# **Abstracts of Keynote Speeches and Speaker Introducitons**

Disciplinary English: the 'Knight's Move' in Halliday's Theories of Verbal Science and Verbal Art.

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Registers in English have supplied a 'lingua franca' for contemporary and early modern sciences and dominated the disciplines of 20<sup>th</sup> century universities as a language of learned publications and of international conferences. This role for specific semantic configurations (i.e. registers) of English has been based on the drift of English, especially since the life of Isaac Newton (1642-1727: see Halliday 2005 and Banks 2008). This dependency between the language of learning and the drift of English has intensified with the dominance of American and British cultural influence over university programs after WWII. It should be noted that the written form of academic exchange across Europe into Newton's life was another 'lingua franca' – Latin. Newton wrote monumental works in both Latin and English. The public service post held by the second most important poet in English – John Milton (1608-1674) – was the "Secretary for Foreign Tongues", which required him to reply to diplomatic letters and debates from Europe through Latin. English has taken over from Latin as the means by which disciplines of study are shaped.

Today, however, with over 20,000 universities and colleges of higher learning across the world, there may be a shift to other languages of publication – for example, Chinese and Spanish. It is useful to take stock now of how university disciplines have been drawn into, and been expressed by, developments of the disciplinary forms (registers) of English. It is an opportunity to consider how new social contexts of enquiry and the responding forms of evolving English have shaped the forms that disciplines have taken, both in relation to university curricula and to schooling. The main finding here is not about the invention of totally novel forms of language for sciences and disciplinary thinking (even though the terminologies of 'subjects' certainly provide evidence of lexical novelty, as we will discuss below). The fundamental characteristic of specialised languages (disciplinary registers) is in the grammar – namely, how resources that the language had in popular speech have been elaborated with strange intensities to meet the key semantic drives of modernity, namely: (a) objectification; (b) quantification or measurement; (c) the identification of sameness and difference; (d) attribution and the "isolation of variables; and (e) the metaphorisation of reasoning into model building (a kind of 'as if' method). This essay will be mainly concerned with (e) above – it is the most difficult linguistic process to understand and evaluate, and it casts the widest net of influence since all of (a) to (d) can be found within the semantic consequences of (e).

#### Verbal Art and Verbal Science?

In theoretical developments which Halliday and Hasan had debated but not fully articulated before Hasan's death in 2015, the role of a move into metaphor was discussed as a similarity between higher levels of expression in literature and in sciences. But what, one needs to ask, is a 'move into metaphor' in Hallidayan linguistics? Metaphor is one of the most discussed notions in the history of classical studies of language (viz. Shibles 1971). What is Halliday bringing out that was not previously evident to scholars of intellectual disciplines? What does the Hallidayan view add to those who have studied the development of specialised knowledge in the era of developing disciplinary studies in the West, namely from the 17<sup>th</sup>century through to the 21st century?

**Key words:** English; roots of science; grammatical metaphor; contexts of science; humanities and sciences in English.

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# Disciplinary Registers in a First-year Program: A View from the Context of Curriculum

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Research on the teaching and learning of scholarly registers and genres to users of English as an additional language calls for contextualized frameworks (e.g., Martin & Rose, 2008; Nesi & Gardner, 2012; Ravelli & Ellis, 2005; Schleppegrell, 2004). However, relatively few studies focus on the nature and scope of scholarly registers specifically from the perspective of curriculum (Byrnes, Maxim, & Norris, 2010; Dreyfus, Humphrey, Mahboob, & Martin, 2016; Rose, 2014). The present paper contributes to this body of research by investigating the selection and use of disciplinary registers employed in the Academic English Program (AEP) at Vantage College, a new alternative-entry, first year program at the University of British Columbia, Canada. The constraints and affordances of this curricular context - including the AEP's adoption of systemic functional linguistics (SFL) as the informing theory of language in integrated language and content instruction - provide the primary lens for understanding instruction in disciplinary registers. The aim is to understand register-curriculum relations through a case study of this innovative, credit-bearing English for academic purposes (EAP) program.

