



Modelling choice in digital writing: Functional revisions and 'texture'.

A thesis submitted in fulfilment of the
requirements for the degree of Doctor of
Philosophy in Language and Communication

By

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Summary

In this thesis, the digital writing practices of two 2nd year undergraduates are examined in terms of the functions and structures of their revision activity.

Using systemic functional linguistics as an underlying framework, the project takes a first step toward to a dynamic description of written text in functional terms. To date, research into dynamic descriptions of language (i.e. the logogenesis, or unfolding of meaning in a text) has been almost entirely based upon data related to the spoken mode. Furthermore, research into revision activity has tended to ignore the functionality or meaning inherent in such revisions. The existing research has, instead, primarily focused on cognitive processes (for e.g., pause times) or which language structures, such as parts of speech, are more frequently involved in revisions than others. Ultimately, this thesis works toward providing a dynamic description of the language functions and revisions involved in revision activity in two student writers.

To do this, it makes use of software called keystroke logging to record how two writers compose four academic essays on their computers. Such technology allows us to model the unfolding of a written text in much the same way as a tape recording allows researchers to model the unfolding of a speech. By examining how these writers revise text in light of academic expectations (a 'valued' configuration of field, tenor, and mode register variables present in language choices) and digital mediation (computer afforded composing practices), the thesis shows how certain language functions and structures may play a key role when it comes to shaping an academic essay. In this light, this thesis takes a first step to providing a dynamic description of what is usually analysed solely in synoptic terms, by showing how we can analyse written text as process (an evolving entity) rather than just a product (a static entity). Because of this, a new model of analysis – a combination of keystroke data and functional systemics – is proposed, which can provide an additional perspective to the already existing methods of examining writer behaviour by looking at meaning making practices in revision activity.

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Conventions

Systemic description

Case	Convention	Example
lower case	name of system term (option or feature)	intensive, identifying process
small capitals	name of lexicogrammatical system	THING TYPE, THEME, MOOD, QUALIFICATION
initial capital letter	name of functional element realized by a systemic choice	Thing, Theme, Mood, Qualifier

Operators used in systemic realization statements/descriptions

Description	Operator	Example
Choices selected within a system	[<i>systemic choice</i>]	Choice in EVENT TYPE = [Relational process]
Structural realization of functional element	(↘ <i>structural unit</i>)	[Relational process (↘ verb)]
Movement through a system from left to right (increasing delicacy of description)	: (1 st layer : 2 nd layer : 3 rd layer)	[comment Adjunct (↘ adverb): propositional: on whole: assertive]
systemic combination of two system options/features	['A' & 'B']	[Relational process (↘ verb): intensive & identifying]

List of Abbreviations

ActLits	-	Academic Literacies
AE	-	Academic English
BAWE	-	British Academic Written English corpus
CP	-	Commutative Progression
ESP	-	English for Specific Purposes
FP	-	Forward Progression
GM	-	Grammatical metaphor
INS	-	Unclassified revision
INSA	-	Forward Insertion/Deletion
INSB	-	Backward Insertion/Deletion
KSL	-	Keystroke Logging
LTM	-	Long-term Memory
MDA	-	Multidimensional Analysis
NGrp	-	Nominal Group
NR	-	New Rhetoric
WM	-	Working Memory
RQ	-	Research Question
SFL	-	Systemic Functional Linguistics
STWM	-	Short-term Working Memory
VGrp	-	Verbal Group

Chapter 1 Introduction

1.1 Overview

In the past two decades, computers, and the innovations they have spawned (particularly the internet), have transformed how we interact (e.g. social networking), do commerce (e.g. online auctions), stay informed (e.g. RSS feeds), and, most significantly for this thesis, how we search for, access, and present information. These advancements have (and are) changing the way we produce, disseminate and consume texts. One particular sphere where this has become evident is the world of student writing, where students now have the means to travel between physical and virtual worlds, pushing and pulling information through spatial and acoustic environments they both partake in and (co)construct. Oblinger and Oblinger (2005) posit that this 'net' generation build understanding by drawing on multiple sources, leading to non-linear thought processes based on visualizations. Although, Oblinger and Oblinger's treatise is premised on Western adolescents—Eastern students may prefer different modes of learning depending on their socio-cultural heritage—their view is applicable to this thesis because here we will only be examining Western (L1 English) students. However, the traditional view of 'literacy' privileges alphabetic forms, words, and their sequences—a document-centric view that promotes a start-to-finish view of knowledge transmission. This is somewhat at odds with the increasing prominence of digital text, where what constitutes a 'page' is radically transformed via hyperlinks, hypertext, and 'live' information (Kress, 2003, p.3). Moreover, as Trupe (2002) convincingly argues, digitally composed text(s) draw on new ways of writing, where single mode genres are fast becoming obsolete; hence, the recent interest in multimodal or hybrid-based views on text (cf. Domingo, Jewitt, & Kress, 2015). Ultimately, modern-day writers seem to be immersed in the 'mediated multimodal genre system' (Prior, 2009).

This shift toward a multimodal, dynamic workspace has spurred renewed interest in the concept of 'literacy', and has unknown implications for our understanding of how students' compose texts. For example, initial investigations point to growing instability within genre systems, where modes of meaning-making are made and remade in a matter of months (Bowen & Whithaus, 2013; Domingo et al., 2015). For example, in this multimodal, dynamic workspace, students can represent themselves (and their knowledge) in a myriad of ways, ranging from the more traditional words on a page approach (common in most essays), to embedded charts, images, sounds, and hyperlinks (typical in PowerPoint presentations, for example), and the ability to use motion, zoom, and spatial arrangements to set up links between ideas/content (e.g., Prezi). In such dynamic workspaces, ideas and the relationships between them may be more representative of the producer's actual thought patterns, which will probably, more often than

not, be non-sequentially organized (which can be limiting factor in writing). For example, whilst the ability to copy, paste, and cross-reference information endows digital text with increasing fluidity and temporariness, the new modes of meaning-making (some of which were listed above) draw much more heavily on visualizations and projected (or guided) physical movements, which seemingly mirror more closely the elasticity with which we hold ideas in memory (Olive & Passerault, 2012). In writing, though, these networks of non-linear thought patterns need to be transformed into linear, sequential arrangements, where the affordances listed above get reduced to the organization of text and 'pointers' within that text that tell us (the reader) where to look for such connections and related ideas/content. In writing, then, the writer is effectively reorganizing a collection of 'floating' ideas/content into an unfolding collection of words. It is in this transformative process that we find a sequence of interactions between the writer and their text, or as Prior (2009) puts it:

'the composed utterance has a history where a sequence of interactions and possibly a series of externalized inscriptions have been organized around the project of a final text/performance.' (p.27)

This history is particularly rich if we take into account computer mediated composition, where the writer can interact with and manipulate unfolding text using digital applications (drawing packages, spreadsheets, etc.), digital sources (worldwide web), and more traditional note-taking techniques (digital and/or pen-and-paper). It is perhaps unsurprising, then, that a great deal of a writer's time can be spent searching for, and switching between, multiple sources, making use of 'old' text in the pursuit of 'new' (e.g., Leijten, Van Waes, Schriver, & Hayes, 2014; Swarts, 2010). However, in the majority of writing research, text is perceived as equivalent to speech, as if it was conceived of and realized in a single instance, rather than the product of hours, days, weeks, perhaps even years of agonizing deliberation, reflection, revision, re-organization, and finally production. As Prior (2009) highlights:

'Even in some of the richest theoretical and empirical work, there remains a tendency to freeze writing [...] to see writing as a noun rather than a verb.' (p.22)

For example, although O'Donnell (2013), and others (e.g., Coffin & Donohue, 2012), frequently highlight that Systemic Functional Linguistics (henceforth SFL) has the potential to examine written text as process (dynamic descriptions of paradigmatic choice), SFL research into text as process has concentrated almost exclusively on speech¹ (e.g., O'Donnell, 1999; Ventola, 1987; Yang, 2010). Furthermore, most linguistic-based research into writing has been decidedly retrospective, focusing on synoptic descriptions of syntagmatic realizations (no doubt due to the

¹ O'Donnell (2013) rightly notes that investigations into speech are fundamentally different from writing because you cannot change a previous utterance. However, you can rephrase something you have just said, much like you can revise what you have just written.

difficulty of analysing paradigmatic choice as it unfolds (cf. Ventola, 1987)). This is especially evident in Australian 'Genre Theory' (cf. Chapter 4), where an academic text is seen as 'a staged, goal-oriented social process realised through register' (Martin, 1992, p.505). Similarly, in writing process research, the notion of written text is also centred on the conception of a finished product, only the primary focus here is on the cognitive processes involved in writing (cf. Chapter 2). Therefore, this study takes up the challenge of studying the language of written text as process by examining what academic writing in the digital sphere has come to represent. More specifically, the thesis focuses on how two student writers shape the linguistic features (or meaning-making potential) of their texts in real-time. It does this by assuming that unfolding language choices in written text can be examined in part by exploring how students revise text in terms of choices at the morpheme level and above (i.e. the rank units related to lexicogrammatical choice, which will be outline in Chapter 5, §5.2.2.3). I have limited my examination to two participants because: (a) the current state of automatic analysis of linguistic features during the writing process is limited, resulting in the need for extensive manual coding; (b) there is no established methodology with which to examine the function of writer's revisions, and (c) because of (a) and (b) a limited sample means that I can provide a thick description of an hitherto unexamined area, allowing for both methodology and theory to be explored more fully.

1.2 Research questions and the underlying motifs used to address them

To explore this previously unrealized thread of research into written text as process, this thesis subsumes a number of underlying motifs (or themes), which are reflected in three sets of research questions (RQs):

1. Development of how students write:	<ul style="list-style-type: none"> a. What practices do students use when digitally composing text? b. When (sequentially) and where (within the clause) are these practices employed? c. Which practices (if any) are relatively stable, and which appear to change over time? d. Do 'good' writers converge on similar practices?
2. Development of what students write:	<ul style="list-style-type: none"> a. What are the key linguistic features of 2nd year undergraduate revisions? b. Are these features comparable between/within different writers? c. Are these features comparable to those of more experienced writers?
3. Product/process relationship(s)	Is there a relationship between how a person writes and the perceived quality of their text(s)? I.e. does the process affect the product?

These three sets of RQs are broad in scope and cover more than one theoretical concern or thread of research. Because of this, I have organized the thesis into three separate, yet complementary areas of investigation (the study's three underlying motifs), each of which reflects one of the three RQs listed above, and each of which will have its own literature review chapter and discussion

chapter (cf. §1.3). Naturally, there will be some overlap in certain chapters, but where this occurs, I have attempted to outline these commonalities and interconnections as clearly as possible.

Before introducing these three underlying motifs, I should make it clear that this study takes the view of 'discourse as genre' (Bhatia, 2004, p.20), where the primary concerns are the linguistic, socio-cognitive, and ethnographic view of texts, which can be broadly related to three conceptual spaces: (i) text, (ii) context, and (iii) society/culture, where analysis moves from context to text in 7 steps (Bhatia, 2004, pp.153-182):

1. The text is placed in its given situational context (identify genre).
2. Existing research on the genre is surveyed (literature review).
3. Goals and relations of genre to readers/writers is explored.
4. Primary corpus is collected (product and process data).
5. The context surrounding production/reception is investigated (research site).
6. Texts are analysed for linguistic features (data analysis and discussion).
7. Informal feedback from participants is used to inform analysis (member reflections).

Following these steps provides a 'thick' description of the text, context, and persons involved. Therefore, using this overarching assumption as the thesis's base, I present the following three underlying motifs (explained in the following subsections) as a first step toward addressing the three sets of RQs outlined above. Following this, these three motifs (and their accompanying RQs) will be picked up in §1.3, where I outline their relevance to the organization of the thesis in terms of their contribution to each chapter.

1.2.1 How students write

The first theme of the thesis sets out to address the question of 'how' students write. To do this I make use of keystroke logging software to capture the writing activity of two students as they composed 4 essays as part of their undergraduate assessment (more will be said of this technology later): one student produced three essays over two months, the other student produced one essay over two weeks. Using data collected via keystroke logging software, I explore what these student writers did when digitally composing text, such as their normal text production (non-interrupted bursts of activity), their 'focus events' (sources and the programs they consulted/used outside of MS Word), and their revision activity in terms of the when and where of revision 'types' (set out in Chapter 5, §5.6).

1.2.2 What students write

The second theme of the thesis sets out to address the question of 'what' student write. To do this, I use an experimental mixed methods approach, which combines keystroke logging data with

a traditional text linguistic analysis (SFL based). This approach allowed me to build up a dynamic description of text as it unfolded. This is a departure from the normal practice of analysing a finished text (a synoptic description), as we shall attempt to reveal (and examine) the language choices a writer makes as he/she writes, and not just those that are visible in the final draft. This means examining deletions and insertions as they occur in the process of text construction, particularly in terms of how they contribute to the language functions/structures of each text. Specifically, we will look at the realization of unfolding choice in terms of SFL's views on language function, rank, and systemic choice (explained more fully in Chapter 5).

1.2.3 Product-process relationships

Finally, in an effort to be 'applicable' (Halliday, 2009), the third theme of the thesis aims to examine the product in relation to the process. More specifically, it will attempt to examine if the process of text construction can be linked to its finished 'quality' in any way, and, if so, are there any theoretical benefits to be gained from such an endeavour? Studies in this vein are very rare, no doubt due to the complexity involved in drawing such connections (as we shall see in the next chapter). Therefore, this final theme is more exploratory and takes a somewhat subsidiary role to the other two themes; as a consequence of this, the final RQ is much broader in scope and less specific in its aims. Nonetheless, it is an important endeavour, and is one that will run implicitly throughout the thesis, as well as being explicitly covered in the Chapter 8.

1.3 Organisation and contribution of thesis

As already noted, the three central motifs outlined above broadly inform the three sets of RQs that provide the underlying aims of this thesis. Therefore, in organizing the thesis I have chosen to give each motif its own literature review chapter. Accordingly, Chapters 2, 3 and 4 cover the literature related to each of the motifs in turn. Although, these three chapters appear as separate entities, they are in fact connected in that they cover: (a) motif number 1: what writers 'do' (Chapter 2); (b) motif number 2: what academic writers produce (Chapter 3); and (c) motif number 3: what academic writing 'does' (Chapter 4). More specifically, these 3 chapters explore the main theories and research behind what writers generally do (in terms of underlying cognitive process), what academic writers are expected to produce (typical linguistic features of 'model' academic texts), and how academic texts come to be situated within larger socio-historical contexts as genres and genre families (how academic texts relate to each other and their audiences). As such, these three chapters are necessarily broad in scope, and address literature in several disciplines: cognitive psychology, linguistics, rhetoric, and social-realist education. This interdisciplinary focus is warranted due to the integrated nature of writing and writing

development. Because the literature in these fields is extensive and broad in scope, in order to draw connections between the three literature review chapters, I have chosen to adopt the view that writing involves a complex interplay of five types of knowledge (Hyland, 2011, p.31):

1. Content knowledge: (Re)appropriating/positioning knowledge in terms of dialogism (Hyland, 2005, 2008; Tang, 2009) and heteroglossia (Biber, 2006; Hood, 2010; Scott & Turner, 2009);
2. Contextual knowledge: Awareness of activity systems (Bazerman, 2013), and wider societal/cultural expectations (Martin & Rose, 2008);
3. Genre knowledge: Knowledge of generic conventions and depth and breadth of genre networks (Nesi & Gardner, 2012; Tardy, 2009);
4. System knowledge: Learning how to use uncommonsense linguistic repertoires (Christie, 2012; Martin, 2007);
5. Process knowledge: Movement from intra- to inter-level concerns (Kellogg, 2008), in combination with learning-through-writing (Galbraith, 2009).

By using these five types of knowledge, I hope to situate the contents of each review chapter (2, 3, and 4) in relation to each other, and to the field in general, creating a kind of overarching theme that informs the rest of the thesis, its findings, discussions and, ultimately, its conclusions.

In relation to the five knowledge types outlined above, then, item 1 (content knowledge) is somewhat taken for granted in this thesis, because both writers have average grades that subsume their level of content knowledge to be high (both average over 70% in their studies). To cover items 2-5, however, I make a distinction between the writer (process knowledge covered in Chapter 2), the text (system knowledge covered in Chapter 3), and the socio-historical context behind writing (genre theory covered in Chapter 4). The ordering of these chapters reflects somewhat the order of the RQs outlined above, and the discussion chapters that follow. I.e. the ordering in no way reflects the importance of one strand of research over another, it is simply a means to simplify the organization of the thesis as much as possible in light of a complex 'research problem'.

Chapter 5 outlines the methodology used to address this 'research problem'. Its organization attempts to align with Tracy's (2013, p.230) eight 'big tent' criteria of excellence in qualitative research by addressing the following concerns: research design, sampling selection, research site, data collection, validity and reliability, data analysis, researcher bias and assumptions, and ethical considerations. Although these concerns are presented as discrete components (or sections), the chapter repeatedly highlights how they are parts of an integrated whole. Furthermore, the methodology represents a contribution to both writing research and linguistics as it combines

two separate yet complementary methods/frameworks: keystroke logging and text linguistic analysis (based firmly in SFL).

Chapters 6, 7, and 8 present both the results and the discussion of each set of results in relation to each of the three RQs. I.e. rather than include a chapter entitled results, I have chosen to incorporate the relevant results alongside their accompanying discussion(s) so as to address each of the main RQs (or motifs) in turn within a self-contained chapter. Accordingly, Chapter 6 concerns itself with how the two student participants write, and, thus, primarily relates, and contributes, to the research covered in Chapter 2. It seeks to answer RQ 1. *How students write?* Chapter 7 concerns itself with the development of linguistic features found in text and, thus, primarily reflects upon, and contributes to, the work covered in Chapters 3 and 4; it seeks to answer RQ2. *What do students write?* Chapter 8 is exploratory, in that it covers the unfolding of language in written text—it deals with what SFL refers to as the 'logogenetic time frame' (covered in Chapter 3). This area is severely under researched and, thus, the work contained in this chapter contributes to the work covered in Chapters 2, 3, and 4 by exploring a perspective of writing that has not yet been undertaken—the unfolding of language choices in written text as it is being produced. It seeks to explore RQ3. *Product/process relationships.*

Chapter 9 is the conclusion chapter. It brings together the previous chapters and outlines in more detail the overall contributions of the thesis to the three main strands of research covered by the RQs and the literature review. In broad terms, these were research into revision activity, SFL studies into written text, and research into student writing in general. It also outlines the major findings of the thesis, its limitations, and suggests areas for future research, whilst also reflecting on the state of current research.

Chapter 2 Process knowledge: What writers do

Introduction

This chapter focuses on cognitively oriented research into writing, which conceptualizes writing as involving various interrelated processes of differing complexity. Thus whilst Chapter 3 will examine connections between features of writing (products), and Chapter 4 will examine connections between writing activities (genre theory), this chapter will examine connections between cognitive processes, focusing on three key recursive processes that are central to process-based research: Planning, translating, and reviewing/revising. However, because process research is extensive (Pritchard & Honeycutt, 2006; Smagorinsky, 2006), this chapter restricts itself to the following aims: Section 2.1 gives an overview how writing processes are conceptualised in this paradigm; section 2.2 considers what this paradigm contributes to discussions of high-level writing tasks (e.g., academic essays); section 2.3 examines what research into process-product relations has discovered; section 2.4 considers the current state of Keystroke logging (KSL) research with regard to the linguistics of writing. In relation to these four points (or sections), I will attempt to show that (i) while writing process research has made a significant contribution to understanding the main activities related to writing, there is still much to be done with regard to social and affective factors; (ii) in their current formulation, process models cannot fully account for argumentative texts because they underspecify the translation process; (iii) in investigating product-process relationships, process research is slowly moving toward a more dynamic and multidimensional view of writing; (iv) KSL research tends to focus on the language of writing in terms of parts of speech rather than meaning.

2.1 Process models

To summarise and evaluate every process model would be a monumental task (cf. Alamargot & Chanquoy, 2001, for a book length treatment). Therefore, this section focuses on key contributions, starting with Hayes and Flower's (1980) first, and arguably most influential, box-and-arrow type model. At the outset I acknowledge that many process models (or frameworks) are purposely underspecified, and are meant to be modified and augmented in line with emergent findings (Hayes, 2012). Therefore, any criticisms should be seen as areas for future research, rather than outright flaws.

Hayes and Flower's 1980 model was based on an information-processing approach, and grew out of the findings of one writer's verbal protocols. It provided a framework (or language of description) for investigating the cognitive processes involved in writing, and in so doing, it moved

research away from a view of writing as a product, and re-envisioned it as a problem solving, non-linear, exploratory, and goal driven endeavour. Hayes and Flower postulated that writing was made up of a number of cognitively driven, recursive activities, centring around: planning, formulating (translating), and revising. Being recursive, these processes interact with and/or interrupt each other at any time; i.e., whilst the labels suggest temporal sequencing, processes occur and reoccur in complex patterns. This model is reconceptualised in figure 2.1, incorporating Hayes (1996) and more modern terminology:

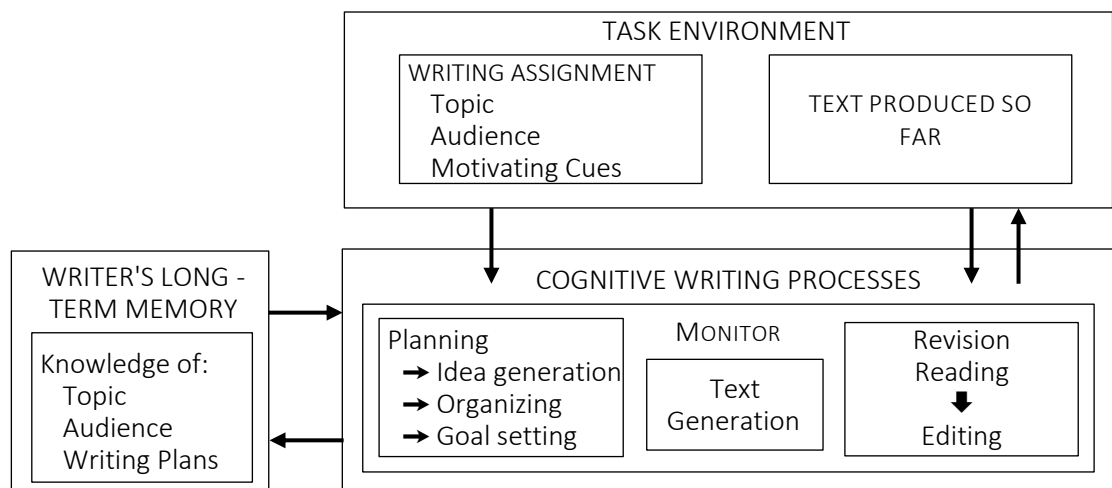


Figure 2.1: The Hayes-Flower model of the writing process (1980)

This model contained 3 core modules: task environment, cognitive writing processes, and writer's long-term memory (LTM). The task environment incorporates factors that affect the writing task, including goals and text produced so far. The writer's LTM contains knowledge about topic, audience, and genre. The cognitive module incorporates planning, text generation (originally termed 'translating'), and revising, which are all embedded within a 'Monitor'. In most writing models (this one included), planning incorporates 3 sub-processes: (1) generating ideas from sources; (2) selecting and evaluating these ideas in line with a topic; (3), organizing these ideas in relation to the text's goal, audience, and generic expectations (cf. Chapter 4). Text generation, meanwhile, facilitates the transformation of ideas into language, and revision involves the evaluation of the resulting text and any resulting transformations in terms of spelling, stylistics, etc. Revision, then, relies on a writer's interaction with text, with studies showing that students with higher working memory spans are generally better revisers than students with lower working memory spans (Piolat, Roussey, Olive, & Amada, 2004). The 'Monitor' represents (albeit implicitly) what is now commonly called 'the central executive'. Consequently, this initial model suffered the same 'homunculus' problem that befalls Baddeley and Hitch's model of working memory¹ (Olive, 2012), and while Hayes (2012) makes the following claim, the monitor still seems to represent a

¹ If one process controls the functioning of other processes, what controls that one process?

magical 'black-box'²:

'The monitor represented the writer's predisposition to sequence the writing processes in a particular way. It was not intended to control how those processes were carried out.' (p.373)

During the 80s, researchers refined and added to this conception of writing by focusing on reviewing/revising³. This research highlighted how novice writers typically focused on local revisions, whereas experienced writers made more global level revisions (Flower, Hayes, Carey, Schriver, & Stratman, 1986; Sommers, 1980). Local revisions are minor changes, either at, or below, the sentence level, and thus typically involve lexical choices, corrections to grammar, spelling, etc. Global revisions are major changes, made at the clausal, paragraph, or discourse level, and thus typically involve the manipulation of information. Much of this research, however, was either premised on writing as a top-down process, or imposed an artificial separation between drafting and revising for experimental purposes. Proponents of dual-processing models, such as Galbraith and Torrance (2004, pp.64-65), for example, would link revision strategies to the writer's preferred writing style, and would class revisions made by writers who prefer top-down strategies as 'reactive', in that revisions seek to bring the text in line with initial expectations (i.e. meeting pre-established goals), and thus would be unrelated to developing understanding and would often negatively affect text quality. Writers who prefer bottom-up approaches, on the other hand, would primarily make 'proactive' revisions, leading to increased understanding, but may not affect text quality (Baaijen, Galbraith, & de Glopper, 2014). This complex interaction between revision and writing styles is highlighted by Wallace et al. (1996) and Midgette, Haria, and MacArthur (2008), who show how very brief instruction (8 and 2 minutes, respectively) can lead to more substantive, macro-level revisions. However, while such findings suggest that less experienced writers lack evaluative criteria for what they write (Hayes, 2004), and who they write for (MacArthur, 2013), it may be that such instruction is limited in terms of transfer/future uptake as it may not be generalizable to other situations (cf. Adams, Simmons, Willis, & Pawling, 2010).

In another key model, Bereiter and Scardamalia (1987) argue that at least two process models are needed to account for the differences between novice (knowledge-telling) and skilled (knowledge-transforming) writers: knowledge-telling writers generate text in response to an association (usually prior text or an assignment prompt) in a list-like fashion, where elaboration mainly involves formal features (spelling, etc.). In this 'stage', writers transform ideas into text under constraints of topic and genre—it is using writing to 'tell'. knowledge-transforming writers,

² Discussions of a monitor/central executive are rare, even in present studies (cf. Olive, 2012).

