussion, that displays a major rhetorical orientation: this is where authors summarise conclusions, recapitulate the main points, highlight theoretical implications, and suggest potential applications or lines of further research (Swales 1990, 2004; Dudley-Evans 1994; Yang/Allison 2003; Soler Monreal/Gil Salom 2007).

Thus, in an attempt to find out how the English and Italian writer presents, evaluates, comments on and discusses results argumentatively, the present study will look at the occurrences of some frequent words which contribute to the rhetorical articulation of RAs. This chapter will specifically concentrate on a selection of metadiscourse strategies (Vande Kopple 1985; Crismore *et al.* 1993; Hyland 1998, 1999, 2005) and *verba dicendi* (Thompson/Ye 1991; Thomas/Hawes 1994), which signal both the RA writer's intrusion into the discourse, and his/her attempts to influence the receiver's perception of the text.

The next section provides a presentation of the materials used for the study as well as the methodology adopted. The results of the quantitative as well as qualitative analysis of English *Discussions* and Italian *Conclusioni* will be reported in Section 3. Finally, in Section 4 the results of the comparative study will be discussed and attention will be paid to the link existing between national cultures and the argumentative characterisation of Discussion sections from the same discipline.

2. Materials and methods

The study is based on two comparable corpora. The first consists of 44 Discussion, Conclusion and closing sections from English RAs totalling approximately 74,000 tokens. Texts were drawn from some of the RAs published in three international journals in 2000 (*Academy of Management Journal, AoMJ*; *Administrative Science Quarterly, ASQ*; *Marketing Science, MS*), which together with other journals[1] and their 1999 issues make up a corpus of academic business and marketing texts.[2] The second corpus, which addresses a national readership but covers a parallel range of sub-disciplines in Business and Marketing, includes 44 concluding parts of Italian RAs totalling circa 32,000 running words. The papers were published in 2000 in three specialised journals (*Economia e Management, EM*; *Studi Organizzativi, SO*; *Micro & Macro Marketing, MM*).

As regards the criteria for corpus design, sections for analysis were identified on the basis of their conventional functional headings (e.g. *Discussion, Discussion and Conclusion, Conclusioni*), or varied functional headings (e.g. *Concluding remarks, Summary, Osservazioni Conclusive, Considerazioni Finali*). The portion of RAs dedicated to concluding remarks appears to be generally labelled as *Discussion* in English texts, whose rhetorical organisation turns out to mirror-image the conventional IMRD structure (Table 1).

---

1 The specialised journals taken into account for the compilation of the whole Marketing corpus are: *Academy of Management Journals (AoMJ)*, *Administrative Science Quarterly (ASQ)*, *Business and Society Review (BaSR)*, *Business Strategy Review (BSR)*, *Journal of Marketing Research (JoMR)*, *Journal of World Business (JoWB)*, and *Marketing Science (MS)*.

2 The corpus of Marketing RAs together with two comparable corpora constitutes the HEM or History, Economics and Marketing Corpus which was compiled by a research group at the University of Modena and Reggio Emilia.

Sections / Headings	AoMJ (*n* = 15)	ASQ (*n* = 14)	MS (*n* = 15)	Total (*n* = 44)
Discussion	9	10	4	23
Discussion and conclusion(s)	2	4	2	8
Conclusion(s)	0	0	4	4
Discussion and conclusion as two separate sections	4	0	2	6
Other labels: *concluding remarks, summary*	0	0	3	3

Table 1. English RA closing sections and their headings.

By contrast, Italian RAs tend to show a less formalised text structure which, instead of featuring *Discussion*, includes a section bearing the title *Conclusioni* or "an alternative functional heading to this effect" (Yang/Allison 2003: 372), i.e. *Considerazioni finali*, *Considerazioni conclusive*, or *Osservazioni conclusive* (Table 2). Only one Italian article closes with a section in which the labels *Discussione* and *Conclusioni* appear together.

Sections / Headings	EM (*n* = 19)	MM (*n* = 12)	SO (*n* = 13)	Total (*n* = 44)
Conclusioni [Conclusions]	18	4	9	31
Discussione e conclusioni [Discussion and conclusions]	0	0	1	1
Other labels: *osservazioni conclusive, considerazioni finali* [concluding observations / remarks, final considerations]	1	8	3	12

Table 2. Italian RA closing sections and their headings.

From a methodological perspective, the study was carried out with the support of corpus linguistics tools such as wordlists, KWIC concordances and collocates (Sinclair 1991, 1996, 2003, 2004).[3] In an effort to identify the argumentative techniques which are predominant in English *Discussions* vs. Italian *Conclusioni*, the frequency wordlist

3 For the processing of wordlists, concordances and collocates, the PC software *Wordsmith Tools 3.0* (Scott 1998) was used.

for each corpus was generated and inspected. The quantitative and qualitative study of a selection of the 20 most pervasive words of each collection of texts was aimed at identifying some predominant function elements which signal authors' attempts to persuade the intended audience of the validity of their research findings. Starting from the recognition of some of the highest ranking closed-class words (viz. conjunctions, prepositions, determiners and pronouns) in the two databases, the extended lexical units in which they occur and their phraseological behaviour were investigated. The choice to prioritize from the outset grammatical words over lexical items and to consider them as the point of departure for the analysis follows the methodology proposed by Groom (2010). As he suggests (2010: 59), words and keywords belonging to closed grammatical classes can be "perceived as useful indicators of the characteristic style of a particular text or corpus" and, thus, "form a valid and preferable basis for empirical linguistic research into specialised discourses".

The selected items were concordanced, and analysed in their linguistic co-text as well as collocational patterns (Sinclair 1996, 2003, 2004). Particular attention was paid to the tendency of the nodes under study to occur in sequences of words which comprise metadiscursive devices and *verba dicendi.* In the light of the existing literature on metadiscourse (e.g. Dahl 2004; Hyland 2005; Hyland/Bondi 2006; Bondi/Diani 2008; Bondi/Mazzi, 2008; Cacchiani 2010; Molino 2010), the analysis focused on interpersonal or interactional metadiscourse elements (viz. hedges, boosters, attitude signals, self mentions, and engagement markers), which are used to enter a dialogue with the audience, while textual or interactive devices (viz. frame markers, transitions, evidentials, code glosses, Vande Kopple 1985 and Hyland 2005), that are deployed by writers to guide the reader through the text, were partly taken into account. Besides, reporting verbs were examined in their three-fold categorisation (Thompson/Ye 1991; Thomas/Hawes 1994): research verbs, which occur in statements of findings or procedures (*analyse, calculate, discover, explore, find, observe, show*); cognitive verbs, related to mental processes (*believe, suspect, view*); and discourse verbs, concerned with verbal expression (*discuss, hypothesise, state*). Metadiscourse and reporting verbs were looked at as they allow

academics to make explicit or conceal their presence in texts, and mark the rhetorical acts they perform in their argumentation process. Finally, the comparison drawn between the two corpora was intended to verify whether languages and national cultures could be interpreted as significant variables governing the argumentative discussion of results in business and marketing in English and in Italian.

3. Results

As anticipated in Section 2, this section is intended to illustrate the main findings of the analysis of some lexical, grammatical and metadiscoursive items which are indicative of the RA writer's presence in the text, as well as his/her interpretation and evaluation of results. The study of the English corpus of RA *Discussions* (Sub-section 3.1) will be followed by the study of the Italian *Conclusioni* (Sub-section 3.2). A combination of patterns will provide some evidence to the (dis-)similar strategies developed by academics in English and in Italian to establish a relationship with their readership and convince them of the legitimacy of their outcomes (Section 4).

3.1. English *Discussions*

The focus of this section is on the analysis of the phraseological behaviour of some grammatical words which appear among the 20 most widely spread tokens of the English corpus. A preliminary reading of the frequency-based wordlist (reproduced in Table 3) suggests that research-related meta-elements, i.e. explicit and lexical references to studies and results, are absent.

N	*WORD*	*FREQ.*	*%*	*N*	*WORD*	*FREQ.*	*%*
1	THE	4,030	5.47	11	BE	540	0.73
2	OF	2,832	3.84	12	ON	517	0.70
3	AND	2,078	2.82	13	ARE	504	0.68

4	TO	1,958	2.66	14	THIS	498	0.68
5	IN	1,709	2.32	15	WITH	483	0.66
6	A	1,302	1.77	16	BY	445	0.60
7	THAT	1,292	1.75	17	NOT	418	0.57
8	IS	787	1.07	18	OUR	407	0.55
9	FOR	764	1.04	19	WE	384	0.52
10	AS	577	0.78	20	MAY	345	0.47

Table 3. English RA Discussions: the most frequent words and their frequency of occurrence.

Disregarding some of the most frequent function words such as *the, of, and, to*, the study will concentrate on the following nodes: *as, this, not, our,* and *we*. The nodes under consideration are assumed to bring insights into some argumentative practices that are peculiar to English *Discussions*, while pointing to some distinctive aspects that differentiate English RA closing sections from Italian *Conclusioni*. As Groom observed (2010: 63), grammatical words "can tell us at least much about the preferred meanings of a particular discourse community as they can tell us about the preferred stylistic features associated with its community".

The quantitative and qualitative analysis of the search word *as* (577 entries) suggests that it is one of the most pervasive elements of the English Discussion sections. The inspection of a random 100-line concordance sample of the node reveals that *as* is frequently used as a preposition to signal RA authors' interpretations of results, comments on other research findings, and, ultimately, their endeavour to entice readers into accepting the upshot discussed (in c. 35% of the concordance sample).This is testified to by excerpt 1 (my italics as in the other quotations), in which a clarification and interpretation of findings is offered:

(1) But the paper also suggests that caution is required before *interpreting these results as a mandate* to build large networks of indirect ties. The arguments and findings of this paper draw attention to three factors that need to be considered before embarking on a strategy of substituting indirect for direct ties. (ASQ11)

Additionally, worthy of note is the use of *as* for 'exophoric' source attributions and for 'endophoric' references, which account for about 10% of the sample. On the one hand, the recourse to *as* allows academics to review the existing literature and theoretical items in an effort to support their claims, to protect them from criticism, and to confer validity on their findings by mentioning widely accepted knowledge (see example 2).

(2) *As Barnett and Carroll (1995) noted*, organizational theories have for some time been polarized according to their perspective on the adaptability of organizations. (ASQ4)

On the other hand, *as* is employed by scholars to guide the audience in the reading of the whole RA and in the understanding of the results. Specifically, in the closing section of RAs, an earlier stage of the research or a previous section of the paper itself is sometimes pointed to, and findings appear to be schematically (or visually) recapitulated, and discursively (or verbally) presented as the outcome of research. Typical examples are:

(3) *As discussed in the Methods section*, there was no differential trend in the response rates of promoted and nonpromoted tellers that would reflect a differential mortality (subject attrition) threat to internal validity (AoMJ4)

(4) Our proposed (and validated) spatial coverage model provides both a 'snapshot summary' of the search engines vis-a-vis each other (*as in Figure 2*) […] (MS3)

(5) *As we found here*, achieving success and sustainment depends on a long process of building legitimacy across three conceptually distinct dimensions and being able to overcome significant challenges based on critical legitimacy deficiencies. (ASQ10)

By referring to figures (4) or previous considerations (3), academics reinforce their claims and introduce explanatory remarks whereby they embark on interpretations of data. It is also thanks to exemplifications and long stretches of language introduced by *such as* and *as well as* (in c. 20% of the concordances under consideration)

that writers take readers by the hand, and 'venture' to detail and clarify the issues under study (6 and 7):

(6) This finding becomes particularly useful with the advent of virtual organizations, whose members are separated by time and location but connected through *technology channels such as* electronic bulletin boards, e-mail, and group decision support systems. (AoMJ5)

(7) Such applications would require researchers to perform additional reliability tests to determine the consistency in observers' overall ratings of the eight mood circumplex categories. Such efforts would provide further validation of the observer's instrument *as well as* extend its practical utility (ASQ6)

Furthermore, data suggest that it is not simply around *as* but also around other repeated terms such as *this* (498 entries) and *our* (407 entries) that scholars shape their rhetorical reasoning in English RA Discussions. Corpus insights on the use of the deictic *this* and the possessive *our* reveal that they tend to be followed by nominal forms which refer to both research-related meta-elements and marketing variables. *This* and *our* turn out to collocate with similar nouns such as *study* (85 and 37), *research* (19 and 16), *finding(s)* (15 and 65), and *result(s)* (8 and 51). Additionally, o*ur* clusters with lexical items that highlight the empirical, model-developing and experimental gist of marketing research (e.g. *data,* 23 occurrences; *sample,* 17 occurrences; *model,* 19 occurrences), whereas *this* often co-occurs with the 'final' product of studies, viz. *paper* (15) and *article* (8). Irrespective of their semantic preference, *this* and *our* followed by a noun are repeatedly accompanied by both certainty-related verbs (e.g. *show/showed,* 16 occurrences and *demonstrate/demonstrated,* 10 occurrences), and more tentative and speculative ones (e.g. *suggest/suggested,* 60 occurrences; and modals such as *may,* 15 occurrences), as can be observed in the following excerpts.

(8) Even more interestingly, *our analysis demonstrates* that firms actually seek to embed themselves in interfirm networks: by entering markets where they experience a moderate level of multipoint contact, firms increase the strength of joint-location ties to multipoint rivals and thereby increase their interdependence with those rivals. (ASQ7)

(9) *This finding suggests* that these firms did not view a smaller number of potential suppliers of new technology as a strategic threat. Instead, a larger number of suppliers may simply provide more opportunities for them to form collaborative relationships. (AoMJ14)

The co-occurrence of *this* and *our* with boosters and more than twice as often with hedges reflects the twofold goal of writers. On the one hand, academics evidently strive to present themselves as temperate *personae* who do not want to impose their opinions. On the other, they also try to 'promote' themselves as competent researchers who endeavour to convince the readership of the validity of their experiments and findings. The tendency to rely on metadiscourse elements to present findings in a prominently tentative but also confident way is complemented by more or less overt assessments, evaluations and descriptions of results. The phrase *this* or *our* *, where the wildcard * stands for a range of research-related nominal forms, is embedded in evaluative statements, typically characterized by the use of positive evaluative elements (e.g. *better, consistent* in example 10, *contribute, extend, first, interesting, shed light,* and *useful* in excerpt 11).

(10) *This result is consistent with* previous findings in both psychology (e.g., Chertkoff and Esser 1976) and experimental economics (e.g., Rapoport et al. 1995). (MS9)

(11) *This finding becomes particularly useful* with the advent of virtual organizations, whose members are separated by time and location but connected through technology channels such as emails […]. (AoMJ5)

Evaluative expressions, positive lexis and categorical assertions are used by researchers to highlight the strengths of their study, to compare it with previous analyses, to stress its consistency, importance and efficiency, and to insist on the relevance, usefulness and future applicability of their research. In doing so, however, academics do not shirk their responsibilities to comment on negative results or limitations of the studies they conducted. This is evidenced by a set of concordances of *this* or *our* followed by *analysis, research, study, finding(s).* The analysis of these nominal phrases shows that

they are often imbued with a negative aura of meaning by their surrounding co-text and co-occurring words (e.g. *handicapped* in example 12, *incomplete, inconsistent, lack, limited, problematic, suffer* in excerpt 13).

(12) Here, as well, we found no significant effects on the patent-based outcome measures, although *this analysis was also handicapped* by our inability to incorporate multiyear lags. (ASQ4)

(13) Additionally, *our analysis suffers from at least two errors of omission*. Our sample was biased toward profitable overseas opportunities because we did not have data on the countries that were not chosen for entry. Furthermore, we explicitly limited our analysis to the choice of the level of equity control made by Japanese parent firms. (AoMJ13)

The presence of negative evaluation highlights that studies in the disciplines of Business and Marketing are overwhelmingly presented in their good points as well as with their flaws.

The tendency to discuss research weaknesses is also corroborated by the occurrences of *not* (418 entries). The negative particle largely appears in the descriptions of the limitations of an 'experiment'. Specifically, the incompleteness, fault or failure of a study and its outcomes are not purposely unsaid, but explicated and mitigated. Obvious negative-sounding expressions are reformulated, softened and replaced by an alternative, which consists of *not* followed by positive words. *Formulae* of this kind, which pervade the discussion sections under study, are *not + allow, capture, consider, explain, reflect, support* or *is/are not* followed by positive expressions (e.g. *clear, supportive, without limitations*), as in the following examples:

(14) For these reasons, *our findings do not make us sure* that being promoted caused a decrease in motivation in this sample on the basis of this finding. Future research on promotions may better examine objective performance outcomes. (AoMJ4)

(15) Despite the contributions we believe we have made, *the research is not without limitations*. Most notably, the use of only two networks limits the generalizability of the findings. (ASQ10)

In the unfolding of the results discussion and interpretation, non-personal references to analyses and their upshot are interwoven with a personal projection of the writer into the text. Support for the explicit manifestation of authors' voice, who step into the text to stamp their personal views on the results discussed, is observed in the reiteration of *we* (384 occurrences). Notably, data from the corpus indicate that the first person plural pronoun tends to collocate predominantly with research verbs (e.g. *find/found*, 58 occurrences, see example 16; *examine/examined*, 13 occurrences; *studied*, 8 occurrences; *observed*, 8 occurrences), and, to a lesser extent, with cognitive and discourse verbs (e.g. *believe*, 15 occurrences, see excerpt 17; *argue/argued*, 11 occurrences; *note/noted*, 8 occurrences; *conclude*, 5 occurrences, see instance 18):

(16) *We found* significant effects in support of our hypotheses for each component of this mediated effect. First, having a friend in the employing organization had a strong positive effect on negotiated salary increases. (ASQ1)

(17) [...] *we believe* our findings indicate that culture is important but that its role is far more complex than past research and theory suggest. (AoMJ10)

(18) Thus *we conclude* that in general it is important to consider both overall coverage ability and overlap in selecting combinations of search engines. (MS3)

The use of reporting verbs reflects the emphasis placed by scholars on the key part they play in the study they conduct, and the more 'marginal' role they ascribe to themselves in the interpretation of outcomes and implications. RA writers intervene primarily to emphasize their *agentive self* or to stress their contribution to the analysis being carried out, and only secondarily to show their *epistemic self* and to argue for the reliability of their findings (Dyer/Keller-Cohen 2000).

The analysis of the closing portions of RAs in English highlights academics' willingness to characterise the results of their research as legitimate. Common strategies, viz. *we* followed by research verbs, hedges, and evaluative lexical items, are prominently

adopted by Business and Marketing scholars to account for the findings of their studies, exemplify them, evaluate their relevance, while, simultaneously, negotiating their research outcomes with interlocutors and opening a space for discussion.

3.2. Italian *Conclusioni*

In the light of the previous analysis, the Italian corpus of *Conclusioni* will be scanned for evidence of techniques employed by this second group of writers to present and discuss argumentatively the findings of their research. The inspection of the first 20 most frequent words (listed in Table 4) reveals the paucity of text- and research-related signposts or lexical signals pointing to the analyses carried out and the results obtained.

N	*WORD*	*FREQ.*	*%*	*N*	*WORD*	*FREQ.*	*%*
1	DI [of]	1,739	5.47	11	DEL [of the]	318	1.00
2	E [and]	915	2.88	12	E'[is]	318	1.00
3	CHE [that / who / which]	594	1.87	13	UNA [a]	302	0.95
4	IN [in]	586	1.84	14	DELLE [of the]	289	0.91
5	LA [the]	547	1.72	15	DELLA [of the]	268	0.84
6	IL [the]	458	1.44	16	I [the]	262	0.82
7	A [at / in]	382	1.20	17	SI [one]	261	0.82
8	UN [a]	382	1.20	18	NON [not]	218	0.69
9	LE [the]	361	1.14	19	DA [from / by]	212	0.67
10	PER [for]	338	1.06	20	DEI [of the]	211	0.66

Table 4. Italian RA *Conclusioni*: the most frequent words and their frequency of occurrence.

For reasons of consistency with the analysis presented in 3.1, this study will focus on some function words that can be considered potential markers of the Italian authors' intrusion into the text. The nodes which are selected by virtue of their hypothesised capability of giving evidence to the argumentative strategies adopted by Italian scholars are *è, si* and *non.*

The third person singular form of the verb *essere* [to be], *è* (318 occurrences), is used in non-personal constructions to define or clarify the manifold business variables under study (e.g. *sviluppo* [development], *soddisfazione* [satisfaction], *impresa* [business/ company/firm], *management*), to specify or reformulate some research-related meta-elements (such as *ipotesi* [hypothesis], *dato* [data], *modello* [model], *obiettivo* [aim/objective], *studio* [study]), and to re-state the main findings illustrated earlier on in the RA. The different uses of *è* are exemplified by excerpts 19 to 21:

(19) Anche in Italia *lo sviluppo del mercato delle imprese è ormai un fenomeno irreversibile*, se si osserva che la crescita in molti settori non può che avvenire attraverso operazioni di acquisizione. (EM18)
[Also in Italy, the companies' market development is almost an irreversible phenomenon, if one observes that growth in many sectors occurs only through acquisitions.]

(20) *La nostra ipotesi di fondo è che* il ruolo di questa teoria […] si è esaurito. (SO3)
[Our basic hypothesis is that the role of this theory […] is no longer relevant.]

(21) La ricerca ha infatti confermato la natura sociale e situata del processo di socializzazione all'uso delle tecnologie, valorizzando l'importanza della mediazione sociale nei processi di socializzazione e sviluppo organizzativo mediati dalle tecnologie. *Quest'ultimo non è un percorso rigido*. (SO6)
[This research has indeed confirmed the social and situated nature of the process of socialization to the use of technologies, by valuing the importance of social mediation in the processes of socialization and organizational development that are mediated by technologies. This is not a rigid path.]

In particular, the verb *è* is repeatedly embedded in impersonal sequences in which writers offer readers their own interpretation of the study conducted and discussed. In detail, decisive proof of academics' presence in the text is provided by a repertoire of metadiscourse devices such as *certo* ([certain], 2 occurrences), *evidente* ([evident], 2 occurrences), *probabile* [probable], 2 occurrences), *possibile* ([possible], 7 occurrences), *vero* ([true], 6 occurrences), as in the examples below:

(22) *Quel che è certo è che* tali comportamenti finiscono per alterare le condizioni competitive dell'intero settore [….]. (EM8)
[What is certain is that these behaviours end up altering the competitive conditions of the whole sector.]

(23) Innanzitutto lo studio qui esposto è di carattere esplorativo: poiché il campione di imprese esaminato non è rappresentativo dell'intera popolazione di aziende italiane, *non è possibile* generalizzare i risultati emersi. (MM12)
[First of all, the study presented here is an explanatory one: as the sample of companies examined is not representative of the population of Italian companies, it is not possible to generalize the results obtained.]

The closing portions of RAs in Italian turn out to intermingle certainty-related expressions (e.g. *certo, certamente, decisamente, sicuramente* [certain, certainly, definitely, surely]) and recurrent constructions which encode the writers' 'invitation' to the audience to conform to their knowledge claims. Authors' intention to signal their inferential conclusions and to recommend their interlocutors some specific interpretations of data and findings is conveyed by clusters such as *è necessario* ([it is necessary], 8 occurrences), *è da* followed by *notare, intendersi, dimostrare* ([it is to be / it should be noted, intended, demonstrated], 3 occurrences), and *è opportuno / bene / d'obbligo / inevitabile / preferibile* ([it is appropriate / worth / obligatory / inevitable / preferable], 8 occurrences), as in 24 and 25.

(24) Allo stesso modo la dichiarazione di incoerenza *non è da intendersi* in termini assoluti, in quanto la stessa è riferita esclusivamente alla categoria di appartenenza […]. (EM3)
[In the same way, this statement of incoherence should not be intended in absolute terms, as it refers exclusively to a specific category […].]

(25) Al fine di evitare ambiguità […], dunque, *è necessario* sottolineare con forza che la gestione sistematica e strutturale del passaggio dall'idea all'impresa è una professione diversa da quella accademica, così come lo è la fondazione di una nuova impresa. (SO9)
[In order to avoid ambiguities […], thus, it is necessary to underline that the systematic and structural management of turning ideas into an enterprise along with the foundation of a new business is a profession different from the academic one.]

Apart from boosters, constructions used to formulate recommendations and infrequent tentative expressions (e.g. *possibile* [possible], 6 occurrences; *probabile* [probable], 2 occurrences), forms of explicit evaluation are strongly represented in Italian closing sections. Evaluative meanings appear to be encoded by adjectives such as *interessante* [interesting], *importante* [important] *difficile* [difficult], *utile* [useful] and its antonym *inutile* [useless], as in 26 and 27:

(26) *È inoltre interessante* notare che i gruppi che hanno la migliore performance […] nel 1997 sono proprio quelli che hanno un assetto proprietario insolito per il capitalismo italiano: le public company e le coalizioni di istituti di credito. (EM5)
[It is also interesting to note that the groups which performed best […] in 1997 are those that have an ownership structure unusual for Italian capitalism: public companies and coalitions of credit institutions.]

(27) Allo stesso tempo, tuttavia, *è importante affermare* con forza il principio secondo il quale alla possibilità di scelta tra diverse professioni in funzione delle predisposizioni individuali debba necessariamente accompagnarsi un'effettiva decisione, da parte dei docenti o ricercatori coinvolti in attività imprenditoriali, su quale delle due attività concentrare in via prioritaria le proprie energie. (SO9)
[At the same time it is however important to state that the possibility of choosing among different professions according to one's own personal inclination must be accompanied by a decision on the part of professors and researchers involved in business activities about which of the two activities they would give priority to.]

As a result, the co-occurrence of *è* with evaluative items, and certainty expressions appears to be indicative of Italian academics' tendency to highlight their conviction about their claims, direct the reader towards a conclusion, and establish their attitude towards the findings of their research.

The signals of Italian scholars' overt stance and intrusion into the discourse are counterbalanced by more impersonal forms of self-reference which highlight writers' inclination to conceal their presence in texts, and 'disguise' their involvement. *Si* impersonal constructions (261 entries), which represent the unmarked choice of Italian authors to refer to themselves, occur prominently in passages reporting,

summarising and discussing results. As regards *verba dicendi*, the examination of the concordances of *si* followed by reporting verbs demonstrates that it tends to cluster with discourse and cognitive verbs (e.g. *proporre* [propose/suggest], 6 occurrences; *argomentare* [argue], 3 occurrences; *affermare* [state], 3 occurrences; *dire* [say], 3 occurrences; *ritenere* [believe], 6 occurrences; *pensare* [think], 3 occurrences), and to be seldom followed by research verbs (*osservare* [observe], 5 occurrences). Typical examples are:

(28) L'economia digitale, *come si è detto*, è il mezzo per facilitare la separazione dell'economia delle cose da quella della conoscenza […]. (EM9)
[The digital economy, as was said, is the means which facilitates the distinction between the goods economy and the knowledge one.]

(29) *Non si deve però pensare* che questo sia un processo interattivo armonioso; al contrario, esso è negoziale e, talora, anche conflittuale. (SO7)
[Nevertheless, one should not think that this is a harmonious and interactive process; on the contrary, it is a negotiating and, sometimes, also controversial process.]

(30) Focalizzandosi sulla situazione italiana, *si osserva* che […] l'introduzione dello sportello unico e la semplificazione amministrativa costituiscono opportunità di attuazione di interventi di process reengineering […](EM13)
[As regards the Italian situation, it can be observed that […] the establishment of single points of contact and the administrative simplification are opportunities for process reengineering projects to be implemented […].]

Concordances for the impersonal *si* suggest that findings are more commonly presented as the outcome of discursive and cognitive or mental processes rather than analytical and research procedures. Accordingly, Italian scholars turn out to downplay their role in research when explaining procedures, and to construct an authoritative self as *writer* and *arguer* (cf. Fløttum *et al.* 2006).

Nevertheless, in their presentations and discussions of findings Italian academics appear to rely on elements which signal not only conviction but also caution, modesty and sincerity. In an effort to protect themselves from others' criticism or to justify the need for further research, Italian writers do not skip over their research 'failures' and limitations. It is mainly acknowledging possible

research weaknesses that RA writers use the negative particle *non* [not] (218 occurrences). Emblematic examples are:

(31) Alcune ipotesi fatte vengono, come si è visto, confermate; altre, che pure erano state poste, *non permettono conclusioni certe*. (MM8)
[As already seen, some of the hypotheses advanced have been confirmed; while other hypotheses which were also proposed do not lead to definitive conclusions.]

(32) *Non mancano* tuttavia elementi che, nel metodo applicato, vanno migliorati, soprattutto con riferimento all'area dei test sulla bontà di adattamento del modello ai dati osservati. (MM9)
[There is, however, no lack of elements which in the method applied need to be improved, especially with reference to the tests on the adaptability of the model to the data observed.]

In detail, writers explain and reformulate the critical points of their analysis (33), and, in an attempt to make the audience accept their research findings, they present the flaws of their study together with its strengths (34 and 35). However, whereas research limitations are mitigated and almost neutralized, its 'good points' are likely to emerge more strongly. This strategy embraces devices such as *non ... ma piuttosto* [not … but rather] (34) and *pur non potendo* [although not being able] (35), which, while avoiding the misrepresentation of facts, highlight some of their strengths.

(33) La prima ipotesi […] *non* è stata verificata. Cioè *non emergono* dati quantitativi che depongono a favore del fatto che l'atteggiamento nei confronti della discarica (favorevole o sfavorevole che sia) non ha ricadute dirette sul comportamento di differenziazione. (MM8)
[The first hypothesis […] has not been verified. In other words, quantitative data were not available to support that the attitude towards the landfill site (either positive or negative) has no direct impact on the recycling behaviour.]

(34) […] la metodologia utilizzata nel presente lavoro *non propone una soluzione alternativa, ma piuttosto uno strumento* che consenta di rivedere le categorie Assogestioni, al fine di giungere alla costruzione di peer groups e di effettuare confronti tra fondi effettivamente comparabili (EM3)
[[…] the methodology adopted in this study does not suggest an alternative solution but rather a tool which can be used to review the Assogestioni

categories, in order to create peer groups and compare funds that are actually comparable.]

(35) *Pur non potendo fornire evidenze* a supporto dell'una o dell'altra tesi, *la ricerca permette di* apprezzare alcune somiglianze e talune diversità con il campione nordamericano. (EM1)
[Although not being able to provide evidence to either one of the two theses, this study allows to appreciate some analogies and differences with the North American sample.]

The considerations put forth so far suggest that, in order to stress the truthfulness of their results and the validity of their claims, Italian scholars are inclined to favour impersonalization strategies, discourse-oriented as well as cognitive verbs, boosters and evaluative devices.

4. Discussion and conclusions

The analysis of the RA final sections presented in 3.1 and 3.2 brings to the fore some similarities and differences in the ways in which writers close their papers in English and in Italian. Both English *Discussions* and Italian *Conclusioni* are devoted to presenting findings, establishing their importance, interpreting them, evaluating the whole study, indicating limitations, drawing implications, and recommending directions for future research. Additionally, RA writers tend to review some of the main points by drawing on the existing literature, and offer their interpretation of the issues under discussion. As a consequence, the closing portions of RAs in English and in Italian are permeated by exemplifications, references to other researchers' contributions, and reformulations of the outcomes thoroughly presented in the Results section.

While offering interpretations of data and expressing more or less overtly their opinions, however, English and Italian authors turn out to develop different argumentative strategies in order to establish credibility and convince readers of the reliability of their studies. Writers of English papers tend to intermingle forms of personal and

impersonal reference to make explicit and conceal their presence in the text. Specifically, w*e* and *our* followed by signposts pointing to research-related elements are combined with non-personal references to analyses and findings. The foregrounding of the proactive role played by English researchers and their dialogic positioning are replaced by writers' ostensible 'invisibility' in Italian *Conclusioni.* In detail, Italian closing parts, in which authors employ few markers of dialogic and personal presence, are pervaded by a range of impersonal constructions, which include the pronoun *si*, references to non-human agents (i.e. research- and marketing-related items), and copular constructions (such as *è certo che*...[it is certain that], *è probabile che*... [it is probable that]). Furthermore, the language of English and Italian Discussions reveals that, while intruding into the text, the two groups of scholars tend to construct different identities. The analysis of *verba dicendi* in the two corpora suggests that in English texts scholars prioritize their role as researchers, whereas Italian academics are more inclined to project an image of themselves as writers and arguers.

Specifically, in English *Discussions* the author is clearly visible in the text through self-mention and takes responsibility for the research carried out and the results obtained. Personal constructions and research verbs help English academics 'promote' their proactive role as competent researchers, and characterize their conclusions as the legitimate and logical consequences of the studies being conducted. The certainty and 'goodness' of findings, which can be detected in a diversified repertoire of boosters and evaluative items, is however diluted and mitigated by the higher incidence of hedges. These devices are used to confer tentativeness to the considerations put forward, and indicate that information is presented as an opinion rather than accredited fact. The English writer's predisposition to portray his/her evaluations in a personal, explicit but also prudent manner is counterbalanced by the more impersonalised but only apparently detached approach of the Italian author.

In Italian *Conclusioni* the writer appears to opt for a more authorial presence through the use of *si*, to minimise his/her role as researcher, to give prominence to marketing/business phenomena and to allow facts to speak for themselves. Behind this screen of apparent

objectivity and impersonality, however, Italian academics take responsibility for the asserted propositions and the conclusions drawn. In detail, they tend to convey their involvement by the prominent use of cognitive and discourse verbs, and to emphasise the validity of their findings by means of boosters, evaluative markers, and explicit references to recommended interpretations of data.

Although the results based on these two small corpora can only be provisional and tentative, it is hoped that these preliminary findings will help gain new insights into the cultural and linguistic variability of RAs and their sections.

References

Bamford, Julia / Bondi, Marina (eds) 2005. *Dialogue within Discourse Communities: Metadiscursive Perspectives on Academic Genres*. Tübingen: Niemeyer.

Bhatia, Vijay K. 1993. *Analysing Genre. Language Use in Professional Settings.* London: Longman.

Bhatia, Vijay K. 2004. *Worlds of Written Discourse. A Genre-Based View*. London: Continuum.

Bondi, Marina 1999. *English across Genres: Language Variation in the Discourse of Economics.* Modena: Il Fiorino.

Bondi, Marina / Diani, Giuliana 2008. Le voci del testo: la rappresentazione dell'argomentare nella scrittura accademica in italiano e in inglese. In Schena Leandro / Preite Chiara / Soliman Luciana T. (eds) *Le Lingue per gli studenti non specialisti. Nuove strategie di apprendimento/insegnamento. La contrastività nei linguaggi specialisti.* Milano: Egea, 89-121.

Bondi, Marina / Mazzi, Davide 2008. Per concludere veramente. Signalling Conclusions in Historical Research Articles in Italian and in English. *La Torre di Babele. Rivista di letteratura e linguistica* 5, 159-171.

Cacchiani, Silvia 2010. *Conclu* In English and Italian Historical Research Articles.* Online at <http://www.lancs.ac.uk/fass/projects/corpus/UCCTS2010Proceedings/papers/Cacchiani.pdf>.

Crismore, Avon / Markkanen, Raija / Steffensen, Margaret 1993. Metadiscourse in Persuasive Writing: A Study of Texts Written by American and Finnish University Students. *Written Communication* 10/1, 39-71.

Dahl, Trine 2004. Textual Metadiscourse in Research Articles: A Marker of National Culture or of Academic Discipline?. *Journal of Pragmatics* 36/10, 1807-1825.

Diani, Giuliana 2004. A Genre-based Approach to Analysing Academic Review Articles. In Bondi, Marina / Gavioli, Laura / Silver Marc (eds) *Academic Discourse, Genre and Small Corpora.* Rome: Officina Edizioni, 105-126.

Dudley-Evans, Tony 1994. Genre Analysis: An Approach to Text Analysis for ESP. In Coulthard, Malcolm. (ed.) *Advances in Written Text Analysis.* London: Routledge, 219-228.

Dyer, Judy / Keller-Cohen, Deborah 2000. The Discursive Construction of Professional Self through Narratives of Personal Experience. *Discourse Studies* 2/3, 283-304.

Fløttum, Kjersti / Kinn, Torodd / Dahl, Trine 2006. 'We now report on...' versus 'Let us now see how…': Author Roles and Interaction with Readers in Research Articles. In Hyland/Bondi (eds), 203–224.

Giannoni, Davide S. 2005. Negative Evaluation in Academic Discourse. A Comparison of English and Italian Research Articles. *Linguistica e Filologia* 20, 71-99.

Groom, Nicholas 2010. Closed-class keywords and corpus-driven discourse analysis. In Bondi Marina / Scott Mike (eds) *Keyness in Texts.* Amsterdam: John Benjamins Publishing Company: 59-78.

Hyland, Ken 1998. Persuasion and Context: The Pragmatics of Academic Metadiscourse. *Journal of Pragmatics* 30/4, 437-455.

Hyland, Ken 1999. Talking to Students: Metadiscourse in Introductory Coursebooks. *English for Specific Purposes* 18/1, 3-26.

Hyland, Ken 2000. *Disciplinary Discourses. Social Interaction in Academic Writing*. London: Longman.

Hyland, Ken 2005. *Metadiscourse. Exploring Interaction in Writing*. London: Continuum.

Hyland, Ken / Bondi, Marina (eds) 2006. *Academic Discourse across Disciplines*. Bern: Peter Lang.

Mauranen, Anna 1993a. Contrastive ESP Rhetoric: Metatext in Finnish-English Economic Texts. *English for Specific Purposes* 12/1, 3-22.

Mauranen, Anna 1993b. *Cultural Differences in Academic Rhetoric. A Texlinguistic Study*. Frankfurt: Peter Lang.

Molino, Alessandra 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.

Motta-Roth, Désirée 1998. Discourse Analysis and Academic Book Reviews: A Study of Text and Disciplinary Cultures. In Fortanet Immaculada / Posteguillo, Santiago / Palmer, Juan C. / Coll, Juan F. (eds) *Genre Studies in English for Academic Purposes*. Castelló: Universitat Jaume I, 29-58.

Mur-Dueñas, Pilar 2011. An intercultural analysis of metadiscourse features in research articles written in English and in Spanish. *Journal of Pragmatics* 43/12, 3068–3079.

Myers, Gregory 1992. Textbooks and the Sociology of Scientific Knowledge. *English for Specific Purposes* 11/1, 3-17.

Scott, Mike 1998. *Wordsmith Tools 3.0*. Oxford: Oxford University Press.

Sinclair, John 1991. *Corpus Concordance Collocation*. Oxford: Oxford University Press.

Sinclair, John 1996. The Search for Units of Meaning. *Textus* 9/1, 75-106.

Sinclair, John 2003. *Reading Concordances*. London: Longman.

Sinclair, John 2004. *Trust the Text. Language, Corpus and Discourse*. London: Routledge.

Soler Monreal, Carmen / Gil Salom, Luz. 2007. Moves, Steps and Linguistic Signals in RA Discussion Sections. *Paper presented*

at the XVIth European Symposium on Language for Special Purposes. University of Hamburg, 27-31 August 2007.

Stotesbury, Hilkka 2003. Evaluation in Research Article Abstracts in the Narrative and Social Sciences. *Journal of English for Academic Purposes* 2/4, 327-341.

Swales, John M. 1990. *Genre Analysis. English in Academic and Research Settings.* Cambridge: Cambridge University Press.

Swales, John M. 2004. *Research Genres. Exploration and Applications*. Cambridge: Cambridge University Press.

Thomas, Sarah / Hawes, Thomas P. 1994. Reporting Verbs in Medical Journal Articles. *English for Specific Purposes* 13/2, 129–148.

Thompson, Geoff / Ye, Yiyun 1991. Evaluation in the Reporting Verbs Used in Academic Papers. *Applied Linguistics* 12/4, 365–382.

Vande Kopple, William 1985. Some Exploratory Discourse on Metadiscourse. *College Composition and Communication* 36, 82-93.

Yang, Ruiying / Allison, Desmond 2003. Research Articles in Applied Linguistics: Moving from Results to Conclusions. *English for Specific Purposes* 22/4, 365-385.

ALESSANDRA FAZIO

Academic Sports Science Discourse in *Formal* and *Informal* Texts: A Comparison

1. Introduction

The aim of this chapter is to analyse English sports science discourse in academic settings and, in particular, to investigate how formal academic discourse in Native Speakers of English (NS) is reflected in the final theses written by Non-Native Speakers (NNS) of English, i.e. Italian students specializing in a European Master Degree in Health and Physical Activity. A further goal of this explorative study is to identify and compare similarities and differences in the use of sports science terminology in specific academic discourse in English and suggest reasons for these similarities and differences.

The analysis of key concepts – not only substantial differences, but also any peripheral changes –, the way these cluster around logically related root connections will also be taken into account in the process of writing the final thesis. Such an analysis could contribute to both a better understanding of the most frequent biased linguistic tendencies and language teaching. In other words, the challenge is to use corpus analysis in language teaching for specific applications. We assume that when writing for academic purposes, it is important to focus on what to teach as opposed to how to teach the salient features of the genre a student needs to master. The objective of this analysis is therefore to analyse formal language in order to produce informal documents in line with the standardised language premises to guide students towards the controlled production of either content (knowledge) or standardised language structures.

Two corpora were collected and analysed for this purpose: standardised academic sports science written texts made up of Sports Science Research Articles (*SportDiscus* RAs) selected from the *SportDiscus* database and the final theses of Italian MA students using English as L2 (MA theses).[1] This methodological framework is also used by both Biber (2007) and Swales (2004) to investigate and define specificity. Such an investigation is a crucial requisite in this explorative study on the difference between the two corpora. We expect that a possible bias might be representative of an aspect differentiating the two corpora even though the final aim of this overview is to analyse how the reproduction of linguistic strategies and the extension of logic strategies are processed by NNS MA students. This analysis is essentially meant for didactic purposes to be applied at higher educational level to develop our students' specific language skills.

An analysis of the general stylistic framework in both academic texts written by NNS and NS of English was carried out. An examination of the use of recurrent qualitative and quantitative linguistic elements was also conducted, including an analysis of key concepts in terms of *keyness*. Finally, a comparison of the relevant occurrences in both corpora was outlined. Furthermore, it was also possible to explain reasons for any discrepancies used. Key concepts were controlled for their coherence and logical relevancy. Any differences identified were categorised according to either the logical knowledge structure on which the specific language of sport is based, or to the different socio-cultural settings affecting language patterns; not only substantial differences were classified, but also likely complementary aspects of linguistic and logical discourse were systematically organised.

Data and results were processed with the latest technological tools facilitating the identification of new ways and/or directions of inter-relationships in seemingly unstructured textual data. Such new tools, in fact, appeared to pinpoint not just the quantitative distribution

1 From now on we will refer to Sports Science Research Articles and final theses of Italian MA students respectively as *SportDiscus* RAs and MA theses. For a detailed description of the two corpora see Section 3.

of data, but they also stimulated analysis, affording subtle connections in ways that were previously not possible with the manual tools available.

2. Terminology and language variation

Terminology and language variation need to be explored through corpus investigation techniques as stated by Hunston (2002). In Biber's (2007: 3) words,

> The first major approach to discourse – the study of language use – has been carried out from several perspectives [...]. Many of these approaches focus on the study of linguistic variation, showing how linguistic choice is systematic and principled when considered in the larger discourse context. [...] Most corpus-based research is discourse analytic in this sense, investigating systematic patterns of language use across discourse contexts, generalized over all the text in a corpus. The advantages of a corpus approach for the study of discourse, lexis, and grammatical variation include the emphasis on the representativeness of the text sample, and the computational tools for investigating distributional patterns across discourse contexts.

In addition, as a starting point of this investigation the notion of discourse community requires attention and highlighting. In 1990 Swales quoted Herzberg's well-known words (1986) i.e. "the language used in a group is a form of social behavior, *in which discourse* is a *means* of maintaining and *extending the group's knowledge* and of *initiating* new members into the group; *discourse is epistemic or constitutive of the group's knowledge* [the author's italics]." Therefore, in order to analyze the specific discourse of a given community language variation is essential. Hunston's definition of variation was taken into account. In her words (2002:159):

> *The study of variation is* […] the study of comparison between discourses produced at different times, or for different purposes, or by different groups of people, or under different conditions [the author's italics].

In the present study the two objects of research are: the European Master theses written by Italian students (MA theses), on the one hand, and, on the other, a corpus of Sports Science RAs (*SportDiscus* RAs) representing respectively what we called 'informal' texts written by NNSs of English and the 'formal' standardized Reference Corpus of Research Articles written by NSs of English. The need to label the two corpora in order to distinguish one from the other meant that a choice was made to focus attention on the degree of formal acceptance by the scholars of the 'formal' sub-field language already indexed in specific language databases. Consequently, we defined as "informal" the students' tentative reproduction of the RAs model language.

3. Materials, tools and data collection

Two corpora were collected for this analysis. The so-called 'informal' corpus consists of eight final dissertations for a Master degree discussed in 2009 (see Figure 1). These theses focused on the following subjects: ageing (in particular, physical activity for the elderly), physiology and related issues (specifically, exercise training), child sport, doping, physical activity and mental health.

Figure 1. The 'informal' European Master Theses Corpus (MA theses).

The 'formal' reference corpus includes 224 Sports Science RAs all of which were selected from *SportDiscus*,[2] the most comprehensive source of complete text documentation for sport and applied sciences (see Figure 2). Criteria of selection are explicitly quoted below.

Figure 2. The 'formal' Sport Science RA Reference Corpus (RAs).

The RA reference Corpus consisting of RAs taken from five of the most prestigious scientific / academic journals in the field of sport is made up of articles collected over a 12-month period (all over 2010). Their reliability is determined by the relevance ratio and the impact factor. Obviously these five academic journals as well as the RAs were chosen from the same sub-fields as the Master theses topics. In addition, RAs were not chosen randomly but all the articles published in 2010 written by NS of English were included in the reference corpus selection.

2 The *SportDiscus* database was used as an information retrieval tool. Firstly, it was possible to carry out a simple search by writing a word or by refining the search using *and/or* logical operators. Secondly, documents could be found by searching through lists of indexed publications or the *SportDiscus* thesaurus (i.e. by means of key words). The sorting of documentation can be carried out by referring to source types. Finally, the relevancy ratio indicated in each document was also taken into account.

4. Method of analysis

In this section, corpus analysis will be carried out followed by a discussion of the parameters used to establish language variation. It needs to be pointed out that this is a preliminary analysis of final theses of a post-graduate Master course aimed at refining students' knowledge of English as a second language according to a formal academic register, with a focus on specifically useful elements of advanced grammatical structures conforming to the formal academic register required by the academic writing genre in a specific field.

Our study is a preliminary investigation in the formal literature of a specific sub-field of sports science in view of extending the research to a wider field of interest. The intention is to highlight the main crucial elements and compare language and the conceptual variation between the two corpora. Examples were provided from both the language viewpoint (repeated occurrences, co-occurrences) and the conceptual structure (*keyness*, keywords and key concepts).

With regard to the conceptual structure, what immediately emerged from our master theses was mainly 1) terms or word strings referring to specific physical overlapping activities with 2) different applied sciences in an attempt to find 3) a common ground of research to determine health, fitness and a correct lifestyle showing the conceptual complexity of this field. Figure 3 shows the complexity as well as the interdisciplinary nature of this specific field of investigation.

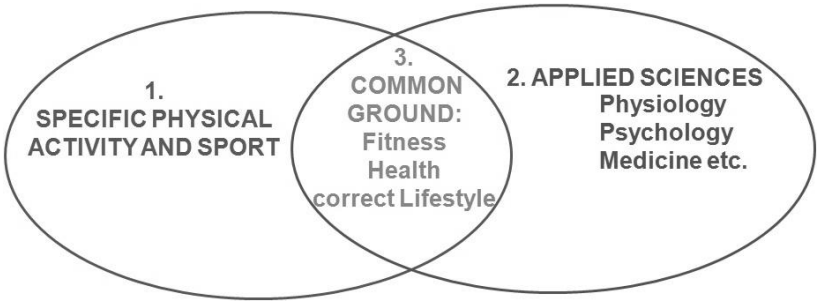


Figure 3. Sports Science conceptual complexity.

4.1. Language structure

According to Hunston (2002: 157), "there is a long tradition in the investigation of register variation and the study of genre but corpora have added a new dimension to the kind of research that can be undertaken". Language variation is investigated here from a genre (Swales 1990, Bathia 1993) *and* corpus-based perspective.

Among the different parameters taken into consideration by Biber *et al.* to study language variation, we used and adapted parameter descriptions listed in Hunston (2002: 160-169) as shown in Table 1. In order to compare language variation between the two corpora produced in different situations, the parameters shown in Table 1 were taken into account: term frequency, term meaning and use, language feature frequency, frequency of co-occurrent language items.

Term frequency	**Term meaning and use**	**Language feature frequency**	**Frequency of co-occurrent language items**
Linguistic reference between corpora of key terms/words is not controlled and often irregular.	Random control of keyword frequencies and reference consistency appear to be different.	Functional grammar features and language structures are distributed unevenly in the analyzed corpora.	Language items that usually co-occur in clusters or 'association patterns' (Biber,1996) are analyzed to determine string frequency and patterns.

Table 1. Parameters of variation (adapted from Hunston 2002: 160-169).

In this study, *term frequency* refers to terms that in Hunston's words (2002: 161-162)

> [...] are not distributed evenly across registers, but occur more frequently in one register than another [...] Word-classes, as well as individual words, also differ. Nouns are more frequent in news and academic prose than in other registers, and least frequent in conversation. This reflects the density of

> information in the various registers, particularly the complexity of noun phrases in academic prose.

Term meaning and use refer to different meanings and uses sometimes associated with "different frequencies of words in different registers" (Hunston 2002: 162). For example,

> the adjective *massive* is used in science writing with a technical sense of 'large in mass' and modifies nouns such as *star*, *black hole* and *planet*. In journalism, it is used with a more general sense of 'very big' and modifies nouns such as *blow*, *boost*, *gamble* and *profits.* (Hunston 2002: 162)

Reference to *language feature frequency* analyses language and grammatical structure frequency considering grammatical features as well as terms "distributed unevenly across registers (Hunston 2002: 162)". For instance, it has been found that negative forms are much more frequent in conversation than in writing (Tottie 1991: 17). However the use of negatives in academic prose focuses mainly on interactivity; they position the reader to hold certain assumptions. Some verb forms as well as differences in tenses are also unevenly distributed across registers (Mindt 2000). Finally, with regards to co-occurence of variation labelled in the table above as *frequency of co-occurrent language items*, we refer to Biber's (1996: 173) "association patterns", that is "the systematic ways in which linguistic features are used in association with other linguistic and non-linguistic features". In addition, collocation, clusters and co-occurrent features were considered, bearing in mind "the tendency of *terms* and grammar features to associate with given genres" as pointed out by Hunston (2002:164).