To gain theoretical perspective on the registers instructed in this curricular context, we adopt Matthiessen's context-based register typology (Matthiessen, 2006, 2009, 2015). The instructed disciplinary registers in Science, Applied Science, Arts, and Management are differentiated and illustrated at various degrees of delicacy, from a schematic map of the AEP's instructed registers to a closer investigation of three registers that are central in the respective Vantage streams and AEP courses in which they are taught. The investigation of registers provides valuable insights into the curriculum, including the collaborations between AEP and disciplinary faculty, the parallels across the program in the teaching of disciplinary content knowledge and knowledge about language, and the variability of articulation between the foundational, SFL-informed academic writing course and the many adjunct AEP courses linked to specific disciplinary courses across streams. The paper closes with implications of these findings for curriculum development and further research.

### **Key words**

register typology, EAP, undergraduate studies, international students, curriculum, CLIL, language-content instructor collaboration, English for specific academic purposes, SFL

Dr. Alfredo FERREIRA's primary research interest is apprentice academic writers' development of capacities for exploiting the scope between concrete and abstract representation through the resources of ideational grammatical metaphor (IGM). In his doctoral research, Alfredo developed Nominal Density analysis, an extension of lexical density and IGM analysis; this method facilitates direct analysis of mediation along the concrete/abstract spectrum. Alfredo is a Lecturer and Curriculum Developer at UBC Vantage College, where he teaches research-based academic writing and content-based language courses for science majors from the perspectives of systemic functional linguistics and sociocultural psychology.

Sandra ZAPPA-HOLLMAN, MA and PhD in TESL, is the Director of the Academic English Program at Vantage College, University of British Columbia, where she is also an assistant professor in the Department of Language and Literacy Education. Her research interests include curriculum development and teaching of English for general and specific academic purposes, academic discourse socialization of English language learners in Anglophone contexts, intercultural competence development of students and second/foreign language teachers (particularly during study abroad), pedagogical applications of systemic functional linguistics, and integrated language and content instruction. Her work has been published in TESOL Quarterly, The Canadian Modern Language Review, the Encyclopaedia of Applied Linguistics (among others). Her most recent publication focusing on collaboration between language and disciplinary specialists will be featured in the International Journal of Bilingualism and Bilingual Education.

# An Exploratory Account of the Register of Nursing Textbooks: Can you Nurse from them?

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Given their crucial role in construing disciplinary knowledge, the register of tertiary textbooks is increasingly gaining attention as an object of linguistic enquiry (Hyland, 2000; Love, 2002; Yang, 2017). A number of linguistic features common to scientific discourse such as the use of technicality and abstraction often realised as grammatical metaphor, and the introduction of 'uncommonsense' taxonomies, have been identified in textbooks from a range of disciplines, as well as a number of discipline specific attributes such as rhetorical patterns. However, except for a corpus study on high frequency words (Mukundan & Jin, 2012), nursing textbooks, to the best of my knowledge, have not been explored.

By focusing on the discipline of nursing, I not only attempt to place another piece in the puzzle of the registerial cartography of disciplinary English (cf. Matthiessen, 2015), but to gain some understanding that can potentially be applied in the solution of the numerous and highly consequential issues in nursing education. Hence, I will start by briefly exploring the multifaceted nature of nursing as a discipline and discussing the critical issues affecting nursing students (i.e. higher attrition and plagiarism rates, poor communication skills) in order to determine what the context of nursing education requires from their textbooks.

This aim is in line with what Halliday (2003, p.279) established as the higher goal of linguistic analysis: to determine to what extent a text "achieves what its context of situation demands (e.g. if it's a recipe, can you cook from it?)" – hence the title of this paper.

The contextual demands for nursing textbooks could be listed as: construing biomedical knowledge, establishing a pattern of evidence-based nursing practice, and promoting the values of person-centred care.

The corpus for this study consists of two widely used textbooks in Australian nursing education: *Lewis medical-surgical nursing* (2016) and *Developing Practical Nursing Skills* (Baillie, 2009). For an analysis of context of situation, I will draw on aspects of the parameters of context developed by Hasan (2004), Butt (2004) and Matthiessen

(2013) and relate them to their semantic and lexicogrammatical realisation across different metafunctions using corpus based techniques and detailed manual analysis of short extracts. The analysis from the selected texts suggests that nursing textbooks may be meeting the demands of nursing as a research based discipline, but failing to model empathetic communication.