³ Perhaps because of this focus on text modification activities, the processes responsible for translating ideas into language remains underspecified, both with respect to how letters, words, phrases, etc., are generated and transposed in real-time (however, see Berninger & Swanson, 1994).

on the other hand, generate text in response to a problem (usually self-generated), where elaboration involves not only formal features, but also meaning—this elaboration is typically achieved by iteratively attending to the text (Lindgren, Leijten, & Van Waes, 2011). The knowledge-transforming stage, then, as per the Hayes-Flower model, frames writing as a top-down, problem solving process, but it conceptualizes expert writing as the ability to formulate and solve problems in terms of two spaces: content (topical) and rhetorical (organizational) space, as per figure 2.2:

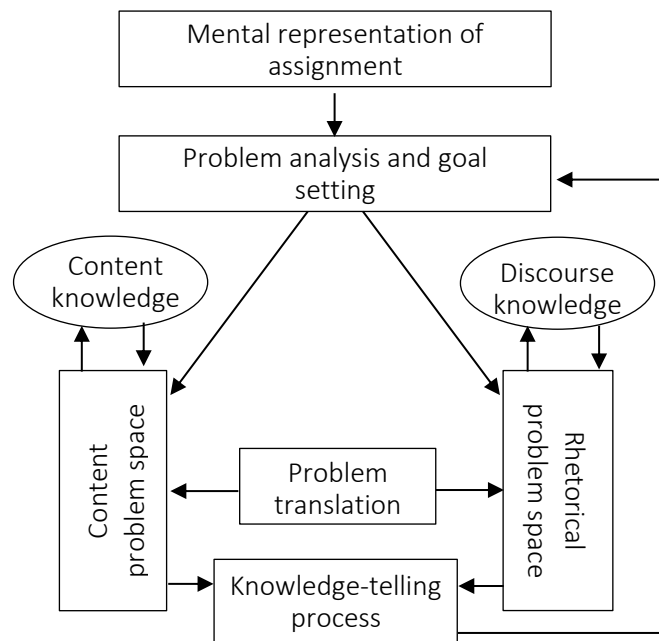


Figure 2.2: Bereiter and Scardamalia's Knowledge-transforming model (1987, p.12)

In this model, knowledge-transforming is a dialogue between content and rhetoric, where writers shape text in light of an overarching problem, emerging text, discourse, and topic: experienced writers negotiate goals, contexts, and actions in relation to themselves and what they know—it is using writing to 'recontextualise knowledge'. Numerous studies support these fundamental tenets (C. Beauvais, Olive, & Passerault, 2011; L. Beauvais, Favart, Passerault, & Beauvais, 2014), where the consensus is that writers resort to knowledge-telling alone because of one (or more) of five key reasons (Alamargot & Fayol, 2009; Hayes, 2012; Torrance & Galbraith, 2006): (1) underdeveloped language, (2) inefficient writing strategies, (3) lack of topic knowledge, (4) underspecified goals, and/or (5) lack of motivation. However, in relation to argumentative writing, Coirier, Andriessen, and Chanquoy (1999) suggest that:

'two perspectives are playing a role: problem solving/topic structure, and argumentation structure. Experts can solve the dissonance between these perspectives [...]. Non-experts rely mostly on topic structure.' (p.14)

It could also be argued, then, that in constructing argumentative texts, a knowledge-transforming stage would need an additional 'pragmatic/interpersonal space', which could interact with the

other two spaces in light of restructuring a text (and its contents) toward different goals, points of view, or perspectives. Highlighting that in such texts the points made are sometimes less important than how they are made (Hyland, 2012; Smagorinsky, Daigle, O'Donnell-Allen, & Bynum, 2010). Consequently, one could say that the knowledge-transforming model appears to privilege cohesion over coherence. Furthermore, although Bereiter and Scardamalia (1987) illustrate that knowledge-transforming is only evident in more experienced writers (postgraduates), they fail to explain how one moves from knowledge-telling to knowledge-transforming or, therefore, what occurs between these phases (Hayes, 2011)⁴. Thirdly, as with the Hayes-Flower (1980) model, the distinction between novice and expert belies the fact that writing is field specific, where novices in one field may be experts in another, and vice-versa; i.e. these models explicated a large portion of context, focusing on cognition, to the behest of situational and interactional concerns.

During the 90s, process research shifted toward memory and writing. It further incorporated Baddeley's (2003) model of working memory and in *The science of writing: Theories, methods, individual differences, and applications*, three new(er) models were proposed:

Firstly, Kellogg (1996; elaborated in 2001) drew on Bereiter and Scardamalia's (1987) model and previous research to produce a speculative model of how writers mature to become experts, moving from knowledge-transforming to 'knowledge-crafting'. Kellogg based his thesis on the logical assumption that experienced writers are able to hold three distinct representations of text in WM: knowledge conveyed by the text, the author's representation of that knowledge, and the author's judgement on how that text will be received (virtual reader's perspective). Experienced writers are believed to be able to juggle cognitive processes with higher-level concerns of content, rhetoric, and audience awareness because they have developed automatized routines that prevent overloading the central executive. Regardless of which view of WM one assumes⁵, two basic mechanisms appear to reduce cognitive demands: (1) automatizing task information (e.g., increasing topic knowledge) or task demands (e.g., using generic templates); (2) using compensating strategies to consciously reduce the load on non-essential activities (e.g. ignoring spelling mistakes). Mechanisms for reducing constraints, then, can top-down (outlining, conceptual maps) or bottom-up (freewriting⁶, extensive revising). Kellogg (2008) also suggests that demand can be reduced by: (1) maturation of the central executive with age; (2) committing

⁴ Hayes is currently working on an intermediary stage: 'knowledge-structuring'.

⁵ Studies into WM constraints typically assume: (1) Dual-task interference (a capacity theory of writing), which posits that when an individual is engaged in two or more tasks, the performance on one, or both tasks will reduce (McCutchen, 2000; Olive, 2012), or (2) a componential view of writing, which believes there are limits to how much information we can store in any one component of memory (Kellogg, 1996).

⁶ Freewriting delays revising and editing until after the first draft (a dual-draft approach); see Elbow (2012) for a significant publication from the originator of 'freewriting'.

disciplinary knowledge to LTM; (3) automatizing some aspect of planning, revising, or generating. Similarly, Torrance and Galbraith (2006) suggest: (1) automatizing low-level skills; (2) developing compensatory strategies to reduce parallel processing; (3) minimizing on-line planning by making notes/outlines.

In the same book (*The science of writing: Theories, methods, individual differences, and applications*), Hayes (1996) focused on the sub-processes related to revision, cognition and affect, and reformulated his original model, as per figure 2.3.

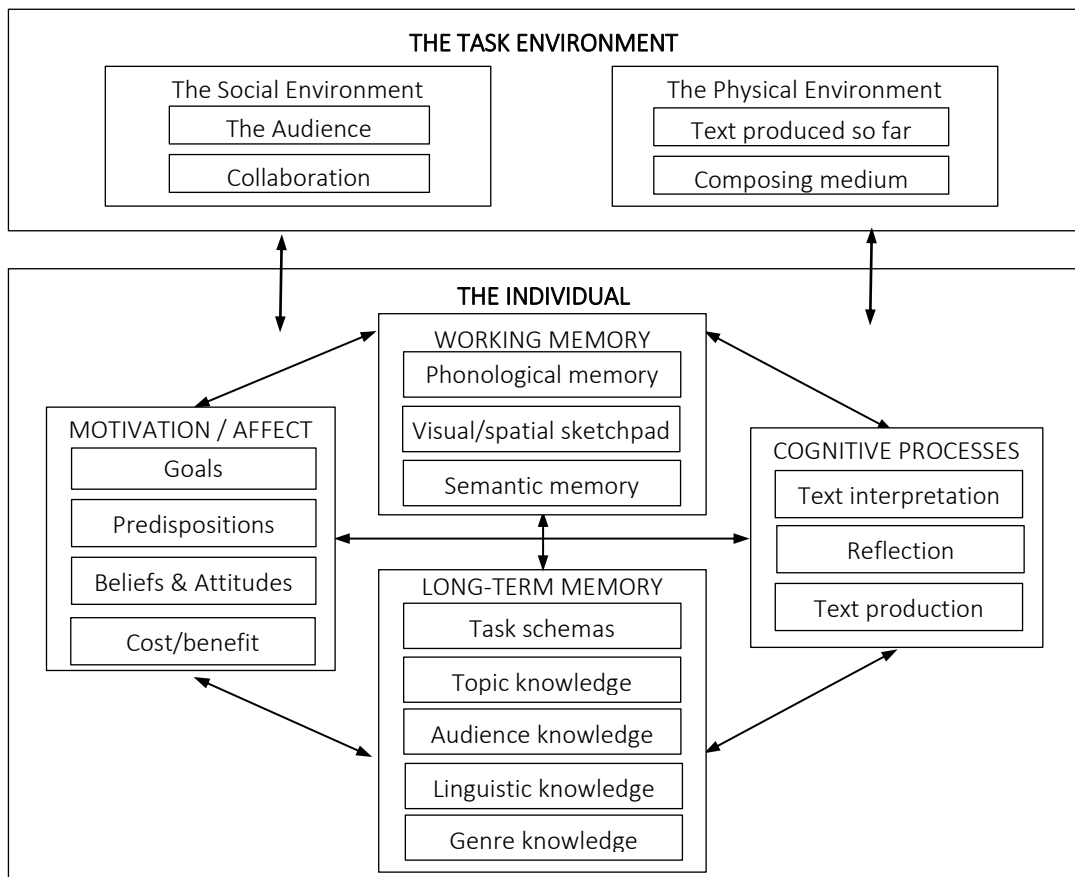


Figure 2.3: Hayes' new(er) model of the writing process (1996, p.4)

The major changes in this model are the increased attention to WM, addition of visuospatial sketchpad, integration of motivation/affect, and the reconfiguration of cognitive processes so that text interpretation becomes more central. These changes aimed to account for internal predispositions to writing, language ability, and social/physical influences. However, while the model sees the task environment as essential, it is left underspecified, as is text production and motivation/affect. Some of these issues are carried forward to Hayes (2012):

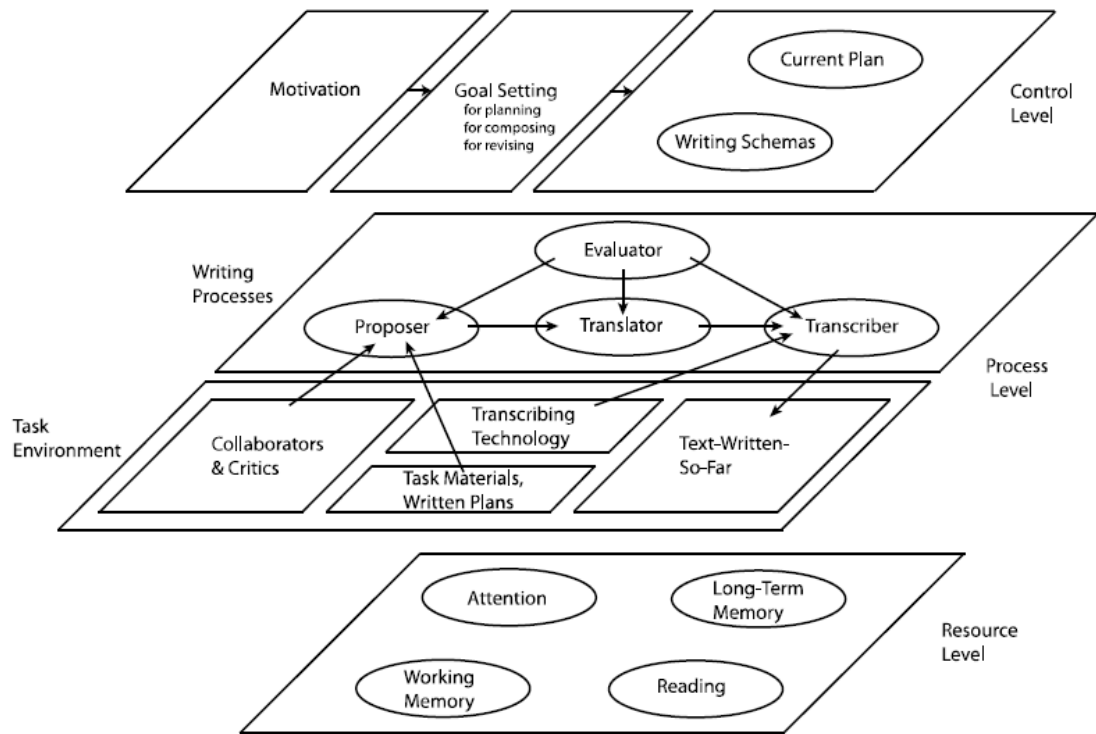


Figure 2.4: Hayes' latest model of the writing process (2012, p.371)

In its newest incarnation, Hayes' (2012) process level is split into writing processes and task environment. Writing processes are internal activities that a writer uses to compose his/her message, and include 'proposer' (non-verbal idea generation), 'translator' (transforms proposals into language), 'transcriber' (transforms the 'translation' into text), and 'evaluator' (assesses the output from the previous processes). Planning and revising (reviewing), then, are no longer separate processes in separate modules, but become 'a special application of the writing model' (p.376). In other words, the iterative nature of specialized activities (planning, summarizing, etc.) is now reconceptualised 'as declarative knowledge in LTM (as a stored plan or task scheme)' (p.375). In this view, activities that once reflected discrete cognitive processes are reconceptualised as parts of task schemas, which can be modified via instruction/experience. By placing the task environment and writing processes at the same level, this model also attempts to attend to how outside influences (physical, social, and cultural) may impact writing⁷. However, despite these improvements, the model still suffers from simplistic labelling, and much is left implicit in its description. For example, it is unclear as to how metalinguistic and metastrategic knowledge (presumably housed at the Resource Level) comes to be shaped by: (i) the eco-social elements of genre and intertextuality (presumably housed at the Control Level), and (ii) semiotic and material mediation (presumably housed at the Process Level). This is perhaps unsurprising given that there is little research into the role of metalinguistic knowledge in writing (Myhill, 2012,

⁷ For example, research has frequently shown how the medium of transcription (typed vs. written) can effect text quality (Connelly, Gee, & Walsh, 2007).

p.253), or how eco-social demands (e.g., genre) link to writing processes. Furthermore, it is unclear how such a model would cope with the generation and maintenance of argumentative texts (texts with particulate patterns of meaning, cf. §3.3). As per other process models, there also appears to be little explicit discussion of how the organization of text may be constrained by the topic itself; for example, the chronological ordering of facts, or the logical relations between them, may impose constraints on the writer as to how they order ideas. Furthermore, in constructing argumentative text, the translator would be responsible for taking a complex multidimensional argument (represented in the mind of a writer as networked propositions and concepts) and transforming this gestalt representation into linearly segmented text. This process would involve the manipulation of complex lexicogrammar (cf. §3.3), anaphora (§3.4), and information structures (§3.5) to achieve rhetorical and pragmatic goals that align themselves with the audience and purpose of a text. Although such concerns are given theoretical status in Hayes' models (cf. the various labels used), they are rarely discussed—language, for example, is considered mainly in terms of syntax and lexis, with little mention of function (cf. Coirier et al., 1999, pp.16-18, for similar sentiments). Finally, with regards to the Control Level, although Hayes (2012) adds social and affective influences (e.g., Collaborators & Critics), motivation remains a blanket term for a whole host of variables. Consequently, the model still does not account for motivation in terms of its underlying constructs of self-efficacy, self-regulation, beliefs, etc. However, this lack of detailed attention to motivation may be an epiphenomenon of the research designs used in such paradigms: process research, for example, frequently uses experimental designs that call for texts to be produced for no other reason than providing data, while socio-constructivist research collects text(s) produced in authentic settings. It could be said, then, that much process research negates the need to look at motivation, while much socio-constructivist research takes motivation for granted⁸.

Ultimately, while Hayes continues to update his model in line with current theorising, any model embedded in such a strong cognitive account of writing will inevitably be concerned with production rather than communication: writing as a skill rather than writing as a meaning-potential. For example, Leijten et al. (2014), in their case study of one professional writer spanning five writing episodes spread over four days, clearly illustrate how a complex writing task (business proposal) draws upon multiple sources (old and new) in the construction of a communicative and strategic goal. Using a combination of KSL, interviews, and online observations, they observed how one writer oriented to the reader (prospective client) by using external sources to retrieve content, structure and formulate text, design visuals and layout, and

⁸ Academic literacies, for example, state that motivation (or lack thereof) to write is closely linked to a writer's self-belief in their ability to write, how they self-regulate cognition, affect, behaviour, and their environment, and to their underlying motive for writing (Hidi & Boscolo, 2007; Lea & Street, 1998).

provide additional warrant for claims. Using writing to construct new meaning from old is a form of discourse synthetic approach: 'Readers become writers, creating new texts by selecting, organizing and connecting content from source texts' (Spivey & King, 1989, p.7). Such an approach reflects a movement from knowledge-telling to knowledge-transforming (writing as a constructive process). However, the professional writer in Leijten, Van Waes, et al.'s (2014) study also assumed the reader's point of view. This additional 'developmental stage' can be situated in relation to both Bereiter and Scardamalia (1987) and Kellogg (1996, 2008):

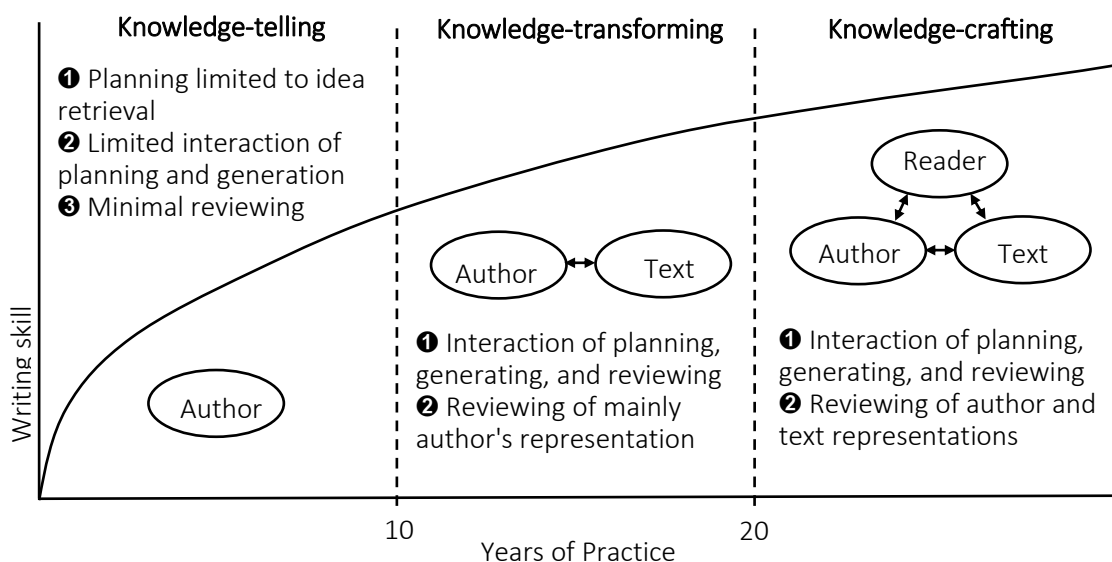


Figure 2.5: Macro-stages in the cognitive development of writing skill (Kellogg, 2008, p.4)

Drawing parallels between high-level writing and the development of other high-level skills/abilities, such as playing chess or the violin, Kellogg (2008) suggests a developmental pathway for writing proficiency (as portrayed in figure 2.5), where writers move from knowledge-telling to knowledge-crafting after, on average, ten years of practice. In this view, a writer moves from intra- to inter-level concerns aided by cognitive maturity, disciplinary knowledge, and writing practice. However, although Kellogg's (2008) logic appears sound, it could be argued that some highly-skilled abilities are only mastered by those with a propensity for such talents.

In conclusion, as Alamargot and Chanquoy (2001, p.21) note, most models subsume a number of cognitive components that are: (a) constrained by WM, (b) draw on 3 core activities (planning, formulating, and revising), and (c) controlled by a central management unit. Furthermore, writing expertise appears to stem from practice/maturity, which probably explains why the field as a whole sees writing as a 'skill' to be learnt (cf. the ubiquitous use of 'learning-to-write' in Manchón (2012) and Torrance et al. (2012); i.e. many process models assume a top-down approach to content integration, where block and arrow diagrams, whilst useful from a research design perspective, underrepresent and overlook the start-stop nature of composition. Fundamentally, any number of influential factors—changing task representations, human-transcription interface

problems, gestation periods between drafts, (Daneman & Stainton, 1993), etc.—can dynamically alter the trajectory and quality of writing. Consequently, because writing is portrayed as an event, involving strategic and deliberate plan-translate-revise cycles in the pursuit of solving a 'problem', many models also assume text generation to be somewhat passive, and are thus too general and holistic in terms of the interpersonal and textual functions of language⁹. Furthermore, many models see text generation in terms of form (syntax and lexis), and this in turn negates the meaning-making potential of writing and side-lines rhetorical and pragmatic goals—aspects of language that are crucial to argumentative texts because it is the vehicle through which multidimensional structures (e.g., topics, arguments, and referents) are mapped onto linear sequences (Coirier et al., 1999).

2.2 Toward an integrated view of writing

Many of the models introduced above are based on writing as a problem solving activity. Consequently, they often carry an implicit assumption that writing is unidirectional—a process that begins in the mind and culminates in a text. However, more recent research views writing as both a problem solving endeavour (top-down) and a constructive process (bottom-up) (Galbraith, 2009a). This more modern view highlights the dialogic potential of writing, and thus accords more closely with view of writing assumed in this thesis—hence the inclusion of this section at this juncture. In this dialogic view of writing, writer and text, internal and external thought work together to advance text and the knowledge and ability of a writer. For example, in process research, there is the oft cited remark that writers typically adopt one of two polarised writing styles. These are deemed 'planners' and 'revisers': planners prefer to have a clear idea as to what they are writing before they start, and tend to write fewer drafts than revisers; revisers use writing to clarify their understanding, and tend to produce more drafts than planners. Torrance, Thomas, and Robinson (1994), however, intersect these two styles with an intermediary style deemed 'mixed strategy', which brings together the primarily top-down process of planning and the primarily bottom-up process of revision. Similar research premised on the existence of a cline of writing styles also reflects the duality of top-down/bottom-up processing (Kieft, Rijlaarsdam, & Van den Bergh, 2008). Perhaps the most well-known explication of this comes from Galbraith (1999, 2009a), and his research on self-monitoring. Galbraith posits a knowledge-constituting process, which aims to incorporate the emergence of knowledge that can occur during writing. This model draws heavily on the fact that text production is a major component of text generation (cf. Berninger & Swanson, 1994; Chenoweth & Hayes, 2001), and that text generation involves

⁹ This problem is typically acknowledged in terms of 'pragmatics', but in keeping with the SFL basis of this thesis, I have decided to highlight the specific nature of these underspecifications.

the internal formulation of a linguistic message before transcription. Galbraith (2009a) convincingly argues that because writing enables reflection and revision, some writers use this production window to re-contextualise what they already know: i.e. internal (semantic intent) and external (instantiated thought) work together, renegotiating knowledge/ideas, where

'progressive refinement of thought is achieved in the text itself, and involves successive dispositional responses to emerging propositions rather than a progressive redefinition of rhetorical constraints.' (p.62)

This dual-process approach incorporates explicit (knowledge-transforming) and implicit (knowledge-crafting) writing systems, where text quality is impacted by explicit organizing processes (top-down strategies) and implicit, dispositionally-guided text production processes (bottom-up strategies):

'A top-down strategy prioritizes the explicit organizing process, focusing initially on establishing the global structure of the text and then on using this to control text production. A bottom-up strategy prioritizes the dispositionally-guided text production process, focusing initially on producing text that captures the writer's understanding and then on revising this to produce rhetorically appropriate organization.' (Baaijen et al., 2014, p.83)

The idea of re-contextualised knowledge through language (an unpacking and repacking of ideas/knowledge) is gaining ground in social realist literature (e.g. Maton, 2013b), where such a mechanism, if used correctly, could be a key enabler of accumulative knowledge building. For example, Scardamalia and Bereiter's (2006) Knowledge Building approach, focuses on developing the content space through the dialogic potential of writing. They posit that investigations through writing can lead to changing goals, new sources of material, and audience feedback (i.e. their work draws heavily on scaffolded learning (Vygotsky, 2012)). Another advocate of this potential for writing to learn is McCutchen (2011), who argues that 'writing expertise depends on the development of two necessary (but not sufficient) components' (p.61): (i) fluent language generation, and (ii) field specific knowledge. McCutchen argues that by developing these two components, writers can shift attentional resources from short-term to long-term WM, as per figure 2.6:

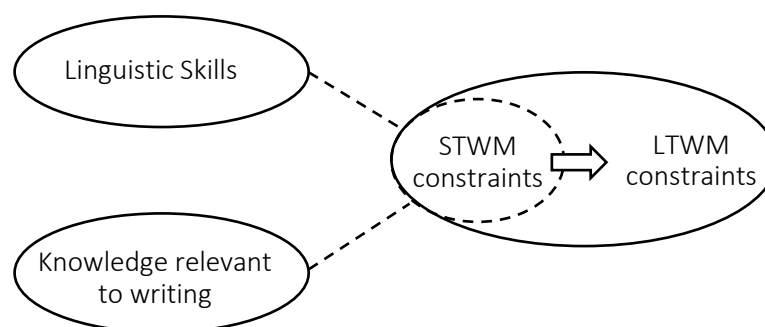


Figure 2.6: Interdependence of language, knowledge and memory during writing (McCutchen, 2011, p.52)

However, although linguistic skills and knowledge relevant to writing can be broadly related to the development of genre expertise (cf. §4.3) and disciplinary knowledge (Langer, 2011), an increase in genre and disciplinary knowledge stretches beyond mere lexical and syntactic choice. For example, increased familiarity with a topic (top-down knowledge) can lead to increased attention to text structure and the distribution of meanings within that structure (bottom-up concerns), resulting in better quality texts. This is reflected in McCutchen, Francis, and Kerr (1997) research, where they asked students to detect and correct form (misspellings) and meaning (disruptions in chronological sequencing) in two texts that differed in topic familiarity. Their results indicated that in texts where topic knowledge was less familiar, writers mostly attended to surface-level errors. Whereas in texts where topic knowledge was more familiar, writers attended to surface-level errors first, and then attended to higher-level concerns of discourse structure and paragraph organisation. The conclusion being that writers cannot revise for meaning if they do not understand what they are reading. However, research that looks into the effects of topic knowledge (top-down knowledge) on writing argumentative texts suggests that depth and breadth of knowledge alone are not systematically linked to improved argumentation (Coirier et al., 1999). Research such as this suggests that in order to construct more complex texts, such as those calling for sound, credible arguments, a writer must have at their disposal both sufficient topic knowledge and linguistic skills, which accords with McCutchen's views above.