Several examples were taken from a preliminary analysis of a post-graduate MA thesis requiring a more refined knowledge of NNSs of English used in a formal academic register and style. Useful advanced grammatical elements specifically conforming to a formal academic register were emphasized. From the point of view of language structure, examples characterized by statistical frequency of occurrence related to the use of modifiers, negative forms, verbs and emerging keywords were provided. The following illustration shows the distribution of the frequency of occurrence of modifiers in both

corpora. The two peak numbers of occurrences in the informal discourse appear to be ONLY and ESPECIALLY – language items with a direct counterpart in NSs of Italian.

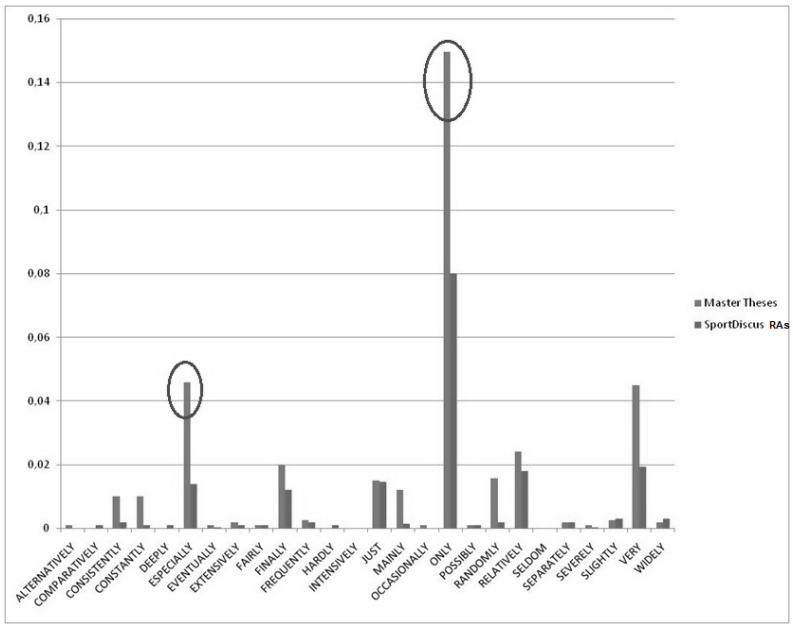


Figure 4. Frequency of MODIFIERS.

With regard to the use of the negative form, the expression NOT ONLY is widely present throughout the text in a limited corpus of the MA theses, while occurrences were found in the much wider Reference Corpus of RAs in a 1(MA theses) / 2 (*SportDiscus* RAs) relationship where the corpora are in a 1(MA theses) / 10 (*SportDiscus* RAs) relationship approximately (see Table 2 and Figure 5).

	Total number of words	**NOT ONLY occ.**
MA theses	165,762	50
SportDiscus RAs corpus	1,397,812	110

Table 2. 1/10 Ratio between corpora: MA theses vs RAs amount of words.

The graph in Figure 5 shows the normalized data related to the use and distribution of the expression NOT ONLY.

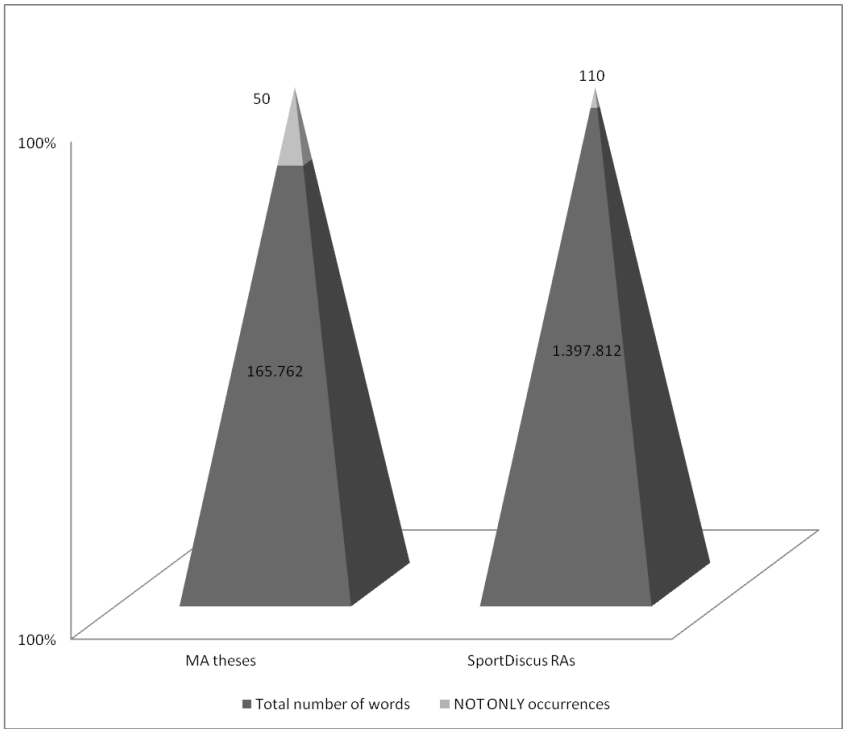


Figure 5. Representation of normalized data related to NOT ONLY.

The use of NOT in the *SportDiscus* RAs reference corpus is also much more varied as shown in Table 3.

Use of "***NOT***" PATTERN in **Master Theses**	Use of "***NOT***" PATTERN in **SportDiscus RAs**
NOT ONLY	**NOT ONLY**
NOT ALWAYS	NOT DIFFERENT
NOT AFFECTED BY	NOT SIGNIFICANT
NOT RELATED TO	NOT SHOWN
NOT SIGNIFICANT	NOT POSSIBLE
NOT PRESENT	NOT AFFECTED
NOT TREATED	NOT PRESENT
NOT NECESSARILY	NOT SURPRISING
NOT SIGNIFICANTLY	NOT RELATED
	NOT CONSISTENT
	NOT SUFFICIENT
	NOT NECESSARILY
	NOT SIGNIFICANTLY

Table 3. Negative form Comparison/Variation: the use of NOT.

Alternative occurrences of NOT+ADJECTIVE are negative forms expressed by NEGATIVE PREFIX + ADJECTIVE. The use of this type of negative form is more forceful and provides a more immediate and straightforward negative connotation. Some of these negative forms are commonly used to demonstrate a fairly satisfactory level of language competence, e.g. untrained, unexpected, unrelated, unchanged, unusual. These examples refer to the NEGATIVE PREFIX + ADJECTIVES OCCURRENCES we found in the MA theses corpus. All the examples feature adjectival phrases as mentioned above (PREFIX + ADJECTIVES). Other adjectives clearly denote a highly sophisticated level of language competence, e.g., unequivocal (eight occurrences in the Master Theses Corpus) but never mentioned in the RAs Reference Corpus as shown in Table 4.

Use of negative adjectives "***UN-***" **PREFIX** in **Master Theses**	Use of negative adjectives "***UN-***" **PREFIX** in **SportDiscus RAs**
UNTRAINED UNEXPECTED UNRELATED UNCHANGED UNUSUAL UNFIT	UNACCEPTABLE UNACCUSTOMED UNADJUSTED UNAFFECTED UNAIDED UNALTERED UNAMBIGUOUS UNANSWERED UNANTICIPATED UNATTAINABLE UNAVOIDABLE UNAWARE UNBALANCED UNBIASED UNCERTAIN UNCHANGED(**60 occurrences**) UNCLEAR UNCOMFORTABLE UNCOMMON UNCONDITIONAL UNCONSCIOUS UNCONSTRAINED UNCONTROLLED UNCORRECTED UNCOUPLING UNCOVERED
Other adjectives used… UNEQUIVOCAL **(8 occurrences)** UNEQUIVOCALLY UNCLEAR UNCHANGED	

Table 4. Negative form comparison variation: the use of negative adjectives "*UN*-" PREFIX.

Considering the distribution of *Present Perfect* variation between the two corpora, Figure 6 shows the total number of occurrences referring to the Present Perfect (more than 10 occurrences per 1,000 words were counted). Furthermore, it is to be emphasized that in the MA theses corpus the verb TO BE shows a relative frequency of occurrence

denoting a poor level of language knowledge and above all of formal standard use. It was also observed that the Present Perfect of the verbs DEMONSTRATE, FAIL, FIND, SHOW and SUGGEST were the most frequently used verbs in the MA theses corpus while the RA Reference Corpus showed a much more extensive range of choice with a wide use of Present Perfect forms such as HAVE BEEN, AFFECTED, ALLOWED, ALTERED, BECOME, CAUSED, CHARACTERIZED, CONTRIBUTED, CREATED, DECREASED, DEMONSTRATED, EMERGED, EXAMINED, FAILED, FOCUSED, FOUND, HAD, IDENTIFIED, INCREASED, INDICATED, INFLUENCED, INVESTIGATED, LEARNED. LED, LIMITED, MEASURED, OBSERVED, OCCURRED, PLAYED, PREVENTED, PRODUCED, PROPOSED, PROVIDED, RECEIVED, REDUCED, REPORTED, RESULTED, REVEALED, SEEN, SHOWN, SUGGESTED, USED, YIELDED.

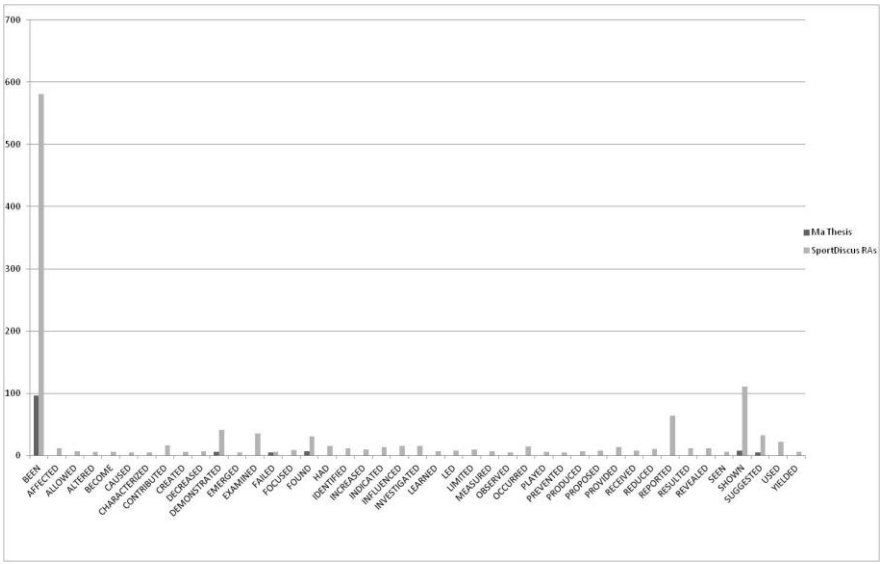


Figure 6. Distribution of Present Perfect variation (verbs are reported in Past Participle form): "Studies / Exercises / Skills have + Pres. Perfect".

Figure 7 shows the frequency distribution of the *passive voice* occurrence throughout the texts. The high level of variation and difference in the choice of lexis used is worthy of note. The formal language seems to be constructed with fewer fixed formulae while

Master students seemed to use a wider range of lexical items with fewer occurrences. Reasons for this difference might be due to the use of specific standard protocols required in RAs while the more varied use/choice of linguistic items in MA theses suggests limited observance of scientific formulae.

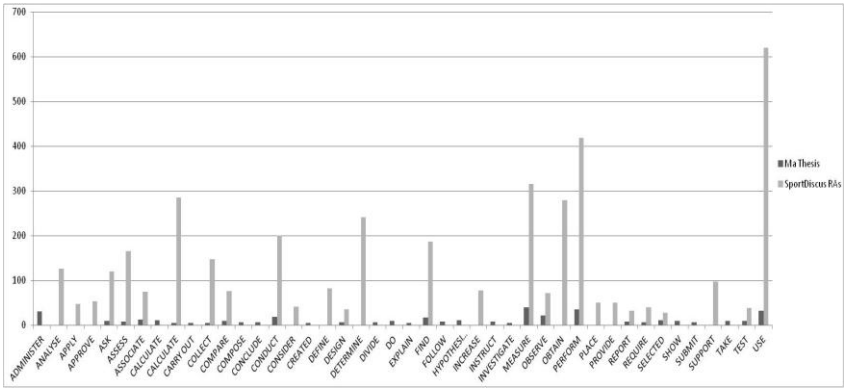


Figure 7. Distribution of passive voice variation (verbs are reported in infinitive form)

The frequency of co-occurrent language items, taken from a comparison between the Master Theses Corpus and *SportDiscus* RAs has also been analyzed. EXECUTIVE emerged as a relevant keyword. Table 5 shows the most frequent co-occurrences of EXECUTIVE.

Relevant keyword emerging from MA theses and SportDiscus RAs: EXECUTIVE + co-occurences
EXECUTIVE FUNCTION(S)
EXECUTIVE CONTROL
EXECUTIVE PERFORMANCE
EXECUTIVE TASKS
EXECUTIVE CONTROL TASKS
EXECUTIVE FUNCTION COMPONENTS
AMOUNT OF EXECUTIVE CONTROL
EXECUTIVE FUNCTION DEVELOPMENT
CENTRAL EXECUTIVE
DEVELOPMENT OF EXECUTIVE FUNCTION
DIVERSITY OF EXECUTIVE FUNCTION
SUBSET OF EXECUTIVE FUNCTION

Table 5. Frequency of co-occurrent language items.

The pre-modifying adjective EXECUTIVE depicts in full the specificity of our department's field of study centered on human movement and related physical exercise execution.

4.2. Conceptual structure

The conceptual structure emerging from *SportDiscus* RAs is related to Figure 3 above, showing the conceptual complexity of this specific field. Some examples of sports science academic terminology were provided from an analysis of keyness terms, facilitating a comparison between the *SportDiscus* reference corpus of RAs and the BNC, thus establishing the relevant keywords in *SportDiscus* RAs as confirmed and specified in the opposite relationship between MA theses and RAs discussed above.

From a conceptual point of view, Table 6 shows the most significant keywords out of the first 150 processed words in the list. Terms related to specific physical and sports activities are highlighted in light grey, terms related to the applied sciences (physiology, psychology, medicine etc.) are highlighted in dark grey, while interdisciplinary terms (related to a common ground of study such as fitness, health, correct lifestyle etc.) are in white fields and emphasized in bold.

N.	**Key word**
1	EXERCISE
2	MUSCLE
3	ACTIVITY
4	PHYSICAL
5	ATHLETES
6	PHYSIOLOGY
7	MOTOR
8	ADULTS
9	**OLDER**
10	TRAINING
11	BEHAVIOR
12	PERFORMANCE

N.	**Key word**
13	EFFECTS
14	SKELETAL
15	INTENSITY
16	CONTROL
17	MAXIMAL
18	KINETICS
19	INSULIN
20	POSTURAL
21	AEROBIC
22	**AGING**
23	BLOOD
24	ENDURANCE

25	**OBESE**
26	WALKING
27	FATIGUE
28	MEDICINE
29	PROTEIN
30	VASCULAR
31	STRENGTH
32	PHYSIOLOGICAL
33	CARDIOVASCULAR
34	**OBESITY**
35	COACHES

36	GAIT
37	**SEDENTARY**
38	COGNITIVE
39	GENDER
40	MOVEMENT
41	CYCLING
42	COORDINATION
43	**HEALTH**
44	**SWAY**
45	**LACTATE**
46	**HYPOXIA**

Table 6. List of relevant keywords.

The comparison between *SportDiscus* RAs and BNC shows that the list of significant keywords was strictly dependent on the field of analysis. Facts were specifically described and reflected in the language. Generally speaking, the language of sport and sports science, including the relevant sub-fields, represents factual and descriptive elements. The language under investigation in this study obviously reflects the main purpose of the study itself: that is, the analysis of the characteristics of human movement and related implications. From this perspective, the list of keywords presented proves to be perfectly coherent with the assumption of our study: language structures are taught while concepts are shared in the language knowledge process.

5. Conclusion and further development

This quantitative analysis in terms of compared frequency has highlighted a difference between the two quantitatively defined corpora in the use of language and grammar. The comparison of the cross-analysis of *keyness* confirmed coherence in the conceptual structure in two directions: 1) the comparison between formal

(*SportDiscus* RAs) and informal (MA theses) corpora/texts; 2) the adequacy in the specific language field representation.

The massive occurrence / co-occurence of the term EXECUTIVE as a relevant keyword and pre-modifier fully represents the didactic objectives of our department. This is not surprising, as Master theses inevitably conform to didactic aims. Furthermore, it does not seem to be difficult to rationalize this exploratory path to optimize the final results of didactic objectives. From this perspective, an official/institutional ad-hoc syllabus could be designed covering specific corpus linguistic techniques aimed at:

- helping students to detect, identify and assimilate language;
- developing conceptual strategies in the formal standard literature;
- applying language competence to better and fully represent a final conceptual framework, with a view to achieving a rational conceptual approach.

References

Bhatia, Vijay K. 1993. *Analysing Genre. Language Use in Professional Settings*. London: Longman.

Bhatia, Vijay K. 2004. *Worlds of Written Discourse: A Genre-Based View*. London: Continuum.

Biber, Douglas 1996. Investigating Language Use Through Corpus-Based Analyses of Association Patterns. *International Journal of Corpus Linguistics* 1: 171-197.

Biber, Douglas 2007. *Discourse on the Move.* Amsterdam: John Benjamin.

Hunston, Susan 2002. *Corpora in Applied Linguistics*. Cambridge: Cambridge: Cambridge University Press.

Mindt, Dieter 2000. *An Empirical Grammar of the English Verb System*. Berlin: Cornelsen.

Swales, John M. 1990. *Genre Analysis. English in Academic and Research Settings.* Cambridge: Cambridge: Cambridge University Press.

Swales, John 2004. *Research Genres: Explorations and Applications*. Cambridge: Cambridge: Cambridge University Press.

Tottie, Gunnel 1991. *Negation in Speech and Writing: a Study in Variation*. San Diego: Academic Press.

CRISTINA MARIOTTI

Genre Variation in Academic Spoken English: the Case of Lectures and Research Conference Presentations

1. Introduction

The first extensive studies on the salient features of lectures delivered in English were carried out with the purpose of helping non-native-speaking students develop effective listening skills based on the observation and the description of authentic speech events. The initial focus of research was therefore on the needs of students who enroll in university courses where English is used as a medium of instruction and on providing English for Academic Purposes (EAP) instructors with authentic teaching material (Flowerdew 1994; Young 1994; Flowerdew/Miller 1997). In the last two decades, the proportion of students pursuing studies in a foreign country has seen a rapid spread as an increasingly wide number of European universities have started offering internationalisation programmes where English is used as a medium of instruction. In his study on the status of English as a global language, Graddol (2006: 76) reported that, as far back as 2006, over half the world's international students were taught in English and forecasts concerning global international students suggested that the major English-speaking destination countries would receive a declining proportion of the world's students in the following 15 years. By way of example, Graddol pointed out that in 2005, four out of five UK universities reported a drop in the number of international students. This trend, which has very likely continued to the present day, may be connected with the fact that an ever increasing number of non-English-speaking European and Asian countries have been raising the level of their tertiary provision and have started offering courses taught in English, thus providing a cheaper, yet qualifying, alternative

to the courses offered by the major English-speaking countries (Coleman 2006: 4). In these higher education institutions, nevertheless, very rarely do lecturers receive professional support in the use of English as a medium of instruction. Only few universities, mainly located in Northern Europe and Spain, offer courses and professional support specifically tailored to the needs of academics who accept to teach courses in English. In other countries, such as Italy, lecturers often participate in internationalisation programmes without receiving specialised training and relying solely on their ability to deliver speeches at international conferences (Klaassen/ Räsänen 2006: 245; Fortanet-Gómez 2010: 260; Costa 2012). This does not provide a favourable solution for students, who may find subject matter concepts difficult to break down and process in effective ways. The lack of adequate English language skills represents a critical issue for many universities wishing to attract foreign students. In their survey of international programmes in European tertiary institutions, Wächter and Maiworm (2008: 41) found that 'lack of academic staff members with sufficient foreign language skills' ranked second among the most frequently stated reasons why universities and colleges do not offer programmes in English, the first reason being the lack of financial resources for the development or operation of English-taught programmes. In her report on teacher training practices at the Universitat Jaume I in the bilingual Spanish-Valencian area, Fortanet-Gómez (2010: 269) states that when faced with a questionnaire on what should be included in a lecturer-training course in English as a Medium of Instruction (EMI): "some content teachers were skeptical about the effectiveness of teaching the same contents in English, or about their own capacity to teach in that language."

Nevertheless, proficiency in the language used to teach in internationalisation programmes is only part of the problem. In his state-of-the-art study on English-medium teaching in European higher education, Coleman (2006: 7) underlines that:

> even if staff have an adequate command of English (and questions often remain over verification and appropriate staff development opportunities),

> they are unlikely to have specialist knowledge of the particular demands of university-level education through an L2.

Likewise, researchers in the field of teacher training claim that lecturer preparation for higher education English-medium instruction should focus on three main aspects: problems related to communication, and specific purpose language use; problems related to pedagogy and didactics; issues related to multilingualism and multiculturalism (Fortanet-Gómez 2010: 262). Considering the changes the academic scenario is undergoing, it might be useful to reconsider the studies that describe the distinctive features of spoken academic English, shifting the focus from its recipients to the subjects who produce it and on the professional requirements imposed on them. Since research in English-medium instruction at the tertiary level (Klaassen/Räsänen 2006: 245; Fortanet-Gómez 2010: 260; Costa 2012) has shown that internationalisation programmes often rely on the assumption that being able to deliver oral presentations in English at international conferences is a sufficient pre-requisite for successfully teaching non-linguistic subject matter in academic courses through the medium of English, we believe that the debate on what should be included in a lecturer-training course for English-taught programmes may benefit from the analysis of the genre-specific features that distinguish lectures with respect to other types of academic speech events such as research conference presentations. For this reason, in the following paragraphs we will analyse some representative macro-structural and micro-linguistic features of the two genres, highlighting the function they perform in each of them.

2. Genre variation analysis

Albeit all aspects of register are equally relevant for the description of the distinctive features of a class of texts, for the purpose of the present study particular emphasis will be placed on the

communicative aim of lectures and research conference presentations. As a matter of fact, considering genre as "a class of communicative events, the members of which share some set of communicative purposes" (Swales 1990: 58), it is possible to say that a key role in determining what constitutes genre is represented by the aim with which a text is produced. Bhatia observes that "each genre is an instance of a successful achievement of a specific communicative purpose using conventionalized knowledge of linguistic and discoursal resources" (1993: 16). In other words, the goal with which a communicative act is initiated can be a particularly reliable indicator of the connection between contextual constructs and language choices. Adopting a Systemic Functional perspective to genre description, the following paragraphs will discuss how the analysis of field, mode and tenor can account for similarities and differences between lectures and conference research presentations. Particular attention will be given to personal and functional tenor, showing how it varies across the two genres.

2.1. Field

Describing register variation in academic spoken presentations, Ventola (2002: 37) observes that variation in field is perhaps "the easiest aspect to understand" as "conference talks on medicine may be organised differently than, for example, talks on linguistics, sociology, or history." Campagna (2009: 375) argues that the high degree of field variation makes it difficult to identify the relative rhetorical and discursive features which characterise the communicative process involved in the oral delivery of a research paper. Moreover, for each discipline research findings can be presented in many different forms including, but not limited to, plenary lectures, section papers, round table talks and poster presentations. For these reasons, conference situations may entail an array of related genres, defined as 'agnate genres' (Ventola 2002: 27). Notwithstanding the high degree of variation in the way the language of research conference presentations can be structured, general agreement has been reached on the fact that

research conference presentations tend to reproduce, although with some variations, the Introduction, Materials & Methods, Results, Discussion, Conclusion (IMRDC) pattern observed in research articles. In conference presentations, typically the chair introduces the speaker, who starts by thanking for the introduction, contextualizes the paper and then goes through its various phases. As Heino *et al.* (2002: 130) observe, and as excerpts (1) and (2) illustrate, an opening signal is typically a greeting or a statement of the title:

(1) Right. Well, erm … Hello everyone.

(2) The study I want to speak about today is a study investigating the impact of attribution retraining delivered by a computer-assisted instructional program

There can be variations in the sequence of the segments, especially in multilingual and multicultural situations where, for instance, the speaker may forget to thank the chair for the introduction (Ventola 2002: 30).

In the case of lectures, researchers are debating whether the medium of spoken discourse takes precedence in the spectrum of features that influence linguistic variation, or whether disciplinary differences mirroring those found in academic writing persist in speech (Simpson-Vlach 2006: 295). In recent years researchers (Nesi 2001; Poos/Simpson 2002; Simpson-Vlach 2006; Thompson 2006) in academic spoken English have carried out several corpus-based, empirical investigations into large quantities of data, to reflect on the features that account for cross-disciplinary variation in the structuring of lectures. While some found that it is the context and the purpose of the lecture, rather than its discipline, that influence delivery style (see, for instance, Nesi 2001), corpus-based studies mainly focus on micro-linguistic discipline-related differences such as lexico-phraseological distinctions and pronouns (Simpson-Vlach 2006), part-of-speech categories (Thompson 2006), and hedging strategies (Poos/Simpson 2002; Simpson-Vlach 2006). From the macro-structural point of view, however, research on the features of lectures seems to be pointing more in the direction of a common pattern. As already pointed out, the aim of the first studies dedicated to the description of lectures was to

find out why second language learners may experience listening comprehension difficulties and how those difficulties could be prevented. Researchers tried to answer those questions analysing academic lectures from a rhetorical perspective (Chaudron / Richards 1986; DeCarrico / Nattinger 1988; Flowerdew / Miller 1992; Nattinger / DeCarrico 1992; Dudley-Evans 1994; Flowerdew 1994; Young 1994). Flowerdew and Miller (1997: 38) highlight discourse strategies that enhance lecture comprehension in general, such as establishing clearly the theme of the lecture right from the start, using a narrative thread to hold the lecture together, asking rhetorical questions to signal lecture structure, using micro-level discourse markers such as *and, so, now* and *okay*, and pauses to signal tone groups and propositional boundaries, and signposting the correlations between concepts through the use of macro-markers (for example, "Okay, let's get started", or "now here / we'll put up our last slide / and come to the conclusions"). Flowerdew and Miller also stress the relevance of macro-markers which refer outside the lecture, to previous or future lectures, courses or training, and remind students how the information in one lecture can be linked to other aspects of their courses of knowledge (1997: 38). Other insightful studies on the effectiveness of macro-markers for lecture comprehension are the ones conducted by Chaudron and Richards (1986) and by Nattinger and DeCarrico (1992). A more recent study by Simpson-Vlach (2006: 311) based on the MICASE[6] corpus (The Michigan Corpus of Academic Spoken English) confirms the function of micro-markers (for example, *well, ok, now, so*) as structuring and signposting devices, but it also underlines the fact that they tend to occur with higher frequency in the hard sciences, which are characterised by dense procedural discourse and real-time, face-to-face problem-solving activities. Finally, in a seminal research paper on the structure

1 The Michigan Corpus of Academic Spoken English (MICASE) is a collection of nearly 1.8 million words of transcribed speech (almost 200 hours of recordings) from the University of Michigan (U-M) in Ann Arbor, created by researchers and students at the U-M English Language Institute (ELI). MICASE contains data from a wide range of speech events (including lectures, classroom discussions, lab sections, seminars, and advising sessions) and locations across the university.

of lectures Young (1994) observes that rather than being simply described as having a beginning, a middle, and a conclusion, lectures should be seen as series of interweaving 'phases' that recur discontinuously throughout the speech event. In other words, "phasal analysis suggests that there are many beginnings, many middles and many ends" (1994: 164-165). Young claims that this phasal structure is consistent across disciplines and characterises the spoken productions of both native and non-native lecturers. In Young's study, phases are divided into two groups: metadiscoursal phases, that can be applied to all types of discourse, and phases which specifically characterise university lectures. The first group includes discourse structuring (where addressers indicate the direction that they will take in the lecture), conclusion (where lecturers summarise points they have made throughout the discourse), and evaluation (where the lecturer evaluates information which is about to be, or has already been transmitted) whereas the second group features interaction (which indicates the extent to which lecturers maintain contact with their audience), theory or content (used to reflect the lecturer's purpose to transmit theoretical information), and examples (in this phase "the speakers illustrate theoretical concepts through concrete examples familiar to students in the audience") (1994: 167-168). Among the most relevant features of university lectures, Young particularly stresses the importance of making information clearly accessible to students in several ways, and underlines the relevance of redundancy and explicitness for academic didactic spoken discourse.

2.2. Mode

Concerning the way in which mode affects modal choices in lectures and research conference presentations, it can be said that both genres are highly informational in purpose, as is academic prose, but at the same time they are subjected to real time-processing constraints. For this reason, they feature false starts, redundancies and repetitions that are typically found in face-to-face conversation (Biber 2006; Csomay 2002; 2006). This high degree of mode variability and the continuous contamination of the spoken and the written dimensions have led

researchers to talk about genre hybridity and to describe both lectures and presentations as being at the interface of an oral/literate continuum. In these genres, the oral performance is strongly associated with the development of a parallel written text, as they integrate the actual spoken text with other media, such as slides or videos. In the literature on research conference presentations it is observed that some elements of speech are realised very much as 'spoken', almost as if they were casual conversations; while others are realised as 'written' (also referred to as 'read-out-loud' presentations), or are realised with little or no accompanying language, e.g. when slides or pictures are shown (Ventola 2002: 43).

As far as lectures are concerned, there are important differences in the extent to which they are interactive or informational, depending on factors such as the type of students, the influence of cultural models, and the degree to which the lesson is scripted. For example, lectures addressed to undergraduate students may contain information which is less dense than that found in those addressed to graduate or undergraduate students. Moreover, Fortanet-Gómez (2010: 261) observes that the degree of interaction might be a reflection of national, or even individual styles:

> In some countries, university classes are mainly lectures delivered in large theatres in front of an audience of over 100 students, which often implies a very formal language characterized by high mitigation, words coming from Latin, and a distant attitude with scarce or no interaction. However, in other countries, lectures are combined with other forms of teaching, such as seminars or tutorials, where the language can be more informal, and there is a higher interaction between the teacher and the students.

Research carried out in internationalisation settings has shown that lectures delivered to non-native-speaking students depart from the monologic model provided by traditional frontal lectures (Anderson/ Ciliberti 2002), as they feature interaction sequences that are usually initiated by academics to check for comprehension and to balance asymmetrical roles through signs of cooperation and identification with the audience (Flowerdew / Miller 1997; Veronesi 2007; Klaassen 2008). Interaction with audience in university lectures has also been investigated in several corpus-based studies such as Piazza (2002),

Crawford Camiciottoli (2004, 2008) and Fortanet-Gómez (2004) to name but a few. It is important to observe that in teaching contexts where a second language (L2) is used as the medium of instruction, interaction sequences can contribute to making input more comprehensible because they can contain repetitions, extensions, reformulations, rephrasings, and expansions which immediately follow learner utterances and maintain reference to their meaning (Long 1996: 452). The structural and semantic repetition of L2 forms leads to their 'recycling' in the input and to a greater probability of their becoming salient and being noticed by learners (Mariotti 2007: 61). Moreover, semantic repetitions can foster cognitive processing on the part of the learners, thus favouring content elaboration. See for example the following exchange (3) taken from MICASE:

(3) S1: mkay. everybody agree with that? that you have, replication the S-phase prior to mitosis and meiosis one.
S13: no. why's this? why isn't it in mitosis, i mean (meiosis two?)
S1: why what? why not be be, okay think of what you end up with after meiosis, one. you end up with, haploids. <WRITING ON BOARD> but they're duplicated already right? they're still duplicated because the centromere has not divided. […] mkay so, they wouldn't duplicate again. you're trying to reduce the amount of genetic information, during meiosis two. okay and that is what happens.
S13: so, the answer is, mitosis and meiosis one?
S1: right.

In excerpt (3), the long turn produced by the lecturer (S1) in response to the question asked by a student (S13) ("no. why's this? why isn't it in mitosis, i mean (meiosis two?)") contains both syntactical repetitions (e.g. "think of what you end up with after meiosis, one. you end up with, haploids") and paraphrases or semantic repetitions. For instance, the concept expressed in "they're still duplicated because the centromere has not divided. […] mkay so, they wouldn't duplicate again", is then summarised as "you're trying to reduce the amount of genetic information, during meiosis two" and further synthesized as "that is what happens". The turn produced by the lecturer thus aims at helping the student validate a hypothesis and re-organise the information.

2.3. Tenor

Features of tenor can be studied as linguistic realisations of stance and identity construction. Stance shows a speaker's commitment to the status of the information that he or she is providing (Jaffe 2009: 10), whereas identity can be defined as the social positioning of self and other in interaction (Bucholtz / Hall 2005: 586). In the description of the linguistic realisations of stance and identity in the two genres, a distinction should be made between the impact of personal tenor and that of functional tenor.

As far as personal tenor in research conference presentations is concerned, Heino *et al.* (2002: 134) observe that presenters tend to be naturally cautious about the authoritativeness of their statements and suggest that their stance is reflected in validity-oriented metadiscourse, i.e. items that signal the speaker's attitude towards the forms of expression used (validity of expression) and that indicate how assured or modalising the speaker is about the actual content (validity of content). Validity of expression is reflected in the use of approximators (*sort of*, *more or less* and *something like that*) and definition hedges (consisting of phrases which mitigate a definition by indicating that it is only preliminary). Excerpt (4) provides an example of use of an approximator:

(4) That was *sort of* the first attribution

Excerpt (5) provides an example of use of a definition hedge:

(5) at one level it basically is a reaction to *what you might call* expository teaching or didactic teaching a very traditional approach to teaching.

The speaker's stance towards content is mainly expressed by means of hedges (which include the use of lexical verbs such as *think* or *guess*, adverbs such as *really* or *actually*, modal auxiliaries, time adjuncts such as *often*, and attitudinal disjuncts such as *perhaps*) and emphatics (Heino *et al.* 2002: 135). Hedges have the function of downgrading the speaker's subjective commitment to the truth value of statements, as shown in excerpt (6)

(6) so it on surface *seems like it perhaps would be* a good tool for delivering attributional retraining.

On the contrary, emphatics (which include lexical items such as *really*, *indeed*, the auxiliary *do*, or comment clauses) reinforce the speaker's subjective commitment to the truth value of the propositional content. Heino *et al.* (2002: 136) observe that in the corpus of conference presentations they collected, hedges and approximators appear as more prominent with respect to emphatics, and that this hints at the fact that conference presenters do not wish to make over-authoritative statements thus avoiding to violate the negative face of the audience.

In conference presentations tenor can also be described as interpersonal, as "relations between the presenter, the chair and the members of the audience as discussants may take place at any time as the social activity unfolds (Ventola 2002: 41)" and as the social positioning of self and other is constructed in interaction. The predominance of face-to-face spoken interaction in research conferences requires academics to be able to manage interpersonal communicative skills and politeness, as well as to be able to deal with potentially face-threatening acts as they arise during the discussion that normally follows every presentation. Heino *et al.* (2002: 128) observe that an academic conference presentation is particularly demanding since conference presenters must perform in front of peers, (and often in front of listeners with expertise greater than their own) and suggest that interaction-oriented metadiscourse is revealing of how speakers position themselves with respect to their audience. Excerpts (7) and (8), taken from their corpus, show that speakers can position themselves in opposite ways with respect to the audience and the general academic community:

(7) that's where my difficulties have arisen and in some ways I really wish that I'd never gone down this road.

(8) I'm a special educator, I , I teach special education at the (…) and I've also been a special education teacher in my erm previous career.

These excerpts show that the speaker can either assume a position that is open to judgment and criticism by the addressees, or might opt for a more 'self-oriented' strategy and focus on their authority and professional expertise.

When teaching, lecturers produce linguistic realisations of stance with several purposes, such as guiding students through the steps of complex explanations; indicating the extent to which information is known or doubtful; providing historical contexts (and indicating the source of information); and conveying personal attitudes about course content (Biber 2006: 116-117). In addition to this, lecturers often use directive stance expressions like *I want you to*. These phrases are usually used to direct student activities, make assignments, or tell students about course expectations, but they can also be used to emphasise some aspect of a lecture that the instructor regards as especially important, as in (9):

(9) This is, because, one of the things we're gonna work with, today, and *I want you* to make this distinction, is between grouped, [WRITING ON BOARD], and ungrouped.

As regards epistemic stance, i.e. stance towards subject matter content, according to Biber (2006: 118) instructors tend to express certainty more than likelihood or possibility, whereas students tend to express likelihood more than certainty. Excerpts (10), (11) and (12) illustrate this heavy reliance on certainty expressions (e.g. 'conclusion that', 'in fact', 'we know'):

(10) now by either route you get the *conclusion that* the underlying means are the same between the two samples.

(11) And *in fact* the attorneys who defend most of these defendants will be attorneys hired by the insurance company.

(12) OK, and *we know* that the per unit relationship is still, OK, the same percentage.

This data shows an opposite trend with respect to what Heino *et al*. (2002) observed about research conference presenters, who tend to be naturally cautious about the authoritativeness of their statements

As far as identity is concerned, research on the language of lectures has pointed out that in these contexts expressions of identity may vary along a continuum whose poles are represented by the need to project an authoritative self-image and the desire to show solidarity and empathy with students. This happens in particular when students are non-native speakers of English. Flowerdew and Miller (1997: 35), for instance, report that the lecturer they observed tried to appear non-threatening because he was well aware that the students found it difficult to listen to a lecture in a second language. Similar findings are reported in more recent studies, where lecturers try to engage students and create a friendly atmosphere by using attitudinal stance markers, hedging devices, informal language and even self-mockery (Dyer / Keller-Cohen 2000; Fortanet-Gómez 2004; Walsh 2004). For instance, Walsh and Crawford-Camiciottoli (2001: 180) describe a non-native lecturer's attempt to address in a friendly way an audience of undergraduate students comprising both native speakers and non-native speakers of English at a Faculty of Economics in Italy, reported in (13):

(13) But let's have a look at some numbers cause you know I like numbers.

In this example, the lecturer draws on informal language and self-mockery to lighten the atmosphere and create complicity with the students.

Like conferences, anyway, also teaching settings can be extremely face-threatening for academics, especially for non-native speakers of English. Internationalisation settings, for instance, can greatly challenge their need to appear in control of the ongoing situation. In these contexts, the audience may comprise students who are proficient in the L2 used as a medium of instruction, or even native-speakers of the language. Therefore, a considerable threat for the face of lecturers is represented by the fear of producing speech that does not conform to what is considered standard in the L2 ('proficiency face' in Ahvenainen 2008) and by the fear of not being able to react to student-initiated interactions, such as requests for clarification of subject matter contents or language forms. It has been observed that in these contexts even slight violations of the L2 at any

level (i.e. lexis, syntax, or pronunciation) can be perceived as a menace for one's public image and can affect the perception of the speakers' identity as efficient users of English (Cook 2002; Jenkins 2007; Spencer-Oatey 2007).

As far as functional tenor is concerned, academic conference presentations are characterised by a central rhetorical goal which consists in conveying information effectively and in facilitating the listener's efforts to construct an internal representation of the content. In addition to this, there is also a pragmatic goal that consists in establishing or preserving the speaker's position in the discourse community while, at the same time, showing respect towards the listeners and the community as a whole (Heino *et al.* 2002: 128). The aim of didactic speech, instead, is to help non-experts in a field become knowledgeable on the subject. This requires great experience and specialised skills which can be grouped into two main categories, i.e. the ability to present information clearly and explicitly and the ability to understand the degree to which a concept or a term has to be made clear and explicit depending on the audience's linguistic competence and reaction to the discourse produced by the lecturer.

At a first glance, the above mentioned assumption according to which academics who can deliver a speech about their discipline in front of an audience of peers can do so also in front of a class of university students may seem partially admissible considering that at the surface level the two genres show some structurally similar features. For instance, the same lexical verbs, auxiliaries and adverbs are used to express attitudinal and epistemic stance; both genres allow for interaction with the audience and pose relevant potential face threats for the identity of academics. Nevertheless, if we deepen the level of analysis and consider the relevance of communicative purpose, it appears evident that the production of the two genres requires different skills on the part of academics. Concerning interaction sequences, for instance, lecturers must be ready to answer questions any time the students ask for clarification of concepts or terminology and must re-phrase even basic concepts or terms in a clear and effective way. On the contrary, in conference presentations interaction is generally expected to take place only at the end of the academic's speech and it would be considered both inappropriate and

unlikely for the audience to enquire about basic disciplinary contents and terminology. Finally, both genres are highly informational and deal with the display of results of scientific research, but lectures also entail a directive and orienting function that is typical of didactic discourse and that is generally missing in research conference presentations.

3. Conclusions and directions for future research

Concerning the debate on the requirements imposed on academics who deliver English-taught lectures in internationalisation courses, it is useful to draw a distinction between discourse produced at research conference presentations and discourse produced in teaching contexts. The purpose of the former is to spread scientific knowledge among peers, while the latter should focus on breaking down subject-matter content into comprehensible cognitive units and on making higher education students understand how to connect those units in meaningful ways. As genres at the interface of the oral/literate continuum, both lectures and research conference presentations may present similar linguistic structures, such as false starts, dysfluencies, micro-markers (for example *and*, *so*, *now*, *okay*), macro-markers (for example 'Okay, let's get started', or 'now here / we'll put up our last slide / and come to the conclusions'), pauses to signal propositional boundaries, and an extensive use of pronouns. What changes, though, is the function that these structures perform. Let us consider, for example, the role of discourse markers. In research conference presentations they perform the function of guiding an audience of experts in the comprehension of a half-an-hour speech about a topic that they are very likely already familiar with. In lectures, though, both macro- and micro-discourse markers perform the special didactic function of signposting, i.e. explicitating semantic relationships among concepts that to a great extent still have to be processed by an audience of non-experts. A lecture is normally longer than a standard

research paper presentation, with recursive phases organised in a rather unpredictable sequence, and students need to be guided and taught to make sense of what is said. Moreover, whereas conference presentations are mostly one-offs, lectures are tipically organised in cycles, and intertextual macro-markers referring back to previous parts of the text or pointing towards future speech events that will be encased in the frame of the university course are particularly useful to orient students in the processing of information. Academics need to be aware of these facts if they want to teach effectively, in particular to non-native-speaking students. As Young says:

> It is important to identify for foreign students, who have great difficulty in taking notes, that first, lecturers often explicitly announce all new topics, and to acquaint them with the more common ways in which they do so; second, that information is imparted in several ways, through theoretical discussion, through exemplification, and through summarization. If students know that the same information is revisited in a number of ways, and that if they miss it the first time they will be able to capture it later, they will be better able to cope with the information transmitted in lectures (1994: 174).

Despite their relevance for the structuring of language produced in teaching contexts, it should be noted that redundancy and explicitness as discourse structuring principles have not been extensively investigated in the analysis of lectures delivered in English. It would be particularly interesting to see whether academics who teach in internationalisation programmes are aware of the relevance of these strategies, and if they embed them in their teaching practice. The conscious deployment of language modifications that enhance comprehensibility would be particularly relevant in these settings, considering that the use of an L2 as a medium of instruction calls for an even greater degree of explicitness and redundancy with respect to lectures delivered in an L1. As a matter of fact, research carried out in the field of L2 acquisition and content-based language learning has underlined the importance of elaborative language modifications in didactic speech, such as repetitions, paraphrases, syntactic reformulations and exemplifications, which bring about both structural and semantic redundancy and salience. In particular, syntactic reformulations and semantic repetitions, or paraphrases, have been

described as key elements of didactic speech addressed to non-native speakers of English in various teaching contexts, ranging from ESL to Content and Language Integrated Learning (CLIL). These types of input modifications are relevant for L2 learning because they enhance language comprehensibility and processability by providing elaborative modifications as opposed to simplifying input modifications. Simplification makes input less abundant and is therefore counterintuitive with respect to the main tenet of language acquisition, i.e. exposure to input that is rich in target-language forms (Long 1996; Baker 2001; Pica 2001; Pavesi 2002). Recently, the relevance of repetitions and reformulations for spoken academic English has also been taken into consideration in English as a Lingua Franca (ELF) studies (Mauranen 2010), and the ability to produce discourse that is syntactically and semantically redundant is also listed by Fortanet-Gómez (2010: 262) among the features that should characterise the spoken production of a lecturer who uses English as a medium of instruction since "it is important to support the introduction of new concepts with visuals and repeat explanations using different ways to enhance understanding".

Returning to the point of departure of the present discussion, it is important to acknowledge that the requirements imposed on academics in internationalisation settings are varied and complex, and that the skills expected of a non-native lecturer are the same as those expected of a native one. These skills range from the ability to write a peer-reviewed scientific paper to mastery of the interplay of language and pragmatics required to deliver a lecture about specialised topics. A clear awareness of the different types of competence required to deliver conference speeches as opposed to university lectures may provide further insight into the professional needs of both native-speaking and non-native-speaking academics involved in English-taught internationalisation courses and may lead to the creation of specialised training programmes to support them.

References

Ahvenainen, Tarmo 2008. Proficiency Face in ELF Interaction and Identity of Speaker as ELF vs. EFL User. *University of Jyväskylä, Finland, ELF Forum, Helsinki, 6 March 2008.*

Anderson, Laurie / Ciliberti, Anna 2002. Monologicità e Di(a)logicità nella Comunicazione Accademica. In Bazzanella, Carla (ed.) *Sul dialogo. Contesti e forme di interazione verbale*. Milano: Guerini Studio, 92-105.

Baker, Colin 2001. *Foundations of Bilingual Education and Bilingualism*. Clevedon: Multilingual Matters.

Bhatia, Vijay K. 1993. *Analysing Genre*. Harlow: Longman.

Biber, Douglas 2006. *University Language: A Corpus-based Study of Spoken and Written Registers*. Amsterdam: John Benjamins.

Bucholtz, Mary / Hall, Kira 2005. Identity and Interaction: A Sociocultural Linguistic Approach. *Discourse Studies* 7, 585-614.

Campagna, Sandra 2009. Projecting Visual Reasoning in Research Conference Presentations. In Gotti, Maurizio (ed). *Commonality and Individuality in Academic Discourse*. Bern: Peter Lang, 371-391.

Chaudron, Craig / Richards, Jack 1986. The Effect of Discourse Markers on the Comprehension of Lectures. *Applied Linguistics* 7/2, 113-125.

Coleman, James A. 2006. English-Medium Teaching in European Higher Education. *Language Teaching* 39, 1-14.

Cook, Vivian J. 2002. *Portraits of the L2 User*. Clevedon: Multilingual Matters.

Costa, Francesca 2012. Content Lecturers' Views of Teaching Through English in a ICLHE Context, In Breidbach Stephan / Viebrock, Britta (eds) *CLIL: Research, Policy and Practice*. Frankfurt am Main: Peter Lang (in press).

Crawford Camiciottoli, Belinda 2008. Interaction in Academic Lectures vs. Written Text Materials: The Case of Questions. *Journal of Pragmatics* 40/7, 1216-1231.

Crawford Camiciottoli, Belinda 2004. Interactive Discourse Structuring in L2 Guest Lectures: Some Insights from a

Comparative Corpus-Based Study. *Journal of English for Academic Purposes*, 3/1, 39-54.

Csomay, Eniko 2002. Linguistic Variation in the Lexical Episodes of University Classroom Talk. In Reppen, Randi / Fitzmaurice, Susan / Biber, Douglas (eds) *Using Corpora to Explore Linguistic Variation*. New York: Benjamins, 203-224.

Csomay, Eniko 2006. Academic Talk in American University Classrooms: Crossing the Boundaries of Oral-Literate Discourse? *Journal of English for Academic Purposes* 5/2, 117-135.

DeCarrico, Jeannette S. / Nattinger, James R. 1988. Lexical Phrases for the Comprehension of Academic Lectures. *English for Specific Purposes* 7, 91-102.

Dudley-Evans, Tony 1994. Variations in the Discourse Patterns Favoured by Different Disciplines and their Pedagogical Implications. In Flowerdew, John (ed.) *Academic listening: Research perspectives*. Cambridge; Cambridge University Press, 146-158.

Dyer, Judy / Keller-Cohen, Deborah 2000. The Discursive Construction of Professional Self through Narratives of Personal Experience. *Discourse Studies* 2/3, 283-304.

Flowerdew, John 1994. Research of Relevance to Second Language Lecture Comprehension – An Overview. In Flowerdew, John (ed.) *Academic Listening: Research Perspectives*. Cambridge: Cambridge University Press, 7-29.

Flowerdew, John / Miller, Lindsay 1992. Student Perceptions, Problems and Strategies in L2 Lectures. *RELC Journal* 23/2, 60-80.

Flowerdew, John / Miller, Lindsay 1997. The Teaching of Academic Listening Comprehension and the Question of Authenticity. *English for Specific Purposes* 16/1, 27-46.

Fortanet-Gómez, Inmaculada 2004. Enhancing the Speaker-Audience Relationship in Academic Lectures. In Garces Conejos, Pilar / Gomez Moron, Reyes / Fernandez Amaya, Lucía / Padilla Cruz, Manuel (eds) *Current Trends in Intercultural, Cognitive and Social Pragmatics*. Seville: Editorial Kronos, 83-96.

Fortanet-Gómez, Inmaculada 2010. Training CLIL Teachers for the University. In Lasagabaster, David / Ruiz de Zarobe, Yolanda

(eds) *CLIL in Spain: Implementation, Results and Teacher Training*. Cambridge: Cambridge Scholars Publishing, 257-276.

Graddol, David 2006. *English Next*. London: British Council.

Heino, Anni / Tervonen, Eija / Tommola, Jorma 2002. Metadiscourse in Academic Conference Presentations. In Ventola, Eija / Shalom, Celia / Thompson, Susan (eds) *The Language of Conferencing*. Frankfurt: Peter Lang, 127-146.

Jaffe, Alexandra 2009. *Stance: Sociolinguistic Perspectives.* Oxford: Oxford University Press.

Jenkins, Jennifer 2007. *English as a Lingua Franca: Attitude and Identity*. Oxford: Oxford University Press.