**Key words:** nursing textbooks, register, context of situation, technicality, lexicogrammar generic structure.

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Alexandra GARC A obtained her PhD in Linguistics from Macquarie University in 2013. Her PhD thesis explores the connections between language and ideology in the reporting of the internal conflict in the Colombian press. She also holds an MA in Language Teaching and Learning from the University of Liverpool, a Master of Teaching (Secondary) from Western Sydney University and a Bachelor of Education in modern languages from the Universidad del Atlántico. Her research interests include Systemic Functional Linguistics, Language Typology, Academic Literacy, Language and Ideology, and Corpus linguistics. She is currently working with the Learning Centre at the University of Sydney as Associate Lecturer in Student Learning and Communication Development. In this role, she is participating in a project seeking to develop academic potential in Singapore nursing students.

The Language of Engineering English from the Perspective of SFL Register

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This paper brings together an investigation of the nature of Engineering in Higher Education with a review of relevant literature and an analysis of the language of Engineering in a corpus of published research articles.

It demonstrates the professional and academic diversity of Engineering programmes internationally to establish an understanding of Engineering in Higher Education. It then considers the range of different linguistic perspectives used to examine texts across multiple Engineering genres and disciplines. From these perspectives, it is evident that there are clear differences in the language used across disciplines, genres and contexts in Engineering. This raises the question whether it is possible to describe a shared disciplinary Engineering register in English.

To provide answers to this question, a corpus of research articles from three branches of Engineering was constructed using the subject category browsing facility in the corpus generation tool AntCorGen (Anthony 2017). The 7.3 million word corpus consists of texts from four sections (Introduction, Materials & Methods, Results & Discussion, Conclusion) and from over 1,000 articles from the three disciplines of Civil Engineering, Electrical Engineering and Mechanical Engineering. Corpus analyses examine word frequencies, n-grams and key words in context. These lead to an appreciation of registers of Engineering. The language of Engineering revealed uncovers shared and distinctive features across the three disciplines and the different sections of the article. It also reflects the publication context, where English is used as a lingua franca, where an SFL concept of register reveals how knowledge is construed through high impact, open access journals articles, with multiple author roles, proscribed genres, multimodal texts, and where reviewers are encouraged to focus on problem solving and facts, rather than the persuasive claims of the authors.

**Key words:** engineering English; SFL Register; corpus

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#### Nominalizations in Economics Textbooks and Research Articles

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How does the language of economics construe and reconstrue human experience of production, allocation and consumption? This question can be addressed in light of metaphor theories, be it theories from cognitive linguistics or systemic functional linguistics (SFL). A survey of literature suggests that cognitive linguistic investigation of economics metaphor has been the main stream over the past three decades. This paper, however, argues that systemic functional linguistic account of grammatical metaphor can shed new light into the nature of economics discourse. It then focuses its attention on the role of English nominalizations in the reconstrual of economic experience by examining the self-built 1-million-word corpus of economics textbooks (CEBT) and 1-million-word corpus of economics research articles (CERA). The results show that lexical nominalizations are common in both corpora, but they are significantly more frequent in research articles than in textbooks. Syntactic nominalizations are also much more frequent in research articles, enabling this special genre more compressed and informative with a strong impersonal tone. In contrast, textbook writers seem to be more willing to align their audiences with more personal tone and relative easy style to establish rapport and to ease the burden of learning. Finding of this study have pedagogical implications for the teaching of economics English.

**Key words**: corpora; economics; nominalizations; grammatical metaphor; disciplinary English

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The Language of English Literature from the Perspective of SFL Register

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One enduring feature of the so-called discipline of "English Literature" is that both its method and its object of study have been - and often are again - hotly contested.

In this paper I am focused on "English Literature" as it has been conceived of and taught at the tertiary level, that is, within universities. (The pedagogic practices at the secondary level require a different account.) The disciplinarity of English Literature is discussed under the following headings:

Origins and the "value" of literature

Scholarship / Literary Criticism / Literary Theory

The Disciplinary Register of English: first-order field of activity

The Disciplinary Register of English: second-order field of experience (subject-matter) and mode

The Disciplinary Register of English: field realised in process, participants, circumstances

Systemic Functional Linguistics: the Poetic and the Narrative.

As the above suggests, the paper first traces the history and elaboration of the discipline through the 19<sup>th</sup> and 20<sup>th</sup> centuries to the present day. It then refers to the work on "registerial cartography", associated with Christian Matthiessen and his colleagues, in order to explore the contemporary discipline as represented on webpages and in exams of Australian universities. Finally, it gives a brief overview of my own work, in which I study "the poetic" and "the narrative" in English poetry and prose fiction of different historical periods.