Ultimately, a writer's aptitude appears to be tied to his/her ability to recall appropriate topic knowledge, rhetorical strategies, and linguistic registers, all of which stem from an increased awareness of, exposure to, and experience with language/writing in general (Alamargot & Chanquoy, 2001; Kellogg, 2008; Manchón, 2009)¹⁰. This dynamic complexity is reflected in the modularised nature of writing research, where various factors are born out in terms of isolated objects of study: disciplinary knowledge (McCutchen, 2011; McCutchen et al., 1997; Scardamalia & Bereiter, 2006), experience and audience awareness (Lindgren et al., 2011), maturation of WM (Kellogg, 2008), metacognitive awareness (Negretti, 2012), linguistic skills (Alamargot & Fayol, 2009; McCutchen, 2011), etc. However, because of the top-down bias of most of this research, top-down strategies have received far more empirical support. For instance, many process approaches revolve around planning, where writers establish goals and then select and organise content to transcribe; thus whilst process models recognize recursive activities, in practice such processes are researched/taught in sequential terms. An alternative approach is where a writer simply writes. This approach is exemplified in 'freewriting', where writers produce an initial draft with minimal or no revision. Only when the first draft is complete do they then evaluate it, using

¹⁰ Manchón and de Larios (2007, p.575) suggest that practice rather than proficiency may be the key to advanced mastery of writing, which clearly supports the notion of writing as situated social practice (Prior, 2006).

what they deem valuable to inform the next draft. Research provides evidence that writers typically lean toward one of these two approaches, reflecting a broad distinction between planners/high self-monitors and free-writers/low self-monitors (Galbraith, 2009b; Levy & Ransdell, 1996; Torrance, Thomas, & Robinson, 2000). However, there is little research comparing the benefits of either approach.

This section has attempted to highlight that writing is not only a problem-solving activity, but that it is also a constructive one, where meaning is formulated, given form, and transformed on the page and in the mind (Galbraith, 2009a). This distinction appears to mirror the broad distinction between explicit (top-down) and implicit (bottom-up) mechanisms, and, although such mechanisms rarely work in isolation, this appears to have become the dominant view in process research, as two intersecting (and thus equally valid) perspectives have seemingly diverged into two disparate paradigms.

2.3 Research into process-product relationships

The previous sections have highlighted that writing process research tends to focus on what writers do (processes), and thus it often takes for granted what writers produce (Rijlaarsdam & Van den Bergh, 2012). One reason for this may be that task demands are often ill-defined in terms of ambiguous, multiple goals, such as texts need to be 'informative', 'easy to understand', 'cohesive', etc. Similarly, defining 'text quality' is problematic, and as such many seemingly conclusive results are, in fact, clouded by methodological efficacy¹¹ (cf. Schoonen, 2005).

Furthermore, until recently, most writing process research centred on a conception of text that is very different from those that we now produce—modern texts are rarely handwritten, monomodal, or produced in one sitting by one person. Another problem when considering process-product relationships is that many studies employ a single-task design (e.g. de Larios, Manchón, & Murphy, 2006), which, as Meuffels and Van den Bergh (2005) illustrate, can result in overestimating individual differences; i.e. single-task designs cannot tell us if the task is causing variation, or if the writer is just having a bad day. To reliably estimate an individual's writing habits, for example, Rijlaarsdam and Van den Bergh (2012, p.580) suggest sampling at least 4 essay like texts or 14 short functional texts. However, most studies into student writing focus on short texts produced in one sitting, which are ecologically less valid (Bazerman, 2008; MacArthur, Graham, & Fitzgerald, 2006). Furthermore, very few studies take into account writer variables such as

¹¹ For example, McNamara, Kintsch, Songer, and Kintsch (1996) show how a reader's subject-matter knowledge can affect judgements of text cohesiveness, because readers that are more knowledgeable about a topic can fill in the blanks between seemingly disconnected referents (cf. also McNamara, 2013).

L1/L2 writing proficiency (Van Weijen, 2009), beliefs about writing (Baaijen et al., 2014), or writing styles¹² (Galbraith, 2009b; Tillema, Van den Bergh, Rijlaarsdam, & Sanders, 2011). Consequently, while variations in text quality are commonly found in within-task, different writer designs, between-task, same writer findings are less conclusive. Moreover, amongst the few studies that investigate process-product relationships, their focus has been somewhat limited, ranging from the effects of a single cognitive activity (de Larios, Marin, & Murphy, 2001; Jones & Tetroe, 1987; Stevenson, Schoonen, & de Gloppe, 2006), proficiency or metacognition on text quality (Schoonen et al., 2003; Stevenson, 2005), to how the writing process as a whole affects some isolated aspect of text quality, such as accuracy or syntactic complexity (Ellis & Yuan, 2004, 2005). Research into the influence of planning (Manchón & de Larios, 2007), formulating (de Larios et al., 2006), and revising (Stevenson et al., 2006) on text quality has shown that the effects of planning on text quality is more significant at the start of writing, whereas the effects of revising on text quality increases toward the end of writing (de Larios et al., 2006; Rijlaarsdam & Van den Bergh, 2006). It is mostly when activities are employed outside their typical distributional pattern, that they negatively affect text quality (Breetvelt, Van den Bergh, & Rijlaarsdam, 1994; Van den Bergh & Rijlaarsdam, 2001). As Rijlaarsdam and Van den Bergh (2006) state:

'If the moment an activity is employed is left out of the analysis, hardly any relation can be found between cognitive activities on one hand and text quality on the other.'
(p.42)

In this temporal approach, individuation essentially becomes a function of when and where in the writing process a cognitive activity is employed (Leijten & Van Waes, 2006; Van Weijen, 2009). For instance, research into planning outside the task environment (i.e. pre-task planning) shows that it is not the amount of time devoted to planning that counts, but how and when that planning is used (Hayes & Gradwohl Nash, 1996). However, Rijlaarsdam and Van den Bergh (2006) also posit that 'combinations of cognitive activities behave as functional relations' (p.46), where the functions of activities relate to where and in what order they occur during writing. This leads them to suggest that combinations rather than single activities should be considered as units of analysis. This idea is supported by a number of studies showing how the order of activities, and the combinations in which they occur, can have significant effects on text quality (de Larios, Manchón, Murphy, & Marín, 2008, p.44; Van den Bergh & Rijlaarsdam, 2007). Drawing on an extensive research program, Rijlaarsdam and Van den Bergh (2006), for example, illustrate how a combination of 're-reading already constructed text' and 'generating new text' facilitates an increase in text quality when it occurs in the second half of a composing task, but inhibits text

¹² Although on the surface these studies appear to be different in focus, they both relate to the distinction made earlier between top-down and bottom-up approaches to writing.

quality when they occur together in the first half. These results draw parallels with those of Breetvelt et al. (1996), and highlight how reading plays an integral role in successful writing, particularly rereading one's own text.

Rereading invokes planning, revising, and text generation (Hayes, 1996), yet rereading is also key to evaluating and integrating new sources of information. Consequently, this skill has proved to be particularly relevant when it comes to the quality of students' writing and the revision strategies they employ (Hayes, 2004; McCutchen et al., 1997). For example, to build a critical argument, one must be able to understand a critical argument. Therefore, becoming a critical writer goes hand-in-hand with becoming a critical reader. However, critical understanding is an ability that develops much later than some writing abilities (Larson, Britt, & Larson, 2004). However, when it comes to the effects of reading ability on academic writing, we know relatively little (Deane et al., 2008, p.30).

Furthermore, the relation between combinatorial activities and text quality is not always the same for all writers. Rijlaarsdam and Van den Bergh (2006) suggest that this variation may be due to topic knowledge:

'Perhaps this difference in functional relations between these activities is mediated by topic knowledge; if one knows enough about a topic, one does not need to consult the assignment to come up with ideas.' (p.49)

Although topic knowledge is a known predictor of text quality (McCutchen, 1986), Rijlaarsdam and Van den Bergh (2006) also predict that a complex interplay of activities, affective factors, task environment, etc., are called into play at different times, and at differing levels of intergratedness. Such a complex interplay was suggested by Flower and Hayes (1981) over 30 years ago:

'The composing process has an episodic pattern of its own which is not dictated by the patterns of the text. Writers appear to work in composing "episodes" or units of concentration which are organized around a goal or plan. Understanding the overall architecture of these episodes and the logic which begins and ends them will, we think, tell us a great deal about how writers combine planning and text production.' (p.242)

If writers do shift from one schema to another in line with their current goal and stage in text construction, then if a writer chooses an inappropriate goal, or misplaces their 'sense' of a text, this could result in using a schema that reduces text quality. Therefore, whilst research into individual writing activities (e.g. planning) is important, it is essential not to lose sight of the fact that these activities interact in complex ways that rely upon the time at which an activity occurs, its combination with certain proficiencies, and its sequencing in relation to other activities (de Larios, Murphy, & Marin, 2002, p.44; Deane et al., 2008, p.31).

Overall, then, temporal based research represents a movement toward a more dynamic representation of writing, where some of the more implicit (and previously underrepresented) processes are taken into account. Such research suggest that there are dynamic patterns/trends in the allocation of resources during the writing process, which clearly emphasize the importance of time as a proxy variable in the writing process (Van den Bergh & Rijlaarsdam, 2007). However, it may also be the case that individuals possess specific combinations of activities, larger functional units (more combined processes), or favour different combinations in specific situations, possibly due to experience and/or cognitive ability. For instance, there is some empirical support that writers exhibit a certain stability in their transitions between writing processes. Levy and Ransdell (1996) deemed this stability 'writing signatures'¹³. In an early experimental study, they used an improvised screen capture technique to investigate the writing habits of 10 undergraduates over 10 weeks. They recorded the undergraduates as they composed one text per week, on different topics, under a 40 minute time limit and following a broad rubric of writing for 'a sophisticated national publication'. They mapped writing processes (planning, translating, reviewing, and revising) at 1 second intervals using EventLog¹⁴, and used concurrent verbal protocols to disambiguate planning and reviewing. However, the 10 week time span is a relatively short period of time in relation to the development of a complex skill. For example, it is doubtful how much the habits of an advanced chess player would change in the same amount of time/practice. Furthermore, it could be argued that it was inevitable that translating (text generation) would be the dominant process when a 40 minute time limit was imposed. Consequently, it is questionable how much 'stability' would remain if writing longer texts, different text-types, or over multiple composing episodes, and as evidenced by Van Waes and Schellens (2003), the writing mode has a significant effect on how a writer writes (Levy and Ransdell only studied computer composition). Nevertheless, they provided clear evidence of little within-writer variability over the ten weeks.

Some within-writer invariance was also found by Torrance, Thomas, and Robinson (2000) in their self-reported study of writing strategies from 322 UK undergraduates (715 essays were sampled). Using cluster analysis, they identified 4 distinct writing strategies: minimal-drafting, outline-and-develop, detailed-planning, and think-then-do. In their longitudinal sample ($n=48$), 41 students used a single strategy for, on average, 69% of essay writing (these students produced 5–9 essays each, over 3 years). The other 7 students used a mixture of two strategies that accounted for 88% of their essay writing. Taken together, their results suggest that while students may have

¹³ Writing signatures 'are distinctively different between individuals. And like cursive signatures, they exhibit small unsystematic differences within individuals across time' (p.158).

¹⁴ EventLog records how long a keyboard key is depressed. Keys are assigned to events. When an event is observed, the analyst holds down the corresponding key for as long as the event continues.

preferred writing strategies (or 'signatures'), they are also not immune to switching between strategies if the need arises. Whilst there is little investigation of this in the literature, movement between strategies could be due to any number of interrelated factors (changing task demands, motivation, etc.). Furthermore, in relation to strategy use and text quality, Torrance et al. admit that their results are less than conclusive, and whilst they provide evidence that 'detailed-planning' and 'think-then-do' strategies resulted in slightly better quality texts overall, they also admit that correlations between strategy use and performance may be an epiphenomenon of a number of interrelated factors, such as the writer's knowledge of the topic, their motivation to write, time constraints, and their perception of the task.

Other research has highlighted the role of outlining on text quality. Until recently, it was well accepted that creating an outline had a positive effect on text quality (Kellogg, 1994). However, research by Baaijen et al. (2014) indicates that two additional variables may interact with the effectiveness of outlining in relation to academic writing. Firstly, certain text-types may not benefit from outlining, such as texts that call for complex, particulate patterns, which rely heavily on topic knowledge for cohesiveness and cohesion. Furthermore, if a writer is learning the topic as she/he is writing (as is often the case with student writers), then outlining may hinder the text's potential to develop alongside the writer's understanding. In other words, imposing a text structure may confine a writer to a certain line of thought, and if they cannot follow that line of thought, then the text's overall quality may suffer. This has clear implications for texts that call for Aristotelian topoi realised via particulate patternings, such as the academic Essay, which I will introduce in Chapter 4. Fundamentally, texts that call for Aristotelian topoi (or unfolding arguments and their accompanying warrants) often call for a collection of rhetorical spaces/schemes that are not easily realized via linear sequences of text. For example, a writer may use the projection of objectivity or 'voice'¹⁵ (a form of ethos), to appeal to a reader's emotions or viewpoint (a form of pathos) via a collection of propositions that are interspersed throughout a text, which, in turn, are given warrant by logical appeals and empirical evidence (logos). Realizing the complex connections between these rhetorical strategies of pathos, ethos, and logos—what I referred to earlier as particulate patternings—relies upon an elastic composing space, because a slight change in any one of these strategies means a reorganization of the other two. Although Baaijen et al. provide speculative evidence of this in their study, they fail to explicitly make the connection between the increased complexity of the text the writer is being asked to produce (in organizational terms) and the effects of outlining (cf. also C. Beauvais et al., 2011, p.424). Secondly, in a somewhat related manner, outlining may only benefit writers who prefer top-down strategies (i.e. a teaching to aptitudes approach, cf. Kieft et al., 2008). For

¹⁵ The linguistic realization of which will be covered in Chapter 3, §3.7.

example, Baaijen et al. (2014, p.90) found that high-transactional writers—those who prefer bottom-up, spontaneous text production, and see writing as primarily heteroglossic (high-transmissional)—produced significantly poorer quality texts when they spent five minutes producing an outline prior to writing. Conversely, low-transactional writers—those who prefer top-down, high-level problem solving processes, and see writing as primarily about summarising content (low-transmissional)—produced significantly better quality texts when using an outline. However, because of the nature of the task demands¹⁶ used by Baaijen et al., it would be interesting to see their study replicated with a 'writing from sources' argumentative task. In such a scenario the effects of outlining should be more pronounced, as low-transactional writers should have a clear disadvantage in terms of producing texts that call for multiple points of view on an unfolding argument, whereas high-transactional writers should be hampered in their ability to develop the necessary understanding in such a situation.

The effect of revision on text quality is another contested area in process research. Fitzgerald (1987) highlights how global revisions made by novice writers can negatively affect higher level rhetorical functions (e.g. discourse organisation and flow), as they focus on surface level corrections rather than connections between stretches of text. Similarly, Flower et al. (1986) show how novice writers prefer a Detect/Rewrite strategy, while experienced writers prefer a Diagnose/Revise strategy. Their findings illustrate that diagnostic skills, particularly the ability to plan ahead, are key for successful revision. Here, past writing experiences may allow experienced writers to implement 'a rapid interplay of conscious and automatic processes' (p.48), which aid in the successful implementation of more complex globally-oriented revisions. Campbell, Smith, and Brooker (1998) also found that early undergraduates focused on form (spelling, punctuation and verb agreement) rather than meaning (semantic inconsistencies), as did Hacker, Plumb, Butterfield, Quathamer and Heineken (1994). Similarly, Piolat, Roussey, Olive, and Amada (2004) note how many students lack the ability to revise for improved coherence. Levy and Ransdell (1996), however, observed that the higher rated essays in their experiments were associated with 40% more reviewing and revision time. Yet they also admit that measures of text quality were relativistic and holistic. Overall, as Rijlaarsdam, Couzijn, and Van den Bergh (2004) note, 'revision in itself is not the decisive factor of text quality' (p.190), and, as evidenced in Galbraith and Torrance (2004), it may well be that 'poor' planners compensate with stronger revision skills, whereas 'good' planners may not need strong revision skills.

In conclusion, then, as Van Weijen (2009, pp.79-81) rightly notes, generalizing across process studies is inherently difficult, as studies vary considerably in sample size, methodology, number

¹⁶ Writers were asked to compose a journalistic piece calling for personal opinion.

of tasks, task demands, conceptual focus (product, process, or product-process), design (between/within group), measures of text quality, and whether or not they take the temporal aspect of writing into account. However, although contradictory findings seemingly weaken existing cognitive writing models—lending support to the fact that 'writing is a rich amalgam of elements of which cognition is only one' (Hyland, 2011, p.20)—this short review has highlighted that the absence of a fully developed model of writing may be an epiphenomenon of the methodology used in its investigation; i.e. think-aloud protocols force a writer to verbalize actions in terms of one activity at a time, when in reality many higher functions (e.g. generating and translating ideas) are parallel and subconscious. Therefore, research is now moving away from univariate analysis and toward multivariate analysis; here attempts are made to relate combinations of activities to larger units of analysis (e.g. schemas). This move toward a hierarchically structured view of writing, where composition occurs along a phase space trajectory, not only supports Hayes' (2012) recursive schemas, but may also make for more reliable predictors of text quality (Rijlaarsdam & Van den Bergh, 1996, pp.112-115; Van Weijen, 2009, pp.113-134). Consequently, we see increasingly complex methodologies used to collect and analyse data, including keystroke logging software, which is the focus of the next section.

2.4 Keystroke logging research

Keystroke logging software (KSL) has become an increasingly popular means to collect data on writers' habits. KSL records a user's inputs on a computer (e.g. key presses), and logs these inputs against a time stamp (Lindgren & Sullivan, 2006). The majority of KSL research so far has concentrated on the cognitive processes outlined above that can be linked to pause-related or revision-based activity (cf. Abdel Latif, 2008). In pause related research, for example, the assumption is that writing draws on the same cognitive capacities as speech. Such research repeatedly shows a significant correlation between pauses and whole language units such as between words or syllables, where intra-units pauses occur (e.g. intra-syllable) these tend to be confined to individuals who show some kind of language impairment (Wengelin, 2007), thus supporting the underlying assumption that writing does draw on some of the same capacities as speech. Consequently, the majority of its findings relate to the cognitive aspects of revising, whilst language based investigations focus on simple linguistic structures, such as the frequencies with which parts of speech occur (Leijten, Macken, Hoste, Van Horenbeeck, & Van Waes, 2012; Sullivan & Lindgren, 2006), pause lengths between language units as an indicator of language impairment (Leijten, Engelborghs, et al., 2014), or how writers consult and use sources (Leijten, Van Waes, et al., 2014).

The importance of KSL to linguistic-based analysis is that it can provide insights into the **when** and **where** of text production. This means that research can be expanded into other areas of writing besides those covered above. The most significant for this thesis is the ability to examine the unfolding of language features/functions/meanings in written text in real-time, in a similar manner to that adopted by linguists who examine unfolding speech via transcripts (e.g., conversation analysts¹⁷). However, there is very little research that has focused on the unfolding of meaning within written text, let alone focussed on the unfolding of larger discourse units (texts) in terms of the co-textual and contextual variables that make up an instance of a specific genre (i.e. the register variables of field, tenor, and mode). One tentative approach, however, was taken by O'Donnell (2013), who used KSL to test how well three discourse semantic structures commonly used within SFL research: Thematic Progression (Danes, 1974), Generic Structure Potential (Hasan, 1978), and Rhetorical Structure Theory (Mann & Thompson, 1988) could model the organization of text as it unfolded. O'Donnell's (2013) primary assumption was that at least one (or possibly all) of these rhetorically based frameworks could provide valuable insights into how written text was an evolving process (dynamic view) rather than a creationary product (synoptic view). Although O'Donnell's study was admittedly exploratory, and involved relatively short texts (less than 500 words each) that were structurally simple (15 were descriptive and 1 was a narrative), and elicited from volunteers via an online webpage (increasing writer variability), it highlighted how meaning (or choice) could be modelled in an unfolding (or dynamic) text. Although, he concluded that RST was the most applicable approach in relation to the one narrative text, he had to modify it to account for the non-linearity of real-time composition. Fundamentally, RST views text as synoptic, where interdependency relations are modelled in terms of a head (nucleus) and its dependents (satellites). This makes it difficult (and very cumbersome) to use RST where the analysis is incremental and interdependencies are often changing—i.e. because text is constantly being moved around, added, or removed during revision, links between spans of text are also constantly shifting, being deleted, and/or added. To account for the fact that RST is designed for use on finished (or synoptic) texts, O'Donnell had to modify it to incorporate multi-nuclei and additional schemas, with right branching bias. This right branching bias allowed him to include 'temporary' satellites (i.e. those that were added, removed or moved during revision activity) by attaching them to the corresponding nucleus as composition unfolded. As this one study illustrates, then, analysing text as process can be very complex and quite messy. Consequently, research seeking to analyse unfolding written text in any terms other than syntax or morphology lacks a firm theoretical framework upon which analysis can draw.

¹⁷ The process of writing could be seen as having a conversation with oneself (or the text produced so far), whereas the linguistic analysis of written texts primarily focuses on how the text itself is sequenced--as opposed to how the writer wrote the text.

Subsequently, a large proportion of this thesis is dedicated to developing and testing such an approach (particularly, chapters 5 and 8)

In terms of examining the language of revisions, Lindgren and Sullivan (2006), attempted to outline a taxonomy of revision types, defined as precontextual (low-level):

'revisions at the point of transcription [...] that occur when the writer notices and decides something that has just been or is in the process of being transcribed needs adjusting.' (p.161)

and contextual (high-level):

'revisions that are undertaken when writers move away from the point of transcription to insert new text or to delete, substitute, or rearrange already written text.' (p.171)

However, whilst coding revisions according to the leading edge of text (what they assume to be the writer's immediate focus) seems logical, their terminology suggests a demarcation between planning/reviewing (precontextual) and realization/transcription (contextual), and does not allow for the kind of movement a writer is making; i.e. is the writer moving forwards or backwards, and how far from the point of inscription are they moving? Subsequently, this thesis suggests an alternative approach based on spatial location, direction of movement, and temporal sequencing. This is outlined in Chapter 5, §5.6.

2.5 Summary

This chapter has focused on writing through a cognitive psychology perspective. It showed how process research initially perceived writing as a problem-solving activity, premised on the attainment of expert-like practices. It then moved on to outline more recent research, where writing is also viewed as a constructive process that helps create new meanings, connections, and ideas on the page and in the writer. This chapter also showed how the interaction between cognitive activities related to writing is fundamentally constrained by 'cold' cognition (attention, cognitive processes, and memory) and 'warm' cognition (affects, emotion, motivation, etc.), and the relationships between these and writing modes, lexicogrammatical conventions, writing/reading strategies, and individual preferences for how to write. Moreover, it has indicated how memory resources are, in turn, constrained by topic knowledge, linguistic proficiency, and situational knowledge (e.g. audience awareness and genre expectations).

However, this chapter has also shown how cognitive models explicate many societal and contextual concerns, and thus fail to explicitly address the varying demands placed upon writers in different settings. However, it was also suggested that these omissions may be an epiphenomenon of the research design itself, as most process studies (and models) focus on

single writing episodes, and do not take in to account contemporary views on composition, where writers frequently switch between documents (old and new), whilst also searching for, reading, and drawing on multiple (re)sources (e.g., Leijten, Van Waes, et al., 2014). In other words, a lot of writing is done 'mentally' during gestation periods and via intuitive processes, and draws heavily on intertextuality (both materially and semiotically, as shall be argued in the following chapters). Nonetheless, while it is easy to criticize such models on the grounds of 'methodological solipsism', they have proved invaluable because: (1) they provide a common language (or framework) for discussion; (2) they often include explicit predictions that can be (and have been) subsequently tested; (3) because of (1) and (2) they have encouraged debate that has incrementally advanced the field as a whole.

In conclusion, it appears that more research needs to be carried out on: (a) how the text produced so far influences writing in terms of its contribution to cohesion, idea generation, external coherence, and revision strategies¹⁸; (b) teasing apart how different motivational aspects (motives, self-efficacy, and self-regulation) influence the writing process, particularly during periods of prolonged gestation (Hidi & Boscolo, 2007); (c) drawing together interdisciplinary threads, particularly psychological views on cognition, linguistic views on meaning-making (Byrnes, 2013), and affectual views on individual differences; (d) the role of 'content', particularly how genre knowledge can shape writing; and (e) how multidimensional structures (e.g., elaborated argumentative texts) are linearized through linguistic structuration. This last point is particularly relevant here, because writing process models implicitly assume a one-to-one mapping of thought to text. Whilst this holds true for some text-types, such as narratives, which can be primarily structured in terms of linearity (causality, chronology, sequencing, etc.), many essays rely on complex interdependencies set up within the text. For example, in terms of argumentative essays, it appears that depth and breadth of topic knowledge is just as important as how that knowledge is represented (Maton, 2013a). These interdependencies are realized in the linguistic structures introduced in the next chapter (Chapter 3), which include inter-sentential organizers, thematic relations, metaphorizations, etc., all of which enable a writer's thoughts (ideas) and corresponding referential domains (e.g. opinions and beliefs) to be phased into a seemingly linear representation that serves a particular function, usually that which falls within a particular genre, realizing registerial patterns such as those introduced in Chapter 4.