Klaassen, Renate G. 2008. Preparing lecturers for English-medium instruction. In Wilkinson, Robert / Zegers, Vera (eds) *Realizing Content and Language Integration in Higher Education*. Maastricht: Maastricht University Language Centre, 32-42.

Klaassen, Renate G. / Räsänen, Anne 2006. Assessment and Staff Development in Higher Education for English-Medium Instruction: A Question-Raising Article. In Wilkinson, Robert / Zegers, Vera / van Leeuwen, Charles (eds) *Bridging the Assessment Gap in English-Medium Higher Education*. Bochum: AKS-Verlag, 235-253.

Long, Michael 1996. The Role of the Linguistic Environment in Second Language Acquisition. In Ritchie, William C. / Bhatia Tej K. (eds) *Handbook of Second Language Acquisition*. San Diego: Academic Press, 413-468.

Mariotti, Cristina 2007. *Interaction Strategies in English-medium instruction*, Milano: Franco Angeli.

Mauranen, Anna 2010. Features of English as a Lingua Franca in Academia. *Helsinki English Studies* 6, 6-28.

Nattinger, James R. / DeCarrico, Jeannette S. 1992. *Lexical Phrases and Language Teaching*. Oxford: Oxford University Press.

Nesi, Hilary 2001. A Corpus-Based Analysis of Academic Lectures across Disciplines. In Cotterill, Janet / Ife, Anne E. (eds) *Language Across Boundaries*. London: BAAL in Association with Continuum Press, 201-218.

Pavesi, Maria 2002. Per una Didattica Naturale: Strategie Discorsive nell'Insegnamento Integrato di Lingua e Contenuti. In Maggi,

Fabrizio / Mariotti, Cristina / Pavesi Maria (eds.) *Lingue Straniere Veicolo di Apprendimento*. Como: Ibis, 47-64.

Piazza, Roberta 2002. The Pragmatics of Conducive Questions in Academic Discourse. *Journal of Pragmatics*, 34, 509-527.

Pica, Teresa 2001. The Content-Based L2 Curriculum: Does it Provide an Optimal or Optional Approach to Second Language Learning? In Renandya, Willy A. / Sunga Nilda R. (eds) *Language Curriculum and Instruction in Multicultural Societies*. SEAMEO Regional Language Center, 145-173.

Poos, Deanna / Simpson, Rita 2002. Cross-Disciplinary Comparisons of Hedging: Some Findings from the Michigan Corpus of Academic Spoken English. In Reppen, Randi / Fitzmaurice, Susan / Biber, Douglas (eds) *Using Corpora to Explore Linguistic Variation*. Amsterdam: Benjamins, 3-23.

Simpson-Vlach, Rita C. 2006. Academic Speech across Disciplines: Lexical and Phraseological Distinctions. In Hyland, Ken / Bondi, Marina (eds) *Academic Discourse Across Disciplines*. Frankfort: Peter Lang, 295-316.

Spencer-Oatey, Helen 2007. Theories of Identity and the Analysis of Face. *Journal of Pragmatics* 39, 639-656.

Swales, John M. 1990. *Genre Analysis: English in Academic and Research Settings*. Cambridge: Cambridge University Press.

Thompson, Paul 2006. A Corpus Perspective on the Lexis of Lectures, with a Focus on Economics Lectures. In Hyland, Ken / Bondi, Marina. (eds) *Academic Discourse Across Disciplines*. Bern: Peter Lang , 253-270.

Ventola, Eija 2002. Why and What Kind of Focus on Conference Presentations? In Ventola, Eija / Shalom, Celia / Thompson Susan (eds) *The Language of Conferencing*. Frankfurt: Peter Lang, 15-50.

Veronesi, Daniela 2007. Comunicazione Accademica tra Linguaggio Specialistico e Lingua Straniera: Spunti di Riflessione dall'Esperienza di un'Università Plurilingue. In Nickenig, Christoph / Gotti, Maurizio (eds), *Qual è il Ruolo dei CLA nella Didattica dei Linguaggi Specialistici?* Bolzano: Bozen-Bolzano University Press, 22-29.

Young, Lynne 1994. University Lectures. Macro-Structure and Microfeatures. In Flowerdew, John (ed.) *Academic Listening:*

Research Perspectives. Cambridge: Cambridge University Press, 159-176.

Wächter, Bernd / Maiworm, Friedheim 2008. *English-Taught Programmes in European Higher Education. The Picture in 2007. ACA Papers on International Cooperation in Education*, Bonn: Lemmens.

Walsh, Polly 2004. A Complex Interplay of Voices: First and Second Person Pronouns in University Lectures. In Anderson, Laurie / Bamford, Julia (eds) *Evaluation in Spoken and Written Academic Discourse*. Roma: Officina Edizioni, 31-52.

Walsh, Polly / Crawford Camiciottoli, Belinda 2001. Lecturing to an unfamiliar audience: Some functions of interaction in business lectures given by visiting academics. *Quaderni del Dipartimento di Linguistica - Università di Firenze* 11, 171-183.

DAVID BANKS

The Implications of Genre Related Choices in Early Issues of the *Journal des Sçavans* and the *Philosophical Transactions*

1. Introduction

The year 1665 was an important one for the history of academic writing. It was the year that saw the founding of the first two academic periodicals. The first in the field was the *Journal des Sçavans*, whose first issue appeared on 5 January in Paris; this was followed two months later by the *Philosophical Transactions*, whose first issue appeared in London on 6 March. It is significant that both of these publications still exist.

In this chapter I shall give some historical background. I shall then look in detail at editorial decisions in terms of genre and scope, and the effects of these on the contents of the journals in question. I shall then look at a small selection of linguistic features, showing that these derive directly from the editorial decisions which had been made. Thus, I hope to show that those editorial decisions stand at the fulcrum between the historical context, and the texts which are produced.

2. The *Journal des Sçavans*

The *Journal des Sçavans* was founded by Denis de Sallo. He did so in the middle of the reign of Louis XIV, the 'Sun-King', who reigned from 1643 to 1715, the longest reign in the history of France. At that

time, France had a highly centralized government. The predominant political theory was that of the Divine Right of Kings, which meant that the state, in the person of the king had total control. Moreover, France was the most powerful, and the richest country in Europe, as well as being its intellectual and cultural centre. When Denis de Sallo founded the *Journal des Sçavans*, he did so at the instigation of Colbert, Louis XIV's chancellor or first minister, whose objective was the state control of new knowledge. While new, and even revolutionary, ideas were acceptable, and of value in the academic field, and could even be harnessed to the glory of the king (Licoppe 1994), everything had to be done to avoid the danger of revolutionary ideas seeping into the political domain; hence the need for state control (Daremberg 1859, Cacheris 1860, Paris 1903, Birn 1964, Morgan 1928, Vittu 2001, 2002a, 2002b, 2005, Peiffer/Vittu 2008, Camusat 2011 [1734]).

In 'L'imprimeur au Lecteur', where the editor explains what he intends to publish, we find the following: book announcements and reviews, obituary notices, experiments, discoveries, inventions and observations, legal decisions, and – anything else of interest! In the event, as we shall see, the *Journal des Sçavans* was predominantly made up of book reviews.

3. The *Philosophical Transactions*

The historical context in England in the seventeenth century was totally different to that in France. During that century England went through one of the most turbulent periods in her history. The Civil War began in 1642, and ended in 1649 with the capture, trial and execution of the king, Charles I. Cromwell governed from 1649 until his death in 1658. This period was marked by Puritanical repression. Before dying, Cromwell appointed his son, Richard, to succeed him, but Richard did not have the same taste for power as his father, and in the following year 1659, he resigned. This left the way open for the restoration of the monarchy, and Charles II was brought back in 1660.

After the repression of the Cromwellian period, the Restoration was felt as a time of new-found freedom and optimism. It should also be noted that while the Divine Right of Kings had been the dominant theory in early seventeenth century England, Charles II was brought to a country to be ruled, according to the official document, by "King, Lords, and commons"; the absolute power of the monarchy had disappeared (Hill 1969 [1961]). Although the Divine Right of Kings had been the official doctrine before the Civil War, this was no longer the case after 1660.

It was in this context that Henry Oldenburg founded the *Philosophical Transactions* in 1665. He was one of the two secretaries of the Royal Society, and over the years, he had become the centre of a network of scientific correspondence. Such correspondence was not private in the contemporary sense: it was generally understood that these letters were to be copied, sent on, read at meetings, or otherwise disseminated. The fact that something had been written in such a letter could be, and was, used in priority disputes (Gotti 2006). Henry Oldenburg, unlike most members of the Royal Society, was not a *virtuoso*, that is, he was not a gentleman scientist with private financial means. So he had to earn his living, and he conceived the idea of a newsletter of scientific information, or 'intelligence', as he called it, as a way of augmenting his income. Although the *Philosophical Transactions* was ordered by the Royal Society, and thus had its sanction, it remained the private property of Oldenburg, who thus retained total editorial and financial responsibility (Lyons 1944, Bluhm 1960, Hall 2002). In his introduction to the first issue his main interest seems to be discoveries and inventions.

4. Editorial decisions

Both of these editors took decisions relating to genre and scope which were significant for the future directions of their respective journals. In the case of Denis de Sallo, in practice, his journal turns out to be basically one of book reviews. In terms of scope it was his intention to

cover the whole field of new knowledge, including classics, history and theology. This stems from the basic reasons for establishing the periodical in the first place. Since it fitted into Colbert's control strategy, it was natural that it should attempt to cover the whole field of new knowledge. If new knowledge is what you want to control there is no point in controlling only part of it. And the main way in which new knowledge had been disseminated up to that point was through book publication.

Oldenburg, however, was involved in a commercial operation. His public was the members of the Royal Society, and like-minded people. What they were interested in was 'natural philosophy', or science and technology in our terms. The word 'science' had not yet acquired its contemporary meaning (Banks 2004). Moreover, the basic material he had available was his correspondence, so that was obviously the main source on which he could draw.

5. Corpus

For the purposes of this study I have used a small corpus, or sample, of issues of the *Journal des Sçavans* and the *Philosophical Transactions*. This consists of the first three issues of the *Journal des Sçavans*, and the first two issues of the *Philosophical Transactions* for each of the years 1665, 1675, 1685, and 1694. I have taken more issues of the *Journal des Sçavans* since, in general, they are shorter than the corresponding issues of the *Philosophical Transactions*. The year 1694 (rather than 1695) was selected because the issue of the *Philosophical Transactions* for 1694 was not accessible at the time of carrying out this study. Table 1 shows the editors of the relevant issues of the two journals.

	Journal des Sçavans	*Philosophical Transactions*
1665	Denis de Sallo	Henry Oldenburg
1675	L'Abbé Gallois	Henry Oldenburg
1685	L'Abbé de la Roque	Robert Plot
1694	Louis Cousin	Richard Waller

Table 1. Editors.

Denis de Sallo only lasted 13 weeks as editor of the *Journal des Sçavans*. His open support for the Gallican church attracted the animosity of the Church of Rome, which used its power to have the publication closed after the thirteenth issue. However, it was perceived as being of value, and so was resurrected at the beginning of the following year under the editorship of the Abbé Gallois. He was highly able, but had many other interests and duties, with the result that the periodical appeared infrequently. He remained editor until 1674, when the Abbé de la Roque took over. He was hard working, but without the natural ability of his predecessors, and under his editorship the journal began to lose prestige. In 1687 the journal was taken over by Louis Cousin, who reestablished its reputation. He remained editor until 1701 (Morgan 1928). These editors were all appointed by Colbert or his successors.

Henry Oldenburg continued editing the journal he had founded until his death in 1677. It was subsequently edited by various secretaries of the Royal Society, including Robert Plot from 1683 to 1687, and Richard Waller from 1690 to 1694 (Atkinson 1999).

Table 2 shows the number of pages of text, the number of items, and the average length of items for each issue, and the average length of items for the issues studied in each year, for the *Journal des Sçavans*. It can be seen that the length of each issue is stable over time, and that the average length of items is stable too. The length of items remains more or less within a range of one and a half to two and a half pages.

	pp excluding editorial	*items*	*av. length*	*av. length/year*
5 Jan 65	11	8	1.4	1.5
12 Jan 65	12	6	2.0	
19 Jan 65	11	8	1.4	
2 Jan 75	12	5	2.4	

14 Jan 75	12	4	3.0	2.6
28 Jan 75	12	5	2.4	
8 Jan 85	8	6	1.3	1.5
15 Jan 85	12	8	1.5	
22 Jan 85	12	7	1.7	
4 Jan 94	9.5	3	3.2	2.5
11 Jan 94	11.5	4	2.9	
18 Jan 94	11.5	6	1.9	

Table 2. Pages and item length in the *Journal des Sçavans*.

Table 3 gives the corresponding information for the *Philosophical Transactions*.

	pp excluding editorial	*items*	*av. length*	*av. length/year*
6 Mar 65	14.5	10	1.5	1.9
3 Apr 65	15.5	6	2.6	
25 Mar 75	27	7	3.9	3.9
26 Apr 75	19.5	5	3.9	
28 Jan 85	37	12	3.1	4.5
23 Feb 85	39	5	7.8	
Jan 94	38	9	4.2	3.8
Feb 94	34.5	10	3.5	

Table 3. Pages and item length in the *Philosophical Transactions*.

In this journal there is a considerable increase in the size of the issues, particularly between 1665 and 1675. There is a further increase by 1685, but then it appears to remain fairly stable. There is a corresponding increase in the length of items, again particularly between 1665 and 1675. Thereafter, it is relatively stable, with the notable exception of the issue for February 1685.

6. Genre choice

Table 4 shows the different genres of the items included in the *Journal des Sçavans*.

		Book review	*Letter extract*	*Article*	*Legal report*	*List*
Jan 1665	5	7	1	-	-	-
	12	5	-	-	1	-
	19	6	1	1	-	-
Jan 1675	2	5	-	-	-	-
	14	4	-	-	-	-
	28	4	-	1	-	-
Jan 1685	8	4	1	1	-	1
	15	7	-	-	-	1
	22	6	-	-	-	1
Jan 1694	4	3	-	-	-	-
	11	4	-	-	-	-
	18	5	-	-	-	-
Total		*60*	*3*	*3*	*1*	*3*

Table 4. Genre of items in the *Journal des Sçavans*.

There are 70 items in the *Journal des Sçavans* sample. Of the 70 items found in these 12 issues, no less than 60 (86%) are book reviews. Thus the classification of the *Journal des Sçavans* as a book review journal is totally justified. Other types of item only appear on rare occasions. Table 5 shows the corresponding information for the *Philosophical Transactions.*

	1665		*1675*		*1685*		*1694*		*Tot.*
	6 Mar	3 Apr	25 Mar	26 Apr	28 Jan	23 Feb	Jan	Feb	
News item	6	1	-	-	-	1	-	-	8
Letter	-	-	1	-	3	1	1	2	9
Letter extr	1	4	1	1	-	2	1	2	12
Article	1	-	2	2	5	-	5	3	18
Book rev	-	1	3	2	3	1	2	2	14
Book ann.	1	-	-	-	-	-	-	-	1
Obituary	1	-	-	-	-	-	-	-	1
List	-	-	-	-	-1	-	-	-	1
Editorial	1	-	1	-	1	-	-	1	4

Table 5. Genre of items of the *Philosophical Transactions*.

There are 68 items in the *Philosophical Transactions* sample. It will be noted that the news item, that is, an item written up by Oldenburg himself on the basis of information received in his correspondence, is

the dominant genre in the first issue, but it rarely appears thereafter. Book reviews, which were so dominant in the *Journal des Sçavans*, here account for only 14 of the 68 items (21%). The major genre appears to be letters and letter extracts; taken together these account for 21 of the 68 items (31%). If to this we add the articles, most of which he received in his correspondence, the others being papers read at the Royal Society, we have a total of 39 items (57%).

Although Oldenburg began, in the first issue by writing up the material himself in the form of news items, he rapidly adopted a strategy of using verbatim material wherever possible (i.e. letters, letter extracts, and articles). He wrote himself when items were too long and had to be summarized, or when they were in a foreign language and had to be translated (Banks 2009). Even so, occasionally, items were printed in languages other than English. In this sample the issue for 25 March 1675 has a letter extract in Latin, and that for 26 April 1675 an article in Latin; the issue for January 1694 includes a letter in French and 2 articles in Latin, and the issue for February 1694 an article in Latin.

7. Scope

It is not always easy to attribute contemporary disciplinary fields to seventeenth century texts. For example, the terms ‘physics’ and ‘chemistry’ did not then cover precisely the same areas as they do today; and the distinction between ‘medicine’ and ‘biology’ is fairly fuzzy. Some claim (Gascoigne 1985) that one should use the categories of the period, but such a categorization would be relatively opaque for contemporary readers unfamiliar with the seventeenth century categories. I feel that using modern terminology, even if the categories do not always fit perfectly, gives the contemporary reader a better idea of the areas covered by these texts.

In Table 6 the items contained in the *Journal des Sçavans* sample have been analysed in terms of their disciplinary fields. One of the items has two distinct parts in different disciplinary fields; these have been

counted separately, thus giving 71 items, one more than in Table 4. The scientific fields have been placed at the top of the Table, with humanities subjects towards the bottom. It will be seen that the scientific sector, from physics down to and including technology accounts for 13 of the 71 items (18%). Included in this is medicine, the most common item in the scientific sector, which accounts for 6 items (8%). However, it is evident that humanities subjects dominate. The commonest of the humanities subjects, indeed the commonest field in the whole sample, is history which accounts for 15 items (21%), more than the whole of the science sector taken together. Theology accounts for a further 10 items (14%). However, this underestimates the importance of religious questions, for some of the history is church history, law is sometimes canon law, and biography is sometimes hagiography.

	Jan 1665			*Jan 1675*			*Jan 1685*			*Jan 1694*			*TOT*
	5	12	19	2	14	28	8	15	22	4	11	18	
Physics	-	-	-	1	-	-	-	-	-	-	-	-	1
Botany	-	-	-	-	-	1	1	-	-	-	-	-	2
Astronomy	1	-	-	-	-	-	-	-	-	-	-	-	1
Geology	-	-	-	1	-	-	-	-	-	-	-	-	1
Medicine	3	1	-	-	-	-	-	2	-	-	-	-	6
Technology	-	-	1	-	-	-	-	-	1	-	-	-	2
Mathematics	-	-	-	1	-	-	-	-	-	-	1	1	3
Philosophy	-	-	-	-	-	-	-	1	-	1	-	-	2
Language	1	-	-	-	-	-	-	-	-	-	1	-	2
Art	-	-	-	-	-	1	1	-	-	-	-	-	2
Music	-	-	1	-	-	-	-	-	-	-	-	-	1
History	2	2	2	-	-	1	1	3	2	-	1	1	15
Geography	-	-	1	-	-	-	-	-	1	-	1	1	4
Law	-	2	1	-	-	-	-	-	-	-	-	-	3
Theology	-	-	1	1	1	1	1	1	1	1	-	2	10
Biography	-	-	1	1	1	-	-	-	-	-	-	-	3
Classics	1	1	-	-	-	-	-	-	-	-	-	-	2
Literature	-	-	1	-	1	1	1	-	1	-	-	1	6
Bibliography	-	-	-	-	-	1	1	1	1	1	-	-	5

Table 6. Disciplinary fields of items in the *Journal des Sçavans*.

The corresponding information for the *Philosophical Transactions* is given in Table 7.

	1665		*1675*		*1685*		*1694*		*Tot*
	6 Mar	3 Apr	25 Mar	26 Apr	28 Jan	23 Feb	Jan	Feb	
Physics	1	-	-	-	1	-	-	3	5
Chemistry	-	-	-	-	1	1	1	-	3
Biology	2	3	-	-	2	3	-	4	14
Botany		-	-	1	1	-	-	1	3
Astronomy	3	2	1	1	-	-	-	-	7
Geology	2	-	2	1	1	-	1	-	7
Medicine	-	-	1	1	2	1	5	3	13
Technology	1	1	1	1	3	-	-	-	7
Mathematics	1	-	-	-	-	-	1	-	2
Philosophy	-	-	1	-	-	-	-	-	1
Art	-	-	1	-	-	-	-	-	1
General	1	-	1	-	2	-	-	1	5
Misc.	-	-	-	-	-	-	1	-	1

Table 7. Disciplinary fields of items in the *Philosophical Transactions*.

Here again there is one item with two distinct sections which have been counted separately, thus giving a total of 69 items. The scientific sector, again from physics down to and including technology, accounts for no less than 52 of the 69 items (75%). This includes biology, with 14 items (20%), medicine with 13 (19%), while astronomy, geology, and technology have 7 items each (10%).

The concentration of the *Philosophical Transactions* on 'scientific' subjects is quite clear, with 75% of the items devoted to this area, compared to the more general approach of the *Journal des Sçavans* where only 18% of the items have been classified as scientific. Subject areas found in the *Philosophical Transactions* but not in the *Journal des Sçavans* sample are chemistry and biology; subject areas found in the *Journal des Sçavans*, but not in the *Philosophical Transactions* are language, music, history, geography, law, theology, biography, classics, literature and bibliography. Thus the *Journal des Sçavans* has a wide range of humanities subjects which do not appear in the *Philosophical Transactions*.

8. Linguistic features

It is my contention that the linguistic features of these texts result from the editorial choices made by de Sallo and Oldenburg. I shall give three examples based on previous studies (Banks 2010a, 2010b, forthcoming). These are based, admittedly, on small samples, but produce results which seem perfectly coherent in terms of the context and editorial choices from which they derive. The examples I shall give are of process types, types of theme, and modality. The terminology is mainly that of Systemic Functional Linguistics (Halliday 2004, Banks 2005), but this is, I hope, sufficiently transparent to be comprehensible to readers not familiar with the theory.

The study of process types is based on an analysis of a small sample of 556 clauses from the *Journal des Sçavans*, and 377 clauses from the *Philosophical Transactions*. Table 8 shows the distribution of process types in the two journals.

	Journal des Sçavans	*Philosophical Transactions*
Material	18%	44%
Mental	19%	6%
Relational	30%	39%
Verbal	27%	6%
Existential	6%	5%

Table 8. Process types.

Material processes deal with actions and events in the physical world; mental processes deal with cerebral events, of a cognitive, perceptive or affective nature; relational processes state relationships between two entities or between an entity and one of its characteristics; verbal processes are processes of communication; and existential processes simply state existence. The common factor in the two periodicals is the feature of relational process, 30% in the *Journal des Sçavan*s, and 39% in the *Philosophical Transactions*. Relational processes are basically descriptive showing that both these journals are interested in

describing the world as it is. The following are examples from the *Journal des Sçavans*.

(1) […] que le iugement qu'on vient de faire, *est* bien different de celuy qu'on fit alors.
[that the opinion we have just given is quite different to the one we made previously]

(2) Car le monde *seroit* bien aise de deuenir habile sans auoir toute la peine qu'il faut presentement prendre pour acquerir cette qualité.
[for the world would be very happy to become skillful without all the care it is necessary to take at the moment to attain this quality]

(3) Mais beaucoup de monde trouue que ce liure *est* trop remply d'iniures […]
[But many people think this book is too full of insults]

The following are examples from the *Philosophical Transactions*.

(4) At the lower part of it, *is* a hole, some 9. or 10. inches square, for the taking out of the Ashes […]

(5) Though the Invention of breaking with ease, and dispatch, hard Rocks, *may* **be** useful on several occasions, the benefit **is** incomparably great […]

(6) […] That it *had* no sign of any Nose in the usual place, nor had it any, in any other place of the Head, unless the double Bag CC, that grew out of the midst of the forehead, *were* some rudiment of it.

There are nevertheless significant differences. The second most common process in the *Journal des Sçavans* is verbal process, which accounts for 27% of the processes. These verbal processes are usually concerned with what the authors of the books under review are communicating in their books, and what is being said about those books. The following are examples.

(7) […] qui *fit* dans son histoire vne description tres exacte des ceremonies qui s'obseruent à la Messe […]
[who, in his history, gave a very exact description of the ceremonies which are observed at mass]

(8) Monsieur Sorel *se propose* donc dans ce liure deux choses.

[Monsieur Sorel proposes to do two things in this book]

(9) On ne comprendroit rien au dessein de ce liure, si on ne *disoit* en peu de mots ce qui y a donné lieu.
[Nothing would be understood about the object of this book if we did not briefly explain what gave rise to it]

In the *Philosophical Transactions*, on the other hand, the commonest process, even more frequent than relational process, is material process, which accounts for 44% of the processes. These relate things being done and things happening in the physical world. By comparison, only 18% of the processes in the *Journal des Sçavans* are material. The following are examples of material processes from the *Philosophical Transactions.*

(10) […] this Ash-hole *is immediately stopt* so close, as Air *cannot possibly get in* at any part of it.

(11) […] so as one man *may manage* the Hammer, while another *holds* the Tool or Piercer.

(12) […] Mr. *Boyle*, who *went* into the Stable where the *Colt* lay, and *got* the Head hastily and crudely cut off […]

This underlines the facts that the *Journal des Sçavans* is concerned with argument and discussion, and hence with communication, while the *Philosophical Transactions* is interested in physical action and events. This itself reflects the decision by Oldenburg to restrict his journal to 'natural philosophy', and that of de Sallo to cover the whole range of human knowledge, including a wide range of humanities subjects.

My second example is a semantic categorization of themes. Theme is the speaker's starting point, and in both English and French is realized by being placed in initial position in the clause. The categorization is based on that developed in Banks (2008). This study is based on an analysis of 276 clauses from the *Journal des Sçavans*, and 377 from the *Philosophical Transactions*. Table 9 gives the distribution of the semantic categories of themes in the two journals.

	Journal des Sçavans	*Philosophical Transactions*
Object of study	8%	77%
Experiment	-	4%
Author	12%	-
Other humans	24%	5%
Intra-text	-	4%
Inter-text	29%	1%
Existential	9%	1%
Mental/Argument	17%	1%
Time	1%	7%

Table 9. Semantic classification of topical themes.

It will be seen that the most frequent category in the *Journal des Sçavans* is that of 'Inter-text', that is, references to texts other than the item in the *Journal des Sçavans* itself. These account for 29% of the themes, and are usually references to the book under review. The following are examples.

(13) Il y a eu en peu de temps deux editions de ce liure : l'vne à Rome, & l'autre à Paris. *C*'est vne collection de toutes les regles des Moines.
[In a short space of time there have been two editions of this book: one in Rome and the other in Paris. It is a exhaustive collection of monastic rules]

(14) *Ce vocabulaire* a desia esté Imprimé plusieurs fois […]
[This vocabulary has already been printed several times]

(15) *Ce* n'est pas tant icy vne histoire, que des reflexions sur les festes & sur les autres mysteres de la vie de la Vierge Marie.
[This is not so much a history as reflexions on the feasts and other mysteries of the life of the Virgin Mary]

The second most frequent category in the *Journal des Sçavans* is that of 'Other humans', or humans other than the author of the item in the *Journal des Sçavans*. These account for 24% of the themes. They are usually references to the authors of the book under review. The following are examples;

(16) *l'Abbé d'Aniane qui en a esté le compliateur*, viuoit enuiron l'an 820.
[The Abbée d'Aniane who was its complier lived roundabout the year 820]

(17) *Celuy qui en est Autheur*, ne fait que rapporter ce qui se trouue dans les principaux Commentateurs de L'Escriture Sainte …
[The person who is the author does no more than report what is found in the main commentators on the Holy Scriptures]

(18) *L'Amy de M. Patin* se plaint donc de trois choses.
[M. Patin's friend thus complains about three things]

This feature is totally different in the *Philosophical Transactions*, where we find that a massive 77% of the themes relate to the 'Object of study', that is the item or phenomenon, that is being experimented on, or observed. The following are examples:

(19) And *this Pipe* is still lengthened, as the *Adit* or Pit advanceth […]

(20) *The steeled end* is so shaped, as makes it most apt to pierce the Rock […]…

(21) […] but *the other parts of it* could not be so well distinguished, because the eye had been much bruised by the handling […]

Thus we see that the *Journal des Sçavans* decides to highlight, as theme, books and their authors, while in the *Philosophical Transactions*, it is the object or phenomenon under study that is so highlighted.

My final example is that of modality. This is based on a very small sample of 68 modal expressions from the *Journal des Sçavans*, and 369 from the *Philosophical Transactions*. Table 10 shows the distribution of epistemic, dynamic and deontic modality in the two periodicals.

	Journal des Sçavans	*Philosophical Transactions*
Epistemic	26%	19%
Dynamic	51%	77%
Deontic	22%	4%

Table 10. Types of modality.

The most common type of modality in both periodicals is dynamic modality. However, this is much more the case in the *Philosophical Transactions*, where it accounts for 77%, than in the *Journal des*

Sçavans, where it accounts for 51%. Epistemic modality is of the same order in both, 26% in the *Journal des Sçavans*, and 19%, in the *Philosophical Transactions*. But the most notable feature of the *Journal des Sçavans* is the presence of 22% deontic modality, which is highly marginal in the *Philosophical Transactions*. Thus, despite being the least frequent type of modality this nevertheless seems to be a distinguishing feature of the *Journal des Sçavans*. The following are examples.

(22) […] où il ne croist point de vin, il *faut* que les Moines benissent le Seigneur sans murmurer.
[where wine does not grow, the monks must bless the Lord without complaining]

(23) Comme on ne peut auoir trop de Vocabulaires, il *faut* auoir celuy-ci […]
[Since you can't have too many vocabularies, you must have this one]

(24) Mais c'est dequoy on se plaint, que M. Patin ait nommé Sauot , où il ne *deuoit* pas le faire ; & qu'il ait supprimé son nom, lors qu'il le *deuoit* nommer.
[But what we are complaining about is that M. Patin named Savot when he shouldn't have, and that he suppressed his name where he should have named him]

On the other hand dynamic modality, accounting for 77% of the modal expression in the *Philosophical Transactions*, must be considered the distinguishing feature of that journal. The following are examples.

(25) Now that there *may* be no want of such fresh Air, the Fire *must* always be kept burning in the Chimney […]

(26) After the stroke of the Hammer, he that holds the Piercer *is to* turn it a little on its point, so that the Edges or Angles at the point *may* all strike upon a new place; and so it *must* still be shifted after very stroke […]

(27) He advertiseth, that if they be coupled longer than 9. or 10. hours, (which they *will* be and that sometimes for 24. hours together, if they be let alone) either female *will* receive very great hurt by it, or much seed *will* remain in her belly.

This once again brings out the extra emphasis laid, in the *Philosophical Transactions* on the physical world, which is not the case in the *Journal des Sçavans*, where the moral sphere has a small but significant part to play.

9. Concluding remarks

Language is a human phenomenon; it derives from a context, and knowledge of that context is necessary for the full understanding of the language produced. In the case studied here, we see that the editorial choices which lie behind the language of the texts are the product of, and indeed are part and parcel of the historical context which produces them. In France, the fact that his mentor, Colbert, wanted to control the new forms of knowledge that were emerging to avoid their being used to challenge the state, led Denis de Sallo to produce a journal of book reviews covering the whole field of human knowledge. This decision is consistent with the objective of state control, since the main way in which new knowledge had been established until then was in book form; and if one is in the business of state control, it is necessary to control everything, hence the decision to cover all fields of new knowledge. In Henry Oldenburg's case his objective was the pragmatic one of supplementing his income, hence profitability was of prime importance for him. He had at his disposal his extensive correspondence, devoted to the area of 'natural philosophy', and secondarily the papers read at the Royal Society. Networks of correspondence, like that centred on Oldenburg, were not uncommon at the time, and were a method of disseminating new ideas and information (Gotti 2006). His potential public was the membership of the Royal Society and other like-minded people. Given this situation, the choice of a newsletter based on his correspondence and restricted to questions of 'natural philosophy' seems natural, and totally coherent. We then see that these decisions are reflected in the specific linguistic features which appear in the texts published. In the case of process types the distinguishing feature of the *Journal des*

Sçavans is the presence of verbal processes, indicating communication, that of the writers of the books reviewed and that of the reviewer expressing his opinions. In the *Philosophical Transactions* the distinguishing process type is that of material process, reflecting an interest in physical experiment, and observation of physical phenomena. In the case of the themes used, the *Journal des Sçavans* is distinguished by themes relating to other texts, and other humans, notably the books under review and the authors of those books; the *Philosophical Transactions* is notable for the number of themes related to the object of study, again reflecting an interest in physical phenomena, and experimentation. In the case of modality, while not the most frequent, the presence of deontic modality in the *Journal des Sçavans* is significant, reflecting an interest in the whole sphere of new knowledge, including, in particular, matters of a religious nature. The *Philosophical Transactions* is distinguished by the use of dynamic modality, reflecting once more an interest in physical phenomena. Hence, the features studied all seem to be moving in the same direction, and to be the result of the editorial decisions taken by de Sallo and Oldenburg. So, we can say that the features studied – process type, semantic categories of theme, and modality – reflect the orientation of the *Journal des Sçavans* towards books and their authors, and the communication, argument and discussion in and about those books. In a similar way, in the *Philosophical Transactions*, the same features reflect the focalization of this journal on the physical world, and on its description, observation, and experimentation. Thus these editorial choices are the link or fulcrum between the historical context and the language produced. Since this was the beginning of the academic article in French and English, these facts are of prime importance for the future development of academic writing.

References

Banks, David 2004. Philosophy, Science, Ideology and the Establishment Of Science As A Profession. *ASp, la revue du GERAS* 43-44, 69-80.

Banks, David 2005. *Introduction à la linguistique systémique fonctionnelle*. Paris: L'Harmattan.

Banks, David 2008. *The Development of Scientific Writing, Linguistic Features and Historical Context*. London: Equinox.

Banks, David 2009. Creating a Specialized Discourse: The Case of the *Philosophical Transactions*. *ASp, la revue du GERAS* 56, 29-44.

Banks, David 2010a. The Beginnings of Vernacular Scientific Discourse: Genres and Linguistic Features in Some Early Issues of the *Journal des Sçavans* and the *Philosophical Transactions*. *E-rea*, 8/1. <http://erea.reviews.org/1334>

Banks, David 2010b. Transitivity and Thematic Structure in Some Early Issues of the *Philosophical Transactions*. *ASp, la revue du GERAS* 58, 57-71.

Banks, David forthcoming. Les Formes et Fonctions de la Modalité dans le *Journal des Sçavans* et les *Philosophical Transactions* à la fin du 17ème siècle. In Banks, David (ed) *La Modalité dans le Texte de Spécialité*. Paris: L'Harmattan.

Birn, Raymond 1965. Le Journal des Savants sous l'Ancien Régime. *Journal des Savants* 1-3, 15-35.

Bluhm, R.K. 1960. Henry Oldenburg, F.R.S. (*c*. 1615-1677). In Hartley, Harold (ed) *The Royal Society. Its origins and founders*. London: The Royal Society, 183-197.

Camusat, Denis François 2011 [1734]. *Histoire critique des journaux*. Charleston: Nabu Press [facsimile of 1734 edition, Amsterdam: J.F. Bernard]

Cocheris, Hippolyte 1860. *Histoire du Journal des Savants depuis Sa Foundation Jusqu'à Nos Jour*s. Paris: A. Durand.

Darembeerg, Charles 1859. Journal des Savans (1665-1859). *Journal des Débats Politiques et Littéraires*, 20 avril 1859, 2-3.

Gotti, Maurizio 2006. Disseminating Early Modern Science: Specialized News Discourse in the *Philosophical Transactions*. In Brownlees, Nicholas (ed) *News Discourse in Early Modern Britain.* Bern: Peter Lang, 41-70.

Halliday, M.A.K. (revised by Christian M.I.M. Matthiessen) 2004. *An Introduction to Functional Grammar*, 3rd edn. London: Arnold.

Licoppe, Christian 1994. The Crystallization of a New Narrative Form in Experimental Reports (1660-1690). The Experimental Evidence as a Transaction Between Philosophical Knowledge and Aristocratic Power. *Science in Context* 7/2, 205-244.

Lyons, Henry 1944. *The Royal Society 1660-1940, A history of its Administration under its Charters*. Cambridge: Cambridge University Press.

Morgan, Betty Trebelle 1928. *Histoire du Journal des Sçavans depuis 1665 jusqu'en 1701*. Paris: Presse Universitaires de France.

Paris, Gaston 1903. Le *Journal des Savants. Journal des Savants*, janvier 1903, 5-34.

Peiffer, Jeanne / Vittu, Jean-Pierre 2008. Les Journaux Savants, Formes de la Communication et Agents de la Construction des Savoirs (17e-18e siècles). *Dix-huitième siècle* 40, 281-300.

Vittu, Jean-Pierre 2001. Qu'est-ce qu'un article au *Journal des savants* de 1665-1714 ? *Revue Française d'Histoire du Livre*, 112-113, 129-148.

Vittu, Jean-Pierre 2002a. La Formation d'une Institution Scientifique: le *Journal des Savants* de 1665 à 1714. Premier article: D'une Entreprise Privée à une Semi-institution. *Journal des Savants*, janvier-juin 2002, 179-203.

Vittu, Jean-Pierre 2002b. La Formation d'une Institution Scientifique: le *Journal des Savants* de 1665 à 1714. Second article: L'Instrument Central de la République des Lettres. *Journal des Savants*, juillet-décembre 2002, 347-377.

Vittu, Jean-Pierre 2005 Du *Journal Des Savants aux Mémoires Pour L'Histoire des Sciences et des Beaux-Arts* : L'Esquisse d'un Système Européen des Périodiques Savants. *XVIIe siècle* 228, 527-545.

Variation Within Genres
and Communicative Practices

DANIELA CESIRI

Research Genres and Hybridisation: A Case Study from Research Articles in the Field of Cultural Heritage Studies

1. Introduction

My study aims at defining the field of Cultural Heritage Studies (CHSs) within the mainstream of academic genres and domains through the analysis of research articles (RAs) written in English. I will seek to determine whether this field – still quite underestimated in the linguistic study of academic disciplines as, at present, there are no contributions which can be mentioned – can be included in the so-called 'soft' sciences, the 'hard' sciences or, possibly, whether it should be considered in an intermediate position along the discipline continuum such as a further and innovative characterisation of specialised discourse.

The choice for this particular academic field comes from my experience in teaching English to undergraduate, postgraduate and PhD students in a Faculty of Cultural Heritage Studies (CHSs) in Italy. At a certain point of their curriculum, students had to approach a number of relevant subjects in English (mostly through the study of RAs) and, as their teacher, I had to instruct them how to read and understand this material and also how to produce some academic texts (in the form of abstracts and short reports). For this reason, and since students needed precise and comprehensive instructions, I became interested in the manifold styles used in the general discipline and became curious about how to collocate the whole discipline or its different 'identities' in the broader category of academic genres.

In Italy, the Faculties of CHSs and related research are considered as belonging to the humanities but no information is

available in the case of RAs and the discipline at a general, international level. The present contribution, then, will seek to place CHSs along the discipline continuum by investigating a corpus of RAs published internationally for this area of study.

2. The field of CHSs as academic genre

First of all, it would be useful to introduce the discipline via an official definition of Cultural Heritage (CH) and CHSs, which is also accepted by the members of the scientific community itself, and can be found in the *UNESCO Draft Medium Term Plan 1990-1995*. UNESCO is – by its own definition – a specialised agency of the United Nations system, whose main objective "is to contribute to peace and security in the world by promoting collaboration among nations through education, science, culture and communication" (http://www.unesco.org/). Its *Medium Term Plan* is an official document issued after consultation with the Member States and the international scientific and intellectual community in order to focus on the right projects, ideas and actions that are necessary to preserve human knowledge and cultural and intellectual heritage.

The definition of CH is, then, important in the structure of the UNESCO's document in order to include as many sites and monuments, human artefacts and natural landscapes as possible which need preservation and protection from damage or decay. Hence, the field of CH can be defined as

> the entire corpus of material signs – either artistic or symbolic – handed on by the past to each culture and, therefore, to the whole of humankind. […] The idea of the heritage has now been broadened to include both the human and the natural environment, both architectural complexes and archaeological sites, not only the rural heritage and the countryside but also the urban, technical or industrial heritage, industrial design and street furniture. (UNESCO, 25 C/4, 1989: 57 in Jokilehto 2005: 4-5)

The above definition implies that the field of CHSs can be considered an interdisciplinary academic field that takes a critical look at the way heritage is preserved, presented and participated in by scholars and 'consumers' (cf. Stig Sørensen / Carman 2009). The above quotation will also serve as a starting point and reference definition for my research, as it provides a background on which a linguistic and discursive description might be drawn.

At a preliminary level of investigation, observation of the topics covered in the RAs immediately reveals that this is a composite academic genre, since it includes contributions dealing with History, the Arts (History and Criticism), Archaeology and the most technical aspects of preservation and restoration of monuments, artefacts, manuscripts, sites and so forth.

Due to this variety of aspects and approaches, RAs in the area of CHSs often adopt methodologies and theories belonging to the 'soft' as well as to the 'hard' sciences. Analysing RAs in this field might, then, be highly fascinating from a linguistic perspective in consideration of the fact that only few contributions have yet attempted to consider its different sub-disciplines in order to indicate exactly on which point of the continuum between the soft and the hard sciences they should be collocated (see Hyland 2009). In this regard, and to the best of my knowledge, only a few studies have endeavoured to make such a description and only for the two sub-fields of Art History and Archaeology; in particular, for the sub-field of Art History we can name Kemal / Gaskell (1991) and Tucker (2003, 2004). It must be pointed out, however, that these studies do not seek to insert the discipline in a particular academic genre but describe its intrinsic characteristics *per se*.

Kemal / Gaskell (1991) considers the relationship between Art History and the language used to express its contents as well as how the most technical and theoretical aspects of this field can be made accessible to readers in all the humanities, discussing the use of figurative language along with visual conventions. Tucker (2003, 2004) attempts at describing Art History as academic discipline. In particular, Tucker (2003) considers the differences in terms of evaluative language and knowledge construction between Art History and Criticism and other academic fields. Tucker (2004) investigates

art-historical discourse with the aim of identifying typical strategies used in this field to express evaluation.

As far as Archaeology is concerned, Joyce (2002) can be mentioned but this is meant as an introduction to the stylistic conventions of the discipline related to semiotics rather than a linguistic analysis of its features in the academic and specialised context.

3. Corpus structure and composition

The data obtained through a corpus search for the purposes of the present investigation showed an interesting level of complexity. For this reason, I decided to keep the present analysis at a quantitative level in order to have a preliminary categorisation of the RAs investigated. Indeed, a thorough categorisation of the discipline will involve a whole series of studies at different levels of analysis and will probably require a long-term research project.

First of all, I selected a group of RAs published in international journals for each of the sub-disciplines which appear to compose CHSs, i.e. Archaeology (A), Art History and Criticism (AHC), Cultural Heritage Preservation and Restoration (CH Pres/Rest). These three sub-fields were chosen because, according to the generally-agreed definition of cultural heritage provided in Section 2 and the academic disciplines available in international research, they seem to represent the totality of CHSs. In addition, other academic fields considered for inclusion can be ultimately considered as belonging to either field or the other of the three used in the present study.

The RAs were collected from the most relevant and important journals for each field; the journals' relevance was assessed on the basis of their rating according to the European Reference Index for the Humanities (ERIH, whose ratings are publicly available online). The journals were selected from those rated 'A' and that were assigned the INT1 sub-category for international journals which includes "international publications with high visibility and influence among

researchers in the various research domains in different countries, regularly cited all over the world" (ERIH 2012: online).

The journals selected are quarterly peer-reviewed journals (whose complete details are indicated in the bulleted list below) distributed by international publishers; occasionally they have special monothematic issues which increase the frequency of issues published per year. In order to have a fairly homogeneous sample for each journal (as, indeed, not all of them had a fourth issue already published when I collected my samples), I considered only the first three issues of each journal among those published in 2010. The total number of articles thus collected were 118. This total number of articles was gathered by considering only the RAs included in these issues while reviews and editorial comments were excluded.

The final group of RAs was, then, divided into three corpora (as many as the three sub-fields which compose the main field of CHSs) and were combined as follows:

- A: 41 articles from two journals (*International Journal of Historical Archaeology*, Springer, henceforth IJHA; *Oxford Journal of Archaeology*, Blackwell, OJA);
- AHC: 30 articles from two journals (*Art History*, Wiley-Blackwell, AH; *Journal of Art History and Theory*, University of Essex, JAHT);
- CH Pres/Rest: 46 articles from one journal (*Journal of Cultural Heritage*, Elsevier, JCH).

The total size of the corpus includes 894,785 words distributed in the three corpora as the following list shows:

- A: 345,118 words;
- AHC: 299,690 words;
- CH Pres/Rest: 249,977 words.

Despite the relatively homogeneous number of articles for each sub-discipline, this first difference in the size of the corpora can be explained by the fact that although A, AHC and CH Pres/Rest contain a high number of pictures, graphs and reproductions of sites which lowered the overall number of words the articles in the A corpus has the highest number of words in the corpus probably because pictures

and graphical elements are explained and described more extensively in this field than in the other two, even though the total number of articles in A collocates between AHC and CH Pres/Rest.

Considering the difference in the size of the three sub-corpora, the number of occurrences of hedges (Hs) and boosters (Bs) will be presented both in raw figures and normalised to 10,000 words in order to have a more accurate picture of the frequencies in the data to be analysed in the present study.

3.1. Methodology of analysis

The analysis of my corpus of RAs was conducted according to research procedures followed by studies investigating academic genres across disciplines. In particular, Swales (2004), Biber (2006), and Hyland / Bondi (2006) provided some useful methodological insights since they consider a general, theoretical approach to the study of academic genres and discourse, paving the way to similar analyses in academic disciplines in general.

In addition, the approach considered in other contributions was relevant for my analysis as they contributed to the choice of the actual methodology and of the devices to be analysed in the present article; namely, they are Del Lungo / Tognini Bonelli (2004) which was considered for its discussion on how academic disciplines present the attitudinal assessment of content and how they use argumentative strategies to interact with audiences at different levels of expertise (from expert scholars to novices); Flowerdew (2000) was useful for its use of interdisciplinary approaches to the study of academic discourse; Fløttum *et al.* (2006) investigates different ways through which 'academic voices' express their commitment to the different aspects of research; Giannoni's (2010) volume represented a useful means to the understanding of "what values are most prominent in English disciplinary discourse and what linguistic resources are most likely to be used to signal such values" (Giannoni 2010: 13). Finally, Hirsh (2010) provided useful insights in academic vocabulary and how it performs "a specialised role in academic writing, occupying a place in the lexicon alongside general service words and technical words"

(Hirsh 2010: 13), thus providing a valuable help in approaching the RAs also from the point of view of the terminology provided, even though this aspect is not the focus of the present contribution.

Particularly relevant to my analysis, and the main basis of my methodological approach, was the work by Hyland (1998, 2008, 2009) since he examines typical patterns and significant features of academic writing and investigates linguistic and discursive features in different academic fields, searching for specificity in both the humanities and the sciences.

In consideration of the fact that a description of CHSs has hardly ever been attempted before, and that this field is relatively new to linguistic enquiries, the number of features and the variety of approaches at a linguist's disposal are certainly vast. In this respect, then, I decided to select two types of linguistic features which clearly show different uses in RAs in the humanities and the sciences, using the computer program for corpus analysis *Wordsmith Tools 5.0* (Scott 2008) for the examination of my data.

As already mentioned, the features considered were Hs and Bs selected from the list provided by Hyland (2009: 376) and which the author asserts to represent those Hs and Bs most frequently used in academic writing, providing a precise definition of these devices as they are used in academic writing which seems to summarise well the nature and functions of Hs and Bs. According to Hyland (2009: 349-50), Hs and Bs are "communicative strategies for increasing [boosters] or reducing [hedges] the force of statements". In academic writing they are essential to the authors' rhetoric and to interact with the readers, since "they not only carry the writer's degree of confidence in the truth of a proposition, but also an attitude to the audience" (2009: 349). Moreover, "boosters allow writers to express conviction and assert a proposition with confidence, representing a strong claim about a state of affairs" (2009: 350), whereas "hedges represent a weakening of a claim through an explicit qualification of the writer's commitment" (2009: 349).

Other scholars found that, in academic writing, Hs and Bs are also indicative of the discourse practices and choices typical of a certain discipline (cf. Falahati 2007) as they tend to reflect the scientific procedures of each discipline and the researchers' processes

of reasoning in each field. In this respect, they prove to be an essential tool for scholars who seek to gain collective adherence to their claims from the discourse community and to improve the force of persuasion of their own statements (cf. Salager-Meyer 1994).

The list of 186 Hs and Bs searched in the corpora and adapted from Hyland (1998) is contained in Table 1. I have added all the possible suffixes (indicated with the wildcard asterisk) which might occur in the corpus and which seemed to have been excluded in Hyland's list, as there was no reference to this kind of search.

Hedges
about , almost, apparent, apparently ,appear*, approximately, argue*, around, assume*, assumption, basically, can, certain+extent, conceivably, conclude*, conjecture*, consistent+with, contention , could, could not, of+course, deduce*, discern*, doubt, doubt*, doubtless, essentially, establish*, estimate*, expect*, the+fact+that, find, found, formally, frequently, general , generally, given+that, guess*, however, hypothesize*, hypothetically, ideally, implication*, imply, improbable, indeed, indicate*, inevitable, infer*, interpret, we+know, it+is+known, largely, least, likely, mainly, manifest*, may, maybe, might, more+or+less, most, not+necessarily, never, no+doubt, beyond+doubt, normally, occasionally, often, ostensibly, partially, partly, patently, perceive*, perhaps, plausible, possibility, possible, possibly, postulate*, precisely, predict*, prediction, predominantly, presumably, presume*, probability, probable, probably, propose*, prove*, provided+that, open+to+question, questionable, quite, rare, rarely, rather, relatively, reportedly, reputedly, seem*, seems, seemingly, can+be+seen, seldom, general+sense, should, show, sometimes, somewhat, speculate*, suggest*, superficially, suppose*, surmise, suspect*, technically, tend*, tendency, theoretically, I+think, we+think, typically, uncertain, unclear, unlikely, unsure, usually, virtually, will, will+not, won't, would, would not.
Boosters
actually, admittedly, always, assuredly, certainly, certainty, claim*, certain+that, is+clear, are+clear, to+be+clear, clearly, confirm*, convincingly, believe*, my+belief, our+belief, I+believe, we+believe, conclusive, decidedly, definitely, demonstrate*, determine*, is+essential, evidence, evident, evidently, impossible, incontrovertible, inconceivable, manifestly, must, necessarily, obvious, obviously, sure, surely, true, unambiguously, unarguably, undeniably, undoubtedly, unequivocal, unmistakably, unquestionably, well-known, wrong, wrongly.