Key words: Language; English Literature; SFL Register

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## The Language of Educational Linguistics from the Perspective of SFL Register

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Disciplinary discourses have attracted the attention of Systemic-Functional Linguistics for at least four decades. Research has focused on accounting for semantic and lexicogrammatical features, but also on situational and cultural configurations that may help interpret linguistic findings. In particular, the study of emerging discourses' features, such as grammatical metaphors in XIV Century proto-scientific English (Halliday, 1988), can provide linguistically-based evidence for disputed scientific knowledge-production spaces. Educational Linguistics in Latin America, particularly concerned with writing in Higher Education, is a new, increasingly institutionalized field of scientific inquiry and social action, which shows tensions over methods, theories and topics that can ultimately be tracked down to its two mother disciplines: linguistics and education (Ávila Reyes, 2017). However, little is known about how disciplinary conflict and consensus is negotiated within the clause, for example through writers' options of the system of THEME. In addition, Subject in Spanish shows implicit realizations that challenge original positional definitions of THEME in English and that have fostered ongoing debates on the status of Marked Theme in some Romance languages (Gouveia & Barbara, 2002; Moyano, 2016). The aim of this study is to identify lexicogrammatical patters of the system of THEME in Spanish in a corpus of 28 articles published in journal special issues related to writing during the last decade in Argentina, Chile, Colombia and Mexico. The corpus is qualitatively coded using QSR NVivo 11, identifying the schematic structure, ranking declarative clauses, position and realization of the Subject, probability of appearance of Theme, and Theme Type. Inter-rater reliability is calculated to ensure accuracy and consistency of analysis. Additionally, the corpus is classified according to authors' mother discipline and country. Findings show that a remarkable number of Textual Themes and a sharp predominance of unmarked Themes, which can be attributed to Scientific discourse in general. In addition, the distribution of Theme types is highly consistent throughout the schematic structure and the authors' mother discipline. However, introductions to articles prefer Marked Themes in contrast with conclusions to temporally and geographically trace disciplinary boundaries; similarly, marked Subject is more frequent in Introductions than in Conclusions. Finally, interdisciplinary authors use marked Themes and marked Subject less often than authors associated to mother disciplines. In sum, this research can help understand, and even foster, an emerging disciplinary discourse, connecting semantic and lexicogrammatical patterns and epistemological frameworks, while providing at the same time some evidence on the realization of Subject and Theme in Spanish in contrast to English.

Key terms: theme; subject; educational linguistics; disciplinary discourses

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The Language and Visualisation of History from the Perspective of SFL Register

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Explorations of Disciplinary English (DE) already tell us much about the nature of a wide range of areas of academic study, in terms of both the distinctive features of specific disciplines, as well as variations within and across disciplines. The disciplinary English of History has been widely studied, and it is well established that history is a discipline in which deft control of written language is highly valued, using a variety of lexicogrammatical resources to construct persuasive texts that present a particular interpretation of the past. However, recent research provides convincing evidence that the nature of history, as a discipline, is changing, both in terms of modes of expression and disciplinary orientation, including the 'New Humanities'. While images, documents, and other multimodal resources have always formed part of the evidence of historical enquiry, new modes of argumentation allocate these a different kind of role, aligning with epistemological changes in the discipline. At school, at university, and in academic culture more broadly, new modes of argumentation allocate a different and more strongly foregrounded role to visual and other multimodal elements. Departing from the framework of systemic-functional linguistics, and especially the notion of register, my aim in this paper is to outline current knowledge of the Disciplinary English of History, to identify some of the recent trends and changes in the discipline, in terms of how knowledge is constructed and validated, and to turn the spotlight on the notion of register, to problematise our explanatory power in relation to this discipline.