¹⁸ Such research could benefit from eye-and-pen or eye-and KSL tracking methods.

CHAPTER 3 System knowledge: What writers write

Introduction

The previous chapter introduced us to the first motif of this thesis, which was 'what writers **do**'. This chapter focused on the actions of the writer, and primarily focused on the three key recursive processes central to process-based research: planning, translating, and reviewing/revising. The current chapter, however, moves us away from research into the connections between cognitive processes (a cognitive psychology perspective on writing), and takes us into the realm of connections between features of written texts (a text linguistic perspective on writing). This chapter, then, introduces us to the second motif of the thesis, which is 'what academic writers **produce**'. More specifically, it is here that we will examine what student writers are often expected to produce by examining research into Academic English. Accordingly, we will start by defining what 'Academic English' actually means.

Academic English (AE) is variably defined as a variety, register, or style of English used in school. Developmentally, it reflects a move from congruent, dynamic (instantial) language to incongruent, synoptic (systemic) language (Halliday & Martin, 1993; Kopple, 2002). In synoptic language, things (participants in SFL terms) are foregrounded, and actions (processes) are backgrounded. A gradual preference for synoptic language over dynamic language in scientific writing is said to reverberate across all three time frames related to semantic change, or what Halliday and Matthiessen (1999) term 'semogenesis', as shown in figure 3.1:

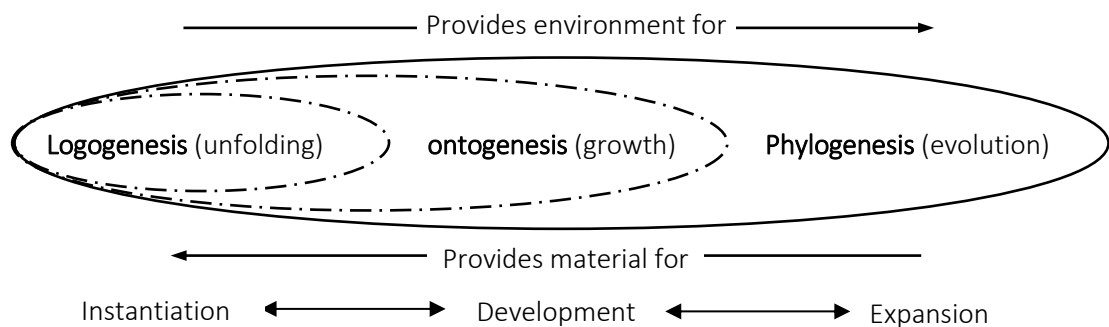


Figure 3.1: Relation between semogenic processes (Halliday & Matthiessen, 1999, p.18)

Phylogenesis is the expansion of the language system in the species (Halliday & Martin, 1993); ontogenesis is the development of the language system in the individual (Christie, 2010); logogenesis is the instantiation of the language system in text (Klein & Unsworth, 2014)¹. This chapter deals with research covering the phylogenetic and ontogenetic time frames, as it is from these environments that the expectations of AE are derived; i.e. whilst the thesis concerns itself

¹ This may be clearer if one (re)consults the 'cline of instantiation' (see figure 3.3, §3.1 below).

with the logogenetic time frame, at this juncture I introduce how written AE is perceived (and arguably valued) within academia.

In linguistic terms, written AE is often recognized and defined in relation to the syndrome of features (or patterns of co-occurrence) it often displays. These typified patterns of co-occurrence are more commonly referred to as 'registers'. Register is a key concept in studying language variation, yet exact definitions, as per definitions of genre (cf. §4.1), are somewhat varied. Consequently, in the first section (§3.1), I attempt to situate register holistically, as both a quantitative and qualitative measure of variation, using it as a primary backdrop against which, for presentation purposes, I outline the kind of system knowledge (or linguistic repertoires) that academic writers are often expected to (re)produce. This knowledge is represented in the form of seven sections (§3.2–3.8). Whilst these sections are presented linearly, their order in no way represents the importance of one section over another, instead the contents of each section act synergistically, in different measures, and to different degrees in different contexts, in order to give text an academic 'flavouring' or registerial 'feel'. Moreover, although specific disciplines and text-types foreground these features in different ways, I focus here on features related to the 'undergraduate Essay' (cf. §4.5), which, for the most part, is categorized as 'general academic prose' (Nesi & Gardner, 2012). Consequently, in examining written AE in such a way, I am not promoting a deficit model of student writing. I am merely contextualising development in terms of movement toward a different registerial variation that arose in light of achieving functional goals and social purposes (Halliday & Martin, 1993, p.68).

3.1 Academic writing as registerial variation

In different contexts, people speak/write in different ways. These ways of speaking/writing are both reflective of and constitutive of the contextual features surrounding an interaction. For example, the setting surrounding an exchange, the people we are addressing, the subject matter we are covering, all have an impact on the language we use. Halliday (1978) notes how the term 'register' was first used by Reid (1956) to describe such variation in language use, and he subsequently adopted (and adapted) it as a central concept in his theory of language (SFL). However, as Lukin et al. (2011) note, because Halliday's view of language is multidimensional, so too must be his take on register. For example, in 1978 Halliday defined register as 'the clustering of semantic features according to situation type' (p.68, 111, 123). This definition places register within semantics, and perhaps explains why it is sometimes labelled 'semantic sub-potential' in SFL diagrams (e.g., *figure 3.3: Cline of instantiation*). In later writings, Halliday (2011) defined register as 'the resetting of the probabilities in some region or regions of the lexicogrammar' (p.57). Halliday's idiosyncratic use of the terms semantics and lexicogrammar in relation to

register, then, reflects the fact that register cuts across all language strata (Halliday, 2005 [1995], p.253ff), and thus both definitions are strictly true. In simpler terms, we can say that within SFL register **variation** is observable at the level of 'Language internal: Content', whereas register as a construct (or higher level abstraction) can be found at the level of ('Language external'), as shown in figure 3.2 below. This view of register as ineffable, or varying according to perspective, reflects the arguments put forth by Matthiessen (2015) that register can be a key means to bring theory (language external) and description (language internal) together.

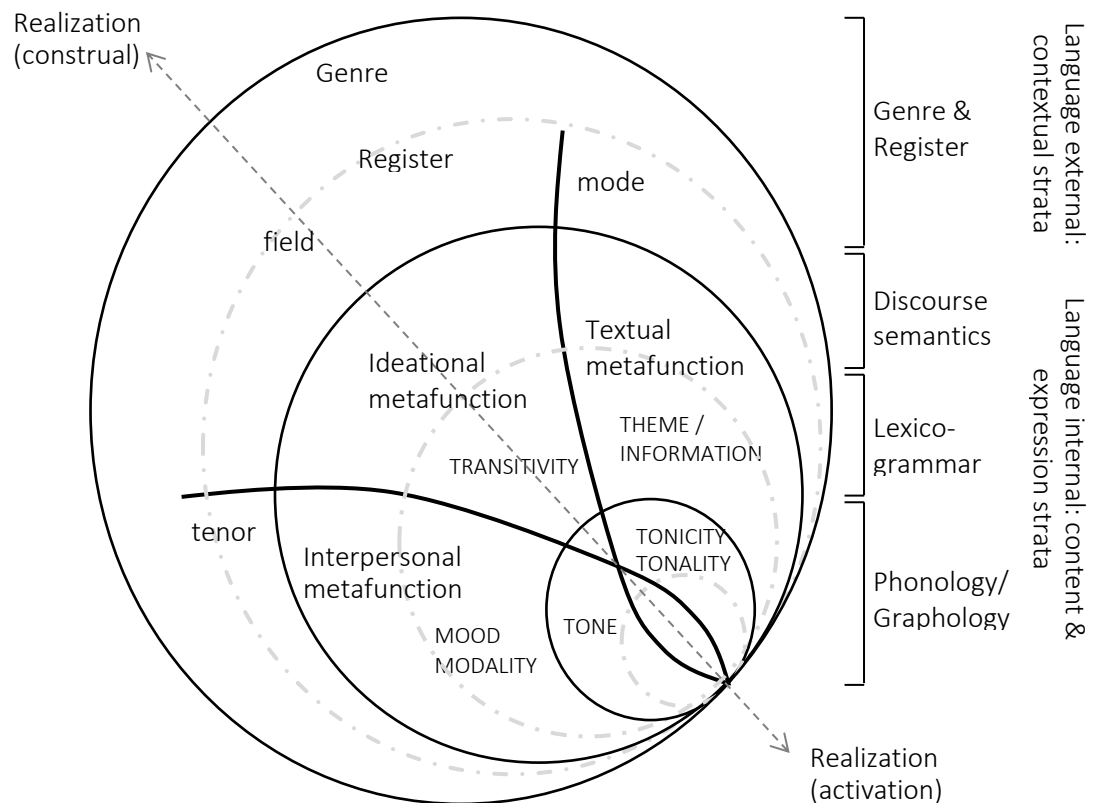


Figure 3.2: SFL's stratified view of language

However, as Lemke (1999) rightly states, register does not appear to cover all contingencies:

'Register can give us the grounds for the typology of texts, but not for their typical topographies [...] Something else is needed to map out the sequential phases or stages of texts on various scales, including the changes in register potential in each phase.'

Fundamentally, because Halliday's register is systemic (potential), it covers simultaneous (holistic) contingencies, as opposed to sequential ones; i.e. it is necessarily based on paradigmatic choice because it needs to cover all four language functions. Martin (1992) deals with this tension between typography and topography by modelling 'Language external: Context' as a double layering of semiotic patterns represented by genre and register (figure 3.2 above and §4.1 for more detail). In Martin's eyes, the fundamental difference between genre and register appears to be realization, with genres being in a direct dialectal relationship with culture, and register

being in a dialectical relationship with situation. This effectively means genre becomes the yin (topographical) to register's yang (typographical)². However, in practice, research has construed this relationship primarily in terms of structure; i.e. genres are seen to have recognizable stages (or 'scripts'), denoting a beginning, middle, and end, whereas registers do not: genre is construed/activated by prototypical registerial patterns, and register is construed/activated by language patterns (realized in the content plane of language). Hence, the quote: 'genre is a pattern of register patterns, just as register variables are a pattern of linguistic ones' (Martin & Rose, 2007, p.308). In this study, the use of keystroke logging can capture the unfolding of each essay's typographical features, but for their topography I have drawn on existing research into academic genres (cf. Chapter 4, particularly §4.5).

Consequently, it is in examining the unfolding of typographical features that register becomes a useful perspective, particularly if we consider the view espoused by scholars such as Biber, Conrad, Martin, Rose, and others (e.g., Bhatia, 2004; Hyland, 2002), where register appears to be associated with 'the grammatical dimension of genre [where] the characterisation of registers is only probabilistic' (Van Dijk, 2008, pp.151-152). In other words, being the manifestation of meaning, lexicogrammar (the grammatical dimension of genre) can be 'measured' in much the same way that matter can be measured in terms of mass, density, etc. It is perhaps unsurprising, then, that larger corpus-based studies of register variation tend to 'shunt' its operationalization into the lexicogrammatical strata of the content plane (much like Martin implicitly does). This 'shunting' may be intentional, or it may be an epiphenomenon of researchers' attempts to decrease subjectivity and increase replicability. Nevertheless, it appears to be beneficial in many ways: For example, semantic variation is much more difficult to measure, as not all processes of meaning are realized in words and structures³; for example, value systems, morals, and aesthetics 'cannot be reduced to bytes of information; (Halliday, 2005, p.71).

Ultimately, regardless of which perspective on register one assumes, the core notion of Halliday's view of register as relativistic and frequency based remains. Consequently, it seems safe to assume a positioning of register (and genre) as per that of SFL's cline of instantiation:

² Although, see Hasan's (1995) contrasting view of genre as axial: system-structure.

³ Chapter 8 of this thesis, for example, proves this point to some degree.

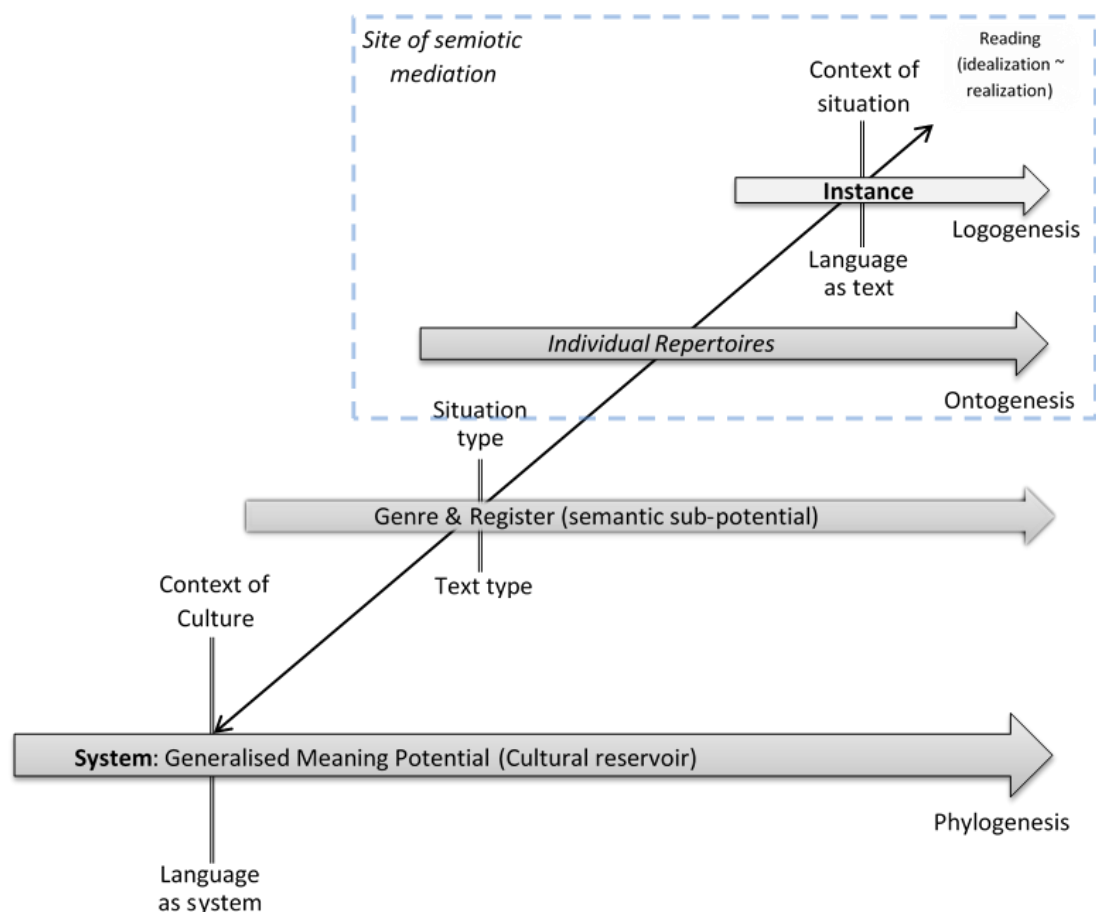


Figure 3.3: SFL's cline of instantiation⁴ (Halliday & Matthiessen, 2013, p.28)

SFL's cline of instantiation (figure 3.3 above) embodies a complementarity of angles, where one's perspective shifts from language as system to language in use; i.e. language as a system-text continuum rather than a mechanism for the production/reception of texts (cf. Saussure's *langue/parole*). From the system end of the cline, where phylogenesis occurs, a register appears as a sub-potential (or sub-system), whilst from the instance end, where logogenesis occurs, a register appears as one of many recognizable text-types¹ (Halliday, 2005 [1995], p.248).

However, by limiting register to the lexicogrammatical level, as Biber and others do, it is perhaps easier to see how it is a useful construct when attempting to explicate linguistic features that arise from a text's perceived function; i.e. such a view allows us to separate the ideal (genre) from the real (text), where what is frequently called a 'text-type' is, in reality, the coming together of genre and register. Following this view of register, then, features of written AE are often demarcated into quantifiable dimensions (e.g., Biber, 2006) or qualitative categories (e.g., Schleppegrell, 2004b). Quantitative studies typically count features assigned to certain dimensions/categories, and one long standing (and popular) methodology in this respect is Douglas Biber's Multidimensional analysis (§3.2 below). Qualitative studies, on the other hand, typically examine linguistic features in relation to one (or more) of the following broad categories:

⁴ Genre is placed under semantic sub-potential by Martin and Rose (2007, p.310).

(1) Lexicogrammatical intricacy, (2) use of grammatical metaphor (congruent/incongruent realizations), (3) tightly knit structures, (4) lexical density, (5) appropriate 'voice', and (6) use of formulaic sequences. It is the coming together of these six broad language features in certain combinations/frequencies that gives 'well-polished' academic text the impression of lexical precision, informational density, explicit organization, and clear stance. These six features will be covered in sections 3.3 to 3.8, respectively.

3.2 Multidimensional Analysis and the undergraduate Essay

Multidimensional analysis (MDA) provides a bottom-up subsidiary to the top-down discourse analytic approach of many SFL qualitative studies. Put simply, whereas SFL studies use field, tenor, and mode to mediate between context and language (modelling register as the explication of system probabilities (Matthiessen, 2006)), MDA uses 'Dimensions' to mediate between situation and language, and thus aims to reveal the relative distribution of linguistic parameters (or dimensions) in text: it 'permits comparisons of multiple registers along a relatively small number of underlying dimensions of variation' (Biber & Conrad, 2009, p.216). These dimensions are made up of groups of co-occurring linguistic features ('factors'), where both positive and negative features make up a dimension⁵. For example, 3rd person pronouns, past tense verbs, mental and verbal processes, and animate nouns are seen as positively contributing to narration; whereas concrete technical nouns (and their quantifiers) are seen as negative contributors to narration (Biber & Conrad, 2009, p.228).

From a multidimensional viewpoint, registers differ with regard to how a number of key dimensions are distributed across communicative/situational contexts. These dimensions emerge from a corpus-based factor analysis (a statistical approach used to reduce a large number of linguistic features to a relatively small number of groupings or 'dimensions'). These groupings are then analysed for their functional purpose and given an appropriate label. Such an approach allows the analyst to compare and contrast texts in terms of a multidimensional space, with dimensions given 'scores' along a cline that represent more or less of a particular communicative function. Scores for each dimension are calculated by adding up all the positive features related to that dimension and then subtracting all the negative features related to that dimension (i.e. feature counts). Scores are also normalized (per 1000 words) and standardized for comparison across texts, collections of texts, or 'established' registers.

In Nesi and Gardner's (2012) study of UK university writing (also covered in Chapter 4), Douglas Biber was employed to use his MDA on their data. He scored the 'Essay' genre as follows:

⁵ Positive and negative reflect high and low frequencies, and are thus mathematical rather than evaluative.

Dimension 1: Involved versus informational. This dimension differentiates between face-to-face conversation (+35) and academic prose (-15). Low (negative) scores reflect densely packed and precise informational content. The Essay scored -14.33, reflecting text with a relatively high number of complex nominal groups (NGrps) and a high type-token ratio.

Dimension 2: Narrative versus non-narrative. This dimension differentiates between romance fiction (+7) and academic prose (-2). High (positive) scores reflect the presence of features denoting narration (past tense verbs, perfect aspect, third person pronouns etc.). The Essay scored -2.48.

Dimension 3: Elaborated versus situation dependent. This dimension differentiates between official documents (+7) and radio broadcasts (-9). Low (negative) scores reflect elaborate and specific language. The Essay genre scored -6.2 (academic prose=-6), representing a relatively high occurrence of Wh-relative clauses, nominalizations, time and place adverbials, and locatives.

Dimension 4: Persuasive. This dimension differentiates between editorials (+3) and broadcasts (-4). Positive features include infinitives (*hope to prove*), suasive verbs (e.g., *insist, command*), modals (except obligation), and conditional subordination. As Nesi and Gardner (2012, p.46) note, the Essay scored the same as academic textbooks (-1.8), which suggests that students realise arguments differently from expert writers, possibly by emulating those texts they are most often exposed to (cf. Chapter 4, §4.3 for more on this).

Dimension 5: Abstract and impersonal versus non-impersonal. This dimension differentiates between academic prose (+6) and telephone conversation (-4). The Essay scored 5.9⁶, reflecting abstract and impersonal language that includes conjunctions, passives, and post-nominal/adverbial clauses.

Overall, the Essay fell at 'the mid-point of student writing on the informational (first), persuasive (fourth) and impersonal (fifth) dimensions' (Nesi & Gardner, 2012, p.120). In terms of elaboration (third dimension), the Essay was more elaborate than other academic genres, whilst in terms of narration (second dimension), it showed less narrative features than general academic prose.

Ultimately, then, MDA can help locate a text's characteristics in relation to genres and/or other texts, giving insights into how different functional orientations (reflected in lexicogrammatical patterns) are construed/activated by different situational characteristics. However, such an analysis is highly involved, and while Biber uses a computer program to automate some of this process, this program is not available to other researchers. Furthermore, although there are examples of what linguistic features fall under what dimensions, a full list of the features used by Biber is not readily available, and whilst some of the features (such as those listed above) are

⁶ In their study Nesi and Gardner reversed the polarity of this dimension for ease of comprehension.

relatively objective, and are thus straight forward to code, there are other features (particularly stance markers (cf. §3.7 below)) that are more dependent on subjective interpretations. Moreover, as with most corpus linguistic approaches there is a privileging of alphabetic literacy, and thus MDA does not take into account contributions from other semiotic modalities. Finally, as many scholars argue (Gardner & Nesi, 2013; Hunston, 2013), to make sense of the complex patterns provided by such analyses we need a complex theory of language, such as SFL, which affords a systematic way to examine language choices. What exactly this theory of language can offer will be explicated in Chapter 5, §5.2.2. For the time being, however, we will move on to examine what the complex lexicogrammatical patterns hinted at above actually represent.

3.3 Lexicogrammatical intricacy

As indicated by Biber's findings (above), academic writing is seen to be informationally dense, and as we shall see in the following sections (particularly §3.7), this density is often engendered in complex NGrp (Participant) structures. However, such wordings not only increase informational density, but they also provide a textual function, linking entities within and across texts (McCabe & Gallagher, 2008).

In a stratified view of language this duality reflects the distinction between 'the potential to refer, and the potential to expand' (Ravelli, 2004, p.132). Whittaker et al. (2011), for example, in a 4 year study of 12-16 year old Spanish students learning English through Content and Language Integrated Learning (CLIL), focused on the NGrp's potential to act as referent (information management via recoverability) and carrier of semantic density (register appropriateness through pre-/post-modification). Their results showed greater textual cohesion in later texts (15/16yr. olds) due to a slight increase in co-textual referents (endophora) and NGrp complexity, and a decrease in contextual reference (exophora). However, their findings were limited as students only had 20 minutes to complete their task, resulting in texts of only 105-238 words. Nevertheless, their findings illustrate how writers can exploit the NGrp to fine tune how we introduce (presenting reference) or track (presuming reference) an entity in a text (Martin, 1992).

A great deal of similar research⁷ shows how by manipulating NGrps (Participant structures), a writer can 'freeze' reality, construing dynamic events as static entities, and turning abstractions into seemingly concrete things that can be conceptualised and analysed (Christie, 2012; Halliday, 1998; Halliday & Martin, 1993). Such NGrp complexity in terms of semantic density (e.g. nominalizations such as those examined by Martin (1991)) and the number of elements present

⁷ Corpus-based studies, for instance, frequently cite noun modification as a significant feature of written AE: Biber et al. (1999, p.578), for example, found that 60% of nouns were pre- or post-modified.

(i.e. increased pre- and post-modification as measured by Biber (2006)) is clearly engendered by writing's affordances to plan, revise, and edit text, with studies showing strong correlations between the number of complex NGrps per clause and written complexity (Lu, 2011), and the number of complex NGrps per Theme and text quality (McNamara, Crossley, & McCarthy, 2010).

3.4 Grammatical metaphor

As mentioned above, informationally dense text often makes use of abstract/technical lexis contained within NGrps (Halliday & Martin, 1993). It is these kinds of wordings that function to reconstrue logical relations (e.g. relational clauses), events (processes), and qualities (circumstances) into things (nouns) that can be quantified and evaluated (e.g., fluctuation).

When elements are reconstrued in such a manner, they are said to be incongruently realized. Halliday (1998) coined the term grammatical metaphor (henceforth GM) to account for this process. Perhaps the simplest definition of GM comes via comparison with the more traditional concept of lexical metaphor. Looked at from above, and drawing on Saussure's (1916) signified/signifier bifurcation, Halliday (1998, p.191) sees lexical metaphor as involving a departure from congruent (or most frequent) **meaning**, while GM involves a departure from congruent (or most frequent) **realization**: lexical metaphor=same signifier (realization), different signified (meaning), GM=different signifier (realization), similar signified (meaning). For example, the congruent (most frequent) realization of a Thing is a noun, and for an Event it is a verb. If GM is the reconstrual of congruent meaning into a new form, then an example of an incongruently realized event/happening (congruently a verb) would be a thing (congruently a noun).

Martin (2013) equates this transformative process to stratal tension between lexicogrammar and discourse semantics, where 'grammatical metaphor affects the coding relation between semantics and grammar' (p.27), as per figure 3.4:

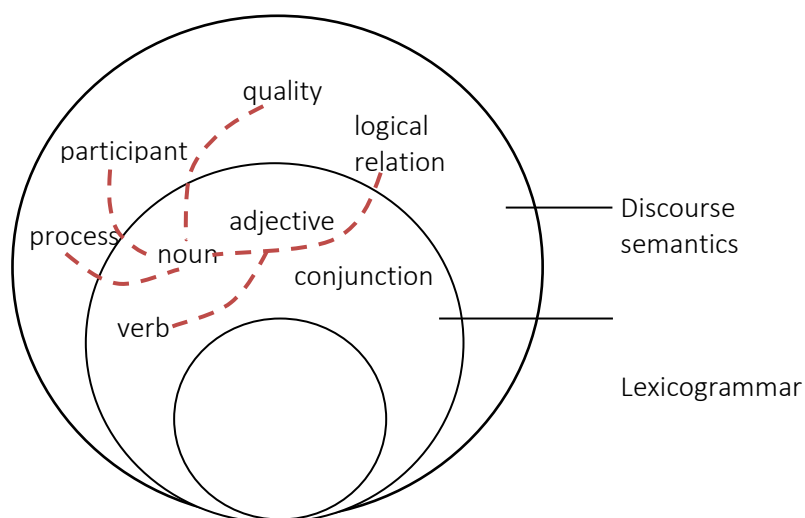


Figure 3.4: Grammatical metaphor as stratal tension (Martin, 2007, p.53)

In figure 3.4, happenings (processes), circumstances (qualities), and logical relations (e.g., conjunctions) are transformed into things (nouns) through a stratal 'shift' more commonly known as 'nominalization'. Here, we get reconstruals such as the verb 'submit' becoming the noun 'submission' (Martin, 1991).