Table 1. List of Hs and Bs searched in the three corpora.

Starting with the presentation of the quantitative results from search through the corpora, Table 2 displays the total occurrence of the two types of devices along with the values of their frequency normalised

to 10,000 words (as explained in Section 3 above). I allowed a minimum occurrence of twenty times for each item to be considered as significant in the three corpora.

	Raw frequencies		*Per 10,000 words*	
	Hedges	*Boosters*	*Hedges*	*Boosters*
A	4.448	1,381	128.8	40.0
AHC	3,003	789	100.2	26.3
CH Pres/Rest	1,999	596	79.9	23.8

Table 2. Hs and Bs: raw frequencies and frequencies normalised per 10,000 words.

According to the figures in Table 2, we can see that Hs outnumber Bs considerably. The difference is especially marked in the A (examples 1 and 2) and AHC fields (examples 3 and 4). The examples provided below show the use of Hs and Bs (indicated in italics), respectively, in the two fields. These figures actually confirm a tendency already noticed by other scholars working on inter-disciplinary specificity – such as Hyland (2009), Salager-Meyer (1994) and Falahati (2007) –, that in academic writing Hs are generally far more frequent than Bs because they reflect scholars' preference for mitigation rather than emphasis. In addition, Hyland (2009) claims that the humanities make a greater use of hedges than the sciences.

(1) They were *apparently* built in a single phase and *might* cover one or more cremations (BRADLEY_FRASER_OJA_2010_29_1[7])

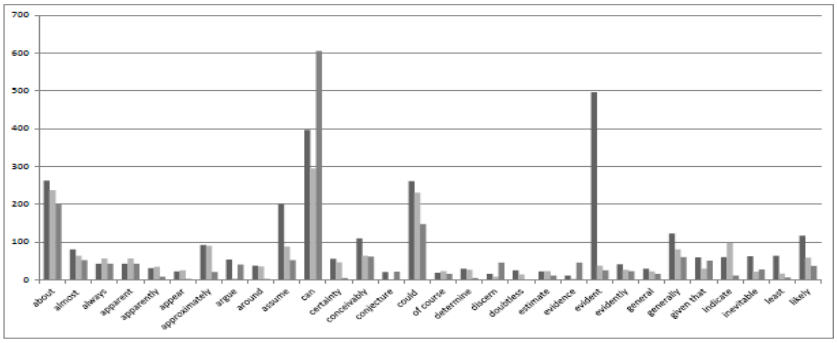
(2) Early Christian basilicas are *clearly* associated with Byzantine buildings (CARAHER_IJHA_2010_2)

7 The sources of the examples provided in this study are indicated through a codification method which includes in this order: NAME(S) OF THE AUTHOR(S)_ACRONYM OF THE JOURNAL_year of publication_ (volume_)issue. When the information EtAL is added to the citation, it means that the article is by more than two authors who are indicated in the References. In all cases, full bibliographical details are given in the 'Primary Sources' section at the end of the article.

(3) Whilst it *might* be tempting to ascribe the anti-photographers as approaching photography (GRANT_JAHT_2010_3)

(4) Titles, literary associations and allusions may be incidental; however, the presence of one individual in the print is *unquestionably* intentional (CLINGER_AH_2010_33_3).

The abundance of Hs over Bs in the three fields allows a first categorisation for the three sub-disciplines: indeed, following Hyland's division, we might attempt a first categorisation and say that A and AHC can be included in the humanities because of their considerable use of Hs, whereas the low preference of CH Pres/Rest for both Hs and Bs might collocate this sub-discipline among the sciences. However, this interpretation can be considered only tentative. As mentioned earlier, the difference in the size of the three corpora is due to a different textual structure in which CH Pres/Rest contains a high number of graphic items (tables and graphs). For this reason, a more detailed investigation would be required, taking into consideration the distribution of Hs and Bs in the different sections of RAs for each sub-fields. This could give more precise insights into the use of Hs and Bs in CHSs in general as compared with the use in the sciences and the humanities in the same sections and allow for a more precise categorisation of the disciplines and its sub-fields. This chapter, indeed, is the first attempt at an investigation of CHSs as an academic discipline rather than at providing its definitive description.



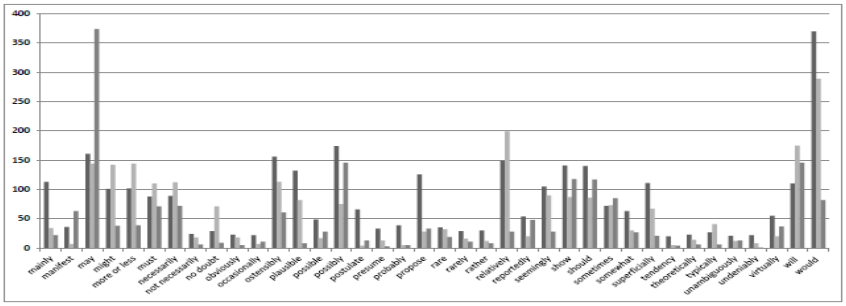


Figure 1. Distribution of Hs and Bs in the three corpora.

The graphs in Figure 1 show the overall distribution of entries (in alphabetical order) with more than twenty occurrences. The darkest grey columns in the top graph indicate data from A, the light grey columns show frequency in AHC and the normal dark grey columns in the bottom graph indicate data from CH Pres/Rest. The occurrence of the various entries is not evenly distributed, not only for the single words in each discipline but also among the disciplines themselves. It is interesting to note that peaks of occurrence in the graphs are related to the use of the hedges ABOUT (example 5, all emphases added), POSSIBLY (example 6), RELATIVELY (example 7) and to the epistemic verb ASSUME (example 8) and the booster EVIDENT (example 9) in A. Other peaks are in the use of modals mainly with the function of hedges such as COULD (example 10), MAY (example 11), SHOULD (example 12) and WOULD (example 13). CAN is also highly frequent (examples 14-16).

(5) Only *about* 15% of the graves with dates between 1950 and 2004 are well maintained (TZORTZOPOULOU-GREGORY_IJHA_2010_2)

(6) *Possibly* because of poor lines of sight, both armies outflanked one another (POLLARD_BANKS_IJHA_2010_3)

(7) The *relatively* extensively excavated settlements of the Mirabello Bay region of east of east Crete provide a good case study for such an enquiry (HAYSOM_OJA_2010_29_1)

(8) Moreover, we can *assume* that tombs, particularly in the nave, represent a phase of use (CARAHER_IJHA_2010_2)

(9) Nonetheless, in Australasia their influence has been *evident* in the persisting concern with hegemony (LYDON_ASH_IJHA_2010_1)

(10) While a private collection *could* serve variously as a 'theatre of the mind' (HELLER_AH_2010_33_2)

(11) Different geological processes that *may* affect cave conservation will condition the potential risks (IRIARTE_EtAL_JCH_2010_11_3)

(12) At the same time, treatments *should* satisfy safety rules for operators and environment (GIACHI_EtAL_JCH_2010_11_1)

(13) If the piece were cast as history this *would* perhaps be beyond the pale (ELSNER_AH_2010_33_1)

(14) The mounds *can* also be dated by comparison with a scheme recently published by Garwood (2007) (BRADLEY_FRASER_OJA_2010_29_1)

(15) Parallels *can* be found in contemporary images of the emperor (VOUT_AH_2010_33_3)

(16) As advection is generally more rapid than diffusion, desalination treatments based on advection *can* be much faster (PEL_EtAL_JCH_2010_11_1)

List of words	*A*	*AHC*	*CH Pres/Rest*
about	262/7.59	237/7.91	200/8.00
assume	200/5.80	87/2.90	52/2.08
can	396/11.47	294/9.81	605/24.10
conceivably	109/3.16	63/2.10	61/2.44
could	261/7.56	230/7.67	147/5.88
evident	496/14.37	37/1.23	25/1.00
generally	122/3.25	80/2.67	60/2.40
likely	116/3.36	58/1.94	36/1.44
mainly	113/3.27	34/1.13	22/0.88
may	374/10.84	161/5.37	144/5.76

might	101/2.93	142/4.74	38/1.52
more or less	102/2.96	144/4.80	39/1.56
must	88/2.55	110/3.67	71/2.84
necessarily	89/2.58	112/3.74	72/2.88
ostensibly	156/4.52	113/3.77	61/2.44
plausible	132/3.82	82/2.74	8/0.32
possibly	174/5.04	75/2.50	146/5.84
propose	126/3.65	28/0.93	33/1.32
relatively	149/4.20	199/6.64	28/1.12
seemingly	105/3.04	90/3.00	28/1.12
should	140/4.06	86/2.87	117/4.68
show	141/4.09	87/2.90	118/4.72
superficially	111/3.22	67/2.24	21/0.84
will	110/3.19	175/5.84	146/5.84
would	370/10.72	289/9.64	82/3.28

Table 3. More detailed figures from Graph 1 (the figures are listed as raw frequency/figures normalised per 10,000).

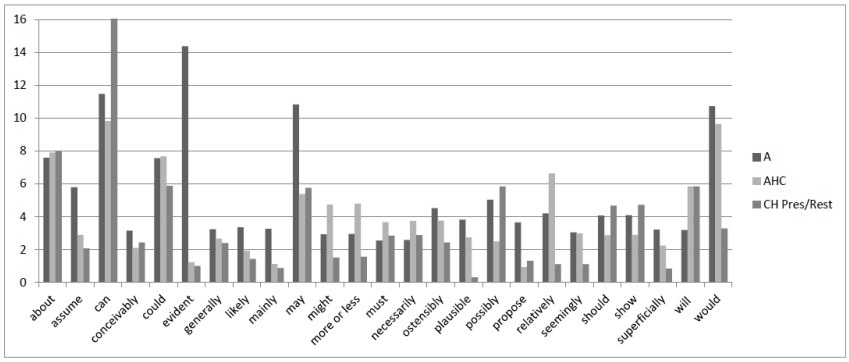


Figure 2. Graphic representation of normalised figures in Table 3.

A closer look (see Table 3 above) at the data illustrated in the preceding graphs and, in particular, at the normalised figures for the

most frequent devices (see Figure 2) shows that the field of A seems to prefer a booster such as EVIDENT (probably used for inferences which cannot have an ambiguous interpretation), followed by the modals CAN and MAY (in the function of hedge), and WOULD. Other hedges most frequently used in this field are ABOUT (see example 5), POSSIBLY (see example 6), GENERALLY (example 17), LIKELY (example 18), MAY (example 19), MAINLY (example 20), MORE OR LESS (example 21), PLAUSIBLE (example 22), and RELATIVELY (see example 7), whereas ASSUME (see example 8), SHOW (example 23) and WILL (example 24) pertain to the category of boosters.

(17) They are *generally* located on headlands adjacent to, or within sight of, the sea (ASH_EtAL_IJHA_2010_1)

(18) However, it is *likely* they were interested in promoting their common cultural and social values (GRIFFIN_IJHA_2010_1)

(19) The centre of the site *may* contain the remains of a circular mound (JONES_OJA_2010_29_2)

(20) This is *mainly* because of the multi-period nature of the assemblage (SCHULTING_EtAL_OJA_2010_29_2)

(21) The enclosure would be *more or less* contemporary with the cairns inside it (JONES_OJA_2010_29_2)

(22) Thick-walled round building without it is not a *plausible* broch prototype (MACKIE_OJA_2010_29_1)

(23) The medial aspect of the shaft rather than its anterior aspect, but it does *show* that injury to the overlying soft tissues can lead to periostitis of the femoral shaft (GARVIE-LOK_IJHA_2010_2)

(24) A critical reading of the textual and archaeological evidence the textual and archaeological evidence *will* challenge the strict adherence to rigid divisions between periods and *will* demonstrate how more subtle evidence for continuity sheds valuable light on the processes of social, cultural, and religious change (CARAHER_IJHA_2010_2)

The distribution of these preferences in the field of A seems to be quite complex to interpret. The fact that the most recurrent word of

those searched is a booster does not invalidate the general tendency of preferring Hs over Bs because the total number of hedges used in this field outnumbers the total number of boosters.

The preferred hedges are devices such as ABOUT, GENERALLY, MORE OR LESS, RELATIVELY (as in examples 5, 17, 21 and 7, respectively), which Hyland (2009: 363) defines as attribute hedges and which "refer to the relationship between propositional elements rather than the relationship between a proposition and a writer" (363). These devices are believed to be used preferably in the sciences (cf. Hyland 2009).

On the other hand, A makes also a consistent use of devices modifying statements such as the epistemic verb ASSUME and the boosters SHOW and WILL (see examples 8, 23 and 24, respectively) which, in this case, reflect a tendency typical of the humanities.

As for the modals, SHOULD (examples 25 and 26) is quite frequent as well and is used whenever the author introduces a new interpretation with the purpose of lessening the force of imposition of the statement itself.

(25) It does mean that this Scottish perspective *should* not be defined in terms of essential national or "ethnic" character, action, or contribution (DALGLISH_DRISCOLL_IJHA_2010_3)

(26) all these events and ideas widened and made more flexible the concept of what *should* be considered art (PALACIO-PÉREZ_OJA_2010_29_1)

CAN is highly frequent and occurs in clusters such as 'can be seen', 'can be considered' (epistemic modality, see examples 27 and 28) or 'can+main verb' ('can serve', 'can inform us', expressing deontic modality as in examples 29-31).

(27) This process *can also be seen* at Poonindie (GRIFFIN_IJHA_2010_1)

(28) These and many other examples have suggested to authors such as Hinton (2005) that some ancestor artefacts passed down through the family *can be considered* heirlooms (CAPLE_OJA_2010_29_3)

(29) a short distance between sites and the proximity to the producing centres can be considered an influential factor that *can serve* to explain some patterns (BRUGHMANS_OJA_2010_29_3)

(30) It merely explores to what extent the archaeological data itself *can inform us* of the continually evolving actions that led to its distribution (BRUGHMANS_OJA_2010_29_3)

(31) From this basis we can *reassess* the cartographic evidence (MACGREGOR_IJHA_2010_3).

Therefore, CAN is very functional in conveying different meanings. An interpretation for the preference for this verb might be that – according to the examples provided above – CAN is used with a neutral function and it communicates different degrees of possibility or different degrees of the writers' certainty about the interpretation of data. Writers in A, then, seem to show the tendency of adding a more impersonal but also a less cautious force to their statements.

The field of AHC shows a preference for attribute hedges – in particular ABOUT (example 32), COULD (see example 10) and WOULD (see example 13), MAYBE (example 33), MORE OR LESS (example 34), RELATIVELY (example 35). Again, the modal CAN is used consistently in its epistemic function ('can be seen', 'can be found', as in examples 36 and 37).

(32) For instance, if we look at a set of pendants painted *about* 1640 we see a couple standing in a shallow, neutral space (GROOTENBOER_AH_2010_33_2)

(33) How can I go beyond that and create something else that is *maybe* another kind of pose, but is, at least, not the same one you always get? (BURBRIDGE_JAHT_2010_5)

(34) an approximation *more or less* excellent is given, but the characteristic expression ... of the man is withheld (ELLENBOGEN_AH_2010_33_3)

(35) But while the painting of 1925 presents its sitter in a *relatively* naturalistic outdoor setting, the later image of Garcilaso locates him in a more complex and indeterminate pictorial field (SCHREFFLER_WELTON_AH_2010_33_1)

(36) This *can be seen* clearly in Recumbent Man and Prostitute with a Whip, in which… (SMITH_AH_2010_33_3)

(37) A concrete case *can be found* in Van der Goes' Adoration of the Shepherds which art historians… (BUSSELS_AH_2010_33_2)

The most frequent boosters are WILL and MUST (examples 38 and 39, respectively).

(38) …Accompanied by a text which tells the viewer that the following ten images *will* provide "ten minutes or so in which you won't be bored" (CLINGER_AH_2010_33_3)

(39) Holst scholar Browne indicates, however, the importance such works *must* already have had on the artist (SMITH_AH_2010_33_3).

In this case MUST has the highest frequency, indicating the insertion of a stronger force of persuasion in the writers' statements. The use of the modals WILL and MUST as boosters shows a peculiar tendency of the writers to convey a degree of certainty and emphasis rarely found in academic writing in general. Generally speaking, however, the preferred use of Hs over Bs, however, might collocate this discipline in the field of the humanities rather than the sciences following the characteristic of the former to rely more on the argumentative presentation of their reasoning. This interpretation directly follows Hyland's (1998: 13) explanation of the more frequent use of Hs in the soft sciences, according to which:

> writers in the soft fields can generally take less for granted and, while a paper must carry conviction, it must also appeal more to the reader's willingness to follow the writer's reasoning. Research cannot be reported with the same confidence of shared assumptions and so has to be expressed more cautiously, using more hedges. Writers must rely far more on focusing readers on the claim-making negotiations of the discourse community, the arguments themselves, rather than the relatively unmediated real-world phenomena.

As regards the discipline of CH Pres/Rest, we see again a preference for CAN (in this case far more frequent than in the other two fields, examples 40-42) and ABOUT (used as in example 43).

(40) Based on this idea, the Pe number at the substrate/poultice interface *can be used* to estimate the efficiency, since this is proportional to the ratio (PEL_EtAL_JCH_11_1)

(41) They *can also be obstructed* with the present heavy grey internal curtains to guarantee… (BALOCCO_FRANGIONI_JCH_2010_11_1)

(42) These results reveal that the chromophore environment, depending on the complexing agent, *can originate* small but relevant differences (CLARO_EtAL_JCH_2010_11_1)

(43) Maximum intrusion pressure was *about* 800 kPa (CRISCI_JCH_2010_11_3).

The most frequent hedges are COULD (example 44), MAY (see example 11), SHOULD (see example 12), MAYBE (example 45), and POSSIBLY (example 46). Preferred boosters are MUST (though much less frequent than in the other two disciplines, example 47), SHOW (example 48), and WILL (example 49).

(44) These results *could* be attributed, for diluted suspensions, to… (DANIELE_TAGLIERI_JCH_2010_11_1)

(45) The volume is undated and unsigned, *maybe* because the date and copyist's name were mentioned in the first volume (ESPEJO_EtAL_JCH_2010_11_1)

(46) filled with a proteinaceous binding medium and particles of calcium carbonate, gypsum, silicate minerals and barite, *possibly* used to decrease the porosity and to increase the stiffness of the cellulosic material (FAVARO_EtAL_JCH_2010_11_3)

(47) On the other hand, it *must* be taken into account that some human activities… (IRIARTE_EtAL_JCH_2010_11_3)

(48) Simulation results *show* a great decrease in the illuminance values in the ambient (BALOCCO_FRANGIONI_JCH_2010_11_1)

(49) The report *will* be useful for the preservation of damaged seriously architectural glazed (ZHAO_EtAL_JCH_2010_11_3)

CAN, so frequent in this field, is used in its epistemic function and appears in clusters such as 'can be used', 'can be seen', 'can be concluded that', 'can be applied', which are useful for writers in CH

Pres/Rest to describe experimental procedures (along with the use of ABOUT, see Hyland 2009), collocating this discipline more in the realm of the sciences than the humanities. In the sciences researchers try "to portray their evaluation impersonally, constructing a context in which claims appeared to arise from the research itself" (Hyland 2009: 373) .

On the other hand, the consistent use of hedges such as MAY, MAYBE and POSSIBLY comes closer to a tendency found in the humanities. This can be considered only a general statement as the use of this kind of hedges can be found in scientific RAs: the difference might lie in the sections in which these two hedges are used and consider whether they occur throughout the paper (even in the analysis of figures, as might occur in the humanities RAs where the writer has to lead the reader through his/her reasoning) or only in argumentative parts such as the discussion section (as in the sciences where interpretation of sensible data is provided, thus allowing a more cautious approach. This, however, is certainly valid for all the other Hs and Bs considered in this study, as, before including the three sub-fields into one category or the other, we should consider whether the sections in which Hs and Bs are preferably used coincide with either the sciences or the humanities and whether the three sub-fields (A, AHC and CH Pres/Rest) confirm the collocation already indicated in this study.

At the same time, we should also mention the use in equal proportions of the hedge SHOULD (117 occurrences, 4.68 in normalised figures) and the booster SHOW (118 occurrences, normalised to 4.72) which does not allow a precise collocation of this field along the discipline continuum.

3. Future research

The data presented in this contribution constitute only the tip of an iceberg, whose 'real body' is still largely unknown. In order to investigate other and more detailed aspects of the nature of the three

disciplines here presented, a number of approaches and theories is available; however, corpus linguistics will be essential in the quantitative as well as in the qualitative analysis of corpus data.

A diachronic analysis of RAs from the field of A and conducted on the use of Hs and Bs during the nineteenth and early twentieth centuries (see Cesiri 2011) has already proved to be able to integrate data on this field provided by the present study. Indeed, in this recent study on the early days of the discipline as a modern science, data from a corpus search revealed that during the period considered, A was still a scientific discipline in formation.

However, it already showed characteristics of both the sciences and the humanities. This confirmed that the tendency to genre hybridisation which emerged in the present-day data might be considered an intrinsic feature of the discipline once it was transformed into a modern science. This might also be explained by the nature of the discipline itself, composed of empirical investigations typical of the hard sciences and historical, artistic and socio-cultural interpretations of the reasons and background behind the creation and use of sites, artefacts and other remains of the past.
Nevertheless, a number of other features might be considered, in addition to Hs and Bs, such as the use of attitude markers, self-mention and reference techniques and readers pronoun directives. These might be studied in order to collocate as precisely as possible the three sub-disciplines of CHSs along the discipline continuum. Moreover, we might investigate which of the features considered in the present investigation (or those characterising specific genres) are the most frequent and in which section of the RAs in order to see the disciplines' preference for one section or the other.

To summarise, a great amount of research still needs to be done on the disciplines composing CHSs, not only to draw a thorough description of their respective linguistic and discursive features as also to enable a comparison with other disciplines which have been more thoroughly investigated and which have already been placed either among the humanities or among the sciences.

4. Conclusive remarks

The present quantitative analysis helped to attempt a preliminary categorisation of the sub-disciplines composing CHSs as academic genre. In the case of AHC my data on its use of Hs and Bs show that it seems to be closer to the humanities or soft disciplines because of its preference for devices which tend to "emphasise the writer's commitment to a proposition" (Hyland 2009: 370). On the other hand, the fields of A and CH Pres/Rest show a greater degree of genre hybridisation. Indeed, these disciplines present features typical of both the humanities and the sciences at the same time; as a consequence their categorisation seems quite difficult.

My proposal for classification is that they could be placed in the middle of the continuum between the hard and the soft sciences. Indeed, they are characterised both by the presentation of evidence from field research and experimental work but they also consider the human element in the sites and artefacts studied or in the impact on society that the restoration of a certain item might produce.

These two disciplines, then, could be classified as a hybrid genre or 'technical disciplines', a term which gives emphasis to the field practices originating the work of research – based, evidently, on strict methodological and theoretical assumptions and leading to equally strict methodological, theoretically-based conclusions.

This preliminary classification of the three disciplines certainly mirrors the different academic souls which compose the hybrid genre (already defined as such by its very scholars) of CHSs. Despite the fact that they are included in the broader category of CHSs, and in order to account for such different results, my further proposal is to consider each branch as a separate, autonomous discipline from the linguistic viewpoint.

References

Primary Sources: Journals

Art History, Wiley-Blackwell.
Journal of Art History and Theory, University of Essex.
Journal of Cultural Heritage, Elsevier.
International Journal of Historical Archaeology, Springer.
Oxford Journal of Archaeology, Blackwell.

Primary Sources: RAs quoted in examples

Ash, Jeremy / Manas, Louise / Bosun, David 2010. Lining the Path: A Seascape Perspective of Two Torres Strait Missions, Northeast Australia. *International Journal of Historical Archaeology* 1: 56-85.

Balocco, Carla / Frangioni, Elena 2010. Natural lighting in the Hall of Two Hundred. A Proposal for Exhibition of its Ancient Tapestries. *Journal of Cultural Heritage* 11/1: 113-118.

Bradley, Richard / Fraser, Elise 2010. Bronze Age Barrows on the Heathlands of Southern England: Construction, Forms and Interpretations. *The Oxford Journal of Archaeology* 29/1: 15-33.

Brughmans, Tom 2010. Connecting the Dots: towards Archaeological Network Analysis. *The Oxford Journal of Archaeology* 29/3: 277-303.

Burbridge, Benedict 2010. Exacting Photography: Self-imaging and its Frustration in Contemporary Art Photography. *Journal of Art History and Theory* 5: 1-19.

Bussels, Stijn 2010. Making the Most of Theatre and Painting: The Power of *Tableaux Vivants* in Joyous Entries from the Southern Netherlands (1458–1635). *Art History* 33/2: 236-247.

Caraher, William R. 2010. Abandonment, Authority, and Religious Continuity in Post-Classical Greece. *International Journal of Historical Archaeology* 2: 241-254.

Caple, Chris 2010. Ancestor Artefacts – Ancestor Materials. *The Oxford Journal of Archaeology* 29/3: 305-318.

Claro, Ana *et al.* 2010. Identification of Red Colorants in van Gogh Paintings and Ancient Andean Textiles by Microspectrofluorimetry. *Journal of Cultural Heritage* 11/1: 27-34.

Clinger, Catherine 2010. Theory of the Ridiculous: Jean Paul, Max Beckmann, and Dostoevsky's Donkey. *Art History* 33/3: 512-533.

Crisci, Gino Mirocle *et al.* 2010. Consolidating Properties of Regalrez 1126 and Paraloid B72 Applied to Wood. *Journal of Cultural Heritage* 11/3: 304-308.

Dalglish, Chris / Driscoll, Stephen T. 2010. An International Scottish Historical Archaeology? *International Journal of Historical Archaeology* 3: 309-315.

Daniele, Valeria / Taglieri, Giuliana 2010. Nanolime Suspensions Applied on Natural Lithotypes: The Influence of Concentration and Residual Water Content on Carbonatation Process and on Treatment Effectiveness. *Journal of Cultural Heritage* 11/1:102-106.

Ellenbogen, Josh 2010. Educated Eyes and Impressed Images. *Art History* 33/3:490-511.

Elsner, Jas´ 2010. Art History as Ekphrasis. *Art History* 33/1: 10-27.

Espejo, Teresa / Duran, Adrian / Lopez-Montes, Ana / Blanc, Rosario 2010. Microscopic and Spectroscopic Techniques for the Study of Paper Supports and Textile Used in the Binding of Hispano-Arabic Manuscripts from Al-Andalus: A Transition Model in the 15th century. *Journal of Cultural Heritage* 11/1: 50-58.

Favaro, Monica / Bianchina, Sara / Vigato, Pietro A. / Vervat, Muriel 2010. The Palette of the Macchia Italian Artist Giovanni Fattori in the Second Half of the XIX century. *Journal of Cultural Heritage* 11/3: 265-278.

Garvie-Lok, Sandra 2010. A Possible Witness to the Sixth Century Slavic Invasion of Greece from the Stadium Tunnel at Ancient Nemea. *International Journal of Historical Archaeology* 2: 271-284.

Giachi, Gianna / Capretti, Chiara / Macchioni, Nicola / Pizzo, Benedetto / Donato, Ines Dorina 2010. A Methodological Approach in the Evaluation of the Efficacy of Treatments for

the Dimensional Stabilisation of Waterlogged Archaeological Wood. *Journal of Cultural Heritage* 11/1: 91-101.

Grant, Catherine 2010. The Performance Space of the Photograph: From 'The Anti-Photographers' to 'The Directorial Mode'. *Journal of Art History and Theory* 5: 1-29.

Griffin, Darren 2010. Identifying Domination and Resistance through the Spatial Organization of Poonindie Mission, South Australia. *International Journal of Historical Archaeology* 1: 156-169.

Grootenboer, Hanneke 2010. How to Become a Picture: Theatricality as Strategy in Seventeenth-Century Dutch Portraits. *Art History* 33/2: 320-333.

Haysom, Matthew 2010. The Double-Axe: a Contextual Approach to the Understanding of a Cretan Symbol in the Neopalatial Period. *The Oxford Journal of Archaeology* 29/1: 35-55.

Heller, Wendy 2010. Dancing Statues and the Myth of Venice: Ancient Sculpture on the Opera Stage. *Art History* 33/2: 304-319.

Iriarte, Eneko / Ángel Sánchez, Miguel / Foyo, Alberto / Tomillo, Carmen 2010. Geological Risk Assessment for Cultural Heritage Conservation in Karstic Caves. *Journal of Cultural Heritage* 11/3: 250-258.

Jones, Andy M. 2010. Misplaced Monuments?: a Review of Ceremony and Monumentality in First Millennium Cal BC Cornwall. *The Oxford Journal of Archaeology* 29/2: 203-228.

Lydon, Jane / Ash, Jeremy 2010. The Archaeology of Missions in Australasia: Introduction. *International Journal of Historical Archaeology* 1: 1-14.

MacGregor, Gavin 2010. Legends, Traditions or Coincidences: Remembrance of Historic Settlement in the Central Highlands of Scotland. *International Journal of Historical Archaeology* 3: 398-413.

Mackie, Euan W. 2010. The Broch Cultures Of Atlantic Scotland. Part 2. The Middle Iron Age: High Noon And Decline C.200 BC–AD 550. *The Oxford Journal of Archaeology* 29/1: 89-117.

Palacio-Pérez, Eduardo 2010. Cave Art and the Theory of Art: the Origins of the Religious Interpretation of Palaeolithic Graphic Expression. *The Oxford Journal of Archaeology* 29/1: 1-14.

Pel, Leo / Sawdy, Alison / Voronina, Victoria 2010. Physical Principles and Efficiency of Salt extraction by Poulticing. *Journal of Cultural Heritage* 11/1: 59-67.

Pollard, Tony / Banks, Iain 2010. Now the Wars are Over: The Past, Present and Future of Scottish Battlefields. *International Journal of Historical Archaeology* 3: 414-441.

Schreffler, Michael J. / Welton Jessica 2010. Garcilaso de la Vega and the 'New Peruvian Man': José Sabogal's Frescoes at the Hotel Cuzco. *Art History* 33/1:124-149.

Schulting, Rick J. / Sebire, Heather / Robb, John E. 2010. On the Road to Paradis: New Insights from Ams Dates and Stable Isotopes at Le Déhus, Guernsey, and the Channel Islands Middle Neolithic. *The Oxford Journal of Archaeology* 29/2: 149-173.

Smith, Camilla 2010. Between Fantasy and Angst: Assessing the Subject and Meaning of Henry Fuseli's Late Pornographic Drawings, 1800–25. *Art History* 33/3: 420-447.

Tzortzopoulou-Gregory, Lita 2010. Remembering and Forgetting: The Relationship between Memory and the Abandonment of Graves in Nineteenth- and Twentieth-Century Greek Cemeteries. *International Journal of Historical Archaeology* 2: 285-301.

Vout, Caroline 2010. Laocoon's Children and the Limits of Representation. *Art History* 33/3: 396-419.

Zhao, Jing / Li, Weidong / Luo, Hongjie / Miao, Jianmin 2010. Research on Protection of the Architectural Glazed Ceramics in the Palace Museum, Beijing. *Journal of Cultural Heritage* 11/3: 279–287.

Secondary Sources

Biber, Douglas 2006. *University Language: A Corpus-Based Study of Spoken and Written Registers*. Amsterdam: John Benjamins.

Cesiri, Daniela 2012. Investigating the Development of ESP through Historical Corpora: the Case of Archaeology Articles during the Late Modern English Period. In Tyrkkö, Jukka *et al.*(eds.). *Proceedings of the Helsinki Corpus Festival*. Studies in

Variation, Contacts and Change in English 10. VARIENG, University of Helsinki ePublication Series: Helsinki.

Del Lungo Camiciotti, Gabriella / Tognini Bonelli, Elena (eds.) 2004. *Academic Discourse: New Insights into Evaluation*. Bern: Peter Lang.

ERIH. *European Reference Index for the Humanities*. Available at <http://www.esf.org>. Last accessed: March 2012.

Falahati, Reza 2007. The Use of Hedging Across Disciplines and Rhetorical Section of Research Articles. In Carter, Nicole *et al.* (eds.). *Proceedings of the 22nd Northwest Linguistic Conference*. Vol. 1. Burnaby: Simon Fraser Univ.

Flowerdew, John (ed.) 2000. *Academic Discourse*. London: Pearson Education

Fløttum, Kjersti / Dahl, Trine / Kinn, Torodd (eds) 2006. *Academic Voices: Across Languages and Disciplines*. Amsterdam: John Benjamins.

Giannoni, Davide S. 2010. *Mapping Academic Values in the Disciplines*. Bern: Peter Lang.

Hyland, Ken 1998. Boosting, Hedging and the Negotiation of Academic Knowledge. *TEXT*, 18/3, 349-382.

Hyland, Ken / Bondi, Marina (eds) 2006. *Academic Discourse across Disciplines*. Bern: Peter Lang.

Hyland, Ken 2008. Disciplinary Voices. Interactions in Research Writing. *Journal of English Text and Construction*, 1/1, 5-22.

Hyland, Ken 2009. Writing in the Disciplines: Research Evidence for Specificity. *Taiwan International ESP Journal*, 1/1, 5-22.

Hirsh, David 2010. *Academic Vocabulary in Context*. Bern: Peter Lang.

Jokilehto, Jukka 2005. Definition of Cultural Heritage. References to Documents in History. *ICCROM Working Group 'Heritage and Society'*.

Joyce, Rosemary A. 2002. *The Languages of Archaeology*. Oxford: Blackwell.

Kemal, Salim and Gaskell, Ivan (eds) 1991. *The Language of Art History*. Cambridge: Cambridge University Press.

Salager-Meyer, Françoise 1994. I think That Perhaps You Should: A Study of Hedges in Written Scientific Discourse. In Miller,

Tom (ed). *Functional Approaches to Written Text: Classroom Applications*. Washington, DC: US Information Agency, 105-118.

Scott, Michael 2008. *Wordsmith Tools Version 5.0*. Liverpool: Lexical Analysis Software.

Stig Sørensen, Marie Louise / Carman, John (eds) 2009. *Heritage Studies: Methods and Approaches*. Oxford: Routledge.

Swales, John 2004. *Research Genres*. Cambridge: Cambridge University Press.

Tucker, Paul 2003. Evaluation in the Art-Historical Research Article. *Journal of English for Academic Purposes* 2: 291-312.

Tucker, Paul 2004. Evaluation and Interpretation in Art-Historical Discourse. In Del Lungo Camiciotti, Gabriella / Tognini Bonelli Elena (eds). *Academic Discourse: New Insights into Evaluation*. Bern: Peter Lang, 161-179.

UNESCO. *UNESCO Draft Medium Term Plan 1990-1995*. Available at <http://www.unesco.org>. Last accessed: March 2012.

CHIARA DEGANO

Texture Beyond the Text: Slides and Talk in Conference Presentations

1. Introduction

Despite their pervasiveness in institutional communication, Power Point (PPT) presentations are still an under-investigated area of academic discourse, even less so from a linguistic perspective. While a flourishing practical literature exists, which enthusiastically extols the virtues of this technology, promising to teach how to deliver stunning presentations, scholarly contributions have generally expressed concern for the negative effects that slides risk having on the transmission of knowledge. Namely, what critics of PPT criticize is a reduction of the complexity of thought, fragmentation of reasoning and an excessive concentration of information (Tufte 2003). On the other hand, defenders of the technology contend that these allegations are not supported by an appropriate analysis of the speech situation. From this perspective PPT presentations are multimodal performances made up of slides and speech together, as well as body language. A performance in which the flow and richness of speech compensates for the impoverishment and fragmentation of information that slides alone would entail (Knoblauch 2008).

This chapter sets out to analyse visually supported conference presentations as a genre of its own, with a view to describing how slides and speech contribute, respectively, to the communicative event as a whole, with special regard to the construction of global coherence, which is here assumed to compensate for the fragmentation of reasoning. The focus will be on the linguistic and discursive strategies used to enhance the sense of 'texture' which was traditionally central for the definition of texts (de Beaugrande /

Dressler 1981) and is here extended to a hybrid genre, the PPT presentation, involving 'immediate interaction' and a 'technologically mediated' element (Knoblauch 2008). In particular, this chapter aims to answer the following research questions: How do slides and speech respectively contribute to the communicative event as a whole? How can global coherence be enhanced?

The qualitative analysis, reported here is carried out on a sample of papers presented at an international conference, collected by the group of English linguists at the University of Milan, which includes audio recordings with the respective PPT presentations.

2. Literature review

Slideware presentations have been the object of research from different perspectives, ranging from information design (Tufte 2003), to cultural sociology (Knoblauch 2008), from genre analysis (Yates/Orlikowsky 2008) to LSP (Garcia Negroni / Ramirez Gelbes 2008). While the authors of some studies of PPT take strong positions against it (Tufte being its most famous detractor), others simply consider its diffusion as an irreversible process, which is worth investigating for the impact it has on communicative practices. Tufte's well-known criticism of PPT rests on the risk of a segmentation of thought produced by the slides, which arbitrarily chop reasoning into slides, generating the false impression that "each elaborate architecture of thought always fits on one slide" (2003). Within slides multi-level hierarchies of bullet points form overcomplicated chains of meaning, in which important explanations can be 'filtered out' if they do not fit the bullet-list frame.

It is to be noted, though, that Tufte's argument was directed particularly against cases of technical reports (e.g. NASA engineering reports) circulated exclusively in PPT format, without the live performance that this technology was originally designed to support. This point is clearly made by Knoblauch (2008), who, far from taking

position for or against it, acknowledges that PPT is one of the 'paradigmatic genres of knowledge society', and stresses the importance of considering presentations in their entirety, i.e. as a complex hybrid genre made up of slideware, speech and body language (especially pointing). If it is true that existing design options are quite standardized (bullet points, diagrams, etc) – a reflection of the corporate culture from which PPT originated – it is talk and body performance that have to compensate for design constraints. PPT presentations should more accurately be conceived then as "hybrid performances that link a text and visual deck prepared in advance with fresh talk that is enacted situationally by performative means" (Knoblauch 2008: 90). On a similar footing, Campagna (2009) focuses on interactivity as a possible strategy to obviate the problem of the standardization of thought made likely by PPT design constraints.

Other scholars, assuming that PPT is simply here to stay, have started to investigate how viewers' cognitive processing of the information may be enhanced through PPT slides. Alley / Robertshaw (2004) and D'Angelo (2010) suggest, for example, that using an assertion-evidence structure, with complete sentences instead of phrases in the headline, reduces the risk of fragmentation of thought, revealing more immediately how the current slide fits in the presentation's more general flow of reasoning. This latter approach is more in line, and offers greater possibilities of integration, with studies of spoken academic genres, which consider conference presentations from the point of view of the peculiarities of 'information packaging', in speech, as opposed to writing. Rowley-Jolivet and Carter-Thomas (2005), for example, drawing on previous research on speech vs written characteristics (Chafe / Danielewics 1987, Halliday 1985), focus on strategies of information flow and the ensuing syntactic choices, with a view to assessing the rhetorical appropriateness and effectiveness of conference presentations.

3. Methodological framework

The existing literature on PPT presentations does not as yet provide all the necessary tools to answer the research questions asked in this chapter, as researchers are still pretty much in the stage of raising issues, (and analysing data) rather than providing solutions. Therefore this study will rely on a methodological framework that includes tools borrowed from different disciplines, namely cognitive linguistics, text linguistics and functional grammar. The former provides theories of text comprehension geared to account for the inferences generated by readers in the process of constructing a situational model of what a text is about,[8] a fundamental contribution in this sense coming from the constructionist theory of text comprehension (Kintsch/van Dijk 1978). This orientation is based on the *search-after-meaning* principle, according to which readers attempt to construct a meaningful referential situation model that addresses the reader's goals (i.e. the motives which triggered interest in the text at issue), that is coherent and that explains why actions, events and states are mentioned in the text. Such a search for meaning is "bidirectional", on account of the prospective and retrospective nature of texts, respectively prompting the reader to look forward to the end while at the same time looking back to information previously provided in the text and to his/her general background knowledge. Scholarly attention for these aspects started in the seventies, with a specific interest for written texts, but the debate around them is still going on (Graesser *et al.* 1994 , Chuy / Rondelli, 2010).

Text linguistics (TL), on the other hand, provides insights into the standards of textuality (de Beaugrande / Dressler 1981), some of

1 This strand of research is mainly concerned with reading, but the assumption here is that some of the tools employed by cognitive psychologists can in fact be put to use also for the analysis of hybrid genres in which reading combines with the listening modality. In actual fact, a similar approach has already been applied to mixed communicative events, such as consecutive translation, which entails listening, summarising (in written form) the content of the original input and rendering it in the target language (Garzone *et al.* 1990).

which are text-internal (cohesion and coherence), others text-external, concerning variables like the participants (intentionality and acceptability), the context (situationality and informativity) and background knowledge (intertextuality). Also relying on a cognitivist component, text linguistics can help account for the linguistic and extra-linguistic factors on which the generation of inferences depends, thus profitably complementing cognitive theories of text comprehension with more in-depth language awareness. When engaging in processes of text de-codification, whether in written or oral communication, the *search-after-meaning* quest is assisted by linguistic cues that signal mutual relations among smaller units of meaning, relations forming that 'texture' which underpins the distinction between texts and non-texts. Drawing on the text linguistics tradition the main constitutive elements of texture are mechanisms of cohesion and coherence, (de Beaugrande / Dressler 1981: 3-4, but cf. also Halliday / Hasan 1976) where the former refers to "the way in which the components of the surface text, i.e. the actual words we hear or see, are *mutually connected within a sequence*" while the latter "concerns the way in which the components of the textual world, i.e. the configuration of concepts and relations which underlie the surface text, are *mutually accessible* and *relevant*". While de Beaugrande and Dressler's approach considers standards of textuality per se, not in relation to specific textual realizations, other strands of research focus on structures of meaning from the point of view of identifiable cognitive 'formats'/matrixes. Werlich's (1983) text grammar, for example, identifies five text forms – description, narration, exposition, argumentation and instruction – which originate from different cognitive processes. On the other hand, research on textual patterns (cf. among others Hoey 1994, 2001 and McCarthy / Carter 1994) identifies three broad categories of cognitive structures which are pervasively used across text types: *problem-solution*, c*laim-counterclaim* and *general-specific*. Once the reader has identified one of the patterns he is familiar with, his background knowledge will help him to draw inference on how the single components of the message should be put into a relation of mutual relevance.

If these observations, originally referred to written texts, are brought to bear on PPT presentations, it results that the receiver must

be able to make sense of each slide in terms of local coherence (i.e. among the elements within the slide) and global coherence, i.e. with regard to the slides coming before it in the linear sequence imposed by PPT technology/design, but also at the superordinate level of textual macrostructure. The following section will analyse how global coherence is created in two PPT presentations, both belonging to the realm of academic spoken discourse, though representing different genres. The first one was devised as a support to a lecture delivered to graduate students, on the topic of medical communication. The second one is a conference presentation on institutional discourse. While the differences between the two cases have been taken in due consideration, they will not be discussed at length, as genre specificities do not fall within the scope of the present analysis.

4. Analysis

The analysis will consider first the classroom presentation, and then the conference presentation, focusing on mechanisms which, in each case, enhance or hinder coherence.

4.1. The classroom presentation (Case 1)

The title of the first presentation,[9] 'The role of communication across the continuum of cancer care', envisages a typically expository pattern, even though the unfolding of the presenter's speech reveals also a vaguely argumentative drive, meant to convince the audience of the relevance of communication in cancer care. The initial sequence of slides is represented in Figure 1.

2 The lecture was addressed to students of the BA Degree course in Language and Cultural Mediation at Milan University as part of a course on LSP with a focus on scientific English.

Figure 1. Sequence of slides from Case 1.

In slide 1 the verbal content, which occupies the title position, comes in the form of a full sentence ("Health communication research can help reduce cancer risks, incidence, morbidity and mortality, & improve quality of life"), thus activating the frame of 'a statement + supporting evidence' macrostructure. This induces the audience to expect that what follows will explain how it is the case that health communication research can impact cancer care. Slide 2 establishes a lower level of structure for the presentation, namely analytic, by which the concept of cancer-care communication is analyzed into its different components (prevention, detection, diagnosis, treatment,

survivorship, end of life). Incidentally, it must also be noted that the sequence is organized in chronological order, with prevention coming before detection, which in turn precedes diagnosis and so on. Both the analytic and the chronological structures are easily recognized by the audience, who then has a threefold scaffolding (statement/supporting evidence, analytic and chronological) which provides global coherence to the presentation. Once the superordinate textual macrostructure has been attended to, coherence within the sequence of slides is created through lexical cohesion, and more specifically through repetition of the exact words used in the continuum care (slide 2) within the headlines of the successive slides. Slide 3 features the title 'Communication for effective cancer *prevention*', while the slide 4 headline revolves around the word *detection* ("Communication for early *detection* of cancers"), coming next in the care continuum.

A comment is in order also on the information structure (Halliday / Matthiessen 2004). Comparing slides to clauses, headlines 3 and 4 – both exploiting a repetition with variation pattern –[10] come in the theme position and contain given information, as the audience, thanks to the care-continuum slide, knows that the speaker is going to be talking about prevention first, and detection afterwards. In this way the headline provides anchorage to the global design, while the body of the slide features only a streamlined list of the topics that will be dealt with orally, without further expanding on them in writing.

4.2. The conference presentation (Case 2)

Coming to the second example taken into account, the presentation – delivered at a conference in Applied Linguistics – concerns an analysis of a particular genre of institutional discourse, i.e. NGOs' annual reports. The presentation starts with a general definition of the genre, which will not be discussed here, and then moves on to illustrating the methodological approach, extending over a sequence

3 In this chapter the term 'pattern' is not limited to the highly common textual patterns identified among others by Hoey (cf. §3), but refers to all sorts of structural regularities imposed by the author on the slides.

of slides, which will now be considered in details. Attention will first be drawn to the slides' headlines (listed below), with a view to highlighting the presentation's macrostructure.

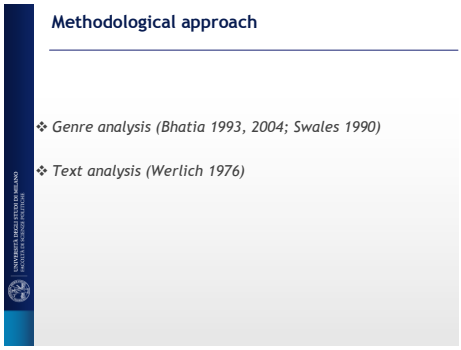
Slide 5. Methodological approach
Slide 6. Context and genre
Slide 7. Context and genre
Slide 8. Communicative purposes
Slide 9. Genre mixing and embedding
Slide 10. S. reports – Philanthropic fundraising discourse
Slide 11. Text analysis

Differently from Case 1, the presentation reflects in part the structure of the written genre from which it originates, i.e. the research article. However only some of the headlines fit in the traditional IMRD structure (or its variations), as is the case for 'methodological approach' and 'analysis'. The other headlines, which make perfectly sense at a local level (within the slide), are not so easily accommodated within the IMRD mental model which the audience is induced to expect on the basis of the background knowledge of the genre.

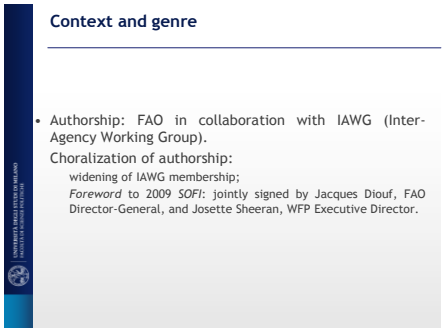
This list of extrapolated headlines also leads to another consideration concerning the relation between presentations' design constraints and their logical organization. The headlines' graphics, i.e. position in the slide, colour and size, associated with the sequentiality of PPT, which makes each slide a self-contained unit juxtaposed to others on an ideal horizontal line, suggests that all the slides stay in a sort of paratactic relation with each other, with no evident hierarchical structure. In actual fact, this is not the case, as revealed by the speech that accompanies the slides, which is displayed below in correspondence with the relevant slide (Figure 2).

As suggested by the script featured next to the slides, the problem does not seem to be that the presentation lacks global coherence. The talk accompanying the slideware is in fact highly cohesive and coherent, with relations between key concepts featured in the slide made explicit by a number of discursive and metadiscursive devices (in italics), meant to help the audience follow the flow of speech. Among them are textual metadiscourse (*As*

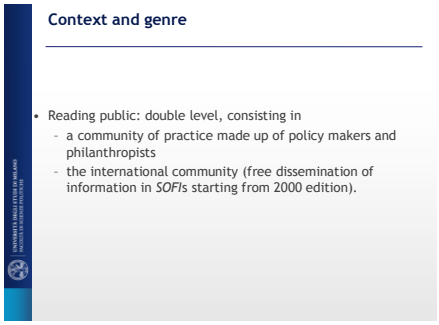
regards), discourse markers expressing causality (*because*, *on the basis of*), numerical introductions (Werlich 1983: 55) with related sequence forms (*There are two…. One…, the other*….). The problem seems rather that the slides fail to highlight global coherence, or are even deceptive in this respect, suggesting, as mentioned before, linear sequentiality among them, rather than a complex hierarchical architecture.



The methodological approach adopted rests on Bhatia's works, on Swales' work on genre analysis, and also on the text grammar published by Werlich in 1976 for text analysis [no slide]. *First of all* I consider context, *because* that is fundamental for the definition of genre. *So* I focused on authorship, and readership and *then* fundamentally on the communicative purpose of these reports.

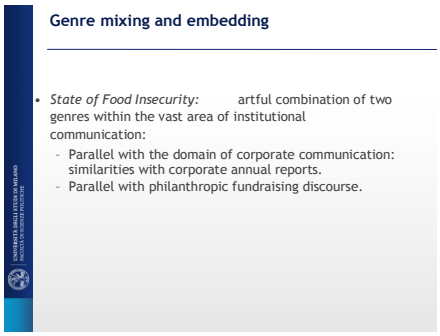


As regards authorship, X actually worked in collaboration with Y and the membership of this group increased over the years, *so that* I noticed a choralization of authorship, till the authorship really turned to a global voice, and *indeed* the last edition is signed by the X's Director General and Y's Executive director, *showing how* authors are no longer one organization or group, rather the world community

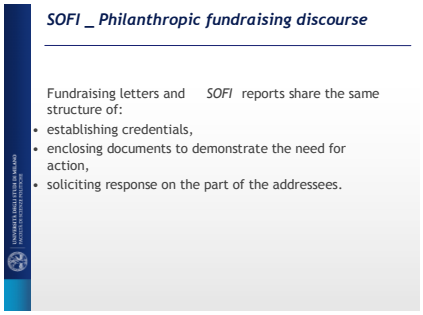


And also the reading public is ideally the world community. *There is a double* level of reading public. *One* is the community of practice which originated the report themself, *therefore* politicians, philanthropists, all human beings concerned with this cause, *but also* the international community at large is implied as the readers of these reports. *And indeed* there was an interesting shift from the first edition, in 1999 and the subsequent ones […].