**Key words:** history; language; systemic-functional linguistics; register; multimodal discourse; New Humanities; visual

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Disciplinary English in Healthcare: Modelling Variation in Consultations about Melanoma

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Analyses of register now hold a key place in SFL research in healthcare communication (e.g. Lukin et al., 2008; Matthiessen, 2013, 2015). In fact, Matthiessen has proposed the strategy of 'registerial cartography' to explore institutional practices, including dysfunctional language practices, in healthcare institutions. He defines 'registerial cartography as the activity of systematically describing the registers that make up a language — with register in its original sense of a functional variety of a language, i.e. of the adaptation of the meaning-making resources of a language according to context of use.' For Matthiessen and his colleagues, one important aim of this activity is the eventual development of better training materials for medical staff so the approach is highly relevant to the interest of this Forum in disciplinary English (e.g. Slade et al. 2015). Another aim is, of course, more theoretical and methodological: to develop SFL methodology for modeling register in many different types of institution.

Adopting this general approach, I provide a preliminary report from a current project investigating variation in clinician-patient communication during consultations about the diagnosis and treatment of melanoma (a major type of skin cancer). Two types of clinical specialization, surgery and medical oncology, are involved within the one institution whose work is focused exclusively on this type of cancer. The outcomes so far raise questions relevant to doing registerial cartography in healthcare communication. In this paper I address the following:

- what is the potential relevance of inter-institutional relations in mapping the contours of registers in healthcare communication, compared with an orientation primarily to intra-institutional relations?
- what is the potential value of concepts such as 'contextual configuration' and 'generic structure potential' to registerial cartography (Hasan in preparation, [2004]?
- what other perspectives on language variation, additional to register, might be applicable to describing English used in healthcare communication?

Key words: Healthcare English; language variation; melanoma

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Geoff WILLIAMS is a Visiting Professor at GDUFS, an Honorary Professor of Education at the University of Sydney, where he is currently based, and an Emeritus Professor of Language and Literacy Education at the University of British Columbia, Canada. He is a past Chair of both the Australian and the International Systemic Functional Linguistics Associations. After gaining the University Medal for his MA thesis at the University of Sydney, he wrote his PhD in Linguistics at Macquarie University, supervised by the late Professor Ruqaiya Hasan, focusing on semantic variation in early literacy development. His current research extends this interest into the healthcare communication field, in a project investigating clinician-patient communication across patient social class differences. Additional to his work on semantic variation, he has been particularly interested in children learning to use systemic functional grammatics in their literacy development. He conducted the first projects internationally in this field, collaborating with Drs Ruth French and Joan Rothery. More recently he has been exploring the value of reflection literacy (Hasan 1996, 2011) in early primary school literacy education. Professor Williams is the co-editor with Ruqaiya Hasan of Literacy in Society (Longman) and, with Annabelle Lukin, of *The development of language* (Continuum).

## **Transitivity Patterning in Science Textbooks**

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Transitivity, an important concept in the systemic framework, realizes the field of discourse. Field as one of the determining factors of the text is the area of operation of the language activity (Halliday et al. 1964:90) and refers to what is happening and the nature of the social action that is taking place (Halliday 1985:12), including subject matter (Halliday 1978:143). In order to understand how disciplinary knowledge is presented linguistically in science textbooks, this paper is an attempt to explore the transitivity patterning in two textbooks used in American secondary schools, which involve the two disciplines of ecology and astronomy and are published in English in 2005 (cf. Rillero & Zike 2005; Feather Jr. & Zike 2005), and to investigate the features of their transitivity patterning, with particular focus on the patterning of 'the experiential center of the process + participants configuration' (Halliday 2014:221-222).

**Key words**: transitivity; science textbooks, field of discourse

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Latin and Law French in Legal English: A Corpus-Based Disciplinary Study of the Language of the Law

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This paper is a preliminary study of the Language of the Law (or Legal English), a subsidiary of a broader research project on the Disciplinary English (DE), from the perspective of SFL. It starts with reviewing Halliday's 7 features or difficulties of Scientific English that are presumably shared by Legal English. Then, features of legal English identified by Forensic linguists, Mellinkoff and Tiersma among others are also perused. Subsequently, this paper focuses on and examines a particular feature, that is the alleged 'popular use' of Latin and Law French in contemporary legal English. We build a small corpus consisting of journal articles (or academic papers) and legal textbooks to examine their frequency in the corpus and analyze their uses and users (authors and readers) by means of instantiation. We finally explain the results and findings by drawing on previous insights of forensic linguists and some new inspirations from Maton's Specification Codes and Semantic Wave and Martin's Power Trio and conclude with some implications for legal English instruction.

**Key words**: legal English; Latin; Law French; disciplinary English; power words

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