However, although nominalization is the most frequent kind of GM, GM occurs across all ranks and metafunctions. For example, GM also takes figures at the level of discourse semantics (clauses) and condenses, distils, and reconstrues them into constituents within lower ranks (e.g. NGrps) (Halliday & Matthiessen, 1999). Being able to manipulate meaning in such a way affords the writer a considerable amount of semantic energy, 'transforming the flux of experience into configurations of semiotic classes' (Halliday, 1998, p.197).

One of SFLs' most important contributions in this respect has been to illuminate the role of GM in advanced writing (Simon-Vandenbergen, Taverniers, & Ravelli, 2003). For example, GM is seen as a key contributor to the NGrp's ability to expand and distil information, enabling referential chains to be constructed and maintained, which in turn enables information within a text to move from one phase to the next, as discussed above (Christie & Derewianka, 2008; Halliday, 1993, 1998). Textually, then, GM can provide anaphoric reconstruals, taking previously stated information and repackaging it into a compact referent (semantically speaking), which can then be used to maintain the Given^{New} status preferred in language (Fries, 1992, 2002). Interpersonally, GM allows evaluative elements to be added as pre-modifiers, creating multiple meanings within the NGrp.

However, GM is often said to promote a loss of information, introducing ambiguity, uncertainty, and abstraction because it can take detailed meanings (e.g. fully constructed clauses) and condense them down into smaller units (e.g. NGrps) where some of the original meaning is made implicit (Halliday, 1998, pp.169-171; Halliday & Matthiessen, 1999, p.230). Consequently, extracting the implicit meanings and relations embedded in GM often requires the reader to be part of the specific discourse community from whence that GM evolved. In numerous articles connecting SFL with social realism, for example, Martin (2007) even suggests that GM is the fundamental 'social semiotic nub of institutionalized learning' (p.55), and, in essence, it is GM that symbolises the successful transition from common-sense (horizontal) discourse to uncommon-sense (vertical) discourse: 'From a functional linguistic perspective, if no grammatical metaphor, then no verticality' (p.54). However, while Martin's view (and others) perhaps places too much emphasis on GM—for example, many L2 students make minimal use of GM yet still pass English universities courses (Liardét, 2013)—the agnation of GM (interpersonal, ideational, and textual GMs) throughout the entire semiotic system makes it an ideal and challenging candidate for examining advanced writing. Consequently, studies have moved beyond the traditional focus of

L1 English students (Christie, 2010; Christie & Derewianka, 2008), and expanded their scope to give a clearer picture of what GM actually does. These include studies on EFL learners (Liardét, 2013), ESL learners (Schleppegrell, 2004a), German as a FL⁸ (Byrnes, 2009). Liardét (2013) undertook a cross-sectional study of 6 Chinese English majors enrolled in years 1 and 4 at a Chinese university. Although she only analysed 3 texts from each year, she augmented her analysis by including learner errors in form, yet her overall findings indicated that all forms of GM were significantly underused by all her subjects. Similarly, Schleppegrell (2004a) examined lab reports produced by three L2 writers and one L1 writer (3rd/4th year undergraduates). Her analysis also indicated that her L2 writers made less use of GMs than the L1 writer did, resulting in reports that were deemed wordy, informal, and at times difficult to follow (pp.180-181). However, through wider usage of GMs (interpersonal, ideational, and textual) the L1 writer achieved a level of technicality, authoritativeness, and cohesiveness that was more valued by the same assessors⁹. Ultimately, as Thompson (2009) aptly illustrates, increasing repertoires of GM (particularly those serving a cohesive function) can result in better received academic texts, but student writers can still achieve their intended goals without full mastery of GM.

3.5 Tightly knit structures

When text is seen as discourse (language achieving a specific purpose) rather than isolated structures, linguistic patterns are said to 'point to contexts beyond the page, implying a range of social constraints and choices' (Hyland, 2011, p.23)¹⁰. It is in operationalizing these meanings in terms of text structure, linking meaning to wording, that SFL has made a major contribution to studies of academic writing (Devrim, 2015). Take, for example, a text concerning the transmission of historical knowledge. This would typically take the form of an Exposition and follow a progressive pattern (Coffin, 2006), where a topic is introduced, expounded, and then expanded upon in a logical sequence. In this kind of patterning, text progresses from something presupposed (Given) to something introduced (New), where its thematic progression (periodic meaning) is relatively stable¹¹. Alternatively, in a text concerning rhetorical persuasion and argumentation, grammatical patterning is likely to be more complex, as meanings are dispersed prosodically as well as periodically, reflecting increased abstraction as interpretations and evaluations become things, participants are effaced, and dynamic happenings become static

⁸ Byrnes (2009) study was interventionist and involved explicit instruction, so it is not discussed here.

⁹ For example, through textual metaphors the L1 writer manipulated what came first in the clause by condensing previous text and linking it to what came next. This enabled him to switch from non-specific to specific reference, allowing him topic elaboration whilst maintaining texture.

¹⁰ This is the view that subsumes many strands of genre theory (cf. §4.1), where organizational expectations are reflected in typified patterns inherent in text-types.

¹¹ Lexical cohesion in such text is achieved via referential chains, which link information between clauses.

events (cf. Coffin, 2006).

In terms of the structuring of student essays at the macro-level, it is said that most essays follow a three part structure of **Intro^Argument(s)^Conclusion** (Nesi & Gardner, 2012, p.97). In terms of Exposition and Discussion (the two genres examined in this thesis) this structuring is relabelled as **Thesis^Evidence^Restate_thesis** and **Issue^Alternative_Argument(s)^Final_Position** .

At the micro-level of text structuring (within paragraphs/stages), information is said to be organised via referential relations, which are typically identified and elaborated within the text because additional information and recourse to the writer are not always available. However, research is somewhat divided as to the role of explicit referential markers as predictors of text quality: for example, studies that manually code linguistic features show strong correlations between explicit cohesive markers and text quality (Uccelli, Dobbs, & Scott, 2013); while studies that use less subjective, automated coding procedures suggest that overall coherence is a better predictor of writing quality than the inclusion of cohesive markers (McNamara et al., 2010). Ultimately, as will be argued in the next chapter, a complex interplay between the presentation of knowledge (the writer's perspective) and reception of knowledge (the reader's perspective) makes studying the notions of cohesion and coherence in complex texts difficult.

3.6 Lexical density

By age 13, students are regularly exposed to dense informational texts (Schleppegrell, 2006, p.51). This density is engendered by the previously listed features, which condense key information into language structures (i.e. metaphorisation, embedded clauses, NGrp complexity, etc.). To put a figure on the this density, studies use a measure called 'lexical density', which gives the proportion of nouns, verbs, adjectives, and some adverbs in a text. It is calculated in one of three ways:

Lexical density (LD) =	$\frac{\text{Open class words}}{\text{Total no.of words}} \times 100$	(Ure, 1971)
	$\frac{\text{Open class words}}{\text{Closed class words}}$	(Ure & Ellis, 1977)
	$\frac{\text{No.of lexical items}}{\text{No.of ranking clauses}}$	(Halliday, 1985; Halliday & Martin, 1993, p.76)

Table 3.1: Ways of calculating lexical density

Despite the subtle differences in these formulas, research repeatedly shows that lexical density is highest in formal written language. Fundamentally, this increased density reflects key information embedded and/or condensed within the textual peaks of a clause (i.e. elaborated participants). When meanings are 'lexicalised' in such a fashion (as explained in §3.4), the opposition between spoken and written text, in its broadest sense, can be seen as clausal

(dynamic/unpacked) versus nominal (static/packed). However, measures of lexical density do not take into account the frequency of items in the language as a whole. As Halliday (2009) states 'in some sense, at least, using items of very low frequency increases the complexity of the text' (p.76); studies into more successful writers, for example, frequently indicate that higher rated essays use more infrequent, more ambiguous, and fewer concrete words, which seem to increase with exposure to schooling (Crossley, Weston, Sullivan, & McNamara, 2011). Furthermore, many studies show that, taken together, lexical diversity and syntactic complexity are better predictors of text quality (Beers & Nagy, 2009; McNamara et al., 2010; Uccelli et al., 2013), while other researchers, notably Ventola (1996, pp.187-188), maintain that measures of lexical density do not always reflect 'good' academic writing, as writers need to be able to pack (condense) and unpack (diffuse) information for readers (cf. also Martin, 2013; Maton, 2013).

Ultimately, although such measures are quick and easy, there are a number of other factors that need to be considered when examining the 'complexity' or 'density' of language within text.

3.7 Appropriate 'voice'

'Voice', and the accompanying term 'stance', are defined (and used) in a number of ways. For example, some researchers use the term 'stance' (Biber, 2006; Hyland, 2005b), others prefer 'appraisal' (Martin & White, 2005), 'evaluation' (Hunston & Thompson, 1999), or 'footing' (Goffman, 1981). Likewise, 'voice' has been called 'personal stamp' (Elbow, 1994), 'idiolect' (Coulthard, 2008), 'signature/key' (Martin & White, 2005), and 'key' (Hood, 2004, 2010)¹². One of the main researchers into academic voice in writing, Ken Hyland (2012b), defines the terms as follows:

'I understand *stance* to refer to a writer's rhetorically expressed attitude to the propositions in a text and *voice* as his or her attitude to a given community.' (p.134, italics in original)

From Hyland's perspective, stance orients to topic (more writer-oriented), whilst voice orients to context (more reader-oriented). Similarly, Matsuda (2001) sees voice as:

'the amalgamative effect of the use of discursive and non-discursive features that language users choose, deliberately or otherwise, from socially available yet ever-changing repertoires; it is the overall impression.' (p.40)

Voice, then, is often seen as the gestalt impression a reader gets. Stance, meanwhile, appears to be linked to the status and value of information, and is evident in features such as attitude markers (*interesting*), boosters (*very*), hedges (*possibly*), self-mention (pronominals), and

¹² In SFL voice is instantiated at the level of register and stance/appraisal is instantiated at the level of text.

engagement markers (forms of address, questions, etc.) (Hyland, 2005b). However, for reasons of consistency (and personal orientation), here I turn to a somewhat speculative formulation. Namely, there are three overlapping sides¹³ to 'voice' in writing, and that these reflect the basic distinction between **dialogism** (reader-writer interaction), **heteroglossia** (interaction with other voices), and **intertextuality** (interaction with other texts). I have attempted to overlay these interactions onto Bazerman/Aristotle's (2004) communicative triangle (also introduced in §4.2):

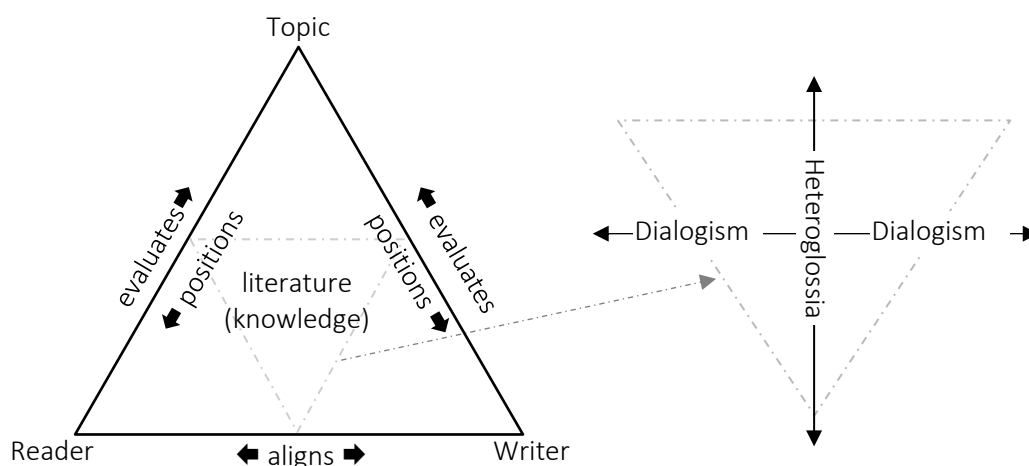


Figure 3.5: Voice and communicative stance in academic writing

In figure 3.5, I have 'pulled out' heteroglossic and dialogic positionings to more clearly represent their trajectories (shown on the right hand side). Intertextuality occurs at the intersection of these positionings, where reader/writer/topic positionings pass through 'literature/knowledge'. In this way, voice as a metaphorical construct can be seen as the sum of the interactions along each side of the triangle, all of which are subject to intertextual forces. Stance (interactional resources), meanwhile, can be seen as the position(s) taken between the reader/writer and the topic, and thus primarily represents heteroglossic concerns. Audience awareness (interactive resources) can be seen as the positionings taken up between the reader and writer, which primarily represent dialogic concerns. From this point of view, the three sides of the triangle represent individual areas of investigation (as explicated below). Furthermore, by suggesting such a view, I hope to highlight that voice in writing, and all forms of stance (interactional, subjective/positioning, and evaluative) are ultimately 'filtered' through the lens of existent literature (or 'knowledge'), and that both concepts relate to a positioning of communal versus personal versus dialogical. I.e., this view recognizes that voice can be examined in three separate, yet interrelated ways: as an **effect** on the reader, a **role** taken on by the author, and an **empowering tool** to signal membership within a discourse community. Such a view also highlights the problems associated with examining voice, as it represents a medley of opposing forces: 'competing claims of self-assertion and self-

¹³ In SFL terms, these would primarily concern textual, logical, and interpersonal meanings.

effacement, individual creativity and institutional authority, personal commitments and community expectations' (Cameron, 2012, p.249). These forces, broadly speaking, draw on the full spectrum of metafunctional meanings (ideational, interpersonal, and textual)¹⁴, and thus constitutes a field of research that covers many angles of the same phenomenon.

Dialogism

The first 'side' to voice is dialogism, which in writing primarily involves features that are more traditionally associated with textual (or interactive) moves. Research in this area concerns the connections made between textual structures and the information contained in text, as well as the features that seek to draw the reader into the text. The main function of such moves is to help the reader navigate the text and its propositional content by signalling Given/New information, highlighting topic shifts, elevating objectives, etc.

From a corpus linguistic perspective, these moves are researched in terms of 'interactive metadiscourse' (Hyland, 2005a) or 'discourse organizers' (Biber, 2006). Hyland (2005a) cites five broad subcategories: frame markers (*one reason, firstly*), transition markers (*therefore, however*), endophoric markers (*see figure x*), evidentials (*Smith states*), and code glosses (*for example, i.e.*). Such features assist in 'the creation of coherent, reader-friendly prose while conveying the writer's audience-sensitivity and relationship to the message' (Hyland, 2007, p.266). In other words, these features contribute to an author's voice by helping to construct and maintain relationships with readers. However, much of this work has been done on texts produced by experienced or professional writers, and thus many of the features listed are often missing in low-level student writing (Nesi & Gardner, 2012; Uccelli et al., 2013). Aull and Lancaster (2014), for example, found that many of the code glosses and adversative/contrast connectors¹⁵ present in 4th year undergraduate and early postgraduate texts ($n=615$) were absent, or very infrequent in texts written by pre-enrolment students ($n=4032$)¹⁶.

Furthermore, corpus linguistic approaches, such as that of Hyland and Biber which primarily rely on 'countable' features, can miss many of the features that contribute to a text's dialogic appeal. For example, relations between stretches of text can be signalled by means other than linguistic markers. For example, because of SFL's increased focus on the semantics of text, it has the ability to uncover implicit dialogic contributions. Broadly speaking, SFL research focuses on textual/logical (interactive) moves in terms of two basic structures: **inter-sentence structure**—investigated in terms of logicosemantic links (Martin, 1992), rhetorical structure theory (Mann &

¹⁴ Whilst I acknowledge that other aspects can contribute to academic stance (wording of essay prompts, explicit advice/feedback, cultural norms, etc.), I limit my focus here to textual evidence.

¹⁵ These are treated under the functional category of 'counter-expectancy' by Martin and White (2005).

¹⁶ For example, they found that one type of code gloss, 'reduction' (a type of reformulation strategy), was almost twice as popular in the more experienced writer's texts (p.165).

Thompson, 1988), and thematic progression (Berry, 2013); and (2) **intra-sentence structure**—investigated in terms of Theme^Rheme choices and/or marked/unmarked confluences of theme, information, and reference (Moore, 2012).

Heteroglossia

Heteroglossia, the second 'side' to voice in writing, involves those features of language that are more traditionally associated with interpersonal (or interactional) moves. Most frequently referred to under the broad label of 'stance' (Biber, 2006; Hyland, 2005b), such features have also been examined under the rubrics of 'interactional metadiscourse' (Hyland, 2005a), 'appraisal' (Martin & White, 2005), 'evaluation' (Hunston & Thompson, 1999), and 'footing' (Goffman, 1981). Appraisal theory, for example, builds on the traditional concepts of affect and epistemic modality, but also encompasses attitude, engagement, and graduation.

The majority of this research operates on the basis that stance is instantiated with regard to two independent axes (Gray & Biber, 2012): one interpersonal and epistemic, which ranges from feelings and attitudes about knowledge (affect) to the status of knowledge (evidentiality), and one linguistic, which ranges from lexis to grammar, as shown in figure 3.6:



Figure 3.6: Axis by which stance is typically analysed (Gray & Biber, 2012, p.19)

In relation to the first axis (Affect-to-Evidentiality), affect broadly refers to the **value** (attitudinal stance) of knowledge, or the 'feelings, moods, dispositions, and attitudes associated with persons and/or situations' (Ochs & Schieffelin, 1989, p.16). Evidentiality, on the other hand, broadly refers to the **status** (epistemic stance) of knowledge (Chafe & Nichols, 1986).

Academic writing is said to draw considerably more on evidentiality than affect in portraying appropriate 'stance' (Gray & Biber, 2012, p.19). More specifically, epistemic markers that are typically cautious and delimited, yet retain an air of assertion, are frequently cited as being the most valued forms of stance amongst community members (Aull & Lancaster, 2014; Uccelli et al., 2013). This is reflected in research that focuses on the distinction between deontic projections of obligation, necessity, disapproval (e.g., *x should not exceed y*), and epistemic projections of degrees of certainty or belief (e.g., *it may be that*). Reilly, Baruch, Jisa, and Berman (2002) go as far as to suggest that students show a developmental path from deontic to increasingly epistemic views on knowledge. However, their findings are limited by their decidedly homogenous sample (middle-classed adolescents).

Nevertheless, other researchers frequently remark how experience with academic writing leads to a decrease in deontic markers (boosters) and an increase in epistemic markers (hedges) (Aull & Lancaster, 2014; Hyland, 2005b). Simply put, research suggests that writers assume a more distanced stance through prolonged exposure to academia, reflecting movement toward a community's preferred way of presenting knowledge. For example, in a study of 51 students, Uccelli et al. (2013) found that the use of epistemic hedges significantly correlated ($p < .01$) with the perceived quality of students' essays. However, they only sampled one text-type and only 21 essays featured epistemic markers. Still, such research clearly illustrates how research into voice and stance in written AE focuses on phenomena that falls near the evidentiality end of this axis. This is because 'overt stance expressions are relatively rare in academic writing' (Gray & Biber, 2012, p.24).

Furthermore, until recently most studies into stance have focused on the introduction section of research articles, as this is seen as a prime site to construct authorial positioning and identity (Hood, 2010). Consequently, research into how undergraduates construct stance is relatively rare. Yet, despite these limitations, there appears to be some specialized stance structures that are highly valued in academic writing, some of which I introduce here in relation to the second axis (Lexis-to-Grammar).

Drawing on the metaphor of field, wave, and particle frequently used within SFL (Halliday, 1979), stance markers can be realized **prosodically** (field-like) as interpersonal elements, such as adjectives, adverbs, and other modifiers (Biber, 2006; Hood, 2004; Hyland, 2005b; Lancaster, 2014), **periodically** (wave-like) as textual structures within Theme-Rheme (A. Hewings, 2004; Hyland, 2012a; North, 2005), or **iteratively** (particle-like) via logical relations such as hypotactic or paratactic expansion and projection (cf. Chapter 7, §7.2.4 and Chapter 8, §8.3), logicosemantic links (Martin, 2007), compliment clauses (Biber, 2006), or rhetorical relations.

Prosodic realizations, such as hedges or boosters, are distinguishable interpersonal elements that are spread throughout a clause. Hedges are often embedded within the verbal group, where they decrease epistemic commitment by means of evidential verbs (*appears/seems*), verbal/mental processes (*suggest/believe*), modals (*may/might*), approximate adverbs (*possibly/feasibly*), or minimizers (*almost/essentially*) (Aull & Lancaster, 2014, p.160)¹⁷. Boosters, on the other hand, serve to increase epistemic commitment, with the most common being amplifying/intensifying adverbs (*entirely/obviously*). However, research into these features has not examined 'the extent to which stance is expressed lexically (through evaluative choices) in academic writing' (Gray & Biber, 2012, p.27). This leaves open the question of how much stance in writing is realized

¹⁷ Biber (2006, chp 5) indicates that modal verbs are the most frequent stance device in all academic registers, whilst 'stance adverbs' are the third most frequent.

implicitly. Thus, whilst large corpus based studies have revealed interesting patterns, more qualitative studies are needed.

Periodic realizations of stance most commonly appear as extraposed complement clauses (Biber et al., 1999, p.674). A clear example of their use and distribution can be seen in Hewings and Hewings (2002) study of 'thematized comments' (G. Thompson, 2004, p.152). In this study the authors aptly illustrate how students use formulaic-like constructions (cf. the next section for more detail) to balance depersonalization and evaluative stance, obscuring the true source of appraisal. Similarly, Schleppegrell (2004a, introduced above) shows how assessors favoured the more objective projections (e.g. *it is obvious that...*) produced by one L1 writer as opposed to the more subjective projections of L2 writers (e.g. *I believe that...*).

Whilst the research above has investigated voice from the perspective of textual evidence, other research has investigated voice from the reader's perspective (Matsuda & Tardy, 2007). This research argues that any judgement on a text's voice/stance is ultimately ascribed by the reader. For example, Matsuda and Jeffery (2012) see voice as 'a metaphorical concept capturing the sense of author identity that comes through when readers interact with texts' (p.151). They conclude that 'if the rubrics include voice in their criteria, they will increase the likelihood of teachers and students valuing voice as an important concept' (p.153). Similarly, Matsuda and Tardy's (2007) exploratory study of a simulated blind peer review showed how holistic conceptions of voice are often gleaned from whole texts, rather than any particular feature or group of features. Consequently, they conclude that

'the impressions that a reader forms of an author - or more specifically, the aspects of identity that a reader attends to - are unlikely to be static across readers or tasks' (p.44).

Conversely, Hood (2004) sees voice in terms of registerial 'keys', which she defines as:

'the ways in which patterns of evaluative resources construct positional roles associated with given registerial genres. It is these registerial keys in discourse that in SFL research are sometimes referred to as *voices*. From the perspective of instantiation, then, *voice* is more or less synonymous with *key*' (Hood, 2012, p.56).

In her research on introductions to academic papers (2004), she identifies three different keys: *observer*, *critic*, and *participant*. Each 'key' is associated with a different configuration and range of options with regard to choices in APPRAISAL. This view, then, once again highlights how holistic concepts such as 'voice' and 'register' are often framed as probabilistic patterns inherent in texts.

Intertextuality

Intertextuality in written AE is most visible/explicit in citation practices. As Groom (2000) argues, successful argumentation calls for the writer's voice to be the most dominant and, thus, whilst

other voices must be acknowledged, they should be subordinated by, and thus subordinate to, the writer's subjectivity. Paul Thompson (2012) believes that this tension can be seen in the interplay between 'averral' and 'attribution', where averral identifies (and identifies with) the author, and takes the form of self-mention, self-reference, etc., while attribution acknowledges (and identifies) a contribution from a third party (typically via citation). However, as Hyland (2005a) notes, these functions rarely occur in isolation, and, therefore, 'it is not entirely clear how far either the analyst or the reader can determine which function may be intended' (p.33). This makes it difficult to assign exact labels to features found in texts. However, citation practices are repeatedly cited as an important attribute in 'good quality' texts. Wingate's (2012) study of 1st year linguistics majors, for example, found that 70% of high scoring essays received comments on good use of sources.

3.8 Lexical 'bundles'

This final section takes a brief foray into the increasing interest in the role of multi-word sequences in written AE. Referred to as 'clusters' (Hyland, 2008a; Nesi & Gardner, 2012), 'n-grams' (Stubbs, 2007), 'lexical bundles' (Biber et al., 1999; Chen & Baker, 2010; Hyland, 2008b; Pérez-Llantada, 2014), and more, these sequences include constructions such as *it should be noted that* and *in what follows I will*. In terms of studying written AE the frequency of these bundles reflects the lexicogrammatical intricacy of NGrps explained above. For example, Biber (2006, p.137) claims that 70% of bundles in academic prose either involve NGrp expressions or bridge across prepositional phrases. Similarly, Pérez-Llantada (2014, p.87) reports 60% and 71% of L1 and L2 writers' bundles, respectively, involved NGrps; Cortes (2004, p.400) also reports a figure of 60% for L1 writers. This research suggests that a large proportion of bundles in written AE provide a referential function, increasing/decreasing specificity or adding time/place/text deixis (cf. Biber, 2006, table 6.2, pp.159-160). For example, 70% of the 4-word bundles in Biber et al. (1999, pp.997-1025) follow one of three syntagms: (i) prepositional_phrase+of (typically 'in^NGrp^of'), e.g., *in the context of*; (ii) NGrp+of (typically 'the^noun^of^the/a), e.g., *the development of the*; and (iii) anticipatory 'it' projections, e.g., *it was found that*. Such constructions also dominated the most frequent bundles found by Hyland (2008a, 2008b), and Chen and Baker (2010, p.35). Essentially, many bundles in written AE are part of nominal or prepositional based constructions that seemingly correspond to fixed frames or 'phrase-frames' (Stubbs, 2007).