Then I focussed on the communicative purposes of S. *There are two* communicative purposes underlying these reports: *One* is the circulation of data […] and *the other* is calling the world to arms in the battle against under-nutrition and starvation.



On the basis of the set two aims, these communicative purposes, *I drew two parallels*, *one* with the domain of corporate communication, *because* I think there are similarities with corporate annual reports, *basically because* they tell about the results of the past year. *And* I drew *another parallel* with philanthropic fundraising discourse, *in that* both S-reports and fundraising letters are aimed at soliciting a response in the readers.



Actually I identified three moves that are typical of the fundraising letter, as identified by Professor Bhatia, I found these three moves also in the S- reports […].

Figure. 2. Sequence of slides from Case 2 explaining the methodological framework.

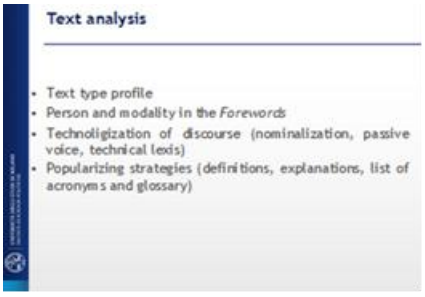
In light of the spoken comment the structure of the presenter's reasoning can be more faithfully represented as follows:

1. Methodological approach
   - 1.1 Context and genre *(As regards authorship…)*
   - 1.2 Context and genre *(and also the reading public…)*
   - 1.3 Communicative purposes *(Then I focussed on the communicative purposes…)*
     - 1.3.1. Genre mixing and embedding *(On the basis of these two purposes I drew two parallels: one with corporate annual reports, the other with philanthropic fundraising discourse.*
       - 1.3.1.1. S. reports - Philanthropic fundraising discourse
2. Text analysis

Such a representation of the relations between the different discourse components signals at a glance that the reasoning is organized on a complex multilayered structure, with the first point, i.e. *Methodology*, being on the same footing as point 2, *Analysis*, while the headlines in between represent subpoints of the former. More specifically, the methodological approach, which in this case is grounded in genre theory, sets the scope and direction of reasoning: starting from the context, an almost mandatory starting point in genre analysis, the speaker first considers the participants involved in the communicative exchange (orally referred to as 'authorship' and 'reading public'), devoting to each of them a single slide, headed *Genre and context*.

Then she addresses another fundamental category for genre analysis, i.e. the communicative purpose, which is in this case multiple, as signalled by the plural in the headline (*Communicative purposes*), and made explicit by talk, with the speaker mentioning two communicative purposes. The oral comment also reveals that the slide titled '*Genre mixing and embedding*' is a sub-point of the slide '*Communicative purposes*', as pointed out by the anaphoric reference 'these two purposes'. On the basis of the two communicative purposes, the speaker establishes a relation between the object of her analysis and two consolidated genres, belonging respectively to corporate and philanthropic discourse. The latter is then referred to through lexical repetition in the subsequent slide 'Philanthropic fundraising discourse', which thus in turn qualifies as a sub-point of the slide 'communicative genre and embedding'. Such a complexity in the presentation's structural organization is completely levelled out in the slides, which thus provide the audience with a streamlined script of what is being said at any moment, but offer hardly any help in the generation of inferences which is crucial for reconstructing global coherence.

The discussion of Case 2, has so far concentrated on the exposition of the methodological approach, where, despite the levelling of structural complexity determined by PPT's design constraints, coherence is partly granted by shared knowledge between the speaker and the audience about the categories of genre analysis, and further enhanced by talk. In the presentation's subsequent section, i.e. textual analysis proper, the picture is quite different. The new section is introduced by an 'agenda' slide, a great favourite in 'How-to' tutorials on PPT, whereby the presenter illustrates the contents coming next in the form of a bullet-point list.



I started with text analysis, after this determination of context, first of all by considering the text-type profile, the text types which are found in the reports […]. Then I analysed through the categories of person and modality some linguistic features in the Forewords. […] Then I considered the variety of the English used in the reports, and I noticed that there is a progression towards technologisation of discourse, coupled with the adoption of popularizing strategies.

Figure 3. Sequence of slides from Case 2 introducing the analysis.

In line of principle this feed-forward should favour cognitive processing of the message on the part of the audience, who in this way can prospectively formulate expectations, as well as retrospectively collocate the pieces of information in a broader frame as the presentation proceeds. But in actual fact, is it certain that the receiver is able to recall the agenda after the slide has gone? The literature on inference generation holds that recognizable patterns are those which require the least effort on the part of the receiver, as pointed out by Graesser *et al*. (1994: 374):

> Background knowledge structures are activated through pattern-recognition processes by explicit content words, combination of content words, and interpreted text constituents. When a background knowledge structure is very familiar and therefore overlearned, much of its content is automatically activated in working memory (WM) at very little cost to the processing resources in WM.

On this ground, it is here suggested that for an agenda slide to provide effective anchorage, it must be easily recognized and recalled by the audience. In spite of an unusual layout for an agenda slide, the cancer care continuum discussed with regard to Case 1 is an example of this point, being structured on a chronological sequence which is already familiar to the audience, and therefore retrievable without excessive

effort during the process of online inference generation. The agenda slide in Case 2, reported above, on the other hand, cannot be associated with any familiar pattern, containing all new information, whose storage in WM and subsequent activation at any change of slide is not an effortless process. Therefore, if in the case of the cancer care continuum the presenter can move on to the new slide simply saying "for what concerns the role of communication in prevention", taking for granted that the audience will be able to grasp the rationale behind this logical shift/passage, this is not the case with the agenda slide shown in Figure 3. Here, if the speaker comments on the transition to a new point in the agenda with the analogous expression "as for the categories of person and modality", he treats it as fitting in a pre-set scheme, which is already familiar to the audience, while in fact this may not be the case. The list of points introduced in the agenda slide do not activate any recognizable pattern in the audience's working memory, and consequently require an excessive effort for online processing, which can disrupt the attempt to create a meaningful mental model at the highest level of representation. If this happens, the receiver will only be able to construe a coherent representation of what the speaker says at a local level, missing the relation with the global design.

5. Conclusions

Vis-à-vis the criticism often levelled at PPT of fragmenting and impoverishing reasoning, this chapter has focused on the impact of PPT's affordances on the construction of 'textual' coherence, and eventually on comprehension. In order to do so, insights have been borrowed from models of written text comprehension developed within the field of cognitive linguistics, as well as functional grammar and text linguistics. After a preliminary examination of a larger sample, in-depth analysis of two PPT presentations has led to the formulation of some observations, which far from claiming exhaustiveness, are meant to frame the issue of PPT processing in a

linguistics-based perspective. The analysis has confirmed that fragmentation of reasoning is a likely effect of slide-assisted presentations, due to concurring factors, among which there is the impression of linearity created by PPT design constraints and information density. The former risks flattening out logical relations which are in fact hierarchically structured, creating an illusion of simplicity where reasoning is in actual fact complex, as is often the case in academic discourse, while the latter, favoured by PPT affordances, may result in an overload of information which the audience cannot process at the fast pace imposed by the presenter, especially if the content is not organized on the basis of a familiar mental model. Adding to this, the analysis has revealed a risk of circularity, owing to the very fact that when new content is introduced by a new slide, the presenter feels entitled to start talking about it, without making the logical connections with the previous slide explicit. If such an implicit transition can be justified with easily recognisable mental models, this might not be the case with uncommon textual patterns.

These risks can be limited by strategic synergy between text and talk. The analysis carried out here suggests that presentations can be followed more easily if the slides function as a scaffolding frame aimed at providing global coherence, rather than as a written version of the presenter's speech, which would end up contending the attention of the audience. In this respect headlines play a crucial role, as they have the chance of tying the upcoming slide to the foregoing discourse as well as to the macrostructural design of the presentation, allowing the receiver to form a mental model at the highest level of meaning. It is then for talk to provide the 'flesh', elaborating on the streamlined points featured in the body of the slide, while at the same time reinforcing the nexus of inferences prompted by the slides.

References

Alley, Michael / Robertshaw, Harry 2004. Rethinking the design of presentation slides: creating slides that are readily comprehended. *Proceedings of the ASME International Mechanical Engineering Congress*, November 13-19. Anaheim: California, 1-6

Campagna, Sandra 2009. Projecting Visual Reasoning in Research Conference Presentations. In Gotti, Maurizio (ed.) *Commonality and Individuality in Academic Discourse*. Bern: Peter Lang, 371 -392.

Chafe, Wallace / Danielewics, Jane 1987. *Properties of Spoken and Written Language*. Berkeley, CA: Center for the Study of Writing.

Chuy, Auteurs Maria / Rondelli, Fabienne 2010. Traitement des contraintes linguistiques et cognitives dans la construction de la cohérence textuelle. *Langages* 177/1, 83-111.

D'Angelo, Larissa 2010. Power Point Presentations: Re-evaluating the Genre. In Garzone, Giuliana *et al*. (eds) *Diachronic Perspectives on Genres in Specialized Communication.* Conference Proceedings. Milano: CUEM, 61-63.

de Beaugrande, Alan / Dressler, Robert [1]1981, [2]2001. *An Introduction to Text Linguistics.* London: Longman.

Garcia Negroni, María M. / Ramirez Gelbes, Silvia 2008. Handout, PowerPoint y ethos académico: a propósito de los epitextos de la ponencia científica. *Revista Internacional de Lingüística Iberoamericana* 6/2 33-49.

Garzone Giuliana / Santulli, Francesca / Damiani, Daniela 1990, *La terza lingua. Metodo di stesura degli appunti e traduzione consecutiva*. Milano: Cisalpino.

Graesser, Arthur, C / Singer, Murray / Trabasso, Tom 1994. Constructing Inferences During Narrative Text Comprehension. *Psychological review* 101/3, 371-395.

Halliday, Michael A. K. 1985. *Spoken and Written Language*. Geelong, Australia: Deakin University Press. Re-published in 1989 by Oxford: Oxford University Press.

Halliday, Michael A. K. / Hasan, Ruqaiya 1976. *Cohesion in English.* London: Longman.

Halliday, Michael A.K. / Matthiessen, Christian M.I.M. [3]2004. *An Introduction to Functional Grammar*. London: Arnold

Hoey, Michael [1]1994, [2]2001. Signalling in Discourse: A Functional Analysis of a Common Discourse Pattern in Written and Spoken English. In Coulthard, Malcolm (ed.) *Advances in Written Text Analysis*. London: Routledge, 26-45.

Hoey, Micheal 2001. *Textual Interaction: An Introduction to Written Discourse Analysis*. London: Routledge.

Kintsch Walter / van Dijk, Teun A. 1978. Toward a Model of Text Comprehension and Production. *Psychological Review* 85/5, 363-393.

Knoblauch, Hubert 2008. The Performance of Knowledge: Pointing and Knowledge in Powerpoint Presentations. *Cultural Sociology* 2/1, 75-97.

McCarthy, Michael / Carter, Ronald 1994. *Language as Discourse: Perspectives for Language Teachers.* New York: Longman.

Rowley-Jolivet, Elizabeth / Carter-Thomas, Shirley 2005. Genre Awareness and Rhetorical Appropriacy: Manipulation of Information Structure by NS and NNS Scientists in the International Conference Setting. *English for Specific Purposes* 24, 41-64.

Tufte, Edward R. 2003. *The Cognitive Style of Power Point*. Cheshire, CT: Graphics Press LIC.

Yates, JoAnne / Orlikowsky, Wanda 2007. The PowerPoint Presentation and its Corollaries: How Genres Shape Communicative Action in Organizations. In Zachry, Marc / Thralls, Charlotte (eds), *The Cultural Turn: Communicative Practices in Workplaces and the Professions*. Amityville, NY: Baywood, 67-92.

Werlich, Egon. 1983. A Text Grammar of English. Heidelberg: Quelle and Meyer.

PATRIZIA ARDIZZONE / GIULIA A. PENNISI*

Epistemic Modality Variation in Community Law Journals

1. Introduction

Over the last decades the attention of scholars working in the field of academic discourse has been directed towards language variation, and academic writing is no longer considered as a consistent and homogeneous form of discourse (Hyland / Bondi 2006). The importance traditionally given to the consensual and static aspects of disciplinary communication has been coupled with the emphasis increasingly placed upon the analysis of interactions/practices/ activities typical of various discourse communities (Hyland 2000; Del Lungo Camiciotti / Tognini Bonelli 2004; Bambford / Bondi 2005). From a sociolinguistic perspective, genres have been described as 'dynamic rhetorical structures' that can be manoeuvred according to the discipline's norms, values and ideology, which increasingly vary as disciplinary knowledge created by discourse communities changes (Swales 1990; Hyland 2004, 2009). This is all the more evident in the legal field, where 'procedural knowledge and social knowledge' (Bakhtin 1986; Brown *et al*. 1989; Bhatia 2002, 2004; Bhatia *et al.* 2003, 2008) play a key role in the acquisition and deployment of genre knowledge as part of academic writers' participation in their 'profession's knowledge-producing activities' (Swales 1990; Hyland 2004, 2005; Berkenkotter / Huckin 2005). Starting from the assumption that texts are "socially produced in particular communities

---

* While both authors are responsible for the design of this study and have co-revised the paper, Patrizia Ardizzone is responsible for sections 1 and 5, and Giulia Adriana Pennisi for sections 2, 3 and 4.

and depend on them for their sense" (Hyland / Bondi 2006: 8) we may infer that by studying the ways academics communicate, we learn more about how "knowledge is constructed, negotiated and made persuasive" (Hyland / Bondi 2006: 8).

The role of hedging devices in academic discourse has received increasing attention in the last few decades (Myers 1989; Salager-Meyer 1994; Coates 1995; Hyland 1996, 1998; Nuyts 2001; Vold 2006a). Epistemic assessment of the information conveyed, as Vold (2006b: 225) writes, represents "a crucial dimension of academic discourse, because academics engage in the transferring and construction of knowledge. Not only is epistemic modality used to accurately convey the status of knowledge, it is also used for purposes of persuasion and negotiation".

The aim of this chapter is to explore the use of epistemic modality markers in a selection of issues of four international legal journals dealing with Constitutional and Public Law and Administration, written in English and published between 1990 and 2010. In particular, emphasis will be given to the emerging Constitution of the European Community/Union and the interplay between law and politics.

The recognition of a 'European common core' and the realization of the concept of an EU constitutional identity is a case in point. Since the late 1990s the discourse on the relationship between EU and its Member States has changed significantly, and the path towards European integration has been marked by a series of Treaty revisions (Robertson 2005). Specialists in the area observe that the need to reinforce the basis of legitimation of translational governance in substantial ways and to limit the competence of the European Union in relation to the Member States finds expression in the European constitutional experiment (Falkner *et al.* 2005; Fligstein 2008; Gerring / Thacker 2008; Kraus 2008). Yet, notwithstanding the socio-cultural changes that have recently affected the legal categories of constitutional domain (i.e. democracy, the rule of law, subsidiarity, universality and indivisibility of human rights and fundamental freedoms) allowing for the recognition of a 'European common core'

(Kraus 2008), the concept of an EU constitutional identity still remains a culture-sensitive/context-bound issue (Bhatia *et al.* 2008).

Starting from the generally agreed assumption (Hyland 1998; Nuyts 2001; Vold 2006a, 2006b) that epistemic assessment of the information conveyed is a significant aspect of academic discourse, the present work focuses on the differences and similarities in the use of a number of selected markers in the texts included in the corpus from a diachronic perspective. The aim is to understand the rhetorical organisation and the argumentative strategies deployed by disciplinary actors in response to the changing emergent community's norms and ideology.

2. Data

The material for this study comes from a corpus of forty academic research articles dating from 1990-2010 comprising 830,274 words. More specifically, all articles are taken from prestigious refereed journals:

- Ten articles are from the *Oxford Journal of Legal Studies* (*OJLS* – 276,543 *words*), a journal which deals with all matters relating to law with an emphasis on matters of theory and on broad issues such as comparative and international law, the law of the European Community, legal history and philosophy;
- Ten articles are from the *Cambridge Law Journal* (*CLJ* – 219,01 *words*), a journal which lays special emphasis on contemporary developments in jurisprudence and legal history;
- Ten articles are from the *European Law Journal* (*ELJ* – 132,215 *words*), a journal dealing mostly with the understanding of European law in its social, cultural, political and economic contexts;
- Ten articles are taken from the *Common Market Law Review* (*CMLR* – 202,506 *words*), a journal bringing an in-depth examination of a number of issues concerning European Union

> Law such as the development in market deregulation, the EU/WTO[11] relationship, telecommunication, E-commerce and European Union Law in Courts.

Although *CMLR* is primarily concerned with economic issues, all journals in the corpus have been selected on the basis of their subject, that is the emerging Constitution of the European Union. The imbalance between sub-corpora sizes is due to the journal policies and the corresponding stylistic preferences. Therefore, our analysis will be based mainly on relative frequencies rather than absolute numbers.

3. Methodology

3.1. Epistemic assessment of the information conveyed

Since the 1970s, research into academic discourse has consistently grown with greater attention devoted to such issues as academic speech and writing, as well as the rhetorical strategies and syntactic forms of larger samples of texts (Huddleston 1971; Kent 1991; Biber *et al.* 1999; Hyland 2004). Given the fact that "the boundaries of scholarship are progressively shifting and dissolving" (Hyland 2009: 59), the identification of community differences has drawn attention to the need for more work on disciplinary variation in academic writing, taking into consideration aspects of the discoursal conventions and modes of persuasion that characterize academic communities and create notions of disciplinary culture. Successful academic discourse(s) depend(s) on the individual's ability to project a shared

1 The European Union (EU) is the world's largest trading block, which makes it one of the key players in the World Trade Organisation (WTO). In the WTO, the European Commission negotiates on behalf of the 27 countries of the European Union. The EU supports the work of the WTO on multilateral rule-making, trade liberalisation and, sustainable development (<http://ec.europa.eu/trade/creating-opportunities/eu-and-wto/>).

professional context (Swales 1990; Bhatia 1993; Hyland 2009), and the concept of 'discourse community' (Wells 1992; Swales 1998; Blommaert 2005; Wodak / Chilton 2005) helps to conceptualize the expectations, conventions and practices which influence communication in each academic field (Swales 1990). As Hyland (2009: 13) observes,

> [L]anguage can never be divorced from those who use it: it can never say everything that needs to be said nor ever fully elaborate its context. Writers must assume readers will possess some background understandings and beliefs, while readers must always integrate linguistic and contextual assumptions to recover relevance and meaning from a text. The protracted disputes over legal contracts, for example, illustrate the difficulties of establishing fixed meanings from even the most explicitly written texts. Simply, the relative impersonality of scientific discourse is not an absence of rhetoric but simply a different kind of rhetoric. While it might seek to remove the author from the text to give priority to the unmediated voice of nature, it is like other persuasive discourses in that it shapes observations and data to produce arguments which are recognizable and meaningful to disciplinary insiders.

Persuasion, therefore, becomes a key element in attesting the author's credibility and involves his/her control of research methodology/-ies and his/her ability to strategically deploy community agreed argument forms.

The role of hedges in academic discourse has increasingly grown in the last few decades. Hyland (2009: 75) defines them as "devices which withhold complete commitment to a proposition, allowing information to be presented as an opinion rather than fact". Hedging devices, therefore, not only imply that a claim is based on credible reasoning but also suggest "the degree of confidence it might be wise to attribute to a claim while allowing writers to open a discursive space for readers to dispute interpretations" (Hyland 2009: 75). Seminal works in this field are those by Salager-Meyer (1994) Coates (1995), Hyland (1996, 1998, 2004) and Varttala (2001). However, relatively few scholars have investigated the use of hedges and epistemic markers in research articles dealing with legal matters. As we will see, the analysis of epistemic modality in legal journal

research articles will provide interesting insights into the types of markers used, their distribution over different parts of the article and the communicative functions that they are supposed to serve.

3.2. Epistemic markers

According to Vold (2006b: 226) "epistemic modality concerns the reliability of the information conveyed, and epistemic modality markers can be defined as linguistic expressions that explicitly qualify the truth value of a propositional content". Epistemic modality, therefore, encodes the author's commitment to the expressed propositions and the assessment of their probability (Warchal 2008). In her cross-linguistic study of epistemic modality in written scientific discourse across disciplines, Vold (2006b) considers epistemic modality markers those which qualify the truth value of a certain propositional content and are lexico-grammatical units. The present study is based on these assumptions and markers have been coded according to their meaning in the specific/particular context(s). Furthermore, since the present work is concerned with the hedging effect of epistemic modality, expressions of certainty have not been included (see 1 and 2), whereas modalization of reporting frameworks has been included as well as passive forms (see 3 and 4) as illustrated in the following excerpts taken from the journals included in our corpus:

(1) Since the success of the Internal Market project, setting a timetable for its completion, the EU has *perhaps* learnt to restrict its strategies to within defined time scales. (*CLJ*-2001, our emphasis, as in all the examples in the text)

(2) In this sense, the Commission was *perhaps* nearer the mark right back in 1972 when it presented its proposals for the first labour law directive in this area: economic integration, and the accompanying progressive interdependence of national markets […]. (*OJLS*-2003)

(3) *It might be assumed* that Britain participated actively in the 'birth' of the European Union. (*CLJ*-2008)

(4) While the existence of a dual perspective on the supremacy issue *may be interpreted* in the light of the theory of 'constitutional pluralism', the normative ambivalence surrounding supremacy and sovereignty can better be viewed as part and parcel of the European Union's federal nature. (*CMLR*-2009)

The next section illustrates the research findings and explores the semantic properties and communicative functions that the selected markers serve in the examined papers.

4. Research findings

4.1. Semantic properties of markers

The analysis of the research articles included in our corpus has revealed that in addition to the modal verbs *may* and *might*, lexical items were the most frequent markers of epistemic modality. Overall, *may* was the most frequent, followed by *assume*, *appear*, *seem*, *perhaps*, *indicate* and *could*. *Possible* and *probably* were also included because they are often considered to be typical markers of epistemic modality. More specifically, *assume*, *seem*, *appear* are quite subjective verbs "in the sense that they, by their semantics, presuppose a modalizing agent (Vold 2006b: 234). In particular:

- *assume* belongs to a group of markers which Nuyts (2001) defines 'mental state predicates' and 'these are inherently subjective as they reflect a 'subjective cognitive activity' (Vold 2006b: 234; Varttala, 2001: 122);
- *seem* and *appear* are semi-auxiliaries which also involve a personal evaluation although the source of the evaluation in most cases remains implicit;
- *seem*, *appear* and *assume* may be used to express conclusions in a cautious manner (Vold 2006a, 2006b).

The examples below are emblematic of this tendency:

(5) However, *there appears to be* a wide - although not too scientific - consensus in legal literature that besides population, really small size is what makes a country a full-fledged micro-state. (*ELJ*-2008)

(6) Whatever liberal interpretation one may care to make, *it seems clear that* general school education is not covered by the definition of 'vocational training' except that part of school education which consists of vocational training courses […]. (*CLJ*-1994)

(7) And yet, a careful look at the European agencies' powers suggests that the link between control instruments and European agencies' functional needs is less certain than *one might assume.* (*CMLR*-2009)

May, might, could, possible refer to the notion of possibility and can be taken simply to state an eventuality, without presupposing a specific modalizing agent. They serve to disguise the source of the evaluation. In other words, the eventuality that they express can be understood as an objective rather than a personal judgement of the truth value of the information expressed by the proposition (Salager-Mayer 1994; Hyland 1998, 2001, 2004; Varttala 1999, 2001; Nuyts 2001; Vold 2006a, 2006b). In particular,

- *may, might, could, possible* express possibility and can be used to disguise the source of evaluation giving an impression of objectivity (Hyland 2001; Vold 2006a, 2006b);
- *possible, probably, perhaps* are typical markers of epistemic modality and can be seen as intrinsically epistemic.

The examples below show these functions:

(8) In the perspective of legal and political realism, however, it should be recognized that stable and institutionalized representation of private subject within European agencies presents a number of shadows. *It may give place* to neo-corporative modes of governance, whose effects are far from clear and need clear assessment. While *it may change* the allocation of political authority in institutional frameworks, it does not necessarily keep the promise of more effective administrative decision-making. And there are obvious risks of unequal access of different groups of private subjects, starting with the

basic opposition between non-governmental organizations, and sectors of industry. Thus, *one may wonder* whether the ambitions of inclusive governance *may be better cultivated* through different instruments. (*CMLR*-2009)

(9) This is quite clearly in contrast with many other fields of prospective European fundamental rights, which is why clashes of culture and values *might hinder* ready compromise at the IGC. Despite all the political and legal obstacles, however, it is hard to see how the question of fundamental human and social rights *could be left out* of any constitutional text that aims to serve as a reference point for human identities. (*ELJ*-1996)

(10) Nonetheless, it was clear from the start that the Free Movement of Persons was somewhat different from the other freedoms of movement, for whilst *it is not possible* to discourage a cheese from moving from one country to another, *it is possible* to discourage a person. If the laws and practices of a Member State treat migrant workers and their families any less favourably than they do the nationals of that state, then this could be a powerful disincentive to the exercise of Free Movement rights. (*CLJ*-2001)

(11) This raises some very difficult and politically sensitive issues. Full Free Movement would necessarily require a certain loss of national sovereignty (as regards the decision over which persons shall be allowed to enter a Member State); and *would probably involve* concessions by national governments in what has become one of the most controversial areas of political debate in many Member States. (*OJLS*-2002)

The communicative functions the selected epistemic markers serve in the examined articles will be compared in the next subsections.

4.2. Frequency

Table 1 and Figure 1 list the frequency of the selected markers in normalized terms (calculated per 1,000 words) produced by using *Wordsmith Tools* (Scott 2004) as they occur in *OJLS*, *CLJ*, *ELJ* and *CMLR* respectively.

marker	*OJLS* *ep. occ 1000 w*	*CLJ* *ep. occ 1000 w*	*ELJ* *ep. occ 1000 w*	*CMLR* *ep. occ 1000 w*
may	7.54 (203)	6.55 (178)	13.66 (193)	22.04 (444)
could	3.81 (107)	4.87 (103)	6.2 (80)	11.03 (218)
might	2.3 (78)	2.54 (54)	6.64 (86)	3.28 (78)
possible	1.07 (29)	1.52 (36)	6.11 (76)	4.26 (82)
appear	0.99 (14)	0.53 (15)	1 (12)	0.57 (13)
perhaps	0.44 (11)	0.91 (28)	1.06 (13)	1.5 (40)
probably	0.44 (11)	0.53 (17)	0.67 (8)	1.05 (19)
seem	0.41 (10)	0.39 (12)	1.14 (14)	2.54 (42)
assume	0.24 (8)	0.03 (1)	0.57 (8)	0.22 (5)
indicate	0.15 (5)	0.08 (1)	0.59 (7)	0.12 (3)

Table 1. Frequency of epistemic modality markers in the selected journals.

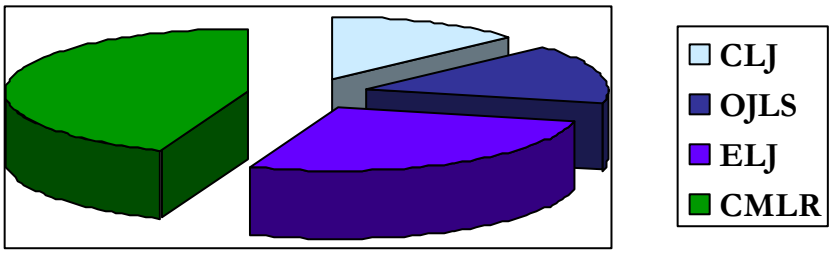


Figure 1. Distribution of epistemic modality markers in the selected journals.

Figure 2 shows the distribution (in terms of percentage) of epistemic modality markers in each journal according to the time span.

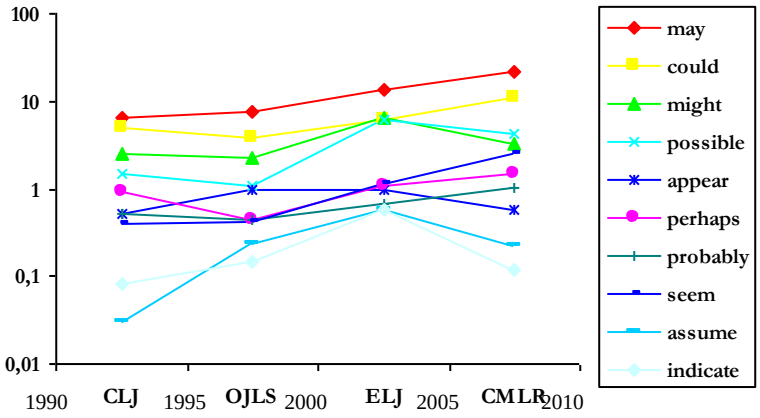


Figure 2. Distribution of selected markers in legal journals over the years.

The analysis suggests that epistemic modality markers seem to be more commonly found in the research journals dealing mostly with:

- the socio-cultural changes that affect the legal categories of constitutional domain (i.e. democracy, the rule of law, subsidiarity, universality and indivisibility of human rights and fundamental freedoms, economic development, etc.),
- the recognition of a 'European common core',
- the idea of an EU constitutional identity,[12]

and which can be recognised from the title of most of the research articles included in the corpus, such as: 'The Treaty of Lisbon: An Ongoing Search for Structural Equilibrium' (*CLJ*-2010), 'European Consumer Law after the Treaty of Amsterdam: Consumer Policy in or beyond the Internal Market?' (*CMLR*-2000), 'Intergovernmental Conference 1996: Which Constitution For The Union?' (*EJL*-1996) and 'Inexplicable Law: Legality's Adventure in Europe' (*OJLS*-2005).

The analysis indicates that epistemic modality markers (and, more specifically, *may*, *might*, *could* and *possible*) seem to be particularly

2 For more details on this issue, see Kraus (2008).

numerous in the research journals published in the period immediately after important institutional and political events in the context of the European Union, and more specifically:

- *The Treaties of Amsterdam and Nice*, signed respectively in 1997 and 2001: particularly evident in *OJLS*, *CLJ* and *EJL* journals from 1996 and 2002.[13]
- *The Draft Treaty establishing a Constitution for Europe* submitted to the EU Council in 2003: particularly evident in all journals from 2002 and 2005.[14]
- The *Treaty of Lisbon* signed on 13 December 2007:[15] the analysis has shown an increase in the use of epistemic markers in all journals from 2008 to 2011.

The analysis also indicates a high frequency of epistemic markers in the research articles from *CMLR*, particularly *may, might*, *could*, *possible* (in addition to *perhaps* and *probably)* which refer to the notion of possibility and can be taken simply to state an eventuality without presupposing a specific modalizing agent. This could be related to the fact that *CMLR* deals mostly with economic issues on European Union Law such as the developments in market deregulation, the single European currency, the EU/WTO relationship,

---

3 Both European Councils (Amsterdam 1997 and Nice 2001) had to deal with particular problematic issues, such as the 'delimitation of powers between the Union and the Member States, the simplification of the treaties, powers/roles of parliaments, and the status of the Charter of Fundamental Rights' (Milton/ Keller-Noëllet 2005).

4 This *Draft* was submitted to the European Council and was intended to repeal with a single instrument all the existing European treaties (about 16 Treaties enacted between the 1951-*ECSC Treaty* and the 2001-*Treaty of Nice*, with the exception of the *Euratom Treaty*). The ratification by all the Member States of the Treaty establishing a Constitution for Europe was necessary for it to become law.

5 This *Treaty* is the result of negotiations between the European Member States in an intergovernmental conference (IGC), in which the Commission and Parliament were also involved. According to their proponents, the Treaty provides the European Union with the legal framework and tools necessary to face the challenges ahead and respond to EU citizens' needs.

E-commerce, and therefore the authors of *CMLR* articles need to present conclusions in a cautious manner. In other words, the eventuality that the authors express should be understood as an objective rather than a personal judgement. The relatively high occurrence of *may, might, could, possible* is all the more evident in the parts of the research articles where authors:

- talk about the possible limitations of the study;
- provide possible explanations;
- put forward hypotheses and present conclusions in a cautious manner (mitigation protects the writer in case, at a later stage if his/her conclusions should turn out to be inaccurate / are belied by facts or new findings);
- present cautious criticism of other researchers, schools, approaches, etc.

The next subsection is devoted to the analysis of these points in more detail, providing examples taken from the selected legal journals.

4.3. Rhetorical organisation and argumentative strategies

4.3.1. Possible limitation of the study

This subsection analyses the communicative functions that the selected markers serve in the examined papers. As the investigation demonstrated, the epistemic modality markers seem to be particularly numerous in those article sections where the author talks about possible limitations of the study, typically used to signal potential bias and probable consequences of these limitations, and which can be observed in the following examples (our emphasis):

(12) To unfold deliberative discourse and rationality all participants should enjoy equal liberty, respect and opportunity to participate during the deliberation. *However*, deliberative theory does not develop further which institutional arrangement *might satisfy* these conditions. Deliberative theory has been used to explain comitology and the Economic and Social Committee, *but* has failed so far in presenting suggestions as to how deliberation as a process can realise its normative goals. (*ELJ*-2006)

(13) *While one could argue* (as I have) that this discourse misconceives the nature of the problem that separating ownership from control is supposed to solve, the fact remains that a search for Chinese solutions to the 'problem' of this separation is going to yield odd results. (*CLJ*-2011)

In this contexts, the signal of a limitation is very often followed by a proposition introduced by a contrastive marker such as *nevertheless*, *nonetheless*, *however*, *while*, *but*, thus reducing the significance and potential consequences of such a limitation, negotiating, and grounding the topic under discussions.

4.3.2. Possible explanation of the study

We found two types of text sequences in our corpus of legal journals, that is, descriptive sequences and more argumentative sequences (Vold 2006b) which are particularly present in the discussion section (14). The presence of epistemic modality markers is particularly evident in argumentative contexts, i.e. passages of the research articles in which the author supports his/her claim and rejects other points of view. In this regard, the following passage is particularly illuminating:

(14) What can popular sovereignty teach us about European integrations? Little or nothing, according to a well-entrenched view. Even the most cursory of comparisons *seems to bear out* this view. *While* the Constitution of the United States epitomises the model of political power obtaining in popular sovereignty, kicks off with 'We the people', the preamble to the Treaty of Rome defines European integration in terms of 'an ever closer union among the peoples of Europe'. Not only is the plurality of European peoples the point of departure of an integrative process, *but* also retaining this plurality is the desideratum of integration, as is witnessed by the principle of subsidiarity, the EU's obligation to 'respect the national identities of its Member States', and, most recently, the Treaty of Amsterdam's caveat to the effect that European citizenship 'shall complement and not replace national citizenship'. In sum, the absence of a single European people as the bearer of an autonomous European legal order, and its undesirability as the telos of the integrative process, *leads observers to suggest that* European integration cannot be, nor should be, forced into the mould of popular sovereignty. (*ELJ*-2000)

Our analysis suggests that epistemic modality markers are particularly present in the discussion part, where the author either supports his/her point of view or disagrees with others' conclusions. In this case, they serve as explanations for the study in order to foreground and negotiate the topic under discussion with potential readers. *May*, *might*, *could* and *perhaps* are the markers typically used for these purposes, as is clear in the examples below:

(15) Indeed, public criticism by a Current Commissioner of the shady backroom bargaining among Member States to identify the first new-style President of the new Council *perhaps* foreshadows the limits that such a shallow reservoir of legitimacy *may* in itself impose upon his/her effective political power. Appointing someone with established Union-wide or even global recognition *might* well energize the workings of the European Council, but it also carries the risk either of creating a Frankenstein's Monster, or of trapping a very big fish with a rather small pond. (*CMLR*-2008)

(16) *To some readers, our argument will appear* somewhat lopsided: we have dealt with the 'adequacy' of modes of institutional change only in terms of acceptance and legitimacy. *Could it not be that* the most legitimate procedures of institutional change prove wholly inadequate in terms of adaptation to societal (social, economic, technological) change? *(OLJS*-2002*)*

The analysis points out that authors prefer impersonal structures (17) even when hedging other scholars' claims:

(17) However, *it is suggested that* the significance of the case lies in its exposure of the ambiguous nature of Union citizenship and the significance of the inter-institutional dialogue as the Union's primary mode of operation. (*CLJ*-1996)

As we can see in the examples above, the authors refer to the points of view or the studies of other researchers and avoid to report their proper names especially when they refuse to accept them.

4.3.3. Hypotheses and conclusions of the study

The writers of legal journals show the tendency to use epistemic markers when they put forward hypotheses and particularly when they want to present conclusions in a 'cautious manner' (Vold 2006a). The analysis indicates that the grammatical constructions mainly used for these purposes are the {impersonal subject + *suggest/seem* + *that* clause (*may/might*)} and {impersonal subject + *may/might* + *that* clause}, as reported in the following examples:

(18) The notion of a 'living constitution' suggests a kind of change by the emergence of new routines of political behaviour; adding the notion of an 'open society' *suggests that* it is not the political authorities alone who are relevant actors advancing constitutional change. (*ELJ*-1999)

(19) *This may explain* why the most prominent examples of constitutional borrowing occur when states experience crises (for example, eastern European states after the fall of communism) and when the decisions of constitutional courts are relatively easy to reverse, at least as a formal matter (most of the world outside the US). (*OJLS*-2010)

(20) We identify *several factors that may limit* the degree to which each mechanism creates convergence. (*OJLS*-2010)

(21) The official proposal however (*COM*(94)300 final) referred only to 'activities', which, *although it might have been* more acceptable in political terms, did little to promote a clear discussion of the proposal and its implications. (*CLJ*-2003)

In this case cautiousness protects the author against possible consequences arising from the inaccuracy of his/her conclusions (Vold 2006b), particularly when his/her predictions about future political and economic events turn out to be wrong.

4.3.4. Cautious criticism in legal journals

The present work indicates that the epistemic markers preferred by authors of legal journals in order to express cautious criticism of other

schools of thought, researchers' conclusions and theoretical approaches, are *seem* and *appear*.

(22) However, *there appears to be* a wide - although not too scientific – consensus in legal literature that besides population, really small size is what makes a country a full-fledged micro-state. (*ELJ*-2008)

(23) Whatever liberal interpretation one may care to make, it *seems clear* that general school education is not covered by the definition of 'vocational training', except that part of school education which consists of vocational training courses […]. But it is submitted that, with the advent of the Single Common Market in 1992, and despite some member states' desire to maintain their independence in education, there will likely be an increasing realization that education plays a major role as a significant aspect of positive integration in contributing to the internal dynamic of the EC. (*CLJ*-1994)

The tendency to mitigate criticism and express caution when interpreting other researchers' ideas and conclusions is common in all the legal journals included in our corpus and, as was the case of the choice between personal and impersonal structures, it may depend on different factors, such as the subject treated, the particular economic and political situation of the time, the influence of journal styles and the authors' personal style.

5. Conclusions

In this chapter we have seen that the use of epistemic modality markers in a selection of issues of a number of international legal journals dealing with Constitutional and Public Law and Administration can be taken to reflect the differences among the journals not so much in terms of frequencies, but in terms of: (a) the type of markers deployed, (b) the co-texts in which they are used and (c) the argumentative functions they are supposed to fulfil.

The research articles have been selected according to the subject treated, that is, the emerging Constitution of the European

Union, and the analysis has pointed out the rhetorical organisation and the argumentative strategies used by the authors of the selected legal journals in response to the changing emergent community norms and ideology. In particular, a relatively high occurrence of *may, might, could, possible* was found in those parts of the research articles where authors talk about the possible limitations of the study, provide possible explanations, put forward hypotheses, present conclusions in a cautious manner, and cautiously disagree with other researchers, schools, and points of view.

Starting from the generally agreed assumption (Hyland 1998; Vold 2006b) that epistemic assessment of the information conveyed is a significant aspect of academic discourse, we have indicated that epistemic modality markers (and more specifically, *may, might, could* and *possible*) have a high frequency in the research articles written immediately after important events heading towards the realization of an EU Constitution. This in line with Hyland's (2009: 34) conclusions about the importance of situating cultural practices in a wider socio-cultural context(s), and shows that academic writing and its specific writing conventions have developed in response to particular social situations, as a result of the diverse socio-cultural and historical backgrounds of its participants (Vold 2006b).

One of the main assumptions of the present research is that academic writing is inextricably connected to the idea of 'discourse community' (Swales 1990; Hyland 2006). As Hyland (2009: 66) writes:

> [The discourse community] provides a principled way of understanding how meaning is produced *in interaction* and proves useful in identifying how writers' rhetorical choices depend on purposes, setting and audience. We always have to remember, however, that an individual's participation in academic discourse communities does not occur in a vacuum, and that the language we draw on to communicate within our academic peers or assessors is likely to be influenced by a range of social and experiential factors. So while it remains a contested concept, the notion of community does foreground what is an important influence on social interaction. It draws attention to the fact that discourse is socially situated and helps illuminate something of what writers and readers bring to a text, emphasizing that both production and interpretation depends on assumptions about the other.

While our research findings suggest the disciplinary tendency towards the use of rhetorical organisation and the argumentative strategies (overt argumentation, polemic stance, impersonalisation strategies) in response to the emergent community's norms and ideology, future research on larger corpora might indicate if the use of epistemic modality markers is also influenced by other factors such as the journal policies and the legal nature/legal field of the subject matter.

References

Bakhtin, Mikhail 1986. *Speech Genres and Other Later Essays*. Austin: University of Texas Press.

Bamford, Julia / Bondi, Marina 2005 (eds). *Dialogue within Discourse Communities*. Tubingen: Niemeyer.

Berkenkotter, Carol / Huckin, Thomas N. 2005. *Genre Knowledge in Disciplinary Communication. – Cognition / Culture / Power*. Hillsdale, NJ: Erlbaum.

Bhatia Vijay K. 1993. *Analysing Genre: Language Use in Professional Settings.* London: Longman.

Bhatia Vijay K. 2002. Applied Genre Analysis: A Multi-Perspective Model. *Iberica 4*, 3-19.

Bhatia Vijay K. 2004. *Worlds of Written Discourse. A Genre-based View*. London: Continuum.

Bhatia Vijay K. / Candlin, Christopher / Engberg, Jan / Trosborg, Anna. (eds) 2003. *Multilingual and Multicultural Contexts of Legislation: An International Perspective*. Bern: Peter Lang.

Bhatia Vijay K. / Candlin, Christopher / Engberg, Jan (eds) 2008. *Legal Discourse across Cultures and Systems.* Hong Kong: Hong Kong University Press.

Biber, Douglas / Johansson, Stig /Leech, Geoffrey / Conrad, Susan / Finnegan, Edward (eds) 1999. *Longman Grammar of Spoken and Written English*. Harlow: Longman.

Blommaert, Jan 2005. *Discourse.* Cambridge: Cambridge University Press.

Brown, John S. / Collins, Allan / Duguid, Paul (eds) 1989. Situated Cognition and the Culture of Learning. *Educational Researcher* 18/1, 32-42.

Coates, Jennifer 1995. The Expression of Root and Epistemic Possibility in English. In B. Aarts and C. F. Meyer (eds) *The Verb in Contemporary English. Theory and Description*. Cambridge: Cambridge University Press, 145-156.

Del Lungo Camiciotti, Gabriella / Tognini Bonelli, Elena (eds) 2004. *Academic Discourse: New Insights into Evaluation.* Bern: Peter Lang.

Falkner, Gerda / Treib, Oliver / Hartlapp, Miriam / Leiber Simone (eds) 2005. *Complying with Europe. EU Harmonisation and Soft Law in the Member States.* Cambridge and New York: Cambridge University Press.

Fligstein, Neil 2008. *Euroclash: The EU, European Identity, and the Future of Europe*. Oxford: Oxford University Press.

Gerring, John / Thacker, Strom C. 2008. *A Centripetal Theory of Democratic Governance*. Cambridge: Cambridge University Press.

Huddleston, Rodney D. 1971. *The Sentence in Written English: A Syntactic Study Based on an Analysis of Scientific Texts.* Cambridge: Cambridge University Press.

Hyland, Ken 1996. Writing without Conviction? Hedging in Science Research Articles. *Applied Linguistics 17/4*, 433-455.

Hyland, Ken 1998. *Hedging in Scientific Research Articles.* Amsterdam: John Benjamins.

Hyland, Ken 2000. *Disciplinary Discourses: Social Interaction in Academic Writing.* London: Longman.

Hyland, Ken 2001. Humble Servants of the Discipline? Self-mention in Research Articles. *English for Specific Purposes 20/3*, 207-226.

Hyland, Ken 2004. *Disciplinary Discourses: Social Interactions in Academic Writing*. Michigan: University Michigan Press.

Hyland, Ken 2005. *Metadiscourse.* London: Continuum.

Hyland, Ken 2006. Disciplinary Differences: Language Variation in Academic Discourses. In K. Hyland and M. Bondi (eds) *Academic Discourse Across Disciplines*, Bern: Peter Lang, 17-45.

Hyland, Ken 2009. *Academic Discourse.* London: Continuum.

Hyland, Ken / Bondi, Marina 2006 (eds). *Academic Discourse Across Disciplines.* Bern: Peter Lang.

Kent, Thomas 1991. On the Very Idea of a Discourse Community. *College Composition and Communication, 42(4)*, 425-45.

Kraus, Peter A. 2008. *A Union of Diversity. Language, Identity and Polity-Building in Europe*. Cambridge: Cambridge University Press.

Milton, Guy / Keller-Noëllet, Jacques (eds) 2005. *The European Constitution: its Origins, Negotiation and Meaning*. London: John Harper Publishing.

Myers, Greg 1989. The Pragmatics of Politeness in Scientific Articles. *Applied linguistics 10/1*, 1-35.

Nuyts, Jan 2001. Subjectivity as an Evidential Dimension in Epistemic Modal Expressions. *Applied Linguistics* 10/1, 1-35.

Robertson, Ronald 2005. The Conceptual Promise of Glocalization: Commonality and Diversity. *Art-e-Fact 4 (Strategies of Resistance)*(http://artefact.mi2.hr/_a04/lang_en/theory_robertson_en.htm)

Salager-Meyer, Françoise 1994. Hedges and Textual Communicative Function in Medical English Written Discourse. *English for Specific Purposes* 13/2 , 149-170.

Scott, Mike 2004. *Wordsmith Tools version 4.0.* Oxford: Oxford University Press.

Swales, John M. 1990. *Genre Analysis. English in Academic and Research Settings*. Cambridge: Cambridge University Press.

Swales, John M. 1998. *Other Floors, Other Voices: A Textography of a Small University Building*. Mahwah, NJ: Erlbaum.

Varttala, Teppo 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.

Varttala, Teppo 2001. *Hedging n Scientifically Oriented Discourse. Exploring Variation According to Discipline and Intended Audience*. Electronic Doctoral Dissertation. Acta Electronica Universitatis Tamperenis 138 (http://acta.uta.fi/pdf/951-445195-3.pdf)

Vold, Eva T. 2006a. Epistemic Modality Markers in Research Articles: A Cross-Linguistic and Cross-Disciplinary Study. *International Journal of Applied Linguistic 16/1*, 61-87.

Vold, Eva T. 2006b. The Choice and Use of Epistemic Markers in Linguistics and Medical Research Articles. In K. Hyland and M. Bondi (eds) *Academic Discourse Across Disciplines*. Bern: Peter Lang, 225-249.

Warchal, Krystyna 2008. Encoding Certainty: On Some Epistemic Modality Markers in English and Polish Research Articles. The case of MUST / MUSIEC. In TRANS. Internet-Zeitschrift für Kulturwissenschaften. No. 17/2008. WWW: http://www.inst.at/trans/17Nr/2-7/2-7_warchal.htm

Wells, Gordon 1992. The Centrality of Talk in Education. In K. Norman (ed) *Thinking Voices: The Work of the National Oracy Project*. London: Odder and Stoughton, 283-310.

Wodak, Ruth / Chilton, Paul (eds) 2005. *A New Agenda in (Critical) Discourse Analysis.* Amsterdam and Philadelphia: John Benjamins Publishing Group.

CLAUDIA AGOSTINI / FRANCESCA SANTULLI

The Case against Homeopathy: A Study of the Rhetoric of Meta-Analysis*

1. Introduction

Meta-analysis (MA) is a sub-genre of scientific communication which is used for synthesizing the results produced by original research. It can be considered a form of Systematic Review (SR), though MA synthesizes previous literature on a single research question by means of statistical techniques, while SR analyses previous research papers systematically selecting, summarizing and assessing all high-quality research on a given topic. Both SRs and MAs are secondary studies, which summarize and assess scientific evidence with quantitative (in the case of MA) and semi-quantitative (in the case of SR) methods (Mungra 2006). SRs and MAs differ from the Narrative Review (NR), in that they explicitly indicate the search strategies, which are a fundamental part of the investigation. Editorial criteria in SRs and MAs are stable and the studies focus on a clear research question, whereas the NR gives a more comprehensive overview and does not select a specific target in re-examining the topic (White 2009).

The aim of MAs is to put together data obtained in previous original research through statistical analysis; therefore it is applicable to original research that produces quantitative results rather than qualitative findings. The MA produces knowledge, as previous results are considered under a new perspective, so that new and unexpected conclusions can be drawn (White 2009). The MA is frequent in all scientific disciplines – from medicine to biology, from agronomy to social sciences. In medicine MA plays an important role, because of

---

* Claudia Agostini is the author of Sections 1-3; Francesca Santulli is the author of Sections 4-6.

the high volume of primary research articles, the results of which need to be proofed.

As far as biomedical sciences are concerned, the Cochrane Collaboration[16] has set specific criteria for selecting the studies and reporting results in MAs. The Cochrane Library contains a database of SRs and papers on MA methodology (White 2009). The necessity to proof the results obtained by disciplines involved in healthcare has brought to the fore the importance of SRs, and the Cochrane Collaboration has been able to meet this need, although there had been various unsuccessful attempts to create a standard before its foundation.

In social sciences the Campbell Collaboration[17] has developed a protocol for SR, based on rigorous and transparent procedures, which are explicitly described in order to make them replicable if necessary. It is important to underline that all SR is peer reviewed, and in determining the quality level of the paper, reviewers take into consideration the precision of the author(s) in study selection and accuracy in the application of procedures. Therefore, in MA the standard IMRD[18] pattern is integrated with a special macro-move, a section totally focused on methodology.

2. Study design and theoretical background

Mungra (2006) offers an exhaustive description of the macrostructure and rhetorical moves in MA, analysing a corpus of MAs from the medical field on the basis of the model described by Swales (1990) for

1 The Cochrane Collaboration is a nonprofit organization established in 1993 to produce SRs (Cochrane Reviews), in order to proof the quality of studies on health care, and publishes them on the Cochrane Library (http://www.cochrane.org/).

2 Established in 1999, the Campbell Collaboration screens for quality studies in education, crime and justice, social welfare (http://www.campbellcollaboration.org/).

3 Introduction, Methods, Results and Discussion.

Research Articles. This chapter takes into consideration the macro-structural level, and aims to analyse the rhetorical structures typical of the MA in view of the responsibility towards the authors of the reviewed studies, and the consequences that the results of an MA can have both for the specialized readership and the lay public.

Indeed, it is interesting to note that MAs dealing with controversial issues, which illustrate new unexpected results, are often accompanied by the publication of an editorial focusing on how the new data will be accepted by the scientific community and disseminated in the media context. It is well known that in the last thirty years the popularisation of science and the public's keen interest for all the matters concerning healthcare have increasingly modified the way scientists relate to a non-specialist audience. At present, there is a tendency to handle all controversial findings with caution, and in the case of MAs it is sometimes necessary to warn specialists that they should offer clear information, to avoid possible misinterpretations.

In this chapter the analysis will start with a case study, taking into consideration both the MA by Shang *et al.* (cf. Appendix: Homeopathy E) published in 2005 in the prestigious journal of medicine *The Lancet* and the editorial which accompanied the publication, as well as a major confutation of its results and the corresponding reactions. The chapter will then take into consideration other examples of MAs accompanied by editorials, in order to verify if rhetorical strategies change according to the subject.

A point that deserves special attention is the role of the accompanying editorial, which is not a specialized text, but is of great interest for media experts, who play a crucial role in popularization. With a view to the mediation of journalists who then report data, quote opinions and mention the sources of their information in more popular publications, editorials sometimes function as a sort of introduction to the study or a comment on its results. This function of editorials is particularly evident in the case of MAs, as the latter represent a sort of final verdict on a given research topic, which is of great interest for the lay audience and can have a high impact on the media. As pointed out by van Dijk (1995), editorials can be *factual* and/or *evaluative*, in that they can present facts but also opinions on these facts. Indeed, the editorials considered here generally do not only present mere facts but also arguments to support an MA (often

raising crucial questions about specific points) or to tone down the results emphasising the limits of the study.

According to Carnet and Magnet (2006), there are two types of editorials: one addressed to the scientific community and health professionals, which raises issues on the state of biomedical research and its influence on society, and one accompanying a research article published in the same issue of the journal. In the case of MAs, accompanying editorials, though focused on the topic discussed in the MA, extend the discussion to further implications of the findings both for the scientific community and society at large. As a consequence, the accompanying editorial of an MA is a hybrid text, which shows characteristics typical of both types. The editorial usually stresses the importance of the results of the MA for society and acts as a sort of ethical guide, giving advice on how to apply the new findings, which often come to light after years of false beliefs and oppose well-established behaviour.

3. The case against homeopathy: an MA in *The Lancet*

The MA by Shang *et al.* is an excellent example of the impact that a controversial MA can have both on expert and non-expert public. The study tackles a controversial issue, and aims to invalidate the effectiveness of a whole discipline – not a single remedy or procedure. Indeed, we assist to a full de-legitimization of homeopathy, as the results of previous studies – assessed and compared thanks to statistical techniques – show that the effectiveness of homeopathic remedies is comparable to placebo. This research has marked a turning point in the attitude towards homeopathy, even though six years after its publication homeopathy is still widely used.

3.1. The MA by Shang et al.*: rhetorical moves and linguistic features*

The macrostructure of the paper is typical for an MA in that it has a summary and follows the IMRD pattern, but the Methods section is more elaborated compared with a standard RA. The Introduction is relatively short and displays a strong rhetorical effort. It contains the three basic moves described by Swales (1990) in the CARS model. In the first move, the authors establish a territory: they single out their topic and give fundamental indications about the state of the art. The Introduction of the article actually starts directly with Step 2 of the first move, Topic generalization. The authors briefly explain the basic principle of homeopathy. In the very first sentence the position of the authors is recognisable thanks to a non-integral citation,[19] which emphasises the controversial status of the discipline:

(1) Homeopathy is a widely used but controversial complementary or alternative therapy. (Homeopathy E: 726)

According to Skelton (1997), contextual truth[5] is used in the introduction as well as in the discussion section of medical papers with both an overt and a covert function. In this case, the overt function is evident from the first move, as the authors delineate the context of the debate and assert those notions which are assumed to be true and known by the audience. Contextual truth is covertly exploited as soon as the authors, after introducing the basic principle of homeopathy, start reviewing items of homeopathy previous literature. Scepticism about homeopathy is conveyed by hedging strategies, which are used to create a distance between the authors and the opinions expressed:

---

4 Swales (1990) distinguished between integral and non-integral citation in research papers. Integral citation is a citation in which the author's name is stated in the sentence; a non-integral citation is a citation in which the author's name is referred either in the notes or in parenthesis.

5 Contextual truth is "truth as the research tradition states it to be, truth as the statistical evidence states it to be, and truth as a matter of deriving possible non-statistical meaning from" (Skelton 1997: 121).

(2) During this process information is thought to be transferred from the diluted substance to solvent, which in light of current knowledge seems implausible. (Homeopathy E: 726)

Actually, in this sentence the authors refer to the fundamentals of homeopathy (presumably deriving them from previous literature), and they express their doubts with growing emphasis: first, they attribute the opinion to others in an impersonal way (*is thought to be*), then they define those opinions *implausible,* though limiting their statement (they *seem*) and appealing to a general principle of *current knowledge*. Finally, in the last sentence of the first paragraph the authors introduce a topic generalisation, establishing a causal link between their previous statements and the accepted conclusion:

(3) Many people therefore assume that any effects of homeopathy must be non-specific placebo effects. (Homeopathy E: 726)

This sentence is a non-integral citation from previous research, and is a way to appeal to the discourse community to accept the MA as related to sensible criteria. The second paragraph is taken up by Move 2 – Establishing a niche, through the analysis of potential problems and weakness of the discipline – and tackles the issue of the effectiveness of homeopathy, focusing on the bias[20] problem. The word *bias* is emphasized by collocating it at the beginning of the sentence in a thematic position:

(4) Bias in the conduct and reporting of trials is a possible explanation for positive findings of placebo-controlled trials […]. (Homeopathy E: 726)

Moreover, *bias* is repeated at the beginning of the following sentence to stress the real reason for positive results in research on homeopathy:

6 Bias is a form of systematic distortion in experimental research, in that data are inaccurate because of wrong procedures, manipulation or false estimating techniques.

(5) Publication bias is defined as the preferential and more rapid publication of trials with statistically significant and beneficial results […]. (Homeopathy E: 726)

Though in a different syntactic structure, *bias* is crucial also in the third sentence:

(6) The low methodological quality of many trials is another important source of bias […]. (Homeopathy E: 726)

The investigation of these different forms of bias leads the authors to single out the niche, and at the same time the fundamental method, for their research, which lies in the *topos* of quantity: large is better than small. They use hedges in expressing this crucial concept:

(7) These biases *are more likely to affect* small than large studies […] whereas large studies *are more likely to be* of high methodological quality […]. (Homeopathy E: 726)

However, this principle is not discussed further and must be accepted as a shared premise, which at the same time legitimises the need for this MA, that promises a new and more valid approach. Move 3 is performed in the last sentence of the paragraph and outlines the purpose of the research. It uses a descriptive and narrative approach, anticipating the Methods section in content and in style by means of the deictic reference *we* together with verbs in the past tense (*we examined / we observed / we assessed / we estimated* etc.). This linguistic choice shows the self-confidence of the authors in giving a firm answer to a controversial issue.

In agreement with Mungra (2006), the Methods section describes carefully the research strategy adopted, data extraction and quality assessment methods – all considered fundamental steps in the guidelines for MAs. This section differs from the corresponding part of a research paper in that it accurately describes the steps of search and selection of the articles. It is divided in subsections (search, selection, procedures, statistical analysis), as it is the central part of the analysis, giving plausibility to the study. On the contrary, in a research paper this section is usually shorter as the methods are not

actually described but rather simply named or labelled (sometimes with the researcher's name); they are taken for granted because of standardization procedures (Swales 1990). The accuracy in describing the methods applied to the research provides rhetorical support to the claims: the total lack of hedging is a sign of virtual absence of problems, as the section is purely descriptive (Salager-Meyer 1994).

The interesting feature in this section is the shift from the deictic reference *we* referring to the authors' identity and thus emphasising their commitment (*we checked, we searched, we defined, we excluded, we used, we coded*), to agentless passives, as a sort of anticipation of the Results section, where this form prevails. Lexical choice is also limited and repetitive (*Outcomes were selected and trials matched, Data were extracted, Homeopathic interventions were defined, Indications for treatment were classified*). The agentless passive maximizes objectivity, stressing the object of the research and what has been done, while the deictic reference gives authority to the authors, who acquire credit by means of self-confident and bold statements. This rhetorical technique has also emerged in the corpus analysis by Mungra (2006), yet this MA displays a rather interesting pattern: a large part of the section (about 2/3) adopts almost exclusively the personal style, while the last part is characterised by the agentless passive, which normally occurs in MAs. It is worth noting that in a previous MA on homeopathy by Linde *et al.* (Homeopathy C) the use of *we* is rare, while agentless passives prevail. The use of this verbal form is meant to reduce the responsibility of the authors and can be seen as a form of hedging (Hyland 1998). However, Lachowicz (1981) and Varttala (2002) do not completely agree with this hypothesis, as in many cases the hedging effect is obtained thanks to the use of a modal verb in the passive sentence.

No modal occurs in connection with the agentless passive in this MA, but the passive is used to stress the objective approach of this part of the research: the Results section, both in RAs and MAs, is unambiguous and aims to illustrate data and thus demonstrate the research hypothesis with evidential and scientific methodology. Although in Mungra's analysis hedged expressions are frequent, in Shang *et al*. we only found one:

(8) This difference *is unlikely to be* due by chance. (Homeopathy E: 729)

This might be due to the fact that this MA has been conceived with the awareness that its results would be strongly attacked by the homeopathic community, and thus the authors want to show a self-confident or authoritative rhetoric in order to discourage any attempt at criticism.

This self-confidence and authoritative stance is more evident in the Discussion section where hedging does occur, but only in few expressions, especially in the form of epistemic modality:

(9) This finding *might be* expected […].
[…] we *probably* missed some of these trials.
The biases […], as shown in our study, *might promote* the conclusion […].
For some people, therefore, homeopathy *could be another* tool that complements conventional medicine […].
We found that the benefits of conventional medicine are *unlikely to be* explained by unspecific effects. (Homeopathy E: 730-731)

In this last part of the MA the authors return to the use of *we* (*we compared, we assumed, we discussed, we addressed, we emphasize* etc). The repeated reference to the authors' identity has an effect opposite to that of hedging, and emphasizes the authors' responsibility towards their claims and their confidence in the correctness of their scientific findings. This aspect is stressed also by the use of intensifiers, as in the following examples:

(10) Our results *confirm* these hypotheses […].
[…] we *are confident that* we identified a near-complete set of published placebo-controlled trials of homeopathy.
Our study *powerfully* illustrates the interplay and cumulative effect of different sources of bias. (Homeopathy E: 730-731)

It is interesting to note that in the MA by Linde *at al.* mentioned above the Discussion section contains many hedged expressions containing epistemic modality and probability adverbs like *likely* and *unlikely*. This linguistic strategy is certainly linked to the fact that this MA on homeopathy gave positive (though weak) results *in favour of*

homeopathy. As a consequence, the authors tried to limit their commitment and speculated on the ambiguity of their findings in order to be accepted by the whole medical community, both conventional and homeopathic. On the contrary, Shang *et al*. are convinced that they are offering clear and unquestionable results *against* homeopathy, which stem from sound and reliable statistical processing of data.

According to the classification by Mungra (2006), Move 9 illustrates limitations of the study and problem areas, thus indicating the need for further research. Shang *et al.* emphasize the 'narrowness' of the issue investigated, in that the RAs examined were focused on homeopathic remedies and not on context effects, which can however influence the effectiveness of a remedy — for example, a deeper relationship and a form of alliance between patient and carer can be considered a form of treatment in itself. The authors want to highlight the positive side of homeopathy, which has nothing to do with the remedies but with a cultural belief; therefore, they suggest that further research should investigate context effects rather than focusing on remedies.

3.2. The editorial

The results of the MA were enhanced by an editorial, published in the same issue of the journal, which contributed to fuel the debate both in the academic and in the larger media context. The position adopted by the journal is clearly expressed in the very title of the editorial, 'The End of Homeopathy' (Homeopathy A), which emphasises the crucial role of the new data. Moreover, the editorial (which is not signed, to indicate unequivocally that the opinion expressed coincides with the journal's stand) does not express surprise for the new findings and welcomes them as long-expected results.

Negative expressions of all types are linked to homeopathy: *homeopathy fares poorly*, the new data are *unsurprising*, previous findings were *unfavourable*, complementary treatments in general *do not meet efficacy and cost-effectiveness criteria*, it is totally honest to inform patients about *homeopathy's lack of benefits*; negative

evaluation is clearly conveyed by *spurious arguments of putative benefits from absurd dilutions*, which synthesise the writer's stand against the practice. On the other hand, any form of criticism against homeopathy is seen as a form of *enlightenment*.

The aim of this editorial is twofold: on the one hand, it emphasises that the new data make any further discussion useless, thus ending a debate that has been too long and dangerous; on the other, it offers a reason for the popularity of homeopathy, which does not lie in its effectiveness, but rather in the attitude of patients who do not accept the technological and impersonal approach of conventional medicine. As a consequence, the conclusion highlights the importance of higher awareness of the needs of patients, which – as a consequence – would lead to a more objective evaluation of scientific data about homeopathy. The editorial displays an aggressive tone and does not leave any doubts about the pointlessness of further investigation. It is worth noting that there are no forms of hedging, except for two modals (one occurring in a quotation and the other with reference to a comment on Shang *et al.*'s study). This is in contrast with the findings of Salager-Meyer (1991), stating that in most cases Editorials and Review Articles are heavily hedged.

Such a commentary by a prestigious journal helped the MA to gain more visibility, giving it a wide media coverage, which in turn raised further debate. It is interesting to note that since Shang *et al.*'s MA came out, no other SR on the topic has been made, although research on single remedies has continued. *The Lancet* has published no further articles on this topic, while previously it had occasionally given room to homeopathic research: for example, in 1997 it had published the MA by Linde *et al.* mentioned above, which did not accept the hypothesis that the clinical effects of homeopathy are completely due to placebo. This study, however, did not give an exhaustive answer for every single treatment and suggested that further investigation was needed. The MA by Shang *at al.* can be considered a form of updating of the previous survey (and actually it echoes its title), as confirmed by the fact that the results of Linde *et al.*'s study are mentioned in the discussion section, though they are in contrast with the new findings. Shang *et al.* contest the fact that the MA by Linde *et al*. did not include trials of conventional medicine;

moreover, further research by Linde *et al.* is cited, in which the authors admit an overestimation of the results of their 1997 MA.

4. The answers to Shang *et al.*

4.1. Fisher's commentary

Obviously, the results of the MA by Shang *et al.* deeply annoyed the homeopathic community, which reacted with many articles and commentaries published in specialized journals for complementary medicine, trying to refute such provocative claims. One of the most interesting replies is the commentary by Fisher, 'Homeopathy and *The Lancet*' (Homeopathy B), who systematically rejected the claims of Shang *et al.*'s article. Despite the rational and clear criticism of Shang *et al.*'s MA, the author shows a very emotional attitude. The use of exclamation marks is functional to suggesting emphatic delivery, while adjectives such as *hostile* and nouns such as *justice* and *attacks* forward a metaphorical interpretation of the scientific contrast as a war. This shows that the homeopathic community reacted to the MA with a form of aggressive defence.

In the long introduction, Fisher does not give any scientific evidence to support his criticism of Shang *et al.*'s MA, but discusses its political implications. This confirms that an MA in itself can trigger endless polemics. Exactly for this reason the set of methods and procedures adopted must be clearly described and scrupulously followed. This aspect is underlined by Fisher, who suggests that the authors missed the QUORUM statement (i.e. the quality of reporting MAs must adopt when presenting descriptive data for each trial) and did not even mention which of the trials were included in the survey. It is also interesting to note that Fisher cites not only the article but also the editorial, as if it were impossible to separate the two texts.

Fisher reacts to Shang *et al.*'s MA in the form of a rhetorical confutation. The weak points of the study, concerning the small number of studies selected for the trial and the lack of transparency,

are described and criticized in detail. Fisher uses an effective rhetorical technique, in that he mentions the selection parameter declared by the authors:

(11) It is well established that high quality trials are less likely to be positive than those of lower quality. (Homeopathy B: 146)

He uses this statement against the MA itself, as he affirms that the studies on homeopathy and allopathy were not well matched, in that homeopathic studies "were generally of better quality". Using the same technique, Fisher quotes a statement from the MA, and then uses it for his confutation:

(12) They state that eight studies is too few to question their conclusion about the whole set of publications. Their conclusion about the whole set, however, was also based on eight studies. (Homeopathy B: 146)

Furthermore, it is important to focus on the language used by Fisher, which is aggressive, far from the objective and formal style typical of a scientific article. Fisher also uses sarcasm to express his strong disappointment for the way the research was carried out. As the identity of the trials selected was not disclosed by the authors of the MA, Fisher is unable to give more precise answers: therefore he talks of "natural justice", "the accused has the right to know the evidence against him" (Homeopathy B: 146). Moreover, through rhetorical questions he puts into doubt the intellectual honesty of the MA's authors, asking: "is eight enough for a conclusion or not? Or does it depend on what that conclusion is?" (Homeopathy B: 146). According to Fisher, it is therefore to be concluded that this MA does not contribute to the development of "open, transparent science", rather it is an instance of "opaque, biased analysis and rhetoric" (Homeopathy B: 146).

4.2. Correspondence by Linde

In his letter to the editor (Homeopathy D), Klaus Linde (who belongs to the Center for Complementary Medicine of Munich) emphasises the main problems of Shang *et al*.'s MA. Linde starts by expressing his agreement with the main premise (homeopathy is *implausible*) and with the methods adopted by Shang *et al.*, which largely reproduce those used for his own research. Despite this, there are reasons for dissent: "However, there are major problems […]" (Homeopathy C: 2081). This opening makes his criticism even more severe. Two points are developed: the authors follow neither the QUORUM nor the Cochrane (and this is considered *unacceptable*), and secondly they did not discuss pooling problems and thus risked "producing a false-negative result" (Homeopathy C: 2081). For this reason, Linde criticizes sharply the tones of the accompanying editorial:

(13) The Lancet should be embarrassed by the Editorial that accompanied the study. (Homeopathy D: 2081)

It is important to bear in mind that Linde shares part of Shang *et al.*'s view and in his conclusions compares the misuse by homeopathy supporters of his previous MA to the misuse by a "major medical journal" of Shang *et al.*'s work (Homeopathy D: 2082). As a matter of fact, both MAs have been used as a means of propaganda both by specialists and by the media, in favour or against homeopathy: the one by Linde *et al.* was used by the supporters of homeopathy and the one by Shang *et al.* by its detractors. The results of the first MA were presented more cautiously, because these were not robust enough to decide whether homeopathy is effective or not. But Linde *et al.*'s MA was misused by supporters of homeopathy. The results of the second MA are presented boldly, with little doubt about the need for further investigation on this topic. The difference between the two studies clearly emerges if we compare their final discussions:

(14) The resources needed for such a systematic research strategy would be considerable with the risk that in the end homeopathy may be found to have no value […]. No matter what the end result is for homeopathy, an investment

> in such a systematic research could provide us with a model for the evaluation of other emerging fields of medicine, both complementary and conventional. (Homeopathy C: 841)

(15) Clearly, rather than doing further placebo-controlled trials of homeopathy, future research efforts should focus on the nature of context effects and on the place of homeopathy in health-care systems. (Homeopathy E: 731)

It is clear that the first MA is more cautious in declaring the uselessness of homeopathy and tries not to offend the homeopathic community, while the second MA takes responsibility for this claim, which is even reinforced by the editorial. It is worth remembering who financed these studies: Linde was partially supported by a grant from the Carl and Veronica Carstens Foundation, an organization for the promotion and support of Complementary Medicine, while Shang was supported by the Complementary Evaluation Programme (PEK) of the Swiss Federal Office of Public Health, which has assessed the effectiveness of various complementary medicines in Switzerland but was mainly interested in reducing costs for healthcare.

5. Further examples of MA in the biomedical sector

Given that the MA by Shang *et al.* shows special features which do not reflect the results of the analysis by Mungra (2006), in the last part of this study we will analyse MAs on different topics, in order to see if the rhetorical strategies change according to the subject. We will focus on medical MAs which have had an important impact on the scientific community, concerning respectively nutritional supplements and pharmaceuticals. These topics have had a wide media coverage, because they are of great interest for the general public.

5.1. Two MAs on nutritional supplements

We shall first take into consideration two MAs on nutritional supplements, focusing on general antioxidants and on vitamin E, respectively. The MA on antioxidants by Bjelakovic *et al.* (Nutr. Supp. A), published in *The Lancet*, discusses whether antioxidant supplements can prevent gastrointestinal cancer or not: the authors conclude that these substances can even increase mortality. The nutritional supplements market is a very large industry, comparable to the pharmaceutical one. The interest of consumers for self-treatments is growing fast, especially in the United States, and criticism like this is strongly rejected by the trade associations as in the case of homeopathy. As far as nutritional supplements are concerned, the lay audience interested in the topic is even larger, because the accused product is generally used by many – healthy – people, who simply want to prevent illnesses. This is a crucial aspect, as the discussion is not focused on a medicament (which could be effective or not, or even harmful), but on a form of preventive treatment aimed at increasing health and vitality.

In this context the MA on antioxidants represents an attack on faith in these supplements. Yet, the editorial by Forman and Altmann (Nutr. Supp. B) does not use an aggressive tone to present the topic, as in the case of homeopathy. First of all, the editorial is not anonymous, but signed by two estimated scientists, who explain carefully the findings of the MA, emphasizing the limits of the study and the need for further research. The MA itself suggests that further studies on this topic should be carried out and the authors clearly illustrate the potential limits of their study. However, the rhetorical strategies used in the MA indicate that the authors' purpose is to emphasise their authoritativeness to gain the approval of their readership. Impersonal forms and agentless passives do not occur in the Methods section, where active forms with deictic reference *we* predominate (*we identified / we used / we excluded / we compared* etc.). The paper is also heavily hedged in the Introduction and Discussion sections (with a high number of epistemic modals, such as *might be expected / might be a cause / might be needed* etc.). Moreover, at the beginning of the Methods section the authors mention the fact that this review has

followed the Cochrane methodology protocol. The reference to a well-recognized standard protects them from methodological criticism and gives more strength to their claims. The editorial emphasises this aspect, in order to support the validity of the paper.

(16) Now, in this issue of The Lancet, a Cochrane systematic review by Goran Bjelakovic and colleagues shows no benefit in the prevention of gastrointestinal cancer. (Nutr. Supp. B: 1193)

Another important aspect of the editorial is the title, 'Vitamins to Prevent Cancer: Supplementary Problems', in pure journalistic style, which attracts the attention of potential readers by means of suggestive and evocative wordplay (*supplementary problems*), pointing to the controversial results of the MA. The title, as van Dijk (1988) highlights, is a sort a semantic macrostructure, which defines the main theme of a text; in this case it is a typical example of media language, as it communicates effectively by means of a very condensed form. As Carnet and Magnet pointed out, editorials in a medical journal stand "at the crossroads between scientific and general journalistic discourses" (2006: 232), and their titles are used to attract readers as happens in newspapers.

Greenberg's editorial (Nutr. Supp. C), which accompanies the MA on Vitamin E by Miller *et al*. (Nutr. Supp. D), published in *Annals of Internal Medicine*, also has a sensational and allusive title: 'Vitamin E Supplements: Good in Theory, but is the Theory Good?' Indeed, the editorial draws the attention to the fact that, in theory, vitamin E does have positive effects for the prevention of major chronic diseases, but taken as a supplement can be harmful and even cause death. It is interesting to note that this editorial provides an overview of the current situation in the market of nutritional supplements, illustrating the risks of taking high doses of vitamin E and suggesting that doctors should discourage consumers from buying these products. The article is written in an informal and journalistic style, as the topic is of interest for a wide audience. The author gives his opinion on the MA by describing it as *carefully conducted* (Nutr. Supp. C: 75) and defines antioxidants as a *fuzzily defined category* (Nutr. Supp. C: 75), which has become quite popular although clinical

trials have shown no clear benefits deriving from their use. The author's intention here is to illustrate the current situation, as at this point scientists should be able to give reliable advice:

(17) It won't hurt and might help, so why not take it? (Nutr. Supp. C: 75)

However, although previous studies had already shown the ineffectiveness of antioxidants in preventing diseases, their market is growing. The author talks of 'public faith', which is based exclusively on the indications of scientists and health professionals who follow a theory proofed only by single studies. Like in the editorial on homeopathy, the author tries to destroy the faith in antioxidants, although the tone used here is not aggressive and he is cautious in expressing his trust in the findings. The style of the editorial is quite convincing as rhetorical questions are repeatedly used to encourage the reader to consider the issue under a new perspective, offering new persuasive arguments:

(18) But could antioxidants supplements actually be harmful? […]
Yet, how firm is the conclusion that the risk for death is increased? […]
But isn't it past the time for the scientific and public health communities to loosen their ties to a theory that lacks predictive ability for human diseases? (Nutr. Supp. C: 75-76)

The two editorials considered here seem to support the findings of the MAs, focusing on aspects that the authors had failed to highlight. In the case of Miller *et al.*'s MA, the editorial by Forman and Altman is even cited in the discussion section, in order to prevent possible criticism about the methodology used in the study:

(19) A recent meta-analysis that examined the effects of antioxidants, not specifically vitamin E, in preventing cancer noted a possible increase in all-cause mortality. However, in an accompanying comment, Forman and Altman cautioned that these mortality analyses were exploratory and incomplete. A strength of our paper is the systematic search for trials that presented mortality data. (Nutr. Supp. D: 40)

Furthermore, Miller *et al.*'s MA presents similar rhetorical characteristics to the one on antioxidants, and in particular the use of

the deictic reference *we* in the Methods and Results sections and a heavy use of hedging in the Discussion section. Accompanied by a well-argued and relatively long editorial, which supports their conclusions, both MAs differ substantially in style from the one by Shang *et al.* on homeopathy. Indeed, we can say that the authors' approach is heavily influenced by the topic of the research and the message they want to communicate.

5.2. An MA on pharmaceuticals

Other interesting aspects of MAs and accompanying editorials emerge when we examine studies on pharmaceuticals. An example is the MA by Sipahi *et al.* (Pharm. B) on angiotensin-receptor blockers, where the accompanying editorial displays a very moderate attitude. This MA assesses whether the angiotensin-receptor blockers (a group of pharmaceuticals used in the treatment of hypertension) can affect the occurrence of cancer. The results are presented with a cautious approach, although hedged expressions are not as frequent as in the MAs on nutritional supplements. However, the study reports findings with extreme moderation, as shown by the following statements taken from the Discussion section:

(20) In this meta-analysis, we found that ARBs are associated with a *modestly* increased risk of new cancer occurrence. […] The increased risk of new cancer occurrence is *modest* but significant. […] Our study has *important limitations*. […] Our findings warrant *further investigations*. (Pharm. B: 633)

Agentless passives prevail over the deictic reference *we* throughout the paper, and this could be due to the authors' intention to highlight the actions performed and reduce their commitment. As this study brings further implications for the market of pharmaceuticals and the kind of substance analysed is vital for patients who suffer from a serious disease, the authors need to be cautious on reporting their findings, which could cause alarm without even being completely reliable. The difference lies in the safety of the substance. Homeopathic remedies are known to have no mortal side effects,

nutritional supplements are not pharmaceuticals and are generally used not for treatment, but for prevention. Drugs, on the contrary, are more involved in safety issues, as they are used to cure diseases, and need to be certified and proofed before being marketed (homeopathic remedies and nutritional supplements do not yet). As a consequence even the slightest doubt about their safety is crucial. Furthermore, it is interesting to note that some of the authors of the study have received a grant from pharmaceutical companies that produce this drug:[21] for this reason there could be a conflict of interest, which may have influenced the way the findings are reported.

The editorial by Nissen (Pharm. A) describes the MA as 'disturbing and provocative' and questions the results concerning the safety of these drugs, emphasising that it is necessary to obtain more reliable data about actual risks. The author, who is also a consultant for various pharmaceutical companies, some of which produce this kind of drug, declares no conflict of interest and shows the strengths and the limits of this MA. In order to illustrate these aspects and give some suggestions on how the research should proceed, Nissen uses a question-answer format, not in the form of rhetorical questions that Greenberg used in his editorial on vitamin E, but rather as pure questions, which introduce the three main issues and contribute to convey correct information:

(21) In this context, how should we view the analysis of Sipahi and colleagues?
What should be the next steps in resolving this important emerging controversy?
How do we access additional, unpublished data on ARBs and cancer safety? (Pharm. A: 627)

The last question concerns the problem of publication bias, which is mentioned also in the MA as a limit, because studies with negative outcomes tend not to be published when financed by pharmaceutical companies. On the other hand, as pharmaceutical companies must submit detailed results from clinical trials to regulatory agencies, these data are put under investigation whenever safety questions arise.

7 Diovan from Novartis, Atacand from Astrazeneca, Losartan from Ranbaxy.

Nissen suggests this should be done in the case of ARBs, as emphasised in the title of the editorial, 'Angiotensin-receptor Blockers and Cancer: Urgent Regulatory Review Needed'.

6. Conclusions

Though MAs are a common tool in other disciplines as well, this presentation has focused exclusively on the biomedical sector. MAs in social sciences are often used to assess a large number of single studies, and in applied linguistics they have been used for two decades in order to assess a vast literature on language learning and language teaching. Here MAs represent a valid tool to perceive the progress in the study of a specific issue and predict in which direction research should proceed. In the biomedical sector, however, findings have more interesting implications for the lay community, while other research fields tend to remain isolated, and the debate is confined within the scientific community. The final verdict, which is expressed by the most controversial biomedical MAs, has a crucial impact not only on scientists and health professionals, but also on the general public.

The MA on homeopathy by Shang *et al.* – displaying a very limited number of hedged expression and a more extensive use of personal reference (*we*) – reveals that the authors take it for granted that their addressees are willing to accept their findings (and are possibly looking forward to them). Linde, on the contrary, had been cautious in presenting his results pro-homeopathy in his own MA, while in his criticism to Shang *et al.* he focuses on method and on the aggressive tone of both MA and editorial, rather than on the implausibility of the conclusions. Moreover, he does not show emotional involvement, as instead Fisher (who is overtly in favour of complementary medicine) does.

As confirmed by the analysis of texts dealing with different subjects, the attitude of researchers (and their financers), as well as the expectations of both their peers and the wider social context, have a

crucial role in determining the discourse strategies that are preferred and the rhetorical and linguistic structures chosen to realize them. In other words, the style and approach of an MA are directly linked to the importance of the question raised in the study, the interests of the authors and the dominating ideology.

References

Carnet, Didier / Magnet, Anne 2006. Editorials: An Intrinsic and/or Extrinsic Genre in Medical Journals. In Gotti/Salager-Meyer (eds), 229-250.

Gotti, Maurizio / Salager-Meyer, Françoise (eds) 2006. *Advances in Medical Discourse Analysis: Oral and Written Contexts*. Bern: Peter Lang.

Hyland, Ken 1998. *Hedging in Scientific Research Articles*. Amsterdam: Benjamins.

Lachowicz, Dobroslaw 1981. On the Use of the Passive Voice for Objectivity, Author Responsibility and Hedging in EST. *Science of Science* 2/2, 105-114.

Mungra, Philippa 2006. Macrostructures and Rhetorical Moves in Secondary Research Articles. In Gotti/Salager-Meyer (eds), 331-355.

Salager-Meyer, Françoise 1991. Hedging in Medical Discourse: 1980-1990. *Interface* 6/1, 33-54.

Salager-Meyer, Françoise 1994. Hedges and Textual Communicative Function in Medical English Written Discourse. *English for Specific Purposes* 13/2, 140-170.

Skelton, John 1997. The Representation of Truth in Academic Medical Writing. *Applied Linguistics* 18/2, 121-140.

Swales, John M. 1990. *Genre Analysis. English in Academic and Research Settings.* Cambridge: Cambridge University Press.

van Dijk, Teun A. 1988. *News as Discourse*. Hillsdale: Erlbaum.

van Dijk, Teun A. 1995. Opinions and Ideologies in Editorials. Paper presented at the 4th International Symposium of Critical Discourse Analysis, Language, Social Life and Critical Thought. Athens. <http://www.discourses.org/UnpublishedArticles>.

Varttala, Teppo 2002. Hedging in Scientific Research Articles: A Cross Disciplinary Study. In Cortese, Giuseppina / Riley, Philip (eds) *Domain-specific English. Textual Practices Across Communities and Classrooms*. Bern: Peter Lang, 141-174.

White, R. Howard 2009[2]. Scientific Communication and Literature Retrieval. In Cooper, Harris / Hedges, Larry / Valentine, Jeffrey (eds) *The Handbook of Research Synthesis and Meta-Ananlysis*. New York: Sage, 51-68.

Appendix

Homeopathy

A. Editorial 2005. The End of Homeopathy. *The Lancet*, 366 /9487, 690.

B. Fisher P. 2006. Homeopathy and The Lancet. *Evidence Based Complement Alternative Medicine*, 3/1, 145-147.

C. Linde K., Clausius N., Ramirez G., Melchart D., Eitel F., Hedges L. V., Jonas W. B. 1997. Are the Clinical Effects of Homeopathy Placebo Effects? A Meta-Analysis of Placebo Controlled Trials. *The Lancet*, 350/9081, 834-843.

D. Linde K., Jonas W. 2005. Are the Clinical Effects of Homeopathy Placebo Effects? Correspondence. The Lancet, 366/9503, 2081-2082.

E. Shang A., Huwiler-Müntener, Nartey L., Dörig, Sterne J. A. C., Pewsner D., Egger M. 2005. Are the Clinical Effects of Homeopathy Placebo Effects? Comparative Study of Placebo-Controlled Trials of Homeopathy and Allopathy. *The Lancet*, 366/9487, 726-732.

Nutrional supplements

A. Bjelakovic G., Nikolova D., Simonetti R. G., Gluud C. 2004. Antioxidants Supplements for Prevention of Gastrointestinal Cancers: A Systematic Review and Meta-Analysis. *The Lancet*, 364/9441, 1219-1228.

B. Forman D., Altman D. 2004. Vitamins to Prevent Cancer: Supplementary Problems. *The Lancet*, 364/9441, 1193-1194.
C. Greenberg E. R. 2005. Vitamin E Supplements: Good in Theory, but Is the Theory Good? *Annals of Internal Medicine*, 142/1, 75-76.
D. Miller E. R., Pastor-Barriuso R., Dalal D., Riemersma R. A., Appel L. J., Guallar E. 2005. Meta-analysis: High-dosage vitamin E Supplementation May Increase All-Cause Mortality. *Annals of Internal Medicine*, 142/1, 37-46.

Pharmaceuticals

A. Nissen S. E. 2010. Angiotensin-Receptor Blockers and Cancer: Urgent Regulatory Needed. *The Lancet Oncology*, 11, 605-606.
B. Sipahi I., Debanne S. M., Rowland D. Y., Simon D. I., Fana C. J. 2010. Angiotensin-Eeceptor Blockade and Risk of Cancer: Meta-Analysis of Randomised controlled trials. *The Lancet Oncology*, 11, 627-636.

LUCIA ABBAMONTE / FLAVIA CAVALIERE

Book Chapters in Academia: Authorship in Methods (Re-)Presentation and Conditional Reasoning

1. Introduction

Constellation and *colony* are among the most quoted metaphors to describe the sets of existing academic genres (Swales 2004); Book Chapters (BCs) are included in this hierarchy, but their typology has not been so extensively analysed as Research Articles or Abstracts *moves*. Yet, BCs are a rich and significant territory of study when notions such as agency, saliency and authorial disclosure in texts are at stake. On the one hand, generic expectations consistently influence the construction of individual text types, according to community-shared text-internal/external characteristics (Bhatia 2004), so as to engage the specialized audience by meeting their *habitus* of acquiring/disseminating information. On the other, both in the text and in the research construction there is scope not only for *commonality* but also for *individuality* (Gotti 2009), as is apparent also in BCs.

Meaningful aspects in this genre are not only the choice of method, but also the discourse about the method, which is not limited to the Methods Section. Our pilot study is meant to highlight epistemological differences between Cognitive and Medical Sciences in BCs from edited collective volumes.

2. Aims and analytical perspectives

From a genre-aware approach, we contrastively analyse how different uses of Conditional Reasoning (CR) in Method re-presentations are displayed in two scientific fields namely in Medical (Med) and Cognitive Sciences BCs (CogSci BCs), thus revealing different authorial identities. Such issues have not received much critical attention as yet. It must be observed that even in the much investigated Research Articles, as Swales (2011) notes,

> the 'humble' methods section has been largely ignored. However, [...] methods are the epistemic centers of disciplines, and we also know [...] that editors of major journals often operate 'methodological screens', rejecting out of hand submissions that do not meet their methodological expectations.

We selected a corpus of 60 BCs from edited collective scientific volumes, divided into two sub-corpora[1]: one consisting of 30 Cognitive Science BCs and the other of 30 Medical BCs, whose structures follow the typical Research Articles IMRD pattern (Swales 1990), with minor variations. However, in their chapters, academic writers do not limit their argumentations about method to the specific Methods Section. Thus, to better understand the different ways authors *(re)present*, *support* and *argue* for their research methods, we need to extend our analysis to the whole texts under scrutiny.

Data were evaluated in a Discourse Analysis perspective, more specifically within an Academic Discourse Analysis (ADA) approach. Such 'delicacy of focus' was required by the peculiar status of the authorial voice in scientific discourse, which is restrained both by academic genres tradition and disciplinary community norms: predictably, academic authorial *personae* cannot be so 'overt' as in socio-political discourse at large. It is mainly through the use of pronouns and self-referencing that 'proximity' with readers (Hyland 2010) is achieved in such texts; e.g., *we* is frequently used to

1 For the numbered lists of the BCs in our corpus, see Appendix 1 for CogSciBCs and Appendix 2 for MedBCs.

involve/include readers in (conditional) reasoning about method choice.

The presentation/justification of methods is the arena where the argumentative skills of researchers play an essential role. In this perspective, we investigated their uses of CR all over the texts, with a special focus on pronoun use, by considering the occurrences of hypothetical thinking patterns. Significant differences emerged between the two disciplinary domains especially as far as argumentative modes are concerned. To contrastively highlight epistemological similarities and differences between the two disciplinary domains, the salient linguistic features to investigate appear to be the linguistic *formulae* of Hypothetical-deductive vs. Probabilistic Reasoning thinking patterns (see 5.2), in connection with the use of first persons pronouns "investigated as markers of authorial identity and stance" (Gotti 2009:10), and of indefinite subject pronouns, together with verbs combined with these pronouns. When dealing with the disclosure of authorial identity/saliency in genre-texts, together with the subjective presence of communicative participants in the same *loci*, aspects both of genre analysis and of scientific discourse need to be taken into account. This twofold approach illustrates how the (dia-)logic quality of such language is displayed in the inter-subjective relation between texts, readers' beliefs and value systems. Drawing on discourse analysis and corpus linguistics tools, Hyland (2004) illustrates how academics use language to organise their professional lives and research work, collectively establishing what will be recognized and assessed as knowledge.[2] He explores the relationships between the cultures of different academic communities and their unique discourses – engineers 'report', while philosophers 'argue', and biologists 'describe' – and the relationships between writers and their readers in published academic writing. Further, in his own words:

> Academics in different fields represent themselves, their work and their readers in different ways. In the humanities and social sciences they take a more explicitly personal position than in the sciences and engineering, refer

2 Useful insights into such issues are offered by the numerous contributions by Swales (2004, 2011), Bhatia (2004, 2006, 2008), Gotti (2004, 2011), and Hyland (2000, 2005, 2006, 2010).

> more to social actors and processes, claim significance in different ways and employ more citations. This is because rhetorical practices are closely related to the purposes of the disciplines and the ways they create knowledge. While this does not determine the ways we use language, it means disciplinary credibility and understanding can only be achieved through participating in communities and connecting with their socially determined and approved beliefs and value positions. (Hyland 2005: 2)

What is at stake is the process of the construction of both knowledge and texts, which emerges as the result of social interaction between writers and readers in a shared academic and professional context (Hyland 2006), and is subject to genre-based variation across disciplines (Bhatia 2004) developed as a multi-perspective, integrative "three space model for the analysis of discourse as genre integrating social professional space, social space and textual space" (Bhatia 2008: 166). These insights contributed in different ways – also contrastively – to the elaboration of the present ADA approach. Among the several aspects of academic discourse, our approach focuses on the epistemological features (and markers) of authorial method representations, both at lexical and textual levels. Actually, the study of methodological and discursive aspects of BCs textuality has been neglected so far, thus creating a gap, which the present study starts to address.

3. BCs as a situated genre

Recently, the relations between genres and discourse communities has captured critical attention, and a mediatory, evolutionary vision of generic integrity as responsive to particular generic events has been outlined (Swales 2004). In a similar vein, Bhatia and Gotti (2006) have shifted the focus of genre analysis from a pedagogic domain to professional and organizational contexts, within specific disciplinary domains. The integrity of genre can be defined by text-internal and -external characteristics which are subject both to constraints and to change over time and circumstances. In Bhatia's words, "to appreciate

the dynamic complexities and variations within and across academic disciplines, genre theory needs to be developed in such a way that it accounts for discourse across generic boundaries on the one hand, and is also sensitive to disciplinary variations on the other" (2004: 52). In view of that, the practice of genre mixing/embedding, while preserving generic integrity, leads to professional expertise.

Since genres are functionally related to the expectations of academic and professional communities, genre-awareness is considered a necessary textual competence both in academic teaching/learning situations, and in professional contexts. In this scenario, RAs, despite competition from electronic publishing, still play a pivotal role, as compared to handbooks, research letters/reports, conference abstracts and other (occluded) genres.

BCs share many of their variously investigated textual features and goals, and are also included in this generic colony/hierarchy, but their typology is one of the least investigated (Swales 2004: 17). Indeed, RAs rather than book chapters provide specialized information to contemporary scientific communities and, not infrequently, only the abstracts and results of RAs are actually read. Written scientific dissemination is fast-evolving and not void of contradictions in the web-wired arena of contemporary readership (Abbamonte 2002, Boismenu 2004).[3] What status, then, can quality BCs retain in this multi-layered context? Scientific volumes on given topics by prominent researchers, supervised by prestigious editors, are highly respected publications (Abbamonte 2008). As Myers points out (1990:17), "books are crucial in the life of fact, since they present a different sort of facts from journal articles, a mosaic of claims from which the personal and provisional have been removed

3 Science-texts partake of the tendency for media systems worldwide to become increasingly homogeneous, with cultural and structural differences among nation states disappearing in favour of a global pattern of journalistic professionalism and marketing-oriented politics which have progressively led to the 'technologization of discourse' with its drive towards standardization of discourse practices, across *and* within institutions (Cavaliere 2008). In this multifaceted scenario, prestigious scientific journals and reviews share the same fluid cyberspace as popular information, weblogs, newsgroups, wikis and peer-to-peer file sharing networks (Miller/Shepherd 2004); thus, virtually total freedom of expression coexists with highly constrained discursive practices.

and in which the pattern of the whole is constructed". The publication of the authors' research in edited volumes is the conclusion of a process of accreditation within the discourse community: thus, the BC status within the scientific community is high. Moreover, in terms of genre studies, when authorial identity in text types is the focus of interest, BCs are a rich and significant territory of study. They are organic parts of volumes, which generally evolve within an individual/original authorial project and pursue team-shared scientific goals. If we outline a commonality/individuality gradation among genres, as compared to RAs, BCs provide more opportunities for displaying researchers' argumentative skills. Instead, RAs in international scientific reviews and journals are subject to more standardized, 'globalized' and 'gate-keeper refereed' constraints. In BCs, the possibility to move more freely within the dimension of discourse community facilitates the production of situated meaning to engage the intended readership, and provides a framework for the conceptualization of recognizable practices and modes of enquiry. Thus, there is a wider scope for authorial negotiation of research hypotheses and results, through various discursive and endorsement strategies meant to enhance interest in research issues (Abbamonte/Cavaliere 2010). BC authors more freely modulate their stylistic choices, and their efforts to meet their discourse community's claim for more critical attention than they have received so far.

4. The language of hypothesis: Conditional Reasoning patterns

When moving from phrases to sentences and then to wider textual levels, we notice that both Cog Scientists and Med authors utilize CR thinking patterns to explain and justify their choice of method. Such discourses about methods are not confined to the Methods sections

themselves but permeate the whole texts. In Oaksford's words (2010: 4),[4]

> The conditional, *if...then*, is probably the most important term in natural language and forms the core of systems of logic and mental representation. It occurs in all human languages and allows people to express their knowledge of the causal or law-like structure of the world and of others' behaviour, e.g., if you turn the key the car starts, if John walks the dog he stops for a pint of beer.

Schematically, within CR, Hypothetical-deductive (HD) thinking leads to logic, expected conclusions: '*if a, then b*', *'a', thus 'b'*, as in the classic example: *<u>If</u> the geometrical figure is a rectangle, <u>then</u> it has four sides. A geometrical figure is a rectangle, thus it has four sides.*[5] Suppositional/Probabilistic Reasoning (SR), instead, consists in making a hypothesis and inferring a probable consequence either by induction, or by abduction. *Induction* is the process of drawing a more general conclusion from the premises (*a* gives us reason to conclude *b*, but it does not ensure that *b* is true) e.g.: *if all of the rabbits we have observed so far are white* (a), *we may <u>induce</u> that all rabbits are white* (b). However, the truth of the conclusion is not guaranteed. *Abduction* allows to abduce a hypothetical explanation *a* from an observed circumstance *b*, where *a* denotes the antecedent and *b* the consequent. It is a reasoning form leading to infer hypotheses from facts: so it is often used in order to construct post hoc hypotheses. See, for instance, the following examples: (b) *The lawn is wet. But if it rained last night*

---

4 Amongst the conditional expressions, 'If […] then' is the most investigated one in the psychology of human thinking and in CogSci, given the close relationship between the modelling of conditionals and the elaboration of logical systems. Oaksford is in line with an emerging trend of thought that views people's CR behaviour more as successful probabilistic reasoning rather than strictly hypothetical-deductive and potentially errorful logical reasoning. He outlines an integrative approach to the competing theoretical positions developed over the last 50 years in this area (mental logics, mental models, heuristic approaches, dual process theory, and probabilistic approaches) to better explain the multifaceted phenomenon of reasoning with conditionals. The issue, however, is not free from controversy.

5 For further investigation, see Walton (1989), Palladino (2002), Evans (2007), Edgington (2008), Cavender/Kahane (2010).

(a), *then it would be unsurprising that the lawn is wet.* Therefore, by abductive reasoning, *If it rained last night, then the lawn is wet.*

We could say that SR thinking is not the expression of certainty, but moves along a continuum of probabilities. In the same vein, Schroyens (2008) considers the lifelong development of deductive rationality in human reasoning. It is assumed that a deductive rational behaviour satisfies the goals of deduction: thus, the conclusion of a deductively valid argument is necessarily true *if the premises are true.* Deductive thinking is always hypothetical thinking under the assumption of truth: it is reasoning under certainty. However, should factual knowledge conflict with the assumption of truth, then it would be necessary to engage in 'contrary-to-fact' reasoning. Here critical thinking (i.e., by and large, looking for possible alternatives) comes to the foreground: deductively rational behaviour is not prescriptive/normative in every circumstance, and the age factor appears to influence the choice in favour of critical/probabilistic thinking.[6]

Among many possible uses, CR is also utilized to perform various kinds of speech acts, such as *commissives* (offer, promise, refuse, threaten, volunteer), e.g. *if you go to the shops, I'll cook the dinner*, *if you don't pick me up, I won't come to the party*; *directives* (request, command, invite, suggest, forbid) e.g. *if you are not 18 years old, you can't drive a car in Italy*; or *expressives* (praise, congratulate, regret, deplore) e.g. *if I hadn't told her, she wouldn't be furious at me* or *if I hadn't married him, I wouldn't have to divorce him*. Further, CR patterns are used also to convey counter-factuality: e.g. *if the Nazis had won World War II, the course of history would have been tremendously different*.