A brief review of the literature illuminates five main reasons behind the perceived importance of these 'bundles' (Coxhead & Byrd, 2007; Hyland, 2008b). Firstly, through repeated use, they can become part of a writer's repertoire, providing ready-made 'chunks' of writing to insert into text.

Secondly, much as idioms do for speech, they can be seen as markers of fluent, native-like language, and thus also contribute to legitimising writing in light of disciplinary membership. Thirdly, they provide a kind of pragmatic 'head' or discoursal frame, signposting what follows in terms of logical relations (*as a result of*), interpersonal projections (*it is important to note that*), clause-complexing (*the extent to which*), and even HyperNews (*this clearly shows that*) (Nesi & Gardner, 2012, pp.110-111). Finally, from a psycholinguistic viewpoint, such constructions have 'a processing advantage over creatively generated language' (Conklin & Schmitt, 2008), freeing up cognitive resources for other aspects of the writing process¹⁸.

The use of such bundles, however, appears to vary across genres, groups, and possibly experience (Hyland, 2012a). For example, Hyland (2008a) in his study of a 3.5 million word corpus of academic articles and thesis by L2 writers in Hong Kong, indicates that formulaic expressions (his terminology) were more prevalent in student writing, with discourse organizing bundles being the most frequent¹⁹. However, his findings do not take into account the possibility of outside influence; i.e. academic articles are frequently submitted to third parties (often native speakers) for editing/reviewing. In a study drawing on the same data, Hyland (2008b) also posits a cline of bundle usage, where the relative frequency of 'research-oriented' bundles was lower in PhD thesis than MA thesis, while the relative frequency of 'text-oriented' and 'participant-oriented' bundles was higher in PhD thesis. While this finding is interesting, Hyland makes no reference to how he dealt with multifunctional bundles. For example, *it should be noted that...* could be classed as 'text-oriented' (pointing the reader to 'New' information) and/or 'participant-oriented' (nudging the reader toward increasingly deontic views). Furthermore, many of his bundles include the same three core words; for example, one list includes *the other hand*, *on the other hand*, and *on the other hand the* (2008b, p.7); i.e. there appears to be little concern for overlapping word-units.

Moreover, the identification of such 'bundles' is based on a rather low (and arbitrary) frequency threshold of 10-40 times per million words (Leedham, 2011, p.153), and as such they appear to be relatively rare in AE. Consequently, to increase validity many of the researchers noted above include string length (usually 4-words), nature of the sequence (language function), and its distribution across texts (usually 5 or more texts in the same register). However, it can be argued that many of these 'bundles' are not strictly formulaic by Wray's (2002) definition, as they are closer to extended collocations than formulaic phrases because they are neither idiomatic nor,

¹⁸ Consequently, the recent interest in academic formula lists (akin to academic word lists) is perhaps unsurprising (e.g. Simpson-Vlach & Ellis, 2010).

¹⁹ Their rate only fell below 50% amongst MA students (p.54).

typically, whole grammatical units²⁰. Yet, as Hyland, Biber, and others argue, such collocations 'are a key way of shaping text meanings and contributing to our sense of distinctiveness in a register' (Hyland, 2012a, p.152). Thus, whilst Wray (2002, p.31) rightly posits that frequency alone does not equate to pre-fabrication, Biber (and others) hypothesize (somewhat unfalteringly) that most lexical bundles are, in fact, stored as whole units on the basis that they consistently function as a single unit, providing one of three primary discourse functions, which, incidentally, mirror SFL's three metafunctions (interpersonal, textual, and ideational). These discourse functions are stance expressions, discourse organizers, and referential expressions, respectively (Biber, 2006, pp.139-146). Thus, whereas SFL focuses on paradigmatic choice, research into lexical bundles (a phraseological approach) foregrounds the syntagm (collocational meaning), providing a complimentary perspective to both the qualitative research outlined above and research into formulaic language in general.

Ultimately, because these 'bundles' are increasingly seen as important to realizing academic writing, they have been noted here as a complementarity to the lexicogrammatical bias of most register based studies. However, it should be noted that all of the above studies are based on examining finished (synoptic) texts. By using keystroke logging, for example, such collocations can be examined with respect to the writing process (dynamic texts), and proposals that such collocations are stored as whole units may be given extra credence by examining if they are produced in a single burst, or whether there are long pauses within them, or even a gradual build-up of such collocations through revision rounds. Whilst this thesis, will not directly examine such phenomenon, it is a significant area for further research, and the findings presented in chapters 7 and 8 may be of some use for researchers interested in this field.

3.9 Summary

This chapter has looked at writing in terms of what it is that academic writers produce. Consequently, the above sections have focused on research into finished academic texts. This research is extensive, and has shown that 'model' academic texts (usually those produced by experienced writers) often show discernible linguistic patterns that can be modelled in terms of registerial variation.

Moreover, from the vast amount of findings into NGrp complexity, and the frequent comment that academic writing engenders 'lexicalization' through its nominal (synoptic) nature, we can say that written AE primarily reflects movement within the overall language system from: (a) one

²⁰ As was suggested to me by Gerard O'Grady, a bridge between these two approaches may be that of Gries and Stefanowitsch's work on collocational analysis (cf. Gries & Stefanowitsch, 2010, for a brief introduction to their approach).

rank scale to another (e.g. downranked figures), (b) congruent to incongruent mappings (§3.4), and (c) univariate (logical) structures to multivariate (complex) structures (e.g. clause subordination to NGrp expansion). The result of this 'lexicalization' is discourse that is highly 'semioticized', where higher value is placed on meaning in relation to material knowledge²¹ (Fairclough, Jessop, & Sayer, 2003).

However, this chapter has also shown that many of the linguistic features found in such 'model' texts are conspicuously absent from student writing, yet this does not affect the students' ability to create a text that is acceptable in the eyes of academia. It is more likely, therefore, that the expectations we have of student writing is fundamentally different from the expectations we have of 'expert' writing, as noted by several authors (Nesi & Gardner, 2012). Consequently, it is perhaps unwise to measure student texts against 'model' texts, and instead we should focus on what it is that 'good' student writers produce in comparison to their peers. It is in this light that the function of a text takes precedence; i.e. does a text accomplish what it sets out to do in terms of putting across a strong argument, describing a point of view, reporting on a study, etc. This is what the literature reviewed in the next chapter seeks to do. More specifically, the next chapter looks at how writing is not just a general skill (Chapter 2) or a pattern of linguistic features (this chapter), but is also a socially, culturally, and historically situated activity. Accordingly, the next chapter uses the notion of 'genre' as a sensitizing concept to ground the discussion in a socio-cultural/purposive view of writing, where the focus will be on academic genres, particularly the 'undergraduate essay'.

²¹ The relative semiotic weight of discourse is highest in horizontal discourses (e.g. the Humanities), where knowledge is more relativistic.

Chapter 4 Sociocultural knowledge: What texts do

Introduction

This chapter deals with what texts 'do'. In other words, it frames writing not as a general skill (Chapter 2), or a collection of language features (Chapter 3), but as a socially, culturally, and historically situated activity, where certain genres (particularly those explicated in §4.4) have evolved to perform specific functions in specific contexts. More specifically, this chapter introduces a view of writing that takes into account how the cognitive processes covered in Chapter 2, and the linguistic features introduced in Chapter 3, are socially and historically situated, where certain ways of thinking (and writing) are mediated by societal and cultural concerns that have emerged in local discourse communities¹ over time. Those subscribing to this view assume either a **socio-cultural** view, which sees writing as situated, emergent, improvised, and mediated by social conventions, practices, and other texts (Prior, 2006), or a **socio-purposive** view, which sees writing as functionally oriented to specific situational exchanges, which are reflected in, and constitutive of, rhetorical 'moves/stages' and lexicogrammatical patterns (Biber, 2006; Swales, 1990).

Common to both perspectives is the concept of 'genre', which is an inherently complex, yet ultimately useful construct when dealing with literacy (Lee, 2001). Consequently, this chapter uses genre as a sensitizing concept, grounding the discussion firmly within a socio-historical/purposive frame as a means to situate the texts produced by the two writers in this study. Accordingly, the chapter covers the following concerns: section 4.1 gives a brief overview of the term 'genre' and the closely related term 'register' (introduced in the last chapter), and how they are variably defined in different research paradigms. Following this, section 4.2 outlines how genre is operationalised in research and introduces some of the key concepts underlying its use. Section 4.3 briefly covers how genre knowledge/expertise is thought to develop, and section 4.4 narrows the focus to academic genres. The final section (§4.5) ends the chapter by giving an overview of the 'undergraduate essay'.

4.1 Genre and register

To the lay person, genre is a means to classify texts according to content (e.g. science-fiction), form (novel), style (humorous), purpose (entertainment), etc. In sociolinguistics, stylistics, and discourse analysis, genre is somewhat more ineffable, yet it remains important to analysts,

¹ Discourse communities are socio-rhetorical networks that emerge in the pursuit of shared goals. However, because it is a contested term (cf. Hyland, 2009), this study adopts SFL's 'context of culture' and 'context of situation', which allows a finer gradation of ideologies and practices.

teachers, and students because it helps situate particular texts amongst a sea of other texts, providing a much needed comparative function. However, because the concept is somewhat fuzzy, its usage varies across paradigms and pedagogic approaches. The underlying assumption, though, is that genre is a form of cultural capital: a product of social practice that has evolved in response to valued ways of achieving recurrent goals, and thus mediates between context and text, giving meaning to socially recognized, typified situations, actions, and meaningful events; i.e. genres are not actual texts, but assist us in making sense of past, present, and future social activities, communicative events, and stabilized-for-now meanings. For example, let us consider four popular approaches to genre.

In New Rhetoric (NR), genres are 'typified rhetorical actions based in recurrent situations' (Miller, 1984, p.159); i.e. genre as situated/social action (cf. Bazerman, 2013; Devitt, 2004). In English for Specific Purposes (ESP), genre is 'a class of communicative events; the members of which share some set of communicative purposes' (Swales, 1990, p.58); i.e. genre as communicative competence² (cf. Bhatia, 1993; Hyland, 2006). For the Australian Systemic-Functional school ('the Sydney School'), genre is 'a staged, goal-oriented social process realised through register' (Martin, 1992, p.505); i.e. genre as social process that is construed/activated by the structural arrangement of text in functional terms (cf. Christie, 2012; Martin, 2009; Martin & Rose, 2008). Through these definitions, we see how NR's initial concern was unpacking the complex relationship between texts and contexts, focusing on how genres evolve and cluster together to form sets, systems, and networks (Bazerman, 1994). ESP's initial concern was unpacking the formal and functional features of genres that arose in given situations, which is particularly evident in Swales' (1990) 'moves' analysis, and focuses on the interaction between genre, communicative purpose, and discourse community, while, the 'Sydney school' leans more toward the social than the practical (communicative) purposes of texts. Here, genre is primarily a means to investigate and model textual structure (Martin, 2009), where the underlying aim is empowerment via the notion of 'choice', particularly through 'the sequential unfolding of text as process' (Martin, 1992, p.506). . In a somewhat simplistic, yet important, map making exercise, Hyon (1996) attributes these differences to each approach's target audience: NR focused on L1 undergraduate writing, ESP on EFL/EAP students, and the Sydney School on (disadvantaged) L1 and ESL students. Hyon's paper also highlights (somewhat implicitly and simplistically) the initial orientation of each tradition toward 'texts' (SFL), 'contexts and process' (NR), and a subtle mixture of the two (ESP). A fourth approach is the Brazilian based didactic method (Bawarshi & Reiff, 2010, p.177), which draws on Bakhtinian and Vygotskian concepts. In other words, it explicitly

² Although Swales has changed his view on genre to one of 'metaphor' rather than 'definition' (Swales, 2009), most work within ESP continues in this vein.

addresses some of the weaknesses of earlier approaches by bringing context and text together through mixed-methods (Johns, 2011).

By synthesising these four views on genre (Bazerman, 2013; Khalifa & Weir, 2009; Martin & Rose, 2008), a basic metaphorical hierarchy can be derived:

		Level	Type of Knowledge
Top-down	Context	World	General
		Culture and Society	Roles and relations
		Genre	Intertextuality; typified functions, actions,
Content		Situation	Pragmatic
		Text	Macro-meaning
		Clause (complex)	Grammar
		Group	Lexis
		Word	
		Morpheme	Micro-meaning
Bottom-up	Expression	Phonology/graphology	Sounds/letters

Figure 4.1: Basic elements of comprehending language

Here, genre is positioned between a person's Cultural and Societal knowledge (overall meaning-making system) and their situational knowledge. This hierarchy shows how each element can be approached from the top-down, bottom-up, or a combination of both, and reflects how genres vary according to communicative purpose, contextual circumstances, activities/events they are part of, the relationships between those using the genre, and the previous knowledge of those involved. In terms of the underlying paradigm of this thesis (i.e. social constructionism) such perspectives can also be represented via SFL's 'cline of instantiation':

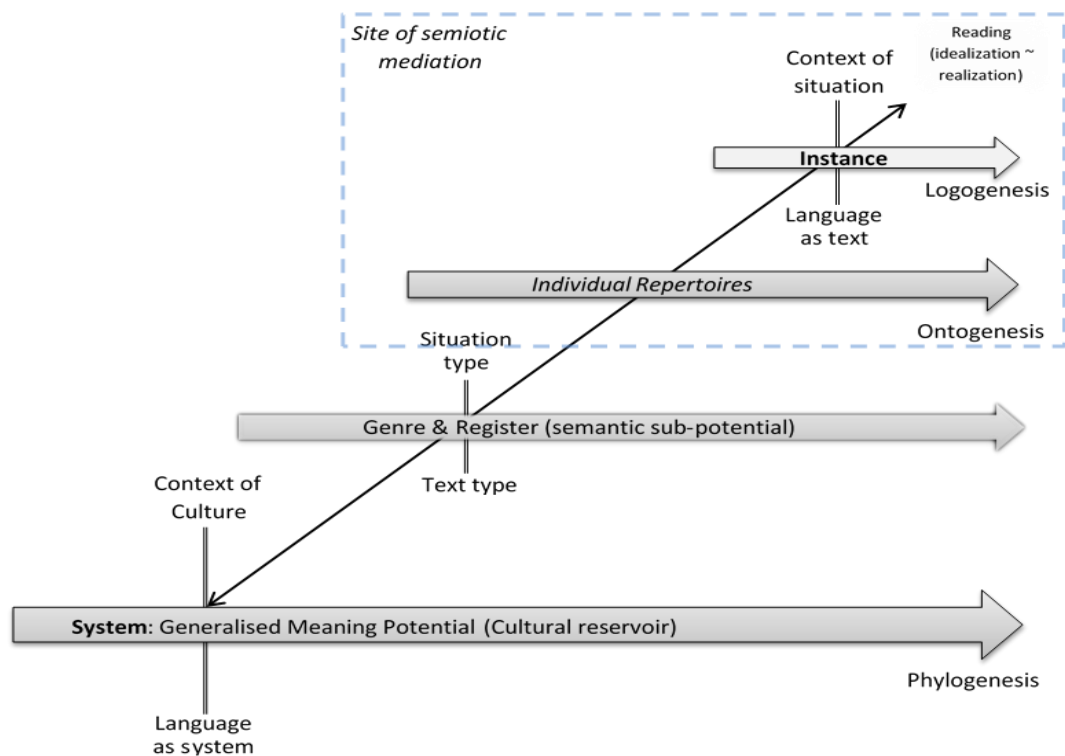


Figure 4.2: SFL's cline of instantiation (Halliday & Matthiessen, 2013, p.28)³

³ Genre is placed under semantic sub-potential by Martin and Rose (2007, p.310)

From the system end of this cline, genres appear categorical, whole, and thus ideal. From the instance end, however, some genres appear to ‘transcend particular networks of social practice’ (Fairclough, 2003, p.68), and thus appear to operate ‘above’ other genres, at a superordinate ‘level’ of abstraction (cf. also Martin & Rose, 2008; Swales, 1990). To overcome such difficulties regarding perspectival understandings, I concur with Van Dijk (2008, p.149), in that some genres are best defined in terms of contextual features (e.g. news reports), whilst others are best defined in terms of discursual features (e.g. narratives); i.e. discursual (or ‘discursive’) genres are those that transcend societal and cultural networks, and thus represent superordinate, macro-genres or ‘modes of thought’.

For the initial reasons outlined in Chapter 3, §3.1, this study aligns itself with Martin's approach to genre within the SFL framework. This approach was also chosen because it subsumes many of the 'transcendental' genres that are seen as key to academic discourse (cf. §4.4 for more detail). As a means to contextualise and situate this view (i.e. Martin's), table 4.1 lists the various terminology used across approaches/researchers:

	Martin (1992) (Macro)genres	Fairclough (2003) Pre-genres	Swales (1990) Pre-genres	Smith (2003) Discourse modes	Bhatia (2004) Generic values
Argument	✓	✓		✓	✓
Description	✓	✓		✓	✓
Exposition	✓				✓
Evaluation					✓
Information				✓	
Instruction	✓				✓
Narrative	✓	✓	✓	✓	✓
Persuasion					✓
Procedures	✓				
Recounts	✓				
Reports	✓			✓	✓
Conversation		✓	✓		

Table 4.1: Discursive genres (or ‘modes of thought’)

4.2 Operationalizing genre

Any study adopting a rhetorical view of genre (as does this one) will at some point refer to the fact that recurrent situations draw on recurrent text-types, and that each of these text-types only has meaning in relation to other text-types. This phenomenon refers to the somewhat ubiquitous concept of ‘intertextuality’⁴. As Lemke (1999) puts it:

‘Genres are social semiotic formations, that is, they are social constructions, the products of conventional social meaning-making practices that belong to a

⁴ Coined by Kristeva (1980), intertextuality aimed to blend Saussurean and Bakhtinian ideas in service of a new semiotics; it aimed to capture the idea that no text is original, unique, or isolated, but always relational.

community's system of intertextuality'.

Somewhat appropriately, however, considering that it refers to a dynamic and unstable view of knowledge/text, the term 'intertextuality' has been (re)adapted and (re)defined in numerous ways (cf. Allen, 2000). However, in keeping with the notion of 'voice' in academic writing that was established in §3.7, we will once more draw on the Bakhtin's notions of 'dialogism' and 'heteroglossia', which Kristeva herself makes frequent use of in her work.

Bakhtin (1981, pp.279-280) posited that for any utterance (text) 'its beginning is preceded by the utterance of others, and its end is followed by the responsive utterance of others' (p.71); i.e. all utterances (texts) are 'double-voiced' and thus dialogic. Heteroglossia, meanwhile, is the ability of language to contain both one's own voice, and the voice of others; i.e. Heteroglossia is principally a tension between the 'same' (collective practices) and the 'different' (contextual regulations): every text 'serves as a point where centrifugal as well as centripetal forces are brought to bear' (p.272); i.e. all utterances are torn between 'reproduction' and 'transformation'⁵. In essence, then, every text is a mosaic of dialogism (addressivity/responsivity) and heteroglossia (construction/reconstruction), where this mosaic is, in turn, embedded in an intertextual system. Furthermore, from discussions surrounding Bakhtin's work (Bazerman, 2004; Prior, 2009), dialogism and heteroglossia are seen to occur between system (potential) and instance (text), realizing a double mediating relation of opposing forces. As Bazerman (2004) states:

'The audience and author knowledge of the subject is built on prior texts; the audience knowledge and orientation is based on their reading; and the author's authority, resources, interests, and current stance grow out of engagement with the literature.' (p.61)

Bazerman represents this interaction by means of Aristotle's communicative triangle:

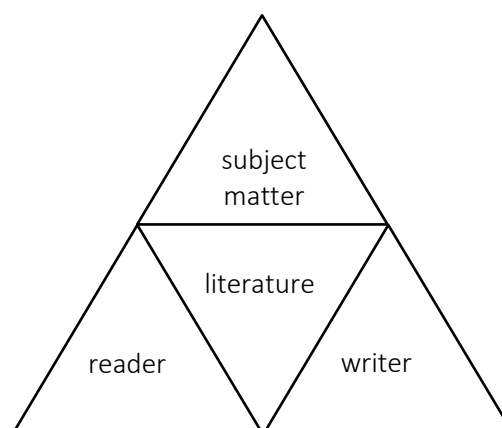


Figure 4.3: Bazerman's (2004) communicative pyramid

However, recent theorising has also acknowledged the role of writer identity (Dressen-

⁵ Similar sentiments are echoed by Adam's (2001, p.38) 'identity' versus 'difference' and Bronckart's (2006) 'adoption' versus 'adaptation'.

Hammouda, 2008), where Bourdieu's (1984) notion of 'habitus' (a productivity) is called upon to provide a socially structured explanation for the unconscious uptake of disciplinary frames of knowing. In this view, genres are also seen as habitations and habits: sites of social/rhetorical action and typified ways of socially/rhetorically acting (Bazerman, 1997); i.e. genres are socially embedded and socially constructive (conventional and innovative), and thus do not constrain meaning, but provide the potential for meaning to be construed in a normalized manner.

'Genres are not just forms. Genres are forms of life, ways of being. They are frames of social action. They are environments for learning. They are locations within which meaning is constructed.' (Bazerman, 1997, p.19)

This view, then, highlights how any classification of a text as an instance of genre will be necessarily fuzzy and flexible, as generic practices and their instantiations are ultimately a coming together of language system and social system. Consequently, this explains why some definitions lean toward the system end, privileging language (Paltridge, 2006, p.84), whilst others lean toward the societal end, privileging activity or purpose (Martin, 1992; Swales, 1990, p.58). This thesis shares the view of Martin and Swales⁶, who believe that the key function of a genre largely guides the realization of its features; i.e. structure, lexicogrammar, layout, etc., are more likely to be designed according to a text's overall function. In this way, it is more useful to start with a text's function/purpose and examine how its features support that function.

4.3 Development of genre expertise

Studies into the development of genre expertise typically examine either practice or instructional effects. This dichotomy is frequently complemented by a bifurcation of L1 and L2 writers. Although these categories are practical from a research design perspective, they make it more difficult to draw conclusions as to how writers develop genre expertise. Tardy (2006), however, provides a useful general overview with her detailed synthesis of 60 empirical studies, while Bawarshi and Reiff (2010, Chp 6), and Tardy (2009), give a detailed overview of genre development in relation to academic settings. In what follows I attempt to synthesize these accounts, using six of Tardy's (2006) subheadings, whilst adding 'audience awareness' and updates where needed.

Dimensions of genre knowledge

Genre knowledge is a multifaceted construct, which Tardy (2009) sees as encompassing four overlapping knowledge 'types':

⁶ However, in agreement with Biber and Conrad (2009), I also recognise that situational characteristics outside social/communicative purpose can have a bearing on some text features.

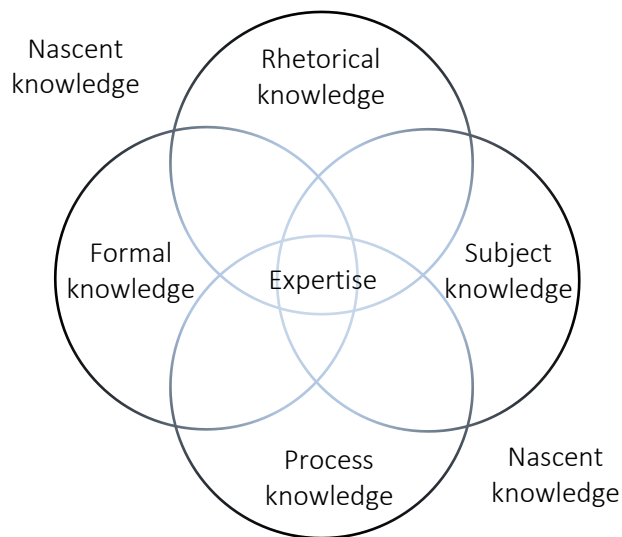


Figure 4.4: Integration of genre knowledge

Although, this model is admittedly heuristic, it provides a useful overview of knowledge 'types'. Three of which will be covered here, whilst the fourth, process knowledge, refers to the kinds of processes we have already covered in Chapter 2. Rhetorical knowledge 'captures an understanding of the genre's intended purposes and an awareness of the dynamics of persuasion within a socio-rhetorical context' (Tardy, 2009, p.21). Formal knowledge refers to the lexicogrammatical and structural conventions of a genre, as well as the modes and media through which meaning is transmitted. However, within formal knowledge a clear distinction can be made between discourse organization (stages/moves) and lexicogrammatical patterns (registers), highlighting just one alternative configuration amongst many. 'Subject-matter knowledge' refers to content or topic knowledge. However, Biber and Conrad (2009) make the sweeping statement:

'topical [subject-matter] differences are not influential for determining grammatical differences. Rather the pervasive grammatical characterisation of a register are mostly determined by the physical situational context and the communicative purpose.' (p.46)

Yet research repeatedly shows that subject-matter knowledge is a strong predictor of text quality (Chuy, Scardamalia, & Bereiter, 2011). However, it is also argued that lack of subject-matter knowledge can be compensated for by an increase in other knowledge types. For example, Smagorinsky et al. (2010) illustrate how a student created the impression of subject-matter knowledge via a kind of rhetorical chutzpah—empty propositions given a patina of 'bullshit'⁷ through fancy titles, lexis, and complex discourse structures. This ability to demonstrate disciplinary membership through formal and rhetorical knowledge, regardless of subject-matter knowledge (content), lies at the heart of debates surrounding the 'secret English' of academia

⁷ Smagorinsky et al. use the term 'bullshit', or some derivative of it, 166 times in their article. Hence, my decision to include it here in quotations

(Martin, Wignell, Eggins, & Rothery, 1986). I.e. are students successful because they master disciplinary knowledge, or do some merely combine minimal knowledge with acceptable forms of writing?

Moreover, subject-matter knowledge and working memory are intricately linked, and both are strong predictors of text quality. Hence, it may well be that their respective impacts vary across genres. For example, subject-matter knowledge may have a stronger effect on the reception of Expositions than Discussions, as Expositions are relatively simple in terms of overall generic structure (information is typically sequentially ordered), and thus for those reading/assessing such texts the content will be easier to extract. Discussions, on the other hand, make greater use of cohesive ties and links that span longer stretches of text (unconventional grammatical patterns), which place more demands on working memory (both for producer and receiver), and thus subject-matter may be harder to extract.

Genre experience and practice

'Good' writers are said to be able to draw upon familiar, already learnt genres when encountering new genres, which they can subsequently use to bootstrap themselves into new rhetorical situations. For example, to adapt to the rhetorical conventions of an academic genre, a writer may move away from the features of less suited genres and adopt increasingly more complex syntax, lexical diversity, and infrequent wordings (Crossley, Weston, Sullivan, & McNamara, 2011). However, it is also said that prior genre knowledge can stifle genre development as some writers stick to previously learned, often less complex genres (particularly narratives). Furthermore, it is difficult to disassociate increased subject-matter knowledge and writing strategies from increased genre knowledge, as a complex symbiosis exists between the three. Ultimately, as outlined in Chapter 2, where increased practice was shown to be a strong predictor of writing expertise, increased practice in writing a genre alongside relevant content is perhaps the only known way a writer is sure to develop genre expertise.

Textual interactions

Textual interactions with peers and experts, whether electronically or face-to-face, can provide the student with important insights into the thought processes and activities of a target community. Soliday (2005), for example, examined what genres science students were asked to produce, how knowledge about these genres was conveyed to them, how they responded to these genre requirements, and how the teacher judged their papers in response to his genre knowledge. Soliday's findings showed that implicit genre knowledge was conveyed through lectures, class discussion, and assignment readings, whereas explicit genre knowledge was gained through course documents, assignment sheets, and model texts. However, some students displayed individual preferences with respect to integrating prior genre knowledge. Thus, while

Soliday's findings point to the impact of both implicit and explicit genre exposure, some of her results also suggest that integration of genre knowledge depends on individual preferences. Such findings coincide with Tardy's (2006, p.84) views that textual interactions are not always equally beneficial, as participating in such interactions is highly individualized.

Textual modelling

As highlighted above, textual interactions are a key contributor to genre development. Fundamentally, as teacher feedback is infrequent and often non-standardised, often a student's only recourse to academic conventions is through other texts. Here intertextuality may assist in creating a problem space, where writing can be scaffolded in relation to other texts. This is otherwise known as 'textual modelling'. Essentially, as students are exposed to more and more disciplinary texts, they build implicit knowledge with regard to the expected formal and rhetorical features of such texts. From this tacit knowledge, students may implicitly or explicitly 'borrow' elements for their own writing (e.g., see §2.1 on discourse synthesis, pp. 15-16) Similar sentiments are echoed in process research, with scholars theorising that genre familiarity can provide the writer with an organized schema in long-term memory (Olive, Favart, Beauvais, & Beauvais, 2009), and that these schemas can reduce certain planning and revising loads, aiding the development of writing through a 'pedagogy of osmosis'. Tachino (2012, p.459), for example, provides an example of how this may occur through the use of two intermediary genres: one that contributes content, another that contributes form, as shown in table 4.2 (here genre A acts as an intermediary to assist the writer in taking up content/form from B into C⁸):

Uptake of content:	Uptake of form:

Table 4.2: Two types of uptake via intermediary genres

Although NR scholars argue that such 'borrowing' can lead to reduced creativity and critical thinking, this has not been empirically tested (Tardy, 2006, p.90). Furthermore, it may be that the fluid, temporary, and multimodal composition of many electronic texts may engender an increase in such 'borrowing' (Kress, 2003)⁹.

⁸ Tachino goes on to illustrate (via a single case study) how manifestations of primary and secondary intermediaries are theoretically and methodologically useful in light of knowledge mobilization (movement from psychological research to judicial reform).

⁹ The use of academic 'bundles' (as outlined in §3.8) is another means whereby writers may 'bootstrap' themselves into a new genre—in this instance it is one way whereby students can construct an 'academic voice' (Ivanic, 1998) through the use of interpersonal projections e.g. *it should be noted that*).

Feedback and instruction

Only a handful of studies have examined the effects of explicitly discussing genre knowledge, conventions, and expectations. As Tardy (2006, p.86) explains, this contention may lie in how studies define and operationalise 'explicit' feedback/instruction, where conclusions regarding associated benefits are often speculative, and based on the absence of instruction rather than its inclusion. Consequently, research is still divided as to the broader issue of feedback/instruction.

Wardle (2004), however, explored the effects of peer feedback on 26 intermediate college writers. Using a combination of interviews, observations, and peer critiques, Wardle found that many students acquired genre knowledge through group work, despite there being no explicit feedback during such interactions. Overall, Wardle concludes that 'genre knowledge may at least partially be gained through participating in the work of creating a new genre with the help of a community of supporting peers' (p.101).

Transferability and conflict

As Devitt's (2007) study on first year composition shows, many undergraduates have an initial awareness of genre constraints—a kind of broad schema for academic writing. However, in many cases these schemas are implicitly drawn upon, and can often lead to conflicting expectations between students and assessors: for example, expectations can change between tasks as students move from professor to professor, giving rise to what are deemed inappropriate texts on the basis of individual/disciplinary differences (Prior, 1998). In one study, for example, North (2005a) found a significant difference between the average scores obtained by students with different backgrounds when they were asked to write an art history essay, with students from a 'soft' science background scored significantly higher (77.3%) than those with a 'hard' science background (66.9%)¹⁰. North (2005b) also found significant differences in the use of contextual frames (interpersonal, textual, and marked Themes) between the same two groups, where students from the 'soft' sciences used significantly more elaborated themes ($t=2.865$, $p<.006$) to contextualise information at the end of clauses (p.440). This finding illustrates how writers with different backgrounds orient to dialogic and heteroglossic concerns, differently, where 'soft' science students seemingly using thematic prominence to a greater effect to inject disciplinary voice (citations) and subjective positioning. However, as Tardy (2006) notes, operationalizing transferability in research is inherently difficult because many transfers are implicit. Mitchell and Andrews (1994), for example, investigated what successful and less-successful students did as they moved from simple genres (historical narratives) to more complex genres (historical analysis). By examining how the students produced increasingly complex assignments, they

¹⁰ I.e. those already 'socialized' in horizontal discourses (e.g., art history) knew what expectations to fulfil.

concluded that genre performance is tied to disciplinary knowledge and, as such, genre conventions cannot be taught separately from content and meaning; i.e. generic form cannot precede function, as the two develop in tandem. This finding supports Devitt's (2007, p.222) approach to genre, which states that whilst previously learnt genres can be applied to new disciplinary knowledge, new genres must develop alongside the knowledge that requires them. Successful writers, then, are more likely to be those who can flexibly manipulate previous genre knowledge whilst also incorporating new topic knowledge (cf. also Loudermilk, 2007, p.202).

Individual styles and identities

Individual styles and identities are commonplace in writing, with some students embracing their academic identity, whilst others reject it (Tardy, 2005). However, as Tardy (2006, p.88) notes, the degree of individuality is sometimes questionable, as many investigations examine only one or two writers without recourse to other members of the same discourse community. Therefore, whilst some writers clearly feel the need to retain their individuality, many findings are weakened by small sample sizes and /or insufficient contextual data.

Ultimately, research suggest that identity and genre expertise go hand-in-hand (Schryer & Spoel, 2005), where disciplinary identity embodies both unstated meanings (symbolic genres) and stated meanings (materialized genres) (Dressen-Hammouda, 2008; Morton, 2009). Disciplinary identity, therefore, may be inextricably linked to knowledge and acceptance of disciplinary frames (embodied semiotic resources that exist in specialized networks), which are a key component in realizing specialized meanings such as those reflected in genres (Devitt, 2004; Roth, 2004).

Audience awareness

One of the main differences between writing and speech is that the audience is often absent during writing. Consequently, a skilled writer must construct a suitable representation of their (virtual) audience, to which they can appropriately shape and build text. For example, in writing a Discussion, a key audience-related skill is the ability to assess what counterpoints may be made, and how much (and what kind of) evidence should be given to counter such claims (Deane et al., 2008, p.18). Conversely, in writing an Exposition, a key audience-related skill is knowing what needs to be made explicit and what can be left implicit. For example, McNamara et al. (1996) show how readers with high levels of subject-matter knowledge draw more from texts with greater implicit links than if the same text was made more explicit but contained less implicit information. Similar research (Crossley et al., 2011; McNamara, Crossley, & McCarthy, 2010) indicates that as writers mature the coherence of their texts lay not in the presence of explicit linguistic markers (i.e. cohesive features such as anaphoric reference), but in their absence. Once again, these studies show that the three most predictive indices of perceived quality are syntactic complexity, lexical diversity, and less frequent words, where the notion of coherence is tied to

reader knowledge and skill. However, in terms of student writers, who may be less experienced in the disciplinary expectations of their field, they may judge their audiences' expectations solely on what they know about the person's social standing, institutional role, or through their (the audiences') engagement with the topic; for example, an impression of a teacher's viewpoint may stem from how they present it in lectures.

Ultimately, in terms of essay writing, a writer's sensitivity to the audience's needs appears to exist along two-axis: (i) awareness of who the audience is and what they know, and (ii) the ability to adjust content and presentation in line with the text's purpose. In this light, relative measures of text coherence may very well be a function of epistemic stance toward the reader; i.e. what may be perfectly cohesive and coherent to one reader may be perfectly incohesive and/or incoherent to another reader (McNamara, 2013).

4.4 Undergraduate text-types and genre families

One of the main arguments levelled at genre theory is that the mutability and diversity which characterise language use makes it impossible to catalogue and describe every single recurrent event in terms of genre. Fundamentally, in many instances, genre and genre systems are implicitly presented as stable, and objectively observable¹¹. However, as Paltridge (1997) demonstrates, not all texts can be associated with a genre based on linguistic and structural patterns alone, as context and interactional frames can override typified language forms¹². Moreover, much genre-based research/pedagogy privileges alphabetic literacy (cf. Kress, 2003), which backgrounds the meaning-making potential of other semiotic modes¹³, such as figures, illustrations, equations, page layout, and even colour¹⁴. Ultimately, though, research continues to show that there is a great deal of predictability and stability in how texts are shaped toward a particular communicative act, and it is this predictability that is valuable to pedagogy (Martin & Rose, 2008; Nesi & Gardner, 2012; Woodward-Kron, 2004).

With regard to this 'predictability' in undergraduate writing, a number of scholars have produced taxonomies of genre families. Coffin et al (2003), for example, suggest the following:

¹¹ Cf. the proliferation of generic labels such as Recounts, Expositions, etc.

¹² Research such as this reflects the inherent tension in SFL between Halliday's view of register as tightly bound to mode, and Martin's view of register as tightly bound to genre (functional tenor).

¹³ As Leedham (2011) shows 'visuals and lists are viable alternative means of presenting information', and can help students avoid pitfalls associated with managing macro-level discourse concerns via text alone.

¹⁴ Cf. Lemke (1998) for an interesting discussion regarding other modes of expression.

	Sciences	Social Sciences	Humanities/Arts	Applied Disciplines
Typical disciplines	Physics, chemistry, biology, geology	Sociology, geography, politics, psychology, media studies	English, history, languages, classics, fine art, nursing, religious studies	Philosophy, music, engineering, business studies, health and social welfare
Typical text-types	Essays, lab. reports, project proposals and reports, fieldwork notes, dissertations	Essays, project reports, fieldwork notes, dissertations	Essays, critical analysis, translations, projects	Essays, case studies, projects, dissertations

Table 4.3: A categorization of written texts and their disciplines (Coffin et al., 2003, p.46)

In the UK, Nesi and Gardner (2013; 2012) propose a similar classification system, drawing on genre theory (particularly, Martin, 1992; Swales, 1990), corpus linguistics (Biber, 1988), and ethnography. In this long-term study (launched in 2004), Nesi and Gardner systematically sampled a range of student texts across levels and disciplines, which they subsequently used to construct a corpus of British Academic Written English (BAWE). The BAWE covers 4 British universities, and incorporates 2858 assignments written by over 1000 students, spanning 30 subject areas and 4 levels of study. It is particularly relevant to this study as the majority of texts were composed on computer.

Nesi and Gardner categorized their findings according to a 4x4 matrix of discipline (Arts and Humanities, Social Sciences, Life Sciences, and Physical Sciences), and level (1st, 2nd, 3rd year undergraduate, and postgraduate). This allowed them to examine the distribution of texts across disciplines and levels by recursively grouping, regrouping, and ultimately defining texts with similar social purpose and staging into genres, and then genre families on the basis of family resemblance and differentiating criteria. This delicate balance of co-textual and contextual analyses resulted in a robust and empirical classification of student texts based on 2761 assignments averaging 2300 words each. Their final categorisation resulted in 'five broad social purposes and thirteen genre families' (Nesi & Gardner, 2012, p.256).

Despite the exclusion of some text-types (e.g. exams, presentations), and the rather homogenous sampling of others (some examples were collected from just one university and one department), their resultant corpus is arguably the most representative example of good/high standard student writing across developmental stages and disciplinary fields. Moreover, although their project was admittedly a framework to stimulate further, more detailed research into academic genres, a cursory glance at their results, in combination with Coffin et al.'s (2003) taxonomy, demonstrates the diversity of texts found at university, and clearly brings into question the usefulness of 'generalized' academic writing (cf. Tribble, 2009, for a recent critique):

	Arts and Humanities		Life Sciences		Physical Sciences		Social Sciences		Total	
	N	%	N	%	N	%	N	%	N	%
Case Study	0	0	91	13	37	6	66	8	194	7
Critique	48	7	84	12	76	12	114	14	322	11
Design Specification	1	0	2	0	87	14	3	0	93	3
Empathy Writing	5	1	19	3	9	1	3	0	36	1
Essay	601	83	127	18	65	10	444	56	1237	43
Exercise	14	2	33	5	49	8	18	2	114	4
Explanation	9	1	117	16	65	10	23	3	214	7
Literature Survey	7	1	14	2	4	1	10	1	35	1
Methodology Recount	18	2	157	22	170	27	16	2	361	13
Narrative Recount	10	1	25	3	21	3	19	2	75	3
Problem Question	0	0	2	0	6	1	32	4	40	1
Proposal	2	0	26	4	19	3	29	4	76	3
Research Report	9	1	22	3	16	3	14	2	61	2
Total	724	100	719	100	624	100	791	100	2858	100

Table 4.4: Distribution of genre families (from Gardner & Nesi, 2013, p.46)

Table 4.4 shows that the 'Essay' was the most frequent genre family across disciplines and levels in Nesi and Gardner's research, accounting for over 40% (1237) of all assignments in 24 disciplines where 50 or more assignments were collected (Nesi & Gardner, 2012, p.43). Discussion and Exposition were by far the most frequently realized genre, whereas Challenges were the rarest¹⁵. These findings support the oft cited remark that the 'Essay' is the most common undergraduate writing task (e.g. Hyland, 2009, p.130; Paltridge, 2004).

However, Nesi and Gardner found that the Essay was significantly more prevalent in the 'soft' sciences, with Arts and Humanities averaging 83% overall (91% at level 1 dropping to 61% at level 4), and the Social Sciences averaging 56% (Nesi & Gardner, 2012, p.50), as shown in figure 4.5:

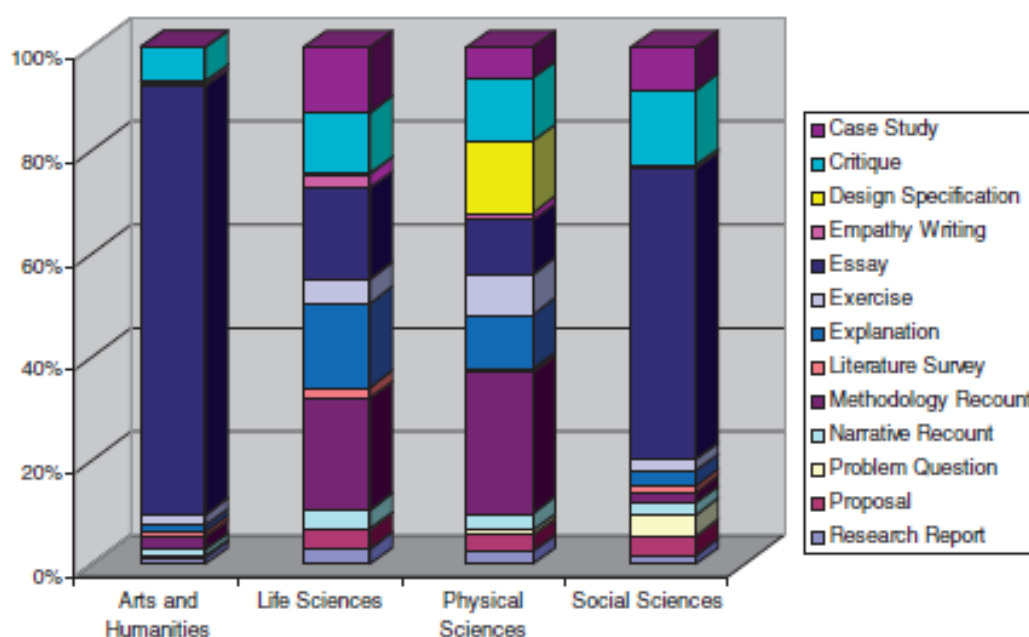


Figure 4.5: Distribution of genre families across disciplines (from Gardner & Nesi, 2013, p.46)

¹⁵ Probably because undergraduates mainly reproduce established knowledge rather than oppose it.

When compared to the figures for the 'hard' sciences (Life = 18%, Physical Sciences = 10%), the Essay clearly holds greater value amongst the 'soft' sciences. Perhaps this explains why writing in the humanities and social sciences (disciplines that engender horizontal knowledge structures, such as those briefly covered in Chapter 3, §3.4 (cf. also Martin, 2007)) is seen as more challenging for novice L2 writers (Chang & Schleppegrell, 2011, p.143). In essence, the knowledge contained within an Essay 'give[s] greater importance to explicit interpretation' (Hyland, 2006, p.240), as evidenced by Hyland (2005, pp.186-187), who found 75% of all interactional markers (features of author visibility) occurred in the humanities and social sciences¹⁶.

Nesi and Gardner (2012) place six genres within the Essay genre family, which serve the common social purpose of 'developing powers of informed and independent reasoning' (p.98):

Genre family: Essay	
Social Purpose: to demonstrate/develop the ability to construct a coherent argument and employ critical thinking skills	
Genre family stages: Introduction^Arguments^Conclusion	
Genres:	Genre stages
Challenge	Challenge^Evidence^Thesis
Commentary	Text(s)^Introduction^Comments^Summary
Consequential	State^Ensuing Factors^Summary Thesis
Discussion	Issue^Alternative Arguments^Final Position
Exposition	Thesis^Evidence^Restate Thesis
Factorial	State^Contributory factors^Summary thesis

Table 4.5 Genre family: Essay (Nesi & Gardner, 2012, p.98)

Within SFL, the Discussion is seen as the most complex genre because it draws upon both Exposition and Challenge, and calls for informed choices to be made about which points of view to take (Martin & Rose, 2008). Therefore, despite the above taxonomy suggesting discrete genres, SFL theorists still recognise considerable overlap and hybridity between genres, particularly within genre families.

However, it could also be argued that the above classification is a somewhat simplistic view based firmly in structure. As was outlined in §3.7, students are also expected to manipulate multiple sources and disciplinary voices. These intertextual concerns make for more complex realizations of genre than that subsumed in the table above. Consequently, while Nesi and Gardner's research is substantial and empirically sound, it could be argued that the scale of their project (and its necessary complexity) obscures the inherent complexity of genre systems. Therefore, whilst this research is incredibly valuable, and indirectly contributes to the interdisciplinary dialogue between social-realism and SFL¹⁷, for the rest of this thesis, I will use the terms 'Essay', 'Discussion', and 'Exposition' loosely.

¹⁶ Such findings support Maton's (2013) argument that these disciplines engender 'knower structures'.

¹⁷ This dialogue highlights how the representation (and reproduction) of knowledge varies between disciplines.

4.5 The undergraduate 'Essay'

Essay writing is high-stakes, and has been described as the 'genre par excellence for assessment in the academy' (Andrews, 2010, pp.158-163). Those who take a critical stance on academic literacy even make an explicit link between academic acceptance and the Essay's importance by referring to academic writing as 'essayist literacy' (e.g. Lillis, 2001). This view sees academia as construing the relationship between texts as more important than the relationship between the producers of text, which is a direct consequence of the underlying aim of academic writing: to convey logical implications based on empirical 'truths'. From the student's viewpoint, they find themselves embroiled in a 'complex negotiation between individuality and authority, message and code, their own words and the words of others' (Bazerman, 2004, p.60). From a departmental viewpoint, the essay is a form of quality control, a way to measure and judge student performance both internally (within the institution) and externally (within the wider educational system). From a critical viewpoint, the essay is discursive, a hybrid of 'communicative' and 'strategic' (Fairclough, 2003)—communicative in that it aims at transmitting knowledge from student to assessor, strategic in that it aims for accreditation¹⁸. From a pedagogical viewpoint, the essay is a mechanism by which teachers attempt to move a student from knowledge-telling to knowledge-transforming (cf. Chapter 2). It does this by asking students to draw together relevant research, critically evaluate it, and then recontextualise it in appropriate ideational and interpersonal terms (Hyland, 2009, p.132; Woodward-Kron, 2002). From an analytical viewpoint, the essay functions as a cultural artefact: an emergent record of how students draw from and combine semiotic and material artefacts to respond to the demands of a perceived situation. However, the position a student takes is usually based on sources drawn from the literature rather than their own empirical research. Yet, as a text that crosses disciplinary divides, the essay has no concrete, substantive identity (Freedman, 1993). Therefore, while research has tried to uncover its generic structure (e.g. Henry & Roseberry, 1997), this has proved inherently difficult for a number of reasons.

Firstly, many students are unsure as to what it is they are writing, let alone how to write it (Hyland, 2009, p.131). Lillis (2001, p.58), for example, sees the essay as 'an enactment of the institutional practice of mystery', where student-tutor expectations frequently collide. Similarly, Woodward-Kron (2002) shows how the quintessential expectation of a 'good' essay (that it be 'critical') is steeped in misunderstandings. By combining ethnography and a genre/linguistic analysis (SFL-based), Woodward-Kron investigated the relationship between description and critical analysis in

¹⁸ The ratio between communicative and strategic may also be dependent on how the student conceptualizes a task, which, in turn, is intrinsically tied to their ability, identity, and affective factors (e.g., motivation).

20 high scoring essays (approximately 2000 words each) written by teacher trainees enrolled at an Australian university. Essays were classified as either Exposition or Discussion, and further unpacked to reveal their micro-genres, generic structuring, and clausal-level choices in Transitivity. Woodward-Kron concludes that micro-genres were a key means by which 'students review and build knowledge of the field within an expository structure' (p.132). However, in many essays, these sequences also implicitly supported argumentative stages within larger macro-structures¹⁹, where, in making links between knowledge, some students made use of Exemplums, linking theory to real-world experience, whilst others chose to initiate a new schematic stage by embedding additional structures via Implication ($n=17/20$). Although, the results revealed no discernible pattern at the micro-level, this variation at the macro-level supported Woodward-Kron's hypothesis that critical analysis, as realized in writing, is complex and multifaceted, and much more than just a transferable skill. Fundamentally, Woodward-Kron's approach illustrates that critical analysis is embedded in social and disciplinary expectations, which, when combined with individual writing preferences and knowledge, can lead to it being realized in any number of ways. Some of the differences in these realizations will be explored later on in this thesis in relation to the unfolding of writing practices (Chapter 6) and meaning-making practices (Chapters 7 and 8) with regard to the two student writers involved in this study.

Secondly, research into writing has shown that it takes a considerable amount of time to become fluent in writing complex genres because they typically call upon a wide range of lexicogrammatical repertoires and complex schematic staging (Kellogg, 2008). However, undergraduate study usually spans just three years, and encompasses widely different levels of student ability and development²⁰; moreover, the discourse community that is home to undergraduate essays can be highly unstable as student (and staff) turnover is high and rapid. Such instability clearly contributes to a high degree of structural and stylistic variability. Furthermore, when we add the occluded nature of the Essay, where students often have only their previous essays to draw on (Nesi & Gardner, 2012, pp.257-258), we have a genre that is, by necessity, a hybrid one, constructed by fragmenting together various other genres that are only indirectly relevant to a student's needs. This hybridity, whilst also being reflected in macro-level structuring (as per Woodward-Kron's 2002 findings (above)), is also reflected in the lexicogrammatical features that are instantiated in different text-types. This mixing of features will be explored to varying degrees in the upcoming chapters (particularly Chapter 7).

Thirdly, as shown in Chapter 3, a well-rounded academic text is characterized as containing lexis

¹⁹ Although she gives no evidence to support this claim, the reader can safely infer that clarifying concepts is a necessary step in supporting any argument that follows.