To the purpose of the present study, the authorial choice between *suppositional-probabilistic* and *hypothetical-deductive* reasoning is a significant aspect. Both reasoning patterns require conditional forms and can be expressed by the *if* ***a***, *then* ***b*** formula, but with different degrees and quality of certainty. By and large, the laws

6 Schroyens, Schaeken and Dieussaert (2008) hypothesize a developmental increase in critical-thinking (i.e. a better, more extensive search for counter-examples: alternative possibilities to putative conclusions). With age, people make more valid arguments; with age there are simply more counterexamples.

of Euclidean geometry, philosophical reasoning and cognitive sciences are more solid foundations for hypothetical-deductive reasoning, whereas research in medical, historical or anthropological domains more frequently relies on probabilistic reasoning, which displays lower degrees of certainty:[7]

(1) (HD) If nest building behaviors are often driven by pre-programmed schemas, it is also obvious that they are flexible with individual variations (CogSci BC 30)

(2) (SR) If splenectomy is required, antimicrobial prophylaxis is usually provided, at least until age five years, to decrease the risk of overwhelming sepsis caused by encapsulated organisms. (Med BC II)

It also needs to be taken into account that both in everyday and scientific communication, using *suppose/assume* instead of *if***,** or adding intensifiers, boosters or downtoners may simply be a question of discoursal strategies. Moreover, CR thinking patterns must not be confused with other rhetorical devices, such as, for example, descriptions in the form of questions: *What can an image be if not a representation*? (CogSci BC 3)

Going to greater lengths, we have also analysed whole 'Conditional Reasoning-tinged' passages in our corpus, where the displaying of hypotheses require textual stretches well beyond the sentence boundary:

(3) Suppose we were to admit that our $20 billion a year "war on drugs" has been lost. Suppose we were to take the step of legalizing drugs, so that any adult with a special picture ID credit card could buy them in modest quantities in any liquor store, with the Drug Enforcement Agency's computer keeping track of each purchase. There would still be a small illegal trade in drugs for juveniles, but billions of dollars would be removed from the underworld economy. (CogSci BC 5)

(4) Suppose, for example, that a mutation caused a particular stem cell to replicate faster. That mutant lineage might take over its own compartment, outcompeting other stem lineages within the compartment. But spatial restrictions would often prevent the mutant lineage from spreading beyond its own small neighborhood. (Med BCXX)

7 The numbers in brackets refer to the lists of the BCs in our corpus.

In sum, to achieve correct understanding of CR patterns in BCs, our analysis cannot be confined to 'surface' lexical features, but needs to dig deep down into semantic/logic levels. Apparently, there is no automatic marker of CR thinking patterns: they are conveyed rather through the semantic balancing of sentences/paragraphs according to the (sometimes implied, underlying) formula *if a, then b, 'a', thus 'b'* which shapes these either deductive or probabilistic forms – as shown in section 5.2., tables 10-11.

5. Materials and data

Originally our corpus (time span 1998-2010) comprised a larger number of texts, but since on average MedBCs are considerably shorter than CogSci BCs, we had to redefine our selection carefully by eliminating the shortest and the longest chapters on both sides. Our present corpus consists of two subcorpora:

- 30 CogSci BCs, for a total of 296,288 running words, mainly from the domains of Psychology, (Psycho)Linguistics, Computational Linguistics, Information Technology, Evolutionary Studies, Epistemology and Anthropology.
- 30 Med BCs, for a total of 199,285 running words mainly from the domains of Epidemiology, Virology, Genetics, Pharmacology, Cardiology, Obstetrics.

Given the different sizes of our subcorpora, they cannot be compared by utilizing corpus-linguistics usual tools, but rather by resorting to proportional criteria. In the following tables, examples of the features analysed (first persons and indefinite subject pronouns; verbs combined with these pronouns; Hypothetical-deductive vs. Probabilistic Reasoning patterns) are shown and compared contrastively.

5.1. Pronoun data

Here follow the quantitative data of pronoun occurrences which will be grouped into two columns, one for CogSci BCs and the other for Med BCs, to highlight the more meaningful differences in the data resulting from our contrastive analysis of the two subcorpora.

It is the most common option in our corpus, as expected in the domain of scientific discourse. The second and third most frequent options are *inclusive we* (Fløttum 2006) and *I* for CogSci, and *exclusive we* and *inclusive we* for Med Sciences. One possible reason for these choices is that authors-researchers use self-referencing pronouns (*I-We*) to effectively illustrate and endorse their research hypotheses and methodological choices and, also, to situate them within shared traditions. *I* self-mentions in single-authored BCs is the most marked assertion of authorial identity/agentivity. Further, the use of *we* as a 'reader pronoun' – or *inclusive we* – is the most explicit way of achieving 'proximity' with readers and is prominent in research papers (Hyland 2010). When the use of *we* is the choice, this gives "a clear indication to the reader of the perspective from which their statements should be interpreted, distinguishing their own work from that of others" (Hyland 2005: 148).

	CogSci BCs 296,288 running words		*Med BCs* 199,285 running words	
	Frequency	*TTR*	*Frequency*	*TTR*
IT	1,264	4.26	446	2.23
WE	1,088	3.67	127	0.63
Inclusive	728	2.45	19	0.09
Exclusive	360	1.21	108	0.54
I	544	1.83	48	0.24

Table 1. Subject pronouns occurrences.

More specifically, our findings (Table 1 and Figures 1, 2) highlighted a between-disciplinary difference within the book-chapter genre: the use of *inclusive we* is prominent in CogSci BCs, while *exclusive we* is consistently more frequent in Med BCs.

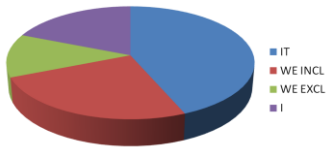


Figure 1. Med BCs subject pronoun ratio.

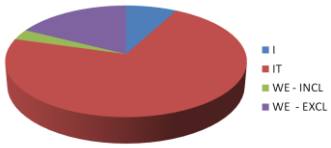


Figure 2. CogSci BCs subject pronouns ratio.

The examples in the tables below have been arranged according to semantic gradation criteria when possible. As anticipated, the use of *I* , which signals a more personal engagement in discourse, is by far most frequent in CogSci than in Med BCs. The following data isolate the varieties of *I* semantic 'short-distance' patterns.

CogSci BCs – I am	*Med BCs – I am*
sure/confident/well aware	grateful
not aware/ not denying	in advantageous position
after/ inclined to prefer	_____
loath/ afraid to speak	_____

Table 2. *I am.*

CogSci BCs – I can	*Med BCs – I can*
in principle know about	could not find

also specify	_____
possibly speak/ truthfully assert	_____
cannot help/explain/see	_____
could possibly obtain /carry out	_____
couldn't fail to	

Table 3. *I can.*

CogSci BCs – I have - present perfect	*Med BCs – I have - present perfect*
already mentioned/described	discussed
become acquainted	_____
found it worthwhile/reached in	_____
included/listed them	_____
postulated/ insisted	_____
tried to apply	_____
This I have done and present the results	_____

Table 4. *I* – Present perfect.

CogSci BCs – I – Future Tenses	*Med BCs – I* – Future Tenses
am going to suggest/ to try and show	_____
The statement I am going to make	_____
shall discuss/ be less disturbed	_____
will abstain from quoting	_____
will be intent on	_____
will call/constantly have to draw upon	_____
will develop criteria	_____
will take pains to work out/will gradually work out/ say more later	

Table 5. *I* – Future tenses.

CogSci BCs – I – Conditionals	*Med BCs – I* – Conditionals
should not represent/limit	_____
should like to suggest/ counter/urge my readers	_____
should survive	_____
would normally say/ particularly pick out/ argue/	_____

Table 6. *I* – Conditionals.

CogSci BCs – I – with Lexical verbs	*Med BCs – I – with Lexical verbs*
started/used/ included	introduce/describe/ use
daresay /discuss /argue	discuss
come across/ explore/consider/ count	found
know/believe/ may ask myself/ doubt/ remain sceptical	(briefly) review
	enclose
What I have/had in mind	want to mention
intend/ mean/ understand	recommend/ expect
myself tend to/learnt to consider/as I myself did	suggest

ought to render as explicit/need to clarify	_____
possibly conceive/propose [+do not]/plan	_____
suggest that/ think/thought/(do) hope	_____
take it/my approach / the liberty	_____
try[ied] to make it plain/adopt /point out/ work out	_____
fully subscribe/uncritically succumb	

Table 7. *I* – with Lexical verbs.

On the whole, in CogSci BCs, *I* characteristic patterns of colligation are more lexically varied and display a higher degree of authorial involvement in research issues as compared to Med BC ones. In our tables we listed all occurring lexical patterns/colligations found in the two subcorpora. In CogSci BCs far greater lexical variety is displayed than in Med BCs (as apparent from the gaps in the Med BCs – indicating 'no-occurrence'). Medical authors' identity appears to be more 'neutral' and 'data-driven,' whereas CogSci authors put their epistemic choices in the foreground, especially when dealing with research issues more heavily relying on observation and reasoning rather than on experimental data.

Here follows the list of *inclusive we* semantic 'short-distance' patterns:

CogSci BCs - Inclusive We	*Med BCs - Inclusive We*
What we and our hearers have in mind/ Although we usually do not deny this general principle/ couldn't help being/ are not justified/ As far as we understand today, a common beginning/ What we know and do not know about/ could hardly avoid asking ourselves/	are far from a complete understanding/ But now we have only limited understanding/ can measure the age of a DNA strand expect that bioinformatics /
have to ask whether/ to assume/ have to expect consequences/ have to focus our interest upon/ have to realize/ have to unearth the hidden logical structure/ hence we may be well advised if/ objects that do not disappear when we do not look at them/ How could we rate the quality/	know a great deal/ need to rely/ virtually, everything we know about genome/ must first examine in detail/

Hence I think we may conclude that I take it we would be confronted I think we are justified in accepting I think we can prove I think we may safely call it I take it we would be confronted I think we are justified in accepting I think we can prove I think we may safely call it	may characterize one individual as being What have we learnt _____ _____ _____
may downright consider them may exhume the slogan must be alive to the fact that observe/experience/ investigate are apt to believe/ are social animals/are we not…? As we used to say/ now say/ ask As we know it/ have seen brood over can reasonably assume/ write can we associate…? cannot escape the conclusion that examine/define/employ didn't postulate/deal with them/ have half of the story/have no hints have to expect/have now arrived How do we produce reports..? interact with each other /ignore judge the academic account ought to be/ not to speak misperceive our percepts must allow /remember/ not consider reconstruct/summarise should not be surprised should bear in mind/ note this is not a measure need to move on/still have to explain Thankfully we do not need usually do not deny	_____ _____

Table 8. Inclusive *we.*

As we can notice, there is a much greater variety of inclusive *we* lexical patterns in CogSci BCs, since those authors more explicitly aim at engaging their readership in their reasoning and at endorsing/sharing their epistemic choices. Conversely and predictably,

there is greater variety in the use of exclusive *we* in Med BCs, as is apparent in the following table, particularly from the 'no-occurrence' gaps in the CogSci BCs column.

CogSci BCs - Exclusive We	*Med BCs - Exclusive We*
are not restricting the use	abstracted / give an overview
are presenting/ considering here	adjusted /adopted/ chose
decided to begin/can mention	allow
As we understand this term/ the expression here	applied criteria (do not)
	are interested/well aware
cling to the point of view/discuss	ask
do not deal with them/want to elaborate further	assumed/ believe/ considered
	calculated /checked/assessed
have said/observed/ chosen/ seen that	have organized/ prepared
believe it is useful/ hypothesize	combined /compiled
have but the choice	conducted
have stressed the feasibility/ made innovations	contacted researchers
	created
discuss/focus/ not need to examine here	(critically) analysed
have been unspecific	described/defined
hesitate	designed
take/mean/ report /show	detected
rule out/claim	developed
will accept/ sketch	discarded
_____	drew on
_____	elected
_____	elicited
_____	eliminated
_____	employ
_____	examined/estimate/evaluate
_____	have included/excluded
_____	expect/ found
_____	focus
_____	demonstrated
_____	gave formal reports
_____	have arranged
_____	have audited its method and found
_____	have to reduce
_____	have used (not)
_____	How can we be sure that
_____	have shown
_____	have learnt
_____	can conclude
_____	can we reverse..?

Table 9. Exclusive *we.*

The grouping of lexical verbs in Med BCs has been more difficult, since they are less synonymic and more related to different phases of the research process. The following is a list of *It* occurrences in the two subcorpora:

CogSci BCs – It	*Med BCs* – It
clear /not surprising that	appropriate/ suggested/ not surprising /included
defined	believed/by now very well established
entirely wrong	clear /evident/generally accepted
for this reason that	incorporated into the standard
important to/ clarify/note/stress/underline/ distinguish/emphasize	important
(widely) held/(frequently) suggested	certainly and completely appropriate
necessary to summarize my position	expected/ideal
noteworthy that	completely natural
now urged	a mistake to try
plausible to assume /reasonable to suppose	detected/similar
proposed that the argument	difficult to predict/estimate
time to readjust our appraisal of	useful to examine
to be taken as	for this reason that
viewed from outside	seems likely/ seems that /impossible
_____	is it valid?
_____	necessary to bear in mind
_____	not possible / possible to modify
_____	heartening to note/intriguing
_____	unknown
_____	usually increased/ not compatible
_____	very difficult
_____	necessary/ vital
_____	

Table 10. *It* occurrences.

As apparent from our data, whereas *inclusive we* and *I* are very popular choices with CogSci authors/researchers, *it* and *exclusive we* are by far the most frequent options with the more 'data-driven' Med researchers/authors. Authorial saliency and individuality are decidedly more evident in CogSci when authors support their choice of Method by deploying argumentative strategies in their reasoning. As anticipated above, to engage the readership appears to be their explicit aim.

5.2. Conditional Reasoning data

The following examples drawn from the two sub-corpora (CogSci and Med BCs) show instantiations of authorial explanations of their research hypotheses and methods, formulated according to CR patterns, either HD or SR. It was necessary to provide more HD examples for GogSci to illustrate the greater variety of their patterns and formulations; conversely, more SR examples were reported for Med BCs, given their fact-oriented quality.

CogSci BCs – HD	*Med BCs– HD*
If the pictorial representation is employed to make clear the function of the objects within the whole system_ it is not important how exactly the objects look like i_e_ what color or texture their surfaces have_ or which light produces what reflections_ […]. (24)	But what is most urgently needed is investment in cost-effective methods to monitor mortality if we are not to be similarly ignorant about health conditions in Africa 10 years hence. (XXVII)
Theories expressed as simulations possess three characteristics that may be crucial for progress in the study of language origins and evolution. First, if one expresses one's theory as a computer program the theory cannot but be explicit, detailed, consistent, and complete because, if it lacks these properties, the theory/program would not run in the computer and would not generate results. (3)	If both members of a couple are carriers of an a^o-thalassemia deletion mutation (e.g., genotype aa/--SEA), each of their offspring has a 1/4 risk of having Hb Bart hydrops fetalis syndrome. (X)
If, as I have postulated elsewhere, following Vygotsky […], language is a system that is both communicatory and representational and that most of the representations we use are of linguistic support, it is also necessary to consider the existence in humans of nonverbal representational capacities. (27)	If both the placebo and spore suspensions contain compounds that influence the immune response of the host (e.g., certain bacteria), one obtains estimates of host response, which have to be seen within the light of this suspension. (XI)
Each module checks if the stem words match a particular relationship in the database. If they do not, the module returns the uniform distribution. (26)	Producing EEG figures is also notoriously difficult from paper EEGs particularly if blue ink was used. (XXVI)
Even if we you were able to do this, you would still not have understood	They are codominant, meaning that if the FYA is inherited from one parent

Chinese the same way you understand the meaning of English words. (2)	and the FYB allele is inherited from the other, both gene products, Duffy Fya and Fyb antigens, will be expressed on the RBCs. (VII)
If communication is defined in its functional role as facilitating social coordination, we should seriously consider calling Franzy's behavior communication. If, however, we define communication by means of symbol use, symbol use by means of appreciation of semiotic conventions, and the latter by means of representations of others' mental states, we cannot escape the conclusion that theory of mind precedes language. (16)	
If a system can be devised by which these positions of the organs are shown, one man will be able to indicate to another, by means of a drawing, the kind of sound he wishes to convey. (1)	
If human cognition, as Clark (1997, 98) proposes, 'is fundamentally a means of engaging with the world', then material culture is consubstantial with mind. (18)	

Table 11. Hypothetical Deductive reasoning patterns.

CogSci BCs- SR	*Med BCs - SR*
If women's smaller size and lesser strength were the limiting factor in their involvement in violence, then we would expect female/female homicide rates to be equivalent to male/male homicide rates, yet this is not the case. (9)	If better health improves the productive potential of individuals, good health should accompany higher levels of national income in the long run. (XVIII)
If we turn to the neuroscience of vision for an answer this will be, more or less, of the following general form: […]. (19)	If the data coverage estimates were high enough to be meaningful, death rates for those aged five years and over were then adjusted accordingly. (XXIII)
	In current routine practice, if a GSWD occurs the technician is expected to detect possible associated ictal clinical symptoms such as eye opening, staring,

	cessation of overbreathing, myoclonic jerks, abnormal eye movements, automatisms and so forth. (XXVI)
	While there will remain a residue of deaths for which insufficient information is available to determine intent, this should be a small fraction of injury deaths if appropriate forensic and coronial investigations are carried out. (XXXIII)
	If quality improvement initiatives are to be developed based on events captured in the PSI, surgeons causing minor or moderate injuries may not be identified by the APL PSI and will not be targeted for quality improvement. (XIII)

Table 12. Suppositional/Probabilistic reasoning patterns.

Apparently, the observation-driven, probabilistic reasoning pattern is the most frequent option for Med researchers, whereas Cog scientists more heavily rely on HD reasoning to engage their readership more effectively by presenting their formulations as deriving from shared knowledge. Table 13 shows the quantitative data of 'conditional lexicon' – curiously enough *provided that* only occurred once in Med BCs and no instantiation was found in CogSci BCs.[8]

	CogSci BCs 296,288 running words		*Med BCs* 199,285 running words	
	Frequency	*TTR*	*Frequency*	*TTR*
If	547	1.84	163	0.81
Seem(s)	194	0.65	23	0.11
Appear(s)	144	0.48	65	0.32
Suppose(s)	40	0.13	3	0.01
Assume(s)	82	0.27	4	0.02
TOTAL	**1,007**	**3.39**	**258**	**1.29**

Table 13. Conditional (HD+SR) words/Running words ratio.

8 Here is the only quote: "The basic philosophy guiding the burden of disease approach is that almost all sources of health data are likely to have information content *provided that* they are carefully screened". (Medical BCs IX).

The lower frequency of *if* in Med BCs is significant. Apparently, this finding mirrors the different epistemic attitude of medical doctors towards their experimental data and/or observations as compared to GogSci authors – the former being more factual than the latter, who tend to utilize more CR patterns, thus displaying a more argumentative attitude. The two graphics below visually represent the most commonly used conditional word distribution in Med and CogSci BCs:

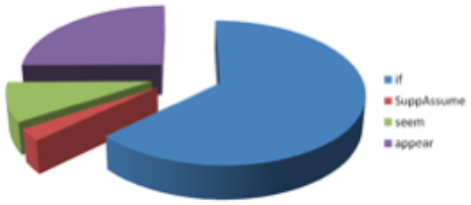


Figure 3. BCs conditional words

Figure 4. CogSci BCs conditional words

The more speculative *seem/s* is the favourite option for CogSci authors, while the more factual *appear/s* is in greater favour in Med BCs.

6. Discussion and conclusions

As our data have highlighted, CogSci writers more frequently utilize the self-referential pronouns *we* and *I* (Table 1) as compared to Medical authors. In particular, the use of *inclusive we*, which is prominent in CogSci BCs, construes a writer-reader-disciplinary community interaction, while *exclusive we*, comparatively more utilized in Med BCs, tends to remove the authorial presence from the readership and to focus the attention more on research effort and findings rather than on knowledge dissemination.

Also, we can infer that in CogSci BCs the emphasis on binding writer and reader together mainly through *inclusive we* aims at endorsing the saliency of the research in the readership perception, and at grounding its credibility in the dimension of *shared knowledge* (van Dijk 2006) often reinforced through Conditional Reasoning patterns. Indeed, our findings showed a higher frequency of Conditional Words in CogSci BCs as compared to Med BCs. Med Sciences authors appear to be less self-referential and to rely less on '*if*-argumentation'. The two significant differences identified in this comparative analysis – both in the use of pronouns and of CR patterns – are far from being independent from each other: CogSci authors use both more self-referential/inclusive pronouns and more conditional words.

More specifically, both Med and CogSci authors effectively engage their readers as participants in a 'situated' discursive interaction, but with scaling values of individuality (CogSci) / commonality (Med) ratio. BCs Med authors are present in their texts mainly as *researchers* (Fløttum 2006), i.e. in a somewhat modest, less directly argumentative way. Instead, Cog Scientists are more present as *arguers*: CogSci disciplines (Linguistics among them) draw on various other disciplines for their research, and, maybe, that is the reason why argumentative resources are more in the forefront.

The voicing of authorial individuality has to comply with both discipline and genre-specific rules, and "the scope for the unpredictable is much more limited: hybridity and multiaccentuality

are constrained within the prescriptive norms that regulate scientific communication and its specialised, globally utilised genres" (Abbamonte / Cavaliere 2010: 372). Within the norms and constraints of scientific communication, the authors' intellectual attitude to their methods involves consistent effort of text-internal schematic elaboration. Different disciplines entail a different use of self-referencing and of other negotiatory resources in the continual dialogue among researchers and the intended discourse community (Hyland 2000, 2006, 2010, Bhatia 2006), as in the present case. The range of choices significantly contributes to construe alternative univocities both in the process of continuously reshaping knowledge and in the modes of its dissemination in academia.

References

Abbamonte, Lucia / Cavaliere, Flavia 2010. *'As previous researchers have found…'* – dialogic Endorsement in Social Psychology Research Articles. In von Hahn, Walter / Vertan, Cristina (eds) *Specialized Language in Global Communication*. Frankfurt am Mein: Peter Lang, 371-379.

Abbamonte, Lucia 2002. *Reading Psychology English. Coping with Research Articles*. Napoli: ESI.

Abbamonte, Lucia 2008. Scientific Communication and Authorial Identities in Cognitive Neuroscience Handbooks. In Giannoni, Davide / Maci, Stefania (eds) *Identity Traits in English Academic Discourse. Special Issue of Linguistica e Filologia* 27, 59-76.

Atkinson, Dwight 1999. *Scientific Discourse in Sociohistorical Context: The Philosophical Transactions of the Royal Society of London, 1675-1975*. Mahwah, New Jersey: Erlbaum.

Bazerman, Charles 1988. *Shaping Written Knowledge: The Genre and Activity of the Experimental Article in Science*. Madison, Wisconsin: University of Wisconsin Press.

Berkenkotter, Carol / Huckin, Thomas N. 1995. *Genre Knowledge in Disciplinary Communication: Cognition, Culture, Power.* Hillsdale, New Jersey: Lawrence Erlbaum.

Bhatia, Vijay K. 2004. *Worlds of Written Discourse: A Genre-Based View*. London: Continuum.

Bhatia, Vijay K. / Gotti, Maurizio (eds) 2006. *Explorations in Specialized Genres*. Bern: Peter Lang.

Bhatia, Vijay K. 2008. Genre Analysis, ESP and Professional Practice. *English for Specific Purposes* 27, 161-74.

Boismenu, Gérard, Beaudry, Guylaine 2004. *Scholarly Journals in the New Digital World*. Alberta, Canada: University of Calgary Press.

Bondi, Marina 1999. *English Across Genres. Language Variation in the Discourse of Economics.* Modena: Il Fiorino.

Cavender, Nancy / Kahane Howard 2010. *Logic and Contemporary Rhetoric: The Use of Reason in Everyday Life.* 11th Edition. Belmont, Calif. : Wadsworth Pub. Co.

Cavaliere, Flavia 2008. Measuring the Perception of the Screen Translation of 'Un Posto Al Sole'. A Cross-Cultural Study. In Chiaro Delia *et al.* (ed.). *Between Text and Image - Updating Research in Screen Translation.* Amsterdam: John Benjamins, 139-151.

Edgington, Dorothy 2008. Conditionals. In Zalta, Edward (ed.) *The Stanford Encyclopedia of Philosophy.* Available at http://plato.stanford.edu/archives/spr2006/entries/conditionals/.

Evans, Jonathan St. B.T. 2007. *Hypothetical Thinking: Dual Processes in Reasoning and Judgment*. Hove, UK: Psychology Press.

Fløttum, Kjersti et.al. 2006. "We now report on..." versus "Let us now see how...": Author Roles and Interaction with Readers in Research Articles. In Hyland, Ken / Bondi, Marina (eds) *Academic Discourse Across Disciplines*, Bern: Peter Lang, 203-224.

Flowerdew, John / Dudley-Evans Tony 2002. Genre Analysis of Editorial Letters to International Journal Contributors. *Applied Linguistics* 23/4, 463-489.

Freedman, Aviva / Medway, Peter 1994. Locating Genre Studies: Antecedents and Prospects. In Freedman, Aviva / Medway,

Peter (eds) *Genre and the New Rhetoric*. London: Taylor and Francis, 1-20.

Giannoni, Davide 2006. Evidence of Generic Tension in Academic Book Acknowledgements. In Bhatia, Vijay K. / Gotti, Maurizio (eds) *Explorations in Specialized Genres*. Bern: Peter Lang, 21-42.

Gotti, Maurizio 2009 (ed.) *Commonality and Individuality in Academic Discourse*. Bern: Peter Lang.

Halliday, Martin A. / Martin James. 1993.Writing Science: Literacy and Discursive Power. Pittsburgh: University of Pittsburgh Press.

Hyland, Ken 2000. *Disciplinary Discourses: Social Interactions in Academic Writing*. Essex: Pearson Education.

Hyland, Ken 2004. *Genre and Second Language Writing*. Ann Arbor: University of Michigan Press.

Hyland, Ken 2005. *Metadiscourse*. London: Continuum.

Hyland, Ken / Bondi, Marina 2006. *Academic Discourse Across Disciplines*. Bern: Peter Lang.

Hyland, Ken 2010. Constructing Proximity: Relating to Readers in Popular and Professional Science. *Journal of English for Academic Purposes* 9/2, 116-127.

Johns, Ann M. 1997. *Text, Role and Context*. Cambridge: Cambridge University Press.

Jordan, Robert R. 1997. *English for Academic Purpose.* Cambridge: Cambridge University Press.

Kress, Gunther 1985. *Linguistic Processes in Sociocultural Practice*. Victoria, Australia: Deakin University.

Maci, Stefania 2008. An Emerging Medical Genre: the Research Letter. In Di Martino, Gabriella / Polese, Vanda / Solly, Martin (eds). *Identity and culture in English Domain-specific Discourse*. Napoli: Edizioni Scientifiche Italiane.

Miller, Carolyn 1994. Opportunity, Opportunism, and Progress: Kairos in the Rhetoric of Technology. *Argumentation* 8/1, 81–96.

Miller, Carolyn / Dawn Shepherd 2004. Blogging as Social Action: A Genre Analysis of the Weblog. In Gurak, Laura *et al.* (eds) *Into the Blogosphere: Rhetoric, Community, and Culture of Weblogs*. University of Minnesota Libraries. Available at

http://blog.lib.umn.edu/blogosphere/blogging_as_social_action.html.

Montgomery, Scott 1996. *The Scientific Voice*. New York: The Guildford Press.

Myers, Greg 1990. Making a Discovery: Narratives of Split Genes. In Nash, Christopher (ed.) *Narrative in Culture*. London: Routledge.

Oaksford, Mike / Chater, Nick (eds) 2010. *Cognition and Conditionals: Probability and Logic in Human Thinking*. Oxford: Oxford University Press.

Palladino, Dario 2002. *Corso di Logica*. Roma: Carocci.

Salager-Meyer, Francoise 1991. Medical English Abstracts: How Well Structured Are They? *JASIS (Journal of the American Society for Information Science* 42 /7, 528-531.

Salager-Meyer, Francoise 1994. Reading Medical English Abstracts: A Genre Study of the Interaction Between Structural Variables and the Reader's Linguistico-Conceptual Competence (L2). *Journal of Research in Reading* 17/2,120-146.

Salager-Meyer, Francoise / Alcaraz Ariza María Angeles 2004. Negative Appraisals in Academic Book Reviews: A Cross-Linguistic Approach. In Candlin, Christopher / Gotti, Maurizio (eds) *Intercultural Aspects of Specialized Communication. Linguistics Insight Series*. Bern: Peter Lang, 149-172.

Salager-Meyer, Francoise 2006. Paying One's Intellectual Debt: Acknowledgments in Conventional vs. Complementary / Alternative Medical Research. In Gotti Maurizio / Salager-Meyer, Francoise (eds) *Advances in Medical Discourse Analysis: Oral and Written Contexts.* Bern: Peter Lang, 407-430.

Schroyens, Walter / Schaeken, Walter / Dieussaert, Kristien 2008. "The" Interpretation(s) of Conditionals. *Experimental Psychology* 55/3, 173-181.

Swales, John 1990. *Genre Analysis. English in Academic and Research Settings*. Cambridge University Press.

Swales, John M. 2004. *Research Genres: Explorations and Applications*. Cambridge: Cambridge University Press.

Swales, John 2011. Disciplinary Variation in Methods Sections of Research Articles. Paper presented at CERLIS11 - the 8th Cerlis

Conference - *Genre Variation in English Academic Communication. Emerging Trends and Disciplinary Insights.* University of Bergamo.

van Dijk, Teun 2006. Ideology and Discourse Analysis, *Journal of Political Ideologies* 11/2, 115-140.

Walton, Douglas N. 1989. *Informal Logic: A Handbook for Critical Argumentation*. Cambridge: Cambridge University Press.

Wodak, Ruth / Meyer, Michael (eds.) 2009 *Methods of Critical Discourse Analysis* London: Sage.

Appendix

Cognitive Science Book Chapters List

1) Allott, Robin 2000. The Articulatory Basis of the Alphabet. In Bichakjian, Bernard H. / Chernigovskaya, Tatiana (eds) *Becoming Loquens.* Frankfurt am Main: Peter Lang, 167-199.
2) Cangelosi, Angelo / Greco Alberto / Harnad, Stevan 2002. Symbol Grounding and the Symbolic Theft Hypothesis. In Cangelosi, Angelo / Parisi, Domenico (eds) *Simulating the Evolution of Language.* London: Springer, 73-144.
3) Cangelosi, Angelo / Parisi, Domenico 2001. Computer Simulation: A New Scientific Approach to the Study of Language Evolution. In Cangelosi, Angelo / Parisi, Domenico (eds) *Simulating the Evolution of Language*. London: Springer-Verlag, 3-28.
4) Coelho, Carlos *et al*. 2006. Media Presence and Inner Presence: The Sense of Presence in Virtual Reality Technologies. In Riva, Giuseppe *et al.* (eds) *Communication to Presence: Cognition, Emotions and Culture towards the Ultimate Communicative Experience.* Amsterdam: IOS Press, 26-42.
5) Christensen, Wayne 2006. The Evolutionary Origins of Volition. In Spurrett, David *et al.* (eds) *Distributed Cognition and the Will: Individual Volition and Social Context*. Cambridge, Mass.: MIT Press, 255-287.
6) Damerose Eric / Vauclair, Jacques 2002. Posture and Laterality in Human and Nonhuman Primates: Asymmetries in Maternal Handling and the Infant's Early Motor Asymmetries. In Rogers Lesley J. / Andrew Richard J. (eds). *Comparative Vertebrate Lateralization*. Cambridge: Cambridge University Press, 306-362.
7) Dunbar, Robin 1998. Theory of Mind and the Evolution of Language. In Knight, Chris / Studdert-Kennedy, Michael / Hurford, James R. (eds)

Approaches to the Evolution of Language: Social and Cognitive Bases. Cambridge: Cambridge University Press, 92-110.

8) Fessler, Daniel M.T. 2010. Madmen: An Evolutionary Perspective on Anger and Men's Violent Responses to Transgression. In Potegal, Michael / Stemmler, Gerard / Spielberger Charles D. (eds) *Handbook of Anger: Constituent and Concomitant Biological, Psychological, and Social Processes*. London: Springer-Verlag, 361-381.

9) Fessler, Daniel M.T. / Gervais, Matthew 2010. From whence the Captains of Our Lives: Ultimate and Phylogenetic Perspectives on Emotions in Humans and Other Primates. In Kappeler Peter / Silk, Joan B. (eds) *Mind the Gap: The Origins of Human Universals*. New York: Springer, 261-280.

10) Heidelberger, Michael 2003. The Mind-Body Problem in the Origin of Logical Empiricism: Herbert Feigl and Psychophysical Parallelism. In Parrini, Paolo *et al.* (eds) *Logical Empiricism: Historical and Contemporary Perspectives*. Pittsburgh, PA: University of Pittsburgh Press, 233-262

11) Humphrey, Nicholas 2002. Great Expectations: The Evolutionary Psychology of Faith-Healing and the Placebo Effect. In von Hofsten, Claes / Bäckman, Lars (eds) *Psychology at the Turn of the Millennium, Vol. 2: Social, Developmental, and Clinical Perspectives*. Hove: Psychology Press, 225-46.

12) Hurford James R. / Simon Kirby 1999. Co-evolution of Language Size and the Critical Period. In Birdsong, David (ed.) *Second Language Acquisition and the Critical Period Hypothesis*. Hillsdale, NJ: Lawrence Erlbaum, 39-63.

13) Laurence, Thomas 2003. Upside-Down Equality: A Response to Kantian Thought. In Levine, Michael / Pataki, Tamas (eds) *Racism, Philosophy and Mind: Philosophical Explanations of Racism and Its Implications.* Ithaca, New York : Cornell University Press, 279-292.

14) Lykken, David 1998. The Case for Parental Licensure. In Million, Theodor *et al.* (eds) *Psychopathy: Antisocial, Criminal, and Violent Behavior*. New York: Guilford Publications, 122-143.

15) Malle, Bertram F. 2002. The Relation between Language and Theory of Mind in Development and Evolution. In Givón, Talmy / Malle, Bertram F (eds) *The Evolution of Language out of Pre-language* Amsterdam: Benjamins, 265-284.

16) Malle, Bertram F. 2003. Folk Theory of Mind: Conceptual Foundations of Social Cognition. In Hassan, Ran R. / Uleman, James S./ Bargh, John A. (eds) *The New Unconscious.* Oxford: Oxford University Press, 225-255.

17) Manera, Valeria / Tirassa, Maurizio 2010. Cognitive Science. In Cummings, Louise (ed.) *The Pragmatics Encyclopedia.* London / New York: Routledge, 55-58.

18) Malafouris, Lambros 2004. The Cognitive Basis of Material Engagement: Where Brain, Body and Culture Conflate. In De Marrais, Elizabeth / Gosden, Chris / Renfrew, Colin (eds) *Rethinking Materiality: The Engagement of Mind with the Material World.* Cambridge: McDonald Institute for Archaeological Research, 53-62.

19) Malafouris, Lambros 2007. Before and Beyond Representation: Towards an Enactive Conception of the Palaeolithic Image. In Renfrew, Colin / Morley, Iain (eds) *Image and Imagination: a Global History of Figurative*

Representation. Cambridge: McDonald Institute for Archaeological Research, 289-302.

20) Miikkulainen, Risto 2000. Text and Discourse Understanding: The DISCERN System. In Dale, Robert / Moisl, Hermann / Somers, Harold (eds) *A Handbook of Natural Language Processing: Techniques and Applications for the Processing of Language as Text.* New York: Marcel Dekker, 905-919.

21) Origgi, Gloria / Sperber, Dan 2000. Evolution, Communication and the Proper Function of Language. In Carruthers, Peter / Chamberlain, Andrew (eds) *Evolution and the Human Mind: Language, Modularity and Meta Cognition*. Cambridge: Cambridge University Press, 140-169.

22) Riva, Giuseppe 2006. Being-in-the-world-with: Presence Meets Social And Cognitive Neuroscience. In Anolli, Luigi *et al.* (eds.) *Communication to Presence: Cognition, Emotions and Culture towards the Ultimate Communicative Experience*. Amsterdam: IOS Press, 48-77.

23) Sachs-Hombach, Klaus / Schirra, Jorg J. / Schneider, Jochen 2003. Virtual Institutes: Between Immersion and Communication. In Sachs-Hombach, Klaus / Schirra, Jorg J. / Schneider, Jochen (eds) *Computational Visualistics, Media Informatics, and Virtual Communities.* Wiesbaden: Deutscher Universitäts Verlag, 37-50.

24) Schirra, Jörg R.J. / Scholz, Martin. 1998. Abstraction versus Realism Not the Real Question. In Strothotte, Thomas *et al.* (eds) *Computer Visualization: Graphics, Abstraction, and Interactivity*. Heidelberg: Springer, 379-401.

25) Sperber, Dan / Wilson, Deirdre 1998. The Mapping between the Mental and the Public Lexicon. In Carruthers Peter / Boucher, Joanne (eds) *Thought and Language*. Cambridge: Cambridge University Press, 184-200.

26) Turney, Peter D. *et al.* 2004 Combining Independent Modules in Lexical Multiple-Choice Problems. In Botcheva, Kalina / Angelova, Galia / Mitkov, Ruslan (eds) *Recent Advances in Natural Language Processing III.* Philadelphia: John Benjamins, 101-110.

27) Vauclair, Jacques 2003. Would Humans without Language Be Apes? In Valsiner Jaan / Toomela Aaro (eds) *Cultural Guidance in the Development of the Human Mind: Vol. 7. Advances in Child Development within Culturally Structured Environments*. Greenwich, CT: Ablex Publishing Corporation, 9-26.

28) Velmans, Max 2007. An Epistemology for the Study of Consciousness. In Velmans, Max / Schneider, Susan (eds) *The Blackwell Companion to Consciousness*. New York: Blackwell, 711-725.

29) Velmans, Max 1988. Physical, Psychological and Virtual Realities. In Wood, John (ed) *The Virtual Embodied*. London: Routledge, 45-60.

30) Vinson, Norman / Singer, Janice 2008. A Practical Guide to Ethical Research Involving Humans. In Shull, Forrest / Singer, Janice / Sjøberg, Dag I.K. (eds) *Guide to Advanced Empirical Software Engineering*. London: Springer-Verlag, 229-256.

Medical Book Chapters List[9]

I) Ashley, Euan A / Niebauer Josef 2004. Understanding theEchocardiogram. Bookshelf ID:NBK2215

II) Bekri, Soumeya. 2006.Importance of Glycosylation in Enzyme Replacement Therapy. Bookshelf ID: NBK11598

III) Borland Laura M. / Michael, Adrian C. 2006. An Introduction to Electrochemical Methods in Neuroscience. Bookshelf ID: NBK1845

IV) Brown, Terence A. 2002. Studying Genomes. Bookshelf ID: NBK21119

V) Chung, DongHoon / Ardecky, Robert / Ganji, Santhi Reddy / Cosford , Nicholas / Jonsson, Colleen B / Jia, Fuli / McKellip, Sara N / White, Lucile / Ananthan, Subramaniam / Feng, Shuang / Rasmussen, Lynn / Chung, Thomas / Dad, Shakeela / Tower, Nichole A. / Heil, Marintha 2010. A Cell Based Assay for the Identification of Lead Compounds with Anti-Viral Activity Against West Nile Virus. Bookshelf ID: NBK50698

VI) Davison, Andrew J. 2009. Comparative Analysis of the Genomes. Bookshelf ID: NBK47439

VII) Dean, Laura 2005. The Duffy Blood Group. Bookshelf ID: NBK2271

VIII) de Souza Sandro J. / Camargo, Anamaria A. 2007. Alternative Splicing: Lessons from Cancer. Bookshelf ID: NBK20514

IX) Ebert, Dieter 2005. Experiments with *Daphnia* and Parasites. Bookshelf ID: NBK2041

X) Ferreira de Azevedo, Mauro / del Portillo, Hernando 2006. Control of Gene Expression in *Plasmodium.* Bookshelf ID: NBK6817

XI) Frank. Steven A. 2007. Dynamics of Cancer Incidence, Inheritance, and Evolution. Bookshelf ID: NBK1568

XII) Galanello, Renzo / Cao, Antonio 2008. Alpha-Thalassemia. Bookshelf ID: NBK1435 PMID

XIII) Gallagher, Brian / Cen, Liyi / Hannan, Edward L. 2005. Validation of AHRQ's Patient Safety Indicator for Accidental Puncture or Laceration. Bookshelf ID: NBK20515

XIV) Geretti, Anna Maria 2006. Antiretroviral Resistance in Clinical Practice. Bookshelf ID: NBK2239

XV) Gruber, Arthur / Durham, Alan M. / Huynh, Chuong / del Portillo, Hernando A. 2008. Bioinformatics in Tropical Disease Research. A Practical and Case-Study Approach. Bookshelf ID: NBK6818

XVI) Henriksen, Kerm / Lewin, David I. 2005. From Research to Implementation: Advances in Patient Safety. Bookshelf ID: NBK20499

---

9 The following chapters were retrieved from *Bookshelf*, a collection of biomedical books that can be searched directly or from linked data in other NCBI (National Center for Biotechnology Information) databases, which comprise PubMed. The collection includes biomedical, healthcare and life science books together with other scientific titles, genetic resources such as GeneReviews.

XVII) Hyer, Warren. 2009. Implications of Peutz-Jeghers Syndrome in Children and Adolescents. Bookshelf ID: NBK26374 PMID

XVIII) Jamison, Dean T. 2006. Investing in Health. Bookshelf ID: NBK11754

XIX) Jamison, Dean T. / Breman, Joel G. / Measham, Anthony R. / Alleyne, George / Claeson, Mariam / Evans, David B. / Jha, Prabhat / Mills, Anne / Musgrove, Philip 2006. Disease Control Priorities in Developing Countries. Bookshelf ID: NBK11728

XX) Kamkin, Andre / Kiseleva, Irina 2005. Mechano-Electric Feedback in the Heart: Evidence from Intracellular Microelectrode Recordings on Multicellular Preparations and Single Cells from Healthy and Diseased Tissue. Bookshelf ID: NBK7502

XXI) Kamkin, Andre / Kiseleva, Irina 2005. Mechanosensitivity in Cells and Tissues. Bookshelf ID: NBK7511

XXII) Leung, Kam 2009. Gadolinium-labeled Diethylenetriamine Pentaacetic Acid-CGLIIQKNEC Gd-DTPA-CLT1. Bookshelf ID: NBK23114

XXIII) Mathers, Colin D. / Lopez, Alan D. / Murray, Christopher J. L. 2006. The Burden of Disease and Mortality by Condition: Data, Methods, and Results for 2001. Bookshelf ID: NBK11808 PMID: 21250373

XXIV) Michael, Adrian C. / Borland, Laura M. 2007. Electrochemical Methods for Neuroscience. Bookshelf ID: NBK1847

XXV) Nicolle, Michelle M. / Zhang, Hai-Yan / Bizon, Jennifer L. 2007. Assessment of Second Messenger Function in the Hippocampus of Aged Rats with Cognitive Impairment. Bookshelf ID: NBK7511

XXVI) Panayiotopoulos, Chrysostomos P. 2005. Optimal Use of the EEG in the Diagnosis and Management of Epilepsies. Bookshelf ID: NBK2601

XXVII) Rao, Chalapati / Lopez, Alan D / Hemed, Yusuf 2007. Causes of Death. Bookshelf ID: NBK2298

XXVIII) Rivard, Peter E. / Loveland, Susan / Zhao, Shibei / Tsilimingras, Dennis / Elixhauser, Anne / Romano, Patrick S. / Rosen, Amy K. 2010. Applying Patient Safety Indicators (PSIs) Across Health Care Systems: Achieving Data Comparability. Bookshelf ID: NBK6823

XXIX) Rohrmann, George 2008. Early Events in Infection: Virus Transcription. Bookshelf ID: NBK1766

XXX) Steven A Frank. 2007. Chapter 12.Stem Cells: Tissue Renewal. Bookshelf ID: NBK1566

VANDA POLESE / STEFANIA D'AVANZO

Hybridisation in EU Academic Discourse: The Representation of EU Social Actors*

1. Introduction

Academic discourse refers to ways of thinking and using language in the academy. In doing so, it deals with such complex social activities (Hyland 2009) as constructing and disseminating knowledge. At the same time, it contributes to constructing and establishing social roles to be performed by social actors within a specific community and the outer world. Indeed, as argued by Gee (1996: viii), language can only be performed, constructed and understood in its social context as discourses, i.e. "instantiations of particular roles [...] by specific groups of people".

Insights into the social implications of genres are further provided by the notion of genres as "forms of life, ways of being [...] frames for social action [...] locations within which meaning is constructed [...]" (Bazerman 1997: 19). Among the implications of the 'socially embedded' role of genres is perceiving and using them as part of our "regularized social relations, communicative landscape, and cognitive organization" (Bazerman 1997: 22), where we "create intelligible communicative action with each other and the guideposts we use to explore the unfamiliar", as a means to construct a "symbolic landscape" for us to live in "which most fits us and the others with whom we share it" (Bazerman 1997: 19).

* This study is part of the MIUR-funded National Research Programme titled *Tension and Change in English Domain-specific Genres* (Prot. No. 2007JCY9Y9. Vanda Polese is responsible for sections 1, 2, 3, 4, and 7; Stefania D'Avanzo is responsible for sections 5 and 6.

It seems, therefore, reasonable to assume that an investigation of EU academic discourse can provide information about the social practices of students, the institution and society itself (cf. Hyland 2009).

Along with the discourses of the universities and the academics, a type of discourse that can also be labelled academic is "operationalized [...] in social practices, relations, identities and changes in the physical world" (Fairclough 2011: 11) by the EU as a supranational institution, since it involves academic issues and related actors. Like scholarly discourses, EU discourse is characterised by systematic expressions of institutional meanings and values as

> a multitude of practices and strategies, where argument and engagement are crafted within communities that have different ideas about what is worth communicating, how it can be communicated, what readers are likely to know, how they might be persuaded […]. (Hyland/Bondi 2006: 7)

This entails that successful academic writing is embedded in a particular social world which is reflected and constructed through approved discourses that are realised in texts, which, being socially produced in communities depend on communities for their sense. An analysis of linguistic features in texts can reveal their mode and purpose, that is, how and for what social purpose(s) language is constructed and negotiated, as well as highlighting aspects of the discourse conventions, rhetorical choices, argument forms, writer's stance and reader's engagement, generic structure, and so forth in the discourse. The notion of academic discourse communities as social groupings identified by "a broadly agreed set of common public goals", "specific genre and lexis", and "participatory mechanisms of intercommunication" (Swales 1990: 24-27) points to the presence of ideological implications in discourse. In this view, in fact, discourse is not just related to the object of the discipline but also to the ideologies and argumentative tools of the discourse community that produces it. Specifically, EU academic discourse is embedded in the processes of argumentation, affiliation and consensus-building, involving sets of rhetorical choices that are employed to provide support to authorial stance and claim, creating alignment with the community's beliefs and methods (cf. Hyland 2005).

The aim of this study is to analyse how academic discourse is 'performed' by a supranational institution, i.e. to investigate how the EU promotes its commitment in Education and Training through the Erasmus Programme meant to help "Europe's universities and other institutions to work together towards modernising curricula, funding and governance of higher education").[1] The Programme also includes discourses covering different areas. For instance, a legal dimension can be found in the Erasmus University Charter, which provides the general framework for all European cooperation activities and sets out the fundamental principles and the minimum requirements with which the higher education institution must comply when implementing its activities. Specifically, the main aim of this study is to analyse the discursive representation of social actors, i.e. the EU and EU citizens, particularly with reference to hybridisation through interdiscursivity, that is elements belonging to different discourse practices (academic, institutional, promotional), and investigate the role of 'socially constitutive' discourse practices (Fairclough 1992: 64, 2011; Fairclough/Wodak 1997) in creating ties between the institution and its citizens and contributing to the construction of a common European identity based on legitimation and consensus-building around a set of shared values and approved life experience.

2. Aim, corpus and method

To appeal to its audience the EU has been exploiting a variety of different genres and discursive practices that are generally employed for communication in the commodity sector (see Caliendo 2007; Caliendo/Piga forthcoming, among others) by adopting a corporate-like approach in terms of the objects dealt with (public products), the beneficiaries of these objects (customers) and the promotional style in addressing beneficiaries/customers to represent these objects.

1 Available at http://ec.europa.eu/education/erasmus/doc1016_en.htm (last accessed 15/10/2011).

The process of commodification of social life, showing elements of marketisation of public and institutional discourse (Fairclough/Wodak 1997; Bhatia 2004; Fairclough 2011), has been accelerated in recent years by an ever growing exploitation of new technology to make public discourse accessible to large audiences across the globe. Colonisation by promotional genres in academic and professional contexts appears to be the result of the appropriation of lexico-grammatical and rhetorical resources typical of the discourse of corporate advertising. An overgrowing prominence of promotional discourse and web mediation has affected both private and public domains and brought about changes in modes and styles of communication often leading to hybridisation and transformation of genres (see Sarangi/Polese/Caliendo 2011).

To this purpose, and specifically with a view to understanding how the EU constructs its own academic discourse through the promotion of initiatives, learning policies, and discursive strategies aiming at disseminating and promoting its own academic programme, a selection of institutionally-specific documents, legitimising the EU with reference to higher education and covering a time-span from 2007 to 2010, has been collected, forming a corpus of 57,837 running words (7,229 types). The corpus comprises brochures for university students, namely (our acronyms):

- Erasmus - Success stories - Europe Creates Opportunities (ECO) (2007);
- Erasmus - Mobility Creates Opportunity - European success stories (EMCO) (2008);
- Erasmus Higher Education: Creativity And Innovation - European success stories (EHECAI) (2009);
- Erasmus: I am One of the Million who did it! (IOM) (2010);
- Education and Training for Social Inclusion - European success stories (ETSI) (2010).

The theoretical-methodological framework adopted for this investigation mainly draws upon studies on academic discourse and genre hybridisation (Bazerman 1997; Bhatia 2004; Hyland 2005, 2006, 2009; Swales 2004), commodification of academic discourse

(Fairclough/Wodak 1997; Bhatia 2004; Balirano/Caliendo 2008; Caliendo/Magistro 2009; Caliendo/Napolitano 2010; Fairclough 2011) and legitimation (Berkenkotter/Huckin 1995; Berger/Luckmann 1966; Fairclough/Wodak 1997; van Leeuwen 1996, 2007). The text interrogation software AntConc 3.2.1[2] has been used to collect quantitative data for the investigation of specific words and phrases.

As a first step, an analysis of the social dimension in the EU academic programme is carried out on the grounds of provisions establishing the Erasmus Mundus action programme and its goals. As a second step, hybridisation in EU academic discourse is examined in relation to issues of legitimation and self-promotion through highlighting instantiations of roles as actors. A quantitative-qualitative analysis of the representation of EU social actors is carried out following the model and categories of legitimation provided by van Leeuwen (1996, 2007). The main research questions underlying the research are:

- through what linguistic choices and to what extent is hybridisation responsible for a shift in the discursive strategies employed by the EU in the dissemination of academic knowledge?
- how and in what direction is hybridisation in EU academic discourse subservient to legitimating the institution as regards the effectiveness of its broad social programme?

3. The social dimension of the EU academic programme

The social dimension is given prominence in the EU academic programme as a whole. The results of our study reveal that the strategies adopted fit in with the objectives pursued by the institution: the construction of a common European identity/home through

2 Freeware downloadable at http://antlab.sci.waseda.ac.jp/software.html (last accessed 15/10/2011).

assessing the effectiveness of joint actions with citizens and enhancing legitimation and consensus-building *via* the academic area. The ultimate goal appears to be the creation of an identifiable social world through discursive strategies and linguistic choices on which the supranational institution negotiates claims for the significance of its academic actions on offer.

In the implementation of global policies aimed at social welfare, Decision No 1298/2008/EC of the European Parliament and the Council of 16 December 2008, which establishes the Erasmus Mundus 2009-2013 Action Programme for the enhancement of quality in higher education and the promotion of intercultural understanding through cooperation with third countries, reveals a shift from the top (i.e. decision makers) to the bottom (i.e. citizens, or associations).[3] This results in target-oriented communication which draws heavily on discursive strategies of promotional discourse. As a matter of fact, by making reference to the European Council meeting in Lisbon on 23 and 24 March 2000, a 'strategic goal' is set for the European Union to become the "most competitive and dynamic knowledge-based economy in the world" (Decision No 1298/2008/EC, Art. 6). This involves several objectives or 'needs' which constitute the social dimension of the programme:

- to step up the fight against exclusion in all its forms;
- to promote diversity and intercultural education;
- to promote dialogue and understanding between cultures world-wide;
- to promote ideals of democracy and respect for human rights, including questions of equality between men and women;
- to enhance the quality of European higher education;
- to promote understanding between peoples;
- to contribute to the sustainable development of higher education in third countries;
- to avoid brain drain;
- to favour vulnerable groups;

3 See Balirano/Caliendo (2008); Caliendo/Magistro (2009); and Caliendo/ Napolitano (2010).

- to widen access for those from disadvantaged groups;
- to enhance the worldwide attractiveness of European higher education;
- to give the programme more publicity within the European Union and beyond its borders;
- to improve cooperation between European institutions of higher education and the quality of higher education.[4]

As is apparent, corporate-like objectives, like visibility, worldwide attractiveness, dynamic knowledge-based economy and competitiveness, are mingled with more clearly social ones, like promoting understanding between peoples, combating all forms of discrimination, stepping up the fight against exclusion, favouring vulnerable groups, or contributing to the sustainable development of higher education in third countries (Decision No 1298/2008/EC, Art. 9). Favouring mobility in the area of higher education along with promoting the ideals of democracy and respect for human rights according to "the principles reflected in the Charter of Fundamental Rights of the European Union (2), in particular Article 21(1) thereof" **(**Decision No 1298/2008/EC, Art. 11) allows young people to experience new cultural and social environments, which is functional to accelerating the growth of social inclusion.

The relevance of the social aim in the programme is confirmed by the findings of this study, which reveal a high frequency of *social* and the cluster *social inclusion*, and also of other clusters as alternatives to it, like *social cohesion* or *social work* (see section 5). In this setting, engaging with the audience, primarily young people, constitutes an important step. In engaging with the audience, in fact, the EU seeks to create an identifiable social world by means of rhetorical choices achieved through expressing "a textual 'voice' or community recognized personality" (Hyland 2006: 29). Stance[5]

4 Summary of Decision No 1298/2008/EC of the European Parliament and of the Council of 16 December 2008 establishing the Erasmus Mundus 2009-2013 action programme.

5 In Hyland's (2006: 29) terms, 'stance', is "the extent to which individuals intrude to stamp their personal authority onto their arguments or step back and disguise their involvement" (see also Hyland 1999 and 2005).

features contribute to the way knowledge is framed for the audience in terms of sequencing of content and also in terms of interactional choices. In doing so, stance items assist the audience towards values, ideologies and practices by which they will interpret knowledge in institutionally approved ways. The presence or absence of the author is a conscious choice to adopt a particular stance. Personal credibility and personal interventions aiming at evaluating materials or expressing a point of view play a great part in creating a convincing discourse, seeking agreement for it and eliciting the appropriate response. This may include 'writer-oriented features', e.g. hedges, boosters, self-mention, explicit markers of evaluation and attitude as devices for expressing judgments, opinions, evaluations, commitments, and impersonality by which the writer thematises evaluations and turns them into explicit statements of opinion (see Hyland 2006).

Engaging with the audience requires, in fact, deployment of particular strategies and engagement features which allow writers to attract and focus the readers' attention, pull them along with the argument, include them as discourse participants, and guide them to interpretation. This, in our corpus, is achieved through shifting from an institution-centred discourse to first person student-centred narrative where the students perform the 'activity role' (Sarangi 2011: 278-279; see also Sarangi 2010) of a 'spokesperson', which allows the EU to disseminate positively valued information on the programme which in turn affects the perception of the institution on the part of the citizens in terms of reliability and legitimation.

4. Legitimation and self-promotional discourse

Berger and Luckmann (1966: 112) have argued that all language is legitimation:

> Incipient legitimation is present as soon as a system of linguistic objectifications of human experience is transmitted. For example, the transmission of a kinship vocabulary *ipso facto* legitimates the kinship

> structure. The fundamental legitimating 'explanations' are, so to speak, built into the vocabulary.

Forms of legitimation are realised by specific linguistic resources and configurations of linguistic resources. Since legitimation is always the legitimation of the practices of specific institutional orders by "provid[ing] the 'explanations' and justifications of the salient elements of the institutional tradition" (Berger/Luckmann 1966: 111), a study of legitimation can only be carried out in context, as also implied by the notion of genre knowledge as "a form of situated cognition" embracing form and content and "including a sense of what content is appropriate to a particular purpose in a particular situation at a particular point in time" (Berkenkotter/Huckin 1995: 7).

Specifically, ROLE MODEL AUTHORITY in the category of AUTHORISATION (van Leeuwen 2007)[6] relies on people following the example of role models or opinion leaders, e.g. members of a peer group or media celebrities, whose behaviour or beliefs legitimise the actions of their followers[7]. LEGITIMATION can also be achieved

---

6 Van Leeuwen (2007: 92) distinguishes four major categories of legitimation, which can either occur separately or combined: (1) AUTHORISATION, i.e. legitimation by reference to the authority of tradition, custom and law, and of persons who are vested with institutional authority; (2) MORAL EVALUATION, i.e. legitimation by reference to value systems; (3) RATIONALISATION, i.e. legitimation by reference to the goals and uses of institutionalised social action; (4) MYTHOPOESIS, i.e. legitimation conveyed through narratives by means of which legitimate actions are rewarded and non-legitimate actions are punished. In our case, legitimation, which is achieved through a shift from institution- to student-centred discourse, mainly results from a combination of categories of *Authorisation* (Role model authority) and *Moral evaluation* (reference to value systems).

7 Role model authority is particularly effective in advertising and lifestyle media. The theoretical basis for the legitimacy of role models is to be found in the 1930s, in symbolic interactionism (Mead 1934), the new form of American psychology which focused on the way people "take on the attitudes of the groups to which they belong" (Mead 1934: 33), as also pointed out by van Leeuwen (2007: 96) with reference to the spreading, after World War II, of the idea of the role model "[…] encouraging young people across the world to take their cues from their peers and from popular culture, rather than from their elders and from tradition. This in turn facilitated the rapid turnover of consumer preferences that has become so vital to the contemporary economy, and to the 'lifestyle' identities it has fostered."

through storytelling. In *Moral tales*, for instance, protagonists are rewarded for engaging in legitimate social practices, or restoring the legitimate order. To this purpose, a social practice comprises the participants performing certain roles in social activities. In such case, as in this study, three dimensions are needed for the analysis: the data, the discursive strategies employed, and the linguistic realisations of such data.

Discourse as social practice (Fairclough/Wodak 1997) assumes a dialectical relationship between institutions and social structures, i.e. institutional and social contexts shape and affect discourses and discourses in turn shape and affect social and political structures, so that discourse at the same time constitutes and is constituted by social practice. It is through discourse that social actors constitute social roles and interpersonal relations between social groups. In this view, constructive macro-structures "encompass those linguistic acts which serve to 'build' and establish particular groups in our documents (agents and participants)" (van Leeuwen 2007: 92-93) in the form of linguistic utterances which distinguish between 'us' and 'them':

> Components of constructive strategies are all linguistic events that invite identification and solidarity with the 'we' group, which […] implies distanciation from and marginalisation of the 'they' group.

Van Leeuwen's (1996) model has proved particularly useful for our analysis, with special regard to the categories which mainly appear to characterise the corpus under examination: INCLUSION, ROLE ALLOCATION (ACTIVATION), SPECIFICATION (NOMINATION), INDIVIDUALISATION, ASSOCIATION, IDENTIFICATION, PERSONALISATION.

Following van Leeuwen's (1996) model of analysis, INCLUSION of social actors in the representation of a given social practice allows identification of actors and agency roles for actions. ROLE ALLOCATION allows relying on ACTIVATION in assigning an active role to social actors which signals active involvement and responsibility. NOMINATION, in SPECIFICATION, i.e. when proper names are used in a text, allows social actors to be represented "in terms of their unique identity" (van Leeuwen 1996: 52). The effect of informal nominations or ways of address is to delete authority, minimise social distance and represent social actors as people with

whom we are familiar and with whom we feel closer because their lives appear appealing and imitable.

INDIVIDUALISATION enhances the readers' self-esteem and self-confidence as individuals participating each with his/her skills in actions (promoted by the institution, in our case) in the building of Europe while focusing on singleness (see the EU motto: "United in Diversity").[8] ASSOCIATION creates cohesive ties characterised by willingness to collaborate to specific activities which are not normally implied by categorisation or classification (cf. van Leeuwen 1996: 50). A further category, DIFFERENTIATION, allows the differentiation of "an individual social actor or group of social actors from a similar actor or group, creating the difference between the 'self' and the 'other', or between 'us' and 'them'" (van Leeuwen 1996: 52). It helps keep the balance between equality and difference, the uniqueness of a social actor and the similarity with other social actors with similar experiences. Therefore, even though 'us' and 'them' are distinguished, they are represented as equivalent.

Furthermore, through IDENTIFICATION, social actors are represented in terms of what they are (van Leeuwen 1996: 54), and as ordinary people in the community, which results in nearing the distance between the institution and its audience. Providing information within a private dimension, e.g. a hobby, further contributes to humanise and represent the social actor as a real individual who shares his/her human side with common people. PERSONALISATION focuses on the 'human face' of social actors, which is essential to achieve the 'humanisation' of the institution as it calls for sympathy on the part of the readers and encourages them to identify with the institution. In the light of the parameters provided by the categories in van Leeuwen's model of analysis (1996, 2007), a quantitative analysis of the corpus under investigation has been carried out to highlight discursive strategies deployed by the European institution in the representation of EU social actors.

8 At http://europa.eu/about-eu/basic-information/symbols/motto/index_en.htm (last accessed 15/10/2011).

5. The Erasmus programme 'promoted' as a social phenomenon

The aim of this section is to provide data in relation to the EU discursive strategies adopted to disseminate information on Erasmus opportunities. Indeed, the Erasmus programme has been promoted by the EU as a great opportunity for students to enrich their lives and improve their personal and interpersonal skills. Furthermore, it has been endorsed as an opportunity that allows students to improve language learning, intercultural skills, self-reliance and self-awareness. Finally, it should help students to better understand the sense of what being a European citizen means.[9]

In order to investigate social implications in the Erasmus discourse, and working on the assumption that the Erasmus programme is represented and promoted as a social phenomenon, a frequency list of the corpus under examination is provided (Table 1). Through an investigation of the frequency of the lexis employed in the corpus it is possible to formulate hypotheses on the EU's stance or 'point of view' in promoting its academic programme.

Type	*Hits*
Erasmus	542
University	404
Students	296
Programme	202
Education	200
Mobility	161
Learning	145
Social	136

Table 1. Wordlist of the corpus under investigation.

9 See http://ec.europa.eu/education/lifelong-learning-programme/doc80en.htm (last accessed 15/10/2011).

As results from Table 1, in addition to the first predictable words in the list (e.g. Erasmus, University, students, etc.), one of the most frequent words is *social*, which has been more frequently found to occur in the cluster *social inclusion*, as Table 2 shows:

	Clusters	*Hits*
1	social inclusion	40
2	and social	22
3	of social	17
4	to social	16
5	social and	10
6	social cohesion	10
7	social exclusion	10
8	social work	8
9	Social Sciences	6
10	in social	5
11	of Social	5
12	European social	4

Table 2. Clusters of *social*.

This is in line with the notion of semantic prosody which helps us identify a corpus-based evaluation where "a given word or phrase may occur most frequently in the context of other words or phrases which are predominantly positive or negative in their evaluative orientation" (Hunston/Thompson 2001: 38). However, since "the complete meaning of a word is always contextual, and no study of meaning apart from a complete context can be taken seriously" (Firth 1935: 37), a further investigation of the co-text of *social inclusion* appears to be necessary. In Figure 1, some co-textual features can be noticed, i.e. verbs with a very high agentive value collocating with *social inclusion*:

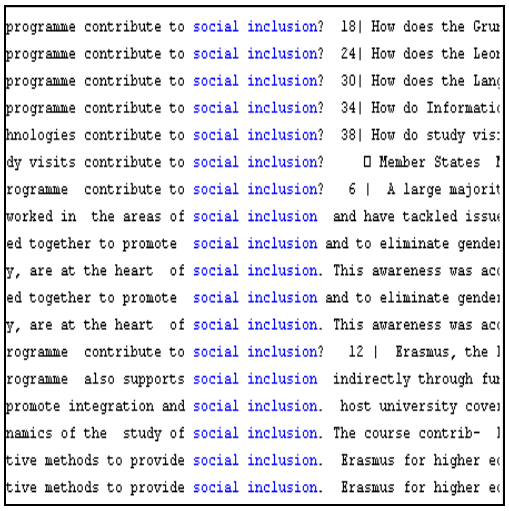


Figure 1. Concordances of *social inclusion*.

Specifically, the verbs *contribute*, *promote*, *provide* and *support* are functional to conveying an active role for the European Union in promoting education along with social integration through its academic programme. In the following sections, the relationship between the Erasmus experience and the social dimension will be investigated along with further dimensions implying promotional features embedded in the Erasmus discourse.

6. Hybrid features

Taking into account Swales' (1990: 61-62) notion of genre variation based on a number of 'different parameters' and 'rhetorical purposes' and a move towards a more target-oriented communication by the EU (Balirano/Caliendo 2008), EU academic discourse has been investigated in relation to hybridization of promotional and reporting genres. Indeed, each collected brochure appears to 'report' detailed information about the Erasmus programme through promotional

devices (e.g. evaluative phrases, intensifiers, emphasised phrases, etc.). More particularly, the reporting genre appears to be 'colonized' (Fairclough 2003) by promotional features that can be assumed to be peculiar of the EU academic discourse popularised and 'mediated' through the Web. A mixture of genres and text types is a phenomenon that is implicit in the 'mediation' process which

> […] involves movement from one social practice to another, from one event to another, from one text to another. […] mediation does not just involve individual texts or types of texts, it is in many cases a complex process which involves […] 'networks' of texts […]. (Fairclough 2003: 30)

Mediation seems to be responsible for promotional features in the corpus investigated. In the brochures analysed, in fact, detailed information concerning Erasmus students' mobility is reported along with personal evaluation of the Erasmus programme. This can be considered an attempt to draw the reader's attention and make the brochures and the whole programme more 'appealing'. Particularly, in the corpus under examination, detailed data concerning the programme are reported along with personal feelings and emotions of students who spent part of their life abroad on an Erasmus programme. Specifically, as can also be deduced from the brochure graphical layout,[10] each of them contains two main parts, one focusing on information concerning the universities involved in the programme and the number of students who took part in the programme in the past, and another consisting, instead, in the direct narration by students who tell a virtual audience about the value and impact of the Erasmus experience on their lives. If we focus on the micro-linguistic features of the texts examined, we can notice a mixture of two different genres – promotional and reporting – where promotional features are realised by evaluative linguistic structures:

10 Data available at http://ec.europa.eu/education/erasmus/doc2164_en.htm, and http://ec.europa.eu/dgs/education_culture/publ/pdf/erasmus/success-stories_en.pdf (last accessed 15/10/2011).

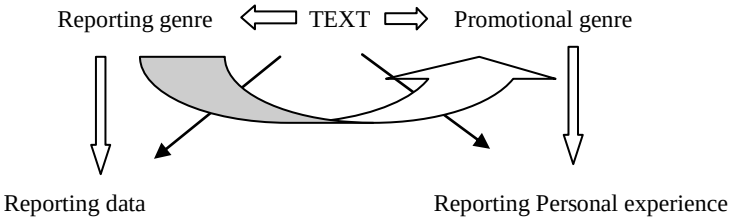


Figure 2. Genre-mixing in EU brochures on Erasmus.

The following instances are examples of the reporting genre where data and detailed information concerning the Erasmus programme are provided:

(1) ERASMUS - twenty years of success! Since 1987, well over one-and-a-half million students - 60% female - have benefited from ERASMUS mobility grants. Under the new Lifelong Learning Programme, the European Commission aims to have a total of 3 million individuals participating in student mobility by 2012. Over 140.000 lecturers have also taken the opportunity to gain experience in one of the other 31 countries currently participating in the programme. (ECO 2007)

(2) Erasmus, the European Union's flagship mobility programme in the field of education and training was established in 1987. Since 2007, Erasmus is a subprogramme of the EU's Lifelong Learning Programme with an overall budget of approx. € 3114 million. (EMCO 2008)

(3) Erasmus student mobility started in 1987 with 3244 mobile students and now offers around 180 000 students every year the possibility to study or to do a work placement abroad for a period of 3 to 12 months. (CAI 2009)

As can be noticed in the examples above, detailed information concerning statistical and economic data (e.g. number of students, the budget invested in the programme, percentage, dates) is reported in the brochures. Some promotional devices, however, can also be detected. Specifically, in example (1), emphasis on past success (e.g. "twenty years of success!"), thanks to the number of students involved in the programme, is underlined by *well* functioning as an intensifier (e.g. "well over one-and-a-half million students"). In particular, in all the examples, reference to the time when the programme started is explicitly provided to emphasise the impact and increase of the

phenomenon (e.g. "since 1987, well over one-and-a-half million students - 60% female - have benefited from ERASMUS mobility grants" in example (1); "the European Union's flagship mobility programme in the field of education and training was established in 1987" in example (2); "Erasmus student mobility started in 1987" in example (3)). In the instances presented in the next sections, the report of personal experience, which marks a shift in the use of discursive strategies for communicating with the audience, will be analysed following van Leeuwen's (1996) categories.

6.1. Inclusion

As seen in section 4, the category of INCLUSION implies identification of actors and attribution of agentive roles and accountability for actions:

(4) It is true – when you're in ERASMUS, you find out a lot about yourself." […] "ERASMUS is a lot more than a studying experience. For me it is a way to look at the world with new eyes, to feel and discover new emotions and learn what is not written in the textbooks. (IOM 2010)

In the quote above, an extremely positive feedback is provided by the student. In particular, promotional devices can be observed through expressions of highly positive evaluation relying on intensifiers often to reinforce comparatives or to express emotions (e.g. *a lot, a lot more than*). As Hunston and Thompson (2001: 13) remark, "identifying evaluation […] is a question of identifying signals of comparison, subjectivity, and social value". Comparison between past and present (i.e. before and after the Erasmus experience) is the strategy employed to convey a positive evaluation of the Programme. In example (4), for instance, a comparison is drawn between general expectations from Erasmus (primarily considered as a studying experience) and the actual feedback from the student (*more than* a studying experience), which is strengthened by the phrase *for me* at the beginning of an utterance expressing the student's viewpoint.

In the brochures investigated, personal experience is reported through quotes from Erasmus students (cf. Figure 3, below).

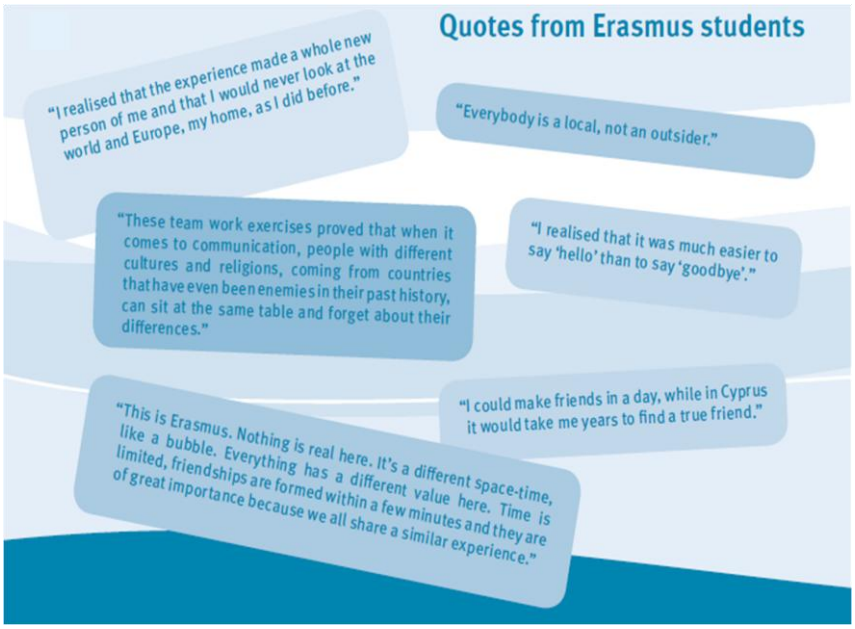


Figure 3. Quotes from Erasmus students (IOM 2010).

Figure 3 shows, in fact, that comparison between past and present, that is, before and after the Erasmus experience, is the strategy employed to promote the Erasmus programme (e.g. "the experience made a whole *new* person of me"; "it was much *easier* to say 'hello' than to say 'goodbye'"; "It's a *different* space-time […] Everything has a *different* value") in association with evaluative adjectives in structures with a highly promotional impact on the reader (e.g. "friendships are formed within a few minutes and they are of *great* importance"; "it would take me years to find a *true* friend").

6.2. Role allocation

ROLE ALLOCATION mainly implies the use of two major categories – ACTIVATION and PASSIVATION – both related to the

'conceptualisation' of activity and passivity embedded in the representation of social actors. In particular, ACTIVATION, which implies a representation of people as active forces and participation of an actor, is conveyed through the use of foregrounding grammatical roles underlining responsibility. As can be seen in the examples below, verbs conveying personal involvement are employed (our emphasis):

(5) **I gained** first-hand teaching experience leading lecturers and workshops for local music students and **I** also **took part** in an international creativity conference. This week of teaching, discussing and getting cultural insights into the Latvian way of teaching and living has probably been the most crucial point so far in my teaching career. Not only because of the wonderful people with whom **I became acquainted** and the fact that **I could experience** a crosscultural dimension to education, but **because I've also started** to develop a new seminar programme. (EMCO 2008)

(6) On arriving at Cartoon Saloon in Kilkenny, **I worked** on commercials, cartoons and 2D animation films. One of my proudest achievements is **the work I did** for a trailer that was used at the Cartoon Movie Festival. The experience proved a great success both for my own work and for the studio's. When the internship period was over, Cartoon Saloon offered me a contract and **I have been working** there happily till this day. (ETSI 2010)

In particular, students are represented as active participants in interesting experiences (international creativity conference, seminar programme, crosscultural dimension to education, trailers, commercials, etc.). Promotion is here expressed through the choice of evaluative verbal items. As Hunston and Thompson (2001: 17) remark, "[i]n many cases, […], a lexical item gives information in addition to the evaluation, and as a result, its status as evaluation may be more debatable". Nonetheless, in the examples above, positive evaluation is conveyed by the use of superlative forms expressing highly positive involvement and participation, like "the most crucial point so far in my teaching career" in example (5) and "one of my proudest achievements in example" (6), which are evidence of a very positive influence of the Erasmus experience on the students' professional and personal lives and are highly effective as promotional strategies.

6.3. Specification

While GENERICISATION implies a representation of classes or group of people as equal and anonymous members, SPECIFICATION represents individuals as real people in the world and is characterised by direct reference to real individuals and their concrete world. In this category, the use of proper names, instead of categorising labels in GENERICISATION, and reference to particular educational histories and what makes a personal life unique are among the main features observed in the corpus:

(7) **Vesela** came to Thessaloniki in 2005 from Varna in Bulgaria. She writes […] (ECO 2007)

(8) **VedranaTrbušić**, a Slovene studying at the University of Ljubljana, writes […] (ECO 2007)

(9) […] 23-year old medicine student **Mariana Carneiro** de Sousa Pintoda Costa from the University of Port […] (IOM 2010)

(10) At the age of 23, **Jozef Majak** left the TechnicaUniversity in Zvolen, Slovakia, for Oslo University College […] (IOM 2010)

As we can see in the instances above, singleness is strongly emphasised through the employment of proper names, inserted in a context where the background of the students is reported. This is in line with what Caliendo and Magistro (2009: 181) point out with reference to EU officials:

> [...] the European Union makes concrete reference to its officials' experience to reach a wider public, the mass audience of 'ordinary' European citizens who can identify themselves with the 'ordinary' employees.

Also in our corpus reference to real participants in the Erasmus experience appears to be functional to identity construction through a process of identification.

6.4 Individualisation

Differently from ASSIMILATION, which emphasises conformity and collectivisation, INDIVIDUALISATION does not imply the specific identity of an individual but his/her being a single entity, that is, his/her standing out as having a separate personality from the others in the group. In the brochures investigated, INDIVIDUALISATION is above all conveyed by 'personal narrative':

(11) In 2003, Maarika from Tartu in Estonia went to Thessaloniki in Greece. She reports: "[…] one of the most important things I gained during my Erasmus time was a new skill, to be persistent. I learned that when you arrive in a new country, it takes more than pure enthusiasm and excitement to settle down. I learned that different people need a different approach. I learned how to make friends from all corners of the world." (ECO 2007)

(12) An Erasmus poster in Akdeniz University became my magic wand when I was a student there in 2006. Erasmus transported me to Bonn University for six months. I had never been abroad before, had no passport, no idea about visas, had never flown before. But my Erasmus period was like a fairy tale. And during my time in Bonn I started to work with the European Volunteer Service. With the self-confidence I gained, I am now working as a volunteer in Budapest with young girls with limited opportunities – sharing my magic wand. SerapYeter (EHECAI 2009)

In the examples above, personal narrative concerns narration of the Erasmus experience from a very wide perspective. As a matter of fact, the Erasmus programme is considered a chance, both at a personal and a social level, which gives the students the opportunity to live a unique experience. Adjectives and phrases with a highly positive evaluation are employed to emphasise this aspect. For instance, "my Erasmus period was like a *fairy tale*" (12) and "an Erasmus poster in Akdeniz University became *my magic wand*" (12) both contain expressions belonging to an introspective dimension.

INDIVIDUALISATION and singleness are also emphasised by a very high frequency of the pronoun *I* and the adjective *my*, as can be noticed in the following wordlist listing the most frequent words in the corpus (cf Table 3, below).

Through INDIVIDUALISATION, 'humanisation' is strongly emphasised, which fits in with the Commission's proposal: "EU

institutions and all levels of government can do more to 'give a human face' to the information they provide" (European Commission 2006: 9).

	Items	*Hits*
1	The	2,332
2	And	2,132
3	Of	1,719
4	In	1,466
5	To	1,279
6	A	1,025
7	***I***	779
8	For	575
9	Erasmus	542

	Items	*Hits*
10	With	458
11	The	432
12	University	404
13	Was	361
14	***My***	350
15	As	324
16	From	320
17	At	309

Table 3. Wordlist sorted by frequency.

6.5. Identification

In opposition to FUNCTIONALISATION, which represents social actors in terms of what they do (i.e. occupation), IDENTIFICATION represents social actors in terms of what they are, classifying people according to such classes as gender, age, religion, social class, race, regional belonging, work relations, family ties, physical features (cf. van Leeuwen 1996: 54, 56-57). In this study, IDENTIFICATION is detectable when the students' background is provided:

(13) Vedrana Trbušić, a Slovene studying at the University of Ljubljana, writes […] Clémence Lacoque, a French student, sees the following differences compared with his university […]. (ECO 2007)

(14) 27-year old Eirini Komninou went for her electrical engineering studies with Erasmus from the Technological Educational Institute of Crete to the European Space Agency's Astronomy Centre in Madrid. (IOM 2010)

IDENTIFICATION tends to represent students as ordinary people in the EU. This kind of representation makes them appear closer to the

readers as ordinary people and their lives attractive and easier to imitate.

6.6. Personalisation

PERSONALISATION is a key element in giving a social actor a 'human side' (Caliendo/Magistro 2009: 187) by representing him/her as a human being. In this study, PERSONALISATION can be identified through personal narrative:

(15) I was exposed to plenty of German language and culture […]. (ECO2007)

(16) During all of my stays, I was welcomed with hospitality by both my host university and my colleagues. (EMCO 2008)

(17) During my four months in Lithuania I was stunned by the country's forests and lakes, and fascinated by its history and folklore I confess I was surprised by how much they reminded me of people in Bulgaria […]. (IOM 2010)

(18) I was apprehensive at first about the Erasmus programme because I wasn't interested in the universities […] I was delighted with what I'd learnt and HvA was so satisfied with the exchange, they proposed establishing more regular contacts with the Estonian Aviation Academy […]. (IOM 2010)

Attention paid to personal experiences and emotions is strengthened by a high frequency of the verbal form *was*, which is the first-word cluster with the pronoun *I*:

1	73	I was
2	42	I had
3	32	and I
4	26	I am
5	24	that I
6	22	I met
7	19	I'd

Table 4. Clusters with the pronoun *I*.

The structure '*I was*' is followed by adjectives and past participles of verbs with a high emotional value (e.g. *apprehensive, interested, surprised, delighted, encouraged, stunned*) signalling involvement and responsibility, as can be observed in the following Figure:

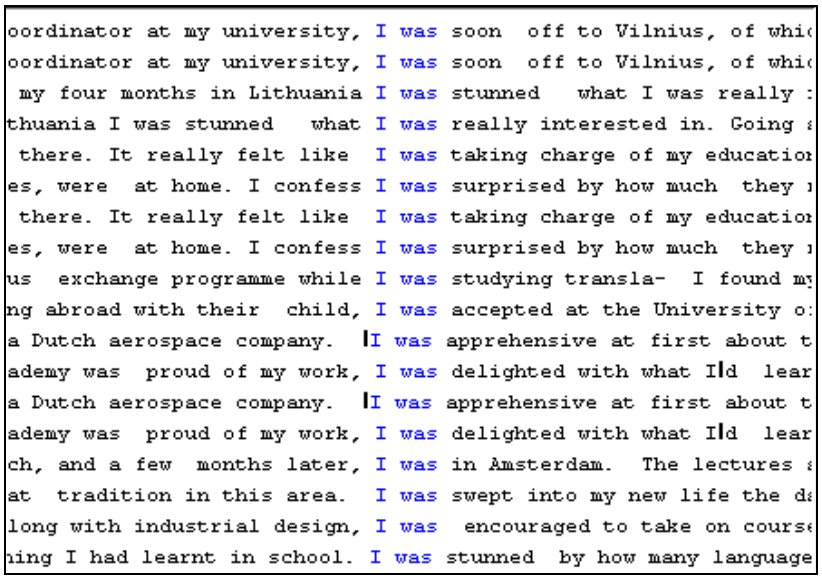


Figure 4. Concordances of *I was*.

PERSONALISATION here seems to coincide with an introspective dimension. As a matter of fact, much emphasis is placed on the psychological and social effect that the Erasmus experience has had on the life of each student.

7. Conclusions

The EU website enables visitors to retrieve information in a highly attractive manner encouraging them to participate in public policies and spread principles of equality, democracy, and human rights for all. This study has revealed that disseminating information about the Erasmus programme participation by visitors is enhanced by a type of governance through empowerment. This appears to be the main strategy adopted by the institution in its academic discourse to achieve the objectives outlined for the implementation of global policies aimed at social welfare. Direct participation and personal involvement of students leads to self-representation and self-evaluation of the supranational institution which realises legitimation by means of 'moral evaluation' (van Leeuwen 1996: 97) in the construction of a future identity 'based on moral values' which, being shared rather than imposed by the authority, need no justification. "Moral evaluation" here matches with role model authority in the category of 'Authorisation' (van Leeuwen 2007), i.e. relying on people who are invited to follow the examples of members of a peer group as role models, whose behaviour and beliefs legitimise the actions of their followers and eventually those of the institution.

Through hybridisation of academic and promotional discourse the EU constructs self-representation as a service provider rather than a supranational organisation. Self-representation is achieved through reference to real identities and personal experiences and the narrating voice relying on humanisation which attracts visitors/students and encourages them to feel at one with Erasmus students acting as EU social actors as the institution's spokespersons. Identifying actors and attributing agentive roles and accountability for their actions meant to represent the EU as the social actor is functional to creating INCLUSION. This is achieved through naming students and giving them full agency in EU activities, through making direct reference to them as real individuals and to the concrete world surrounding each of them which contributes to making him/her unique (e.g. using proper names as opposed to categorising labels; reference to particular educational histories/family environments), through using an informal (name only) or semi-formal (name and surname) rather than a formal (surname only) way to feature social actors.

Hybridisation in the brochures is realised by mixing academic-institutional and promotional discourse, that is, by shifting from

reporting to a conversational level, i.e. from indirect to direct speech through personal narrative. This allows the EU to construct a target-oriented discourse aiming at raising feelings of active involvement and equal responsibility in performing EU actions, and which is subservient to the construction of a feeling of solidarity and social integration in terms of rights and equal opportunities, which are among the main social objectives of the Erasmus programme. The strategy adopted is one of 'humanisation' and 'personalisation', which moves from the institution to the narrating *persona*: university students as real social actors are willing to promote what is being claimed, i.e. the institution's cause.

Students' life stories, which are enthusiastically narrated in the first person, are filtered through highly positive evaluative statements, i.e. in terms of human experience which sounds attractive and imitable, substantiating, from a personal stance, the sound effectiveness of EU policies. In Walsh's (2004) words, "[s]peakers interweave evaluation with description" in personal narratives through which speakers' stance coincides with the institution's. As a result, the EU achieves visibility as an institution made up of ordinary social actors who enter a human-typical relationship with the institution as members of an inclusive community. This is a way to arouse allegiance from students as citizens for the construction of a future grounded on a set of positively-experienced shared values.

References

Balirano, Giuseppe/Caliendo, Giuditta 2008. Redrawing the Map of an Enlarged European *Id*-Entity: New Margins Stretching the Centre. In Di Martino, Gabriella/Polese, Vanda/Solly, Martin (eds) *Identity and Culture in English Domain-specific Discourse*. Napoli: Edizioni Scientifiche Italiane, 111-134.

Bazerman, Charles 1997. The Life of Genre, the Life in the Classroom. In Bishop, Wendy/Ostrom, Hans (eds) *Genre and*

Writing: Issues, Arguments, Alternatives. Portsmouth, NH: Boynton/Cook Publishers HEINEMANN.

Berger, Peter L./Luckmann, Thomas 1966. *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*. Garden City, New York: Anchor Books.

Berkenkotter, Carol/Huckin, Thomas N. 1995. *Genre Knowledge in Disciplinary Communication: Cognition/Culture/Power*. Hillsdale, N.J.: Lawrence Erlbaum Associates.

Bhatia, Vijay K. (1993) 1998. *Analysing Genre: Language Use in Professional Settings*. London and New York: Longman.

Bhatia, Vijay K. 2004. *Worlds of Written Discourse: A Genre-based View*. London: Continuum Publishers.

Caliendo, Giuditta 2007. The Role of the New Media in the Promotion of Identity Frameworks. In Bait, Miriam/Paganoni, Maria C. (eds) *Discourse and Identity in Specialized Communication. Conference Proceedings*. Milano: Lubrina Editore, 32-35.

Caliendo, Giuditta/Magistro, Elena 2009. The Human Face of the European Union: A Critical Study. *CADAAD Journa*l, Vol. 3, Issue 2: 176-202.

Caliendo, Giuditta/Napolitano, Antonella 2010. Consumers at the Heart of Europe: Language Practices and Identity Building Strategies. In Duszak, Anna/House, Juliane/Kumięga, Łukasz (eds) *Globalization, Discourse, Media: In a Critical Perspective/Globalisierung, Diskurse, Medien: eine kritische Perspektive*. Warsaw: Warsaw University Press, 443-484.

Caliendo, Giuditta/Piga, Antonio forthcoming. Framing Identity through the Virtual Channels of Institutional Communication. In Evangelisti Allori, Paola/Ventola, Eija (eds*) Issues of Identity in and Across Cultures and Professional Worlds*. Bern: Peter Lang.

European Commission (2006) *White Paper on a European Communication Policy*. COM (2006) 35 final.

Fairclough, Norman 1989. *Language and Power*. London & New York: Longman.

Fairclough, Norman 1992. *Discourse and Social Change*. Cambridge, MA: Blackwell.

Fairclough, Norman 2003. *Analysing Discourse: Textual Analysis for Social Research*. London: Routledge.

Fairclough, Norman 2011. Discursive Hybridity and Social Change in Critical Discourse Analysis. In Sarangi, Srikant/Polese, Vanda/Caliendo, Giuditta (eds) *Genre(s) on the Move: Hybridization and Discourse Change in Specialized Communication*. Napoli: Edizioni Scientifiche Italiane, 11-26.

Fairclough, Norman/Wodak, Ruth 1997. Critical Discourse Analysis. In van Dijk, Teun A. (ed.) *Discourse as Social Interaction*. London: Sage, 258-284.

Firth, John R. 1935. The technique of semantics. *Transactions of the Philological Society*: 36-72.

Gee, James P. 1996. *Social Linguistics and Literacies: Ideology in Discourses*. London: Taylor and Francis.

Hunston, Susan/Thompson, Geoff (eds) 2001. *Evaluation in Text: Authorial Stance and the Construction of Discourse*. Oxford: Oxford University Press.

Hyland, Ken 1999. Disciplinary discourses: writer stance in research articles. In Candlin, Christopher N./Hyland, Ken (eds) *Writing: Texts, Processes and Practices*. London: Longman, 99-121.

Hyland, Ken 2005. Stance and engagement: a model of interaction in academic discourse. *Discourse Studies* 6 (2): 173-191.

Hyland, Ken 2006. Disciplinary Differences: Language Variation in Academic Discourses. In Hyland, Ken/Bondi, Marina (eds) *Academic Discourse Across Disciplines*. Bern: Peter Lang, 17-45.

Hyland, Ken 2009. *Academic Discourse*. London/New York: Continuum.

Mead, George H. 1934. *Mind, Self, and Society*. Chicago: University of Chicago Press.

Sarangi, Srikant 2010. Reconfiguring Self/Identity/Status/Role: The Case of Professional Role Performance in Healthcare Encounters. *Journal of Applied Linguistics and Professional Practice* 7 (1) , pp. 75-95.

Sarangi, Srikant 2011. Role Hybridity in Professional Practice. In Sarangi, Srikant/Polese, Vanda/Caliendo, Giuditta (eds) *Genre(s) on the Move: Hybridization and Discourse Change in Specialized Communication*. Napoli: Edizioni Scientifiche Italiane, 271-296.

Sarangi, Srikant/Polese, Vanda/Caliendo, Giuditta (eds) *Genre(s) on the Move: Hybridization and Discourse Change in Specialized Communication*. Napoli: Edizioni Scientifiche Italiane.

Swales, John M. 1990. *Genre Analysis: English in Academic and Research Settings*. Cambridge: Cambridge University Press.

Swales, John M. 2004. *Research Genres: Explorations and Applications*. Cambridge: Cambridge University Press.

van Leeuwen, Theo 1996. The representation of social actors. In Caldas-Coulthard, Carmen R./Coulthard, Malcolm (eds) *Texts and Practices: Readings in Critical Discourse Analysis*. London: Routledge, 32-70.

van Leeuwen, Theo 2007. *Global Media Discourse*. London: Routledge.

Walsh, Polly 2004. A complex Interplay of Voices: First and Second Person Pronouns in University Lectures. In Anderson, Laurie/Bamford, Giulia (eds) *Evaluation in Oral and Written Academic Discourse*. Roma: Officina Edizioni, 31-52.

Online sources (Last accessed 15/10/2011)

- <http://europa.eu/documents/comm/white_papers/pdf/com2006_35_en.pdf>
- <http://ec.europa.eu/education/erasmus/doc1016_en.htm>
- <http://ec.europa.eu/education/erasmus/doc2164_en.htm>
- <http://ec.europa.eu/dgs/education_culture/publ/pdf/erasmus/success-stories_en.pdf>
- <http://ec.europa.eu/education/lifelong-learning-<programme/doc80_en.htm>
- <http://europa.eu/legislation_summaries/index_en.htm>
- <http://www.antlab.sci.waseda.ac.jp/software.html>

Notes on contributors

LUCIA ABBAMONTE is a research fellow and adjunct professor of English for Special Purposes (ESP) and applied linguistics of the Second University of Naples. Her present research interests lie within the fields of Critical Discourse Analysis, Language in professional practice and mediation (Restorative Justice), ESP for Psychology, and Cognitive Sciences. She has published several essays and two volumes. Among her latest publications: "Promoting diachronic textual awareness through translation in an EAP collaborative workshop" (2007) and "ELF as the Medium in the Psychoanalytic Discourse Community: Science and International Dissemination" (2010).

CLAUDIA AGOSTINI holds a Master's Degree in German Studies (linguistics and literature) and English Studies from IULM University in Milan. Her research interests focus on communication within the medical sector, and in particular homeopathy, which she investigated in her final dissertation.

PATRIZIA ARDIZZONE is Full Professor of English Language and Translation at the University of Palermo. She is currently working on specialized languages with a particular attention to the way in which rhetorical strategies in political discourse determine the relationship between speaker and audience. Her publications include "Legal English: a quest for precision" (2004), *Retorica e Discorso Politico* (2005), *Discourse and Contemporary Social Change* (2007), *Political Discourse as Culture and Ideology* (2009).

DAVID BANKS is Emeritus Professor of English Linguistics at the Université de Bretagne Occidentale, Brest, France. He was born in Newcastle upon Tyne, England, in 1943, but has been living abroad since 1975, initially in Iraq, but since 1976 in France. He has degrees from the universities of Cambridge (UK), where he studied philosophy, and Nantes, where he studied English, and where he also obtained his doctorate; he has an HDR (habilitation) from the Université de Bordeaux 2. He is Director of ERLA (Equipe de Recherche en Linguistique Appliquée) and Chairman of AFLSF (Association Française de la Linguistique Systémique Fonctionnelle). His research interests include the synchronic and diachronic study of scientific text, and the application of Systemic Functional Linguistics to English and French. He has published over 80 academic articles, and is the author or editor of over 20 books. He has also published a number of books of poetry. His book, *The Development of Scientific Writing, Linguistic features and historical context* (Equinox 2008), won the ESSE (European Society for the Study of English) Language and Linguistics Book Award 2010. His extra-mural activities include choral singing and ocean rowing.

FLAVIA CAVALIERE works as a researcher and as adjunct professor of English Language at the University of Naples Federico II. She is the author of two volumes and many publications about her research areas which involve Translation Studies – mainly in the field of Audio-Visual Translation – Cross-cultural Communication, English for Specific Purposes, the use of CALL and Internet for English teaching. She is currently involved in an international research project (University of Naples Federico II, Second University of Naples and East Anglia University – Norwich) on *Mediterranean Heritage (mis-) representations via English.*

STEFANIA D'AVANZO (PhD, MA, Naples) is Lecturer of English Language and Linguistics and English language and Linguistics for Special Purposes at the University of Napoli 'L'Orientale' (Italy). Her current research is mainly concerned with Legal and Institutional

Discourse, Discourse Analysis and Teaching. Her publications include among others: "Europe: Home of Migrants Built on Sand. EU Political and Legal Discourse on Immigration and Asylum" (forthcoming); "European Summaries of Directives on Asylum: Hybridization in Institutional Discourse" (2011), and co-author of "Linguistic and Legal Vagueness in EU Directives Harmonising Protection for Refugees and Displaced Persons" (2010), and of "The role of SHALL and SHOULD in two international treaties: the UN Charter (1948) and the European Convention on Human Rights (1950)" (2009).

ALESSANDRA FAZIO specialised in Terminology at the University of Geneva. She is a researcher in English Studies at the Università degli Studi di Roma *Foro Italico*. Her research interests lie in terminology and in the creation of terminological tools, applied linguistics and cognitive linguistics. She is mainly involved in the analysis of the language of sport and sports sciences, arbitration discourse related to sports matters and legal English. She has collaborated with the Institute for Studies on Scientific Research and Documentation, and has taken part in the Scientific Committee of the Italian Association of Terminology and in the Advisory Committee of the European Association for Terminology.

DANIELA CESIRI (PhD, University of Salento) is Researcher and Lecturer at the University of Venice Ca' Foscari (Italy). Her research interests focus on the historical evolution of Irish English (c. 1710- c. 1910), corpus linguistics applied to both diachronic and synchronic studies, as well as applied linguistics and pragmatic and discursive implications in English for Special Purposes. Amongst her publications, the monograph entitled *Nineteenth-Century Irish English: a Corpus-Based Linguistic and Discursive Analysis* (2012).

STEFANIA M. MACI is a researcher of English Language and Translation at the University of Bergamo, where she teaches English linguistic courses at graduate and undergraduate level. She is member of CERLIS (Centro di Ricerca sui Linguaggi Specialistici, coordinated by Prof. Maurizio Gotti) CLAVIER (The Corpus and Language Variation in English Research Group), and BAAL (British Association of Applied Linguistics). Her research is focussed on the analysis of the English language in academic contexts, with particular regard to the analysis of English and Identity in National and Professional Contexts. Amongst her recent publications are: "Glocal Features of In-flight magazines" (2012), "Arbitration in action: the display of arbitrators' neutrality in witness hearings" (2012); "The *Discussion* Section of Medical Research Articles: A Cross Cultural Perspective" (2012); "Fast-Track Publications: The Genre of Medical Research letters" (2012); "The Genre of Medical Conference Posters" (2012); "Poster Makers Should Think as Much about Show Business as Science. The Case of Medical Posters in a Diachronic Perspective" (2012); and the monograph *The Language of Tourism* (2010).

DONATELLA MALAVASI (PhD, University of Modena and Reggio Emilia, Italy) is a Tenured Researcher in English Linguistics and Translation. Her research interests span from corpus linguistics and translation to genre and discourse analysis, especially in the context of LSP research. Her most recent contributions focus on the analysis of linguistic aspects of corporate and financial communication ("The Multifaceted Nature of Banks' Annual Reports as Informative, Promotional and Corporate Communication Practices", 2010), the construction of identity in academic discourse ("I hope that I can convince readers of…": the construction of professional identity in marketing research articles", 2009), and the cross-disciplinary study of keywords ("History v. Marketing. Keywords as a clue to disciplinary epistemology", 2010; with D. Mazzi).

CRISTINA MARIOTTI is Assistant Professor of English in the Faculty of Political Science at Pavia University, Italy. Her main research interests include interaction strategies in Second Language Acquisition, Content and Language Integrated Learning (CLIL), English as a Medium of Instruction (EMI) in internationalisation programmes, and the use of subtitled audiovisual materials in language learning. She is the author of *Interaction Strategies in English-medium Instruction* (FrancoAngeli).

GIULIA ADRIANA PENNISI is a researcher in English Language and Translation at the University of Palermo. She holds an M.A in Comparative Literature, Michigan State University (U.S.). She is currently working on specialized languages with a particular attention to lexico-grammatical and textual analysis of legal discourse genres within multilingual and multicultural contexts. Her publications include *All-inclusiveness in Legal Language. Cross-cultural Perspectives in Specialised Discourse* (2008), "The Lexicon of Community *Acquis*: how to negotiate the non-negotiable" (2009), and "'Europeanization' of Family Law: Interaction / Intersection of Cultural and Lexical Diversities" (2012).

VANDA POLESE is Associate Professor of English Language and Translation in the Faculty of Political Science and Lecturer of English for Law at the University of Napoli 'Federico II' (Italy), where she is also a member of the PhD programme in ESP and of the Doctoral School of Psychological, Pedagogical and Linguistic Sciences. Her main research interests cover discourse in ESP and critical discourse analysis, pragmatics, translation, and applied linguistics. As to her most recent publications, she is the co-author of (2010) "Linguistic and Legal Vagueness in EU Directives Harmonising Protection for Refugees and Displaced Persons" and (2012) "From Making to Promoting Law: An Investigation into the Evolution of 'Food Safety' Discourse in EU Summaries", and the co-editor of the volume (2011) *Genres on the Move. Hybridization and Discourse Change in Specialized Communication*, ESI.

MICHELE SALA (PhD, University of Bergamo; MA, Youngstown State University, Ohio) is a researcher in English Language and Translation at the University of Bergamo (Faculty of Foreign Languages and Literatures), where he teaches English linguistic courses at graduate and undergraduate level. He is Assistant Editor of *The European English Messenger* and a member of CERLIS (Centro di Ricerca sui Linguaggi Specialistici, coordinated by Prof. Maurizio Gotti) and CLAVIER (The Corpus and Language Variation in English Research Group). His research activity and major publications are mainly concerned with ESP varieties, with a specific focus on the application of genre and discourse analytical methods to a corpus-based study of academic communication and legal discourse (*Persuasion and politeness in academic discourse*, 2008). His research interests are also reflected in his work on the analysis of the semantic, textual and pragmatic aspects of legal translation. He has also published articles in the area of pragmatics and cognitive linguistics, literature and narratology.

FRANCESCA SANTULLI is Associate Professor of Linguistics at IULM University, Milan. Her research has focused on various aspects of language and linguistics, ranging from history of linguistics to philology, from phonetics to language contact. She has published on theoretical aspects of language change (*L'opera di Hermann Paul tra linguistica e filologia* [*Herman Paul's work between linguistics and philology*], 1995), translation and interpreting as well as on interference and borrowing. She has focused on political discourse under a rhetorical perspective (*Le parole del potere, il potere delle parole. Retorica e discorso politico* [*Power of words, words of power. Rhetoric and political discourse*], 2005) and on specialised communication, investigating linguistic and argumentative features that are typical of different genres (juridical documents, tourist communication, scientific papers, etc).