²⁰ Even high scoring students showed great variation in generic staging and structuring (cf. Woodward-Kron, 2002).

that is abstract and dense, where discourse participants are linked via extensive use of relational processes, and clauses are embedded with interpersonal modality and objective evaluation, all of which calls for a high-level of language mastery. Moreover, while an Essay may be hierarchically structured, containing a beginning, middle, and end--much like a Narrative (Martin & Rose, 2008, pp.118-124)--an essay may also contain particulate (non-constrained) orderings of conclusions, generalizations, arguments, and even mini-narratives (as when giving personal examples); any of which may not follow a chronological sequence. In other words, because the function of an essay is to inform and explicate a point of view, its construction calls upon a higher level of cognitive development than that of a Narrative, for example, because ideas, information, critical evaluations, etc., all need to be linked in a coherent, clear and persuasive manner, which calls upon an implicit hierarchy of cognitive and linguistic demands (Olive et al., 2009). Consequently, as an analytic text, it is often one of the last genres encountered during schooling and, therefore, it is perhaps not surprising that differences between groups of writers are most clearly seen in its realization (Berman & Verhoeven, 2002, p.19; Liardét, 2013; Martín-Úriz & Murcia-Bielsa, 2008). It seems, therefore, that the more cognitively demanding a genre is, the more likely it appears to engender variation. Deane et al. (2008, p.17), for example, see these genre demands as differing along four broad dimensions: (1) text organisation, which is primarily a function of topic knowledge and working memory constraints; (2) sensitivity to audience expectations and existing knowledge; (3) textual resources, such as appropriate lexicogrammatical choices and logico-semantic links; and (4) critical thinking and reasoning, which primarily involves seeing and understanding connections between ideas and theories. Cognitively, then, genres can be seen to range from relatively stable, consciously learned templates, to complex, particulate patterns that reflect unconscious choices. These differing demands draw on cognitive resources in varying ways, and reflect the increasing/decreasing complexity of different writing tasks as trade-offs are made between memory constraints, writing activities, and writer goals. These trade-offs are outlined in a sophisticated account by Coirier et al. (1999), who examine the processes writers go through when constructing an effective Discussion. They postulate eight social/discursive elements are key to creating an effective Discussion, and that the interaction amongst these elements leads to a complex, hierarchical web of interconnected warrants, points of view, and subject-matter inclusion. They convincingly argue that in attempting to realize this reconciliation of values, voices, and knowledge, the writer is torn between a dynamic, multi-dimensional thought pattern, and the linear, sequential nature of writing. This view also highlights the importance of working memory, because as writers are challenged to hold and manipulate these complex thought patterns in memory, the ability to keep emerging text sequentially organised

relies heavily on advanced linguistic skills²¹. Some of these differences in realizational patterns will be explored in upcoming chapters, where we will look at how the non-sequential thought patterns of the two writers involved in this study are instantiated in unfolding text.

Finally, many studies into academic writing (cf. Chapter 3) predominantly focus on published research articles or textbooks, where the examined texts are designed to instruct, explain, or persuade (e.g. Biber, 2006; Chang & Schleppegrell, 2011). These are, of course, different social purposes from those of a student essay. Firstly, this appears problematic when we consider that student work is aimed at demonstrating the acquisition of acquired knowledge and its critical evaluation (Gardner & Nesi, 2013)²². Secondly, this focus on easily accessible texts (thesis and publications being in the public domain) neglects the fact that students are asked to emulate occluded or pedagogical genres; i.e. genres that 'are written to be assessed and discarded; published examples are rare' (Nesi & Gardner, 2012, p.257). Fundamentally, exemplars of essays are not readily available in the same manner as published works and, consequently, students are left to fashion their texts after less than ideal models. Thirdly, published texts, and even thesis/dissertations, are highly edited and often go through a rigorous process of peer review, making them somewhat antipodal to the products of individual students. And, although recent research has started to examine undergraduate and postgraduate coursework in isolation, these studies are either based on small corpuses²³, limited to specific disciplinary fields (Chang & Schleppegrell, 2011; Loudermilk, 2007; North, 2005a; Swain, 2007; Woodward-Kron, 2002), or focus on thesis or dissertations (Hood, 2004; Lee & Chen, 2009). This thesis takes a different view as it explores how two student writers (re)negotiate their own ideas of what constitutes an essay in light of what they deem acceptable, particularly with respect to the unfolding language features of their own texts.

4.6 Summary

This chapter introduced the research surrounding the production/reception of written texts in socio-cultural/purposive terms. Subsequently, it used the notion of genre as a backdrop to illustrate how academic texts are immersed in social and cultural networks of recursive activities, text-types, and discourse communities.

Section 4.1 introduced the various ways in which genre is seen (and researched) in four of the most popular research/teaching paradigms. It was argued that regardless of which view of genre

²¹ This complex patterning, for example, is reflected in Biber's multidimensional analysis of the BAWE (§3.2).

²² I.e. studies of academic writing/genres are often based on texts that undergraduates rarely produce.

²³ No doubt due to the painstaking process of manually coding data at the micro-level combined with the inherent variability of developing writers (a clear exception being Hinkel (2002)).

one assumes, the underlying premise remains the same: genre as a mediating concept that lies between culture/society and the reception/production of text, and it is this mediating function that assists us in making sense of 'stabilized-for-now' activities and events.

Section 4.2 outlined how genre can be operationalized (implicitly and explicitly) in terms of three key concepts: heteroglossia, dialogism, and intertextuality. These three theoretical concerns were also introduced in Chapter 3 in relation to 'voice' in academic writing. However, in this section we also saw how can be applied to another holistic phenomena, that of genre. We also saw how genre expertise can be modularised into overlapping knowledge 'types': rhetorical, formal, subject-matter, and process knowledge, which combine and interact in complex ways.

Section 4.3 gave a very brief overview of how genre expertise is thought to develop/emerge. It considered how the main contributing factors to increasing genre expertise were exposure, practice, implicit/explicit interactions and feedback from other individuals/texts. However, it was also noted that these factors can be affected by individual preference, styles, and identities, as well as the writer's ability to construct a 'virtual reader'—the ability to distance oneself from one's text and see it through the eyes of an intended recipient.

Section 4.4 showed how research has revealed the extent of predictability and stability in academic texts, and that it is this predictability/stability which makes genre theory so attractive to researchers/educators. However, this section also showed that whilst the Essay is by far the most prevalent of genres that undergraduates are expected to produce, its distribution, and that of other genres, is highly unstable across disciplines and study levels. This finding brings into question the usefulness of 'general academic writing' courses by highlighting how specific disciplines/levels call for highly specialized and diversified writing.

In section 4.5 we saw how the Essay performed many functions for students, departments, researchers, critical theorists, teachers, institutions, and society in general. Furthermore, it was argued that because the Essay has no concrete, substantive identity, it is often steeped in mystery, differing expectations, is highly complex, fluid, and cognitively demanding. Yet despite this hidden complexity, much research/pedagogy projects the Essay as something stable and attainable on the basis of research into published 'model' texts, which actually bear little resemblance to those of actual students' texts.

The next chapter takes what has been presented so far (Chapters 1-4) and moves us into the realm of research design. In other words, the next chapter presents the methodology and framework that informs the upcoming analysis, discussions, and conclusions that follow.

Chapter 5 Methodology

Introduction

This chapter introduces the methodology and theoretical framework that informs the analysis and discussion chapters that follow it. Given the multifaceted nature of the area under study (as evidenced in the previous chapters), it was advantageous to adopt a multi-layered approach to data collection and analysis. Consequently, whilst I acknowledge that no one piece of research is able to cover every 'angle' of a phenomenon, this chapter outlines a mixed methods approach that balances depth and breadth of coverage, and (where possible) aligns itself with Tracy's (2013, p.230) eight 'big tent' criteria of excellence in qualitative research. These eight criteria stipulate that qualitative research should have resonance, cover a worthy topic, make a significant contribution, and be rigorously rich, sincere, credible, ethical, and meaningfully coherent. As well as these eight guiding tenets, this chapter also takes into account the following concerns and constraints in order to increase the study's overall validity:

1. The research 'problem' (Chapter 1), which was outlined as a set of three research questions:
 1. a. What practices do students use when digitally composing text?
 - b. When and where during the writing process are these practices employed?
 - c. Which practices (if any) are relatively stable, and which appear to change over time?
 - d. Do 'good' writers converge on similar practices?
2. a. What are the key linguistic features of 2nd year undergraduate essays?
- b. Are these features comparable between/within different writers?
- c. Are these features comparable to those of more experienced writers?
3. Is there a relationship between how a person writes and the perceived quality of their text(s)? I.e. does the process affect the product?

2. The epistemological context of this thesis, which draws heavily on an interpretive (social constructionist) paradigm (Systemic Functional Linguistics). Here, the main purpose is to describe, interpret, and understand practices that are context-bound yet cross multiple realities (Tracy, 2013, pp.40-41). Consequently, a number of assumptions/beliefs are held by myself, which are made visible where possible in both this chapter and subsequent ones.

3. The scope of the project, which was primarily restricted by the amount of data that could be analysed, and the amount of appropriate data that the researcher had access to (cf. §5.2.3 below) Moreover, the automatic analysis of linguistic features via keystroke logging is restricted to parts of speech, and as such the coding of revisions in functional terms relies on

a significant amount of manual intervention¹.

Decisions surrounding these concerns, and their alignment with Tracy's eight criteria, are realized here in the form of this 'methodology' chapter, which, for maximum transparency, I introduce graphically in the form of an idealised flow chart (figure 5.1). This flow chart reflects the chapter's organization in terms of its central mechanisms (section headings), analytical steps (subheadings), and the interactions between them and other concerns.

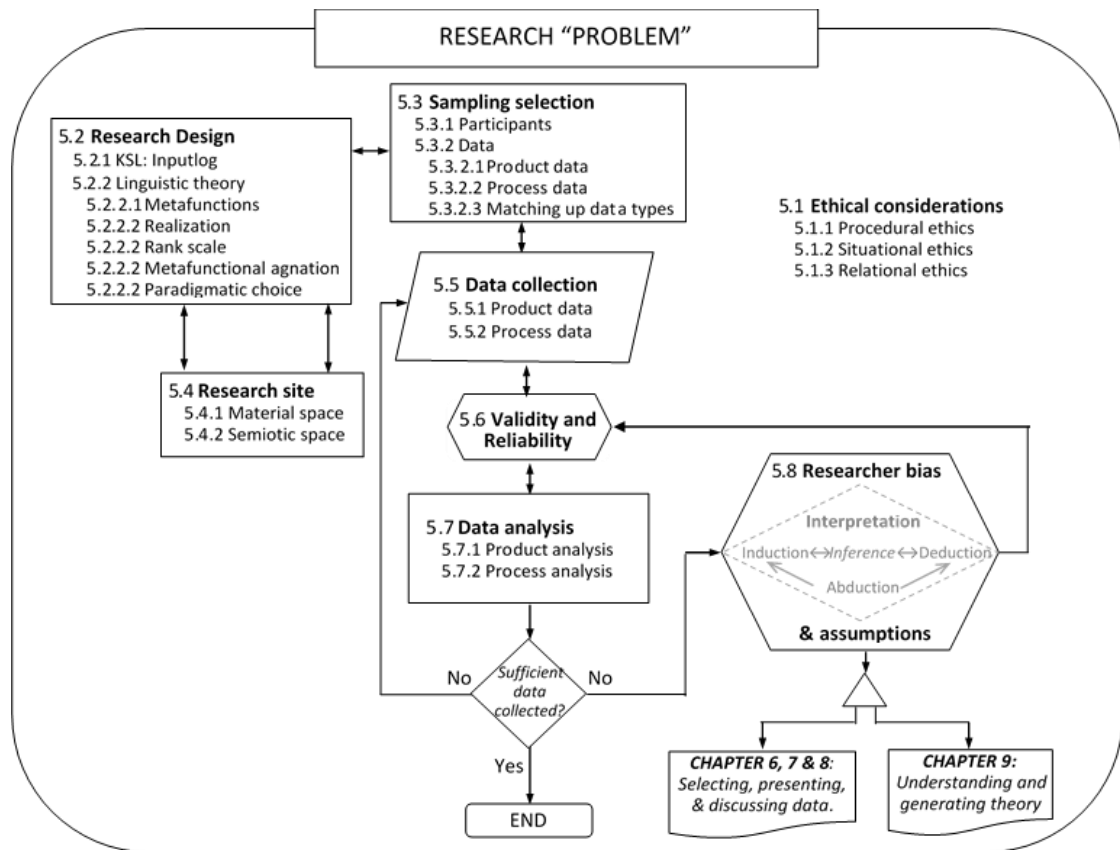


Figure 5.1: Interactions amongst the sections/concerns of this chapter

In figure 5.1, the 'Research Problem' is the overarching concern, and thus encapsulates all other decisions/concerns. Within this 'Research Problem' are the eight sections that make up this chapter. Connecting these sections (or boxes) in the above chart are flow lines/arrows. These flow lines denote how each section is connected to, and thus informs/refines other sections. To the centre and left of the diagram we have sections that are typically found in most research studies (design, data collection, etc.). On the right we have ethical considerations and the researcher's bias and assumptions. These two sections are key concerns when it comes to the interpretation and presentation of data, and thus they are presented here as an interface (or segue) to the upcoming discussion and conclusion chapters (the two document boxes in the

¹ For example, isolating, coding, and analysing one dataset took this researcher, on average, 120 hours of work. Consequently, the decision was made to sample three datasets from one writer, and one dataset from another writer. This enabled both within and across participant observations to be made.

bottom right hand corner). Each of these sections (or boxes) will be explicated in the following sections, beginning with §5.1: Ethical considerations.

5.1 Ethical considerations

5.1.1 Procedural ethics

Before participants were approached to take part in the project, the proposed design was granted ethical approval by the researcher's university's ethics board. After suitable participants were recruited (cf. § 5.3 for sampling procedure) they were given an information sheet (*Appendix 1: Participant information sheet*) and completed a consent form and statement of intent (*Appendix 2: Participant consent form*) before any data collection commenced. This form acknowledged that they understood the purpose of the study, their role in it, and that data was to be stored anonymously and confidentially (in electronic form) for up to 10 yrs. Furthermore, it also stipulated that data was to be made freely available for research only (as per ESRC mandates²). Participants were also informed that they could at any time access, discuss, or delete their data before it was transferred to me.

5.1.2 Situational ethics

Because of the nature of KSL, there were certain risks that needed to be assessed and overcome. These primarily related to the collection of sensitive information (passwords and login details) and privacy issues (monitoring personal emails, chats, etc.). Therefore, before collecting data, I made a list of ethical problems and pragmatic issues that could arise (*Appendix 3: Assessment of ethical concerns*). After discussing these issues with departmental colleagues, it was decided that the nature of the initial data collection method³ could lead to sensitive information being collected (e.g. bank login details). Furthermore, there was also the potential that the software could be misused (e.g. participants could potentially lend their computer to others and covertly record internet activity). Therefore, I contacted the Inputlog research team at the University of Antwerp, and asked if they could modify the program so that it only recorded keystrokes within MS Word. They agreed to this proposal, and the subsequent modification was undertaken by a programmer on their research team⁴.

² See: www.esrc.ac.uk/_images/Research_Data_Policy_2010_tcm8-4595.pdf.

³ I.e. using the original version of Inputlog that is freely available to researchers.

⁴ This work was funded through an ESRC Research Support Training Grant (RTSG no.#).

5.1.3 Relational ethics

In recompense, I provided participants with a debriefing form at each data collection point (*Appendix 4: Participant debriefing form*). This form provided an opportunity for them to reflect on their involvement, ask further questions, and/or seek additional information. This also provided me with an opportunity to share my research with them in a strategic and open way. At the end of the study I also provided each participant with informal feedback via a face-to-face meeting on how they could improve their writing.

5.2 Research design

The research design draws on a mixed-methods approach that was chosen for pragmatic rather than paradigmatic reasons: i.e. commensurable methods/approaches are brought together in light of a 'research problem', rather than as a stance toward a particular epistemological debate (cf. Teddlie & Tashakkori, 2012). Drawing on keystroke logging software called Inputlog (Leijten & Van Waes, 2013) and a socio-semiotic theory of language (Systemic Functional Linguistics), the design aims to explore and understand how two successful 2nd year undergraduates compose academic texts via digital means. To accomplish this, the design moves from discovery (data recording and coding (discovery) to quantification (corpus analysis (quantification) to explication (discourse analysis (explication) and, finally, to discussion (revelation). This sequential application of methods is known to work well for highly conventionalized texts such as the undergraduate essay (Nesi & Gardner, 2012).

5.2.1 The role of Keystroke logging

In terms of revision mechanics, the study draws on Keystroke logging (KSL) software called 'Inputlog'⁵. Inputlog is computer software designed to run on Windows (Leijten & Van Waes, 2013); it records inputs made by a user (e.g., key presses), and logs these inputs against a time stamp. This study uses Inputlog to examine the frequencies of revisions, their position within the text, the writers' movements between points of interest (focus events), and the language features they attend to when they compose text and draw on digital sources. By using such software, data collection can be unobtrusive, non-reactive⁶, and detailed. Such a data collection method, then, can improve ecological validity because we can collect data on a subject's habits in a naturalised setting, such as at their home, in a library, or wherever they would normally work on a computer.

⁵ Inputlog is freely available to researchers via: <http://www.Inputlog.net/>

⁶ There is no need for an observer to be present.

However, because this data primarily reflects externalised processes there are no recourse to the thoughts of the writer, before, during, or after text production. Consequently, it is popular to use additional data collection methods in combination with KSL, such as think aloud protocols, eye and pen tracking, video observations, post-task interviews, etc. (cf. Torrance et al., 2012, for a collection of studies). However, it was thought that any additional layering of data may have distracted from the main aim of providing a linguistic-based analysis of revision activity. Furthermore, as outlined in §2.4, research seeking to analyse unfolding written text in any terms other than syntax or morphology lacks a firm theoretical framework upon which analysis can draw. Consequently, the decision to not include any additional data collection methods was also a pragmatic one that aimed to narrow the focus of any design. However, as with any data collection method, there are limitations to using KSL. Yet, rather than discuss these here, I have chosen to include them under the overall study's limitations in Chapter 9, §9.3.

Furthermore, while a number of KSL programs are available (cf. Van Waes, Leijten, Wengelin, & Lindgren, 2012), I chose Inputlog because: (1) It logs processes within MS Windows (including applications accessed); (2) it functions with MS Word (the most popular word processor); (3) it is being continually developed and is increasingly; (4) its detailed level of recording means that a number of perspectives can be explored (cf. Leijten & Van Waes, 2013); and (5) Inputlog can generate analysis files that can help 'reconstruct' the process aspect of written text; i.e. it can help to transform a 'synoptic text' to a 'dynamic text', as outlined in §5.7.2.

5.2.2 The role of linguistic theory

In terms of text analysis, this study draws on Systemic Functional Linguistics (or SFL). Although I could have chosen any number of analytical frameworks—as do others when examining academic writing (e.g. Ken Hyland, Douglas Biber, etc.)—SFL offers, as will be shown, a more robust and adaptable framework within which to draw connections between products and processes, and is thus more commensurable with my research aims. More specifically, SFL privileges the relationship between language form and (con)textual meaning, encompasses explicit analytical constructs that allow this relationship to be projected on to developmental sequences at all levels of structure; it is also a (strong) theory about language as social process and a detailed descriptive framework that allows the systematic and detailed recording of language patterns, such as those outlined on Chapter 3 and 4.

SFL is a social-constructivist view of language that sees grammar as semogenic: 'a system that creates meaning' (Halliday, 2009, p.60). Its overarching principle is the concept of **meaning potential**, where language is a meaning-making resource rather than a set of rules. This meaning-making potential is said to stem from (or be reflected in) five hierarchies and four

complementarities, along which researchers/theorists may align themselves depending upon their particular concern(s) or focus. These hierarchies and complementarities are described in numerous publications (Halliday & Matthiessen, 2013; Halliday & Webster, 2014), yet they all draw on the five key tenets that underlie SFL's views on language. Therefore, rather than replicate these discussions here, we will instead focus on these five key tenets, beginning with the metafunctional organization of language.

5.2.2.1 Metafunctions

SFL sees language as a semiotic system that is organized **metafunctionally**. This belief is based on the idea that language has evolved four simultaneous functions with which to: (1) Construe experience or our naturalized reality (language as representation), (2) construe logical relations between entities, figures, or meanings (language as iteration), and (3) enact personal and social relationships (language as exchange). These functions are called the **experiential**, **logical**, and **interpersonal**, respectively. Language, however, has also evolved a fourth function. The purpose of this metafunction is to map the experiential (language as reflection), logical (language as iteration), and interpersonal (language as action) functions on to one another and on to the context in which language is being used. This fourth function is called the **textual** metafunction. In very basic terms, the textual metafunction has evolved 'in response to the needs of dialogue and narrative' (Halliday, 1975, p.58), such that '[t]he speaker can put any spin (interpersonal) on any topic (experiential) at any discursive moment (textual)—and keep the story going along indefinitely (logical)' (Halliday, 2009, p.72).

5.2.2.2 Realization

The 2nd tenet concerns text and social context, which are said to be dialogically tied via **realization** across abstract layers (or strata) of language. This two way dialogue both construes and activates the level above/below. Realization is thus a chain of redundancy, as information at lower levels is inherently present in upper levels, albeit at a more gestalt level of detail. SFL's stratification of language builds on Hjelmslev's classic conception of realisation by incorporating additional strata to account for what is seen as 'natural' (non-conventional) and 'arbitrary' (conventional) relationships within and between content and expression planes, as per figure 5.2:

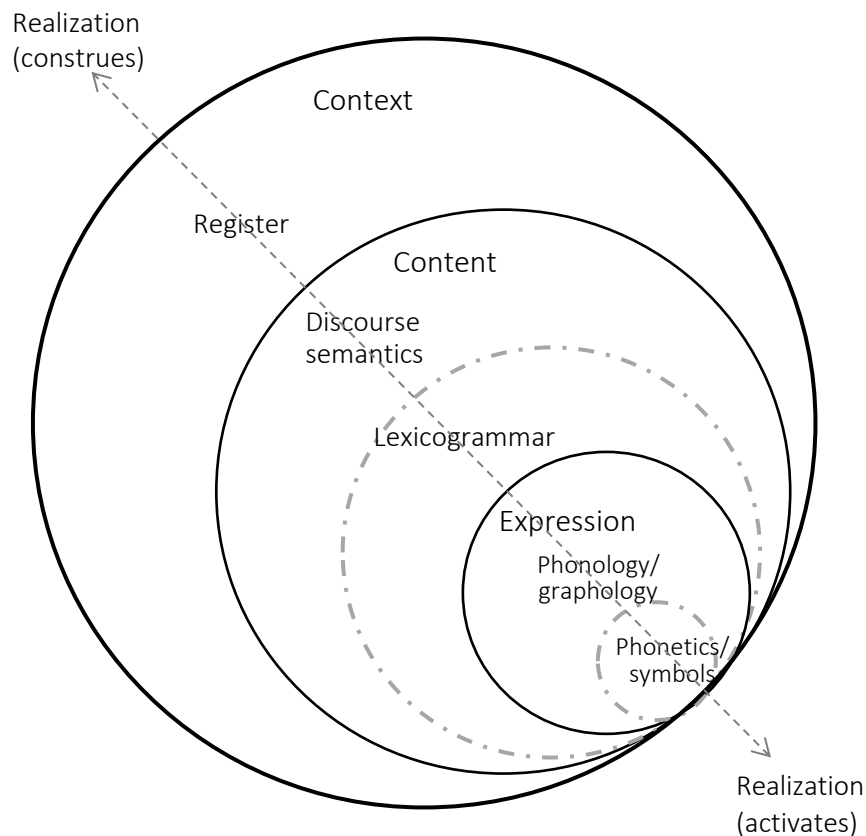


Figure 5.2: SFL's stratification of language

The 'highest' or most abstract layer is context. SFL models context as a connotative semiotic system, whilst language (the content plane) is denotative—it is expressive of context. The strata referred to as 'register' is often defined as the manifestation of skewed probabilities in the content plane that arise in given contexts (cf. Chapter 3 for more detail), whereas the content plane is said to consist of layers of wordings (lexicogrammar) and discourse (semantics). It is in the content plane, then, that written language is realized both grammatically and semantically, and it is within this plane that the analysis in the following chapters focuses on. More specifically, the majority of the analysis is situated at the lexicogrammatical layer.

5.2.2.3 Rank scale

The 3rd tenet concerns constituency (or the unit of analysis). Constituency is associated to the 2nd tenet (realization) via a **rank scale**. This relationship is portrayed in table 5.1:

	2 nd tenet: Stratification (layer)	3 rd tenet: Rank scale (constituency)
Content	Semantics	text
	Lexicogrammar (grammar & lexis)	clause phrase / group word morpheme
Expression	(1) Phonology	tone group foot syllable phoneme phone
	(2) Graphology	Sentence sub-sentence word (written) letter

Table 5.1. Constituency (or rank scale of analysis)

In table 5.1 we have the content and expression planes of language in the left column (the smaller two circles⁷ from figure 5.2). The (1) and (2) next to phonology and graphology denote the two main physical manifestations of language that are typically examined in SFL research⁸. The right column lists the corresponding unit of analysis (or rank scale) by which either content (meaning) or expression (phonology/graphology) can be construed/activated. In this thesis we are concerned with meaning (or language functions), and therefore, we will be looking at rank level units within the content plane, rather than concerning ourselves with graphological realizations (e.g. sentences), which is the focus of much writing process research.

The most extensive unit of meaning is situated at the upper edge of the semantic stratum, and is called the 'text'. The most extensive unit of wording is situated at the upper edge of the lexicogrammatical stratum, and is called the clause (Halliday & Matthiessen, 2013, p.660). Texts (situated at the semantic stratum) are seen as meaning-making potentials, activated by cognition and context, which construes/activates the socio-semiotic environment (context) for those involved. A text can be made up of any number of units below it. For example, a single word such as 'hello' construes a 'text'—it has meaning-making potential for those involved in a given context. In this thesis, we are primarily concerned with lexicogrammar, and as such the units of analysis are situated alongside it in table 5.1: clause-complex~clause~group/phrase~word~ morpheme.

⁷ The realisation circles reduce in size so as to reflect the fact that the unit of analysis reduces in size; i.e. higher level patterns are constitutive of lower level patterns.

⁸ There are other means of expressing language, such as sign language, for example, but here focus on the two main forms analysed in SFL research.

5.2.2.4 Agnation

The 4th tenet of SFL is **metafunctional agnation**, which means that language patterns (or meanings) inherent in one layer of language rebound in the other layers of language. However to account for what is seen as a natural relation between the organization of language and the organization of social context, SFL uses the concept of 'register' as a mediating function between the socio-semiotic environment and the individual. We have already discussed the concept of registerial variation in Chapters 3 and 4. In terms of agnation, though, SFL uses register to model the socio-semiotic environment through agnate patterns of three social (register) variables: **field**, **tenor** and **mode**, each of which are closely associated with one of the three metafunctional strands of language (Halliday, 1978). In this thesis, however, I also draw on the 'Sydney school' view of context⁹, which integrates more fully with the phenomenon under study (Martin & Rose, 2007, 2008). This view draws heavily on Martin's work (1992) in that it stratifies context into genre and register (cf. Chapter 4). Figure 5.3 is a reproduction of figure 5.2 (above) that incorporates this additional 'layer' of 'genre' and the three register variables and their corresponding metafunctional agnation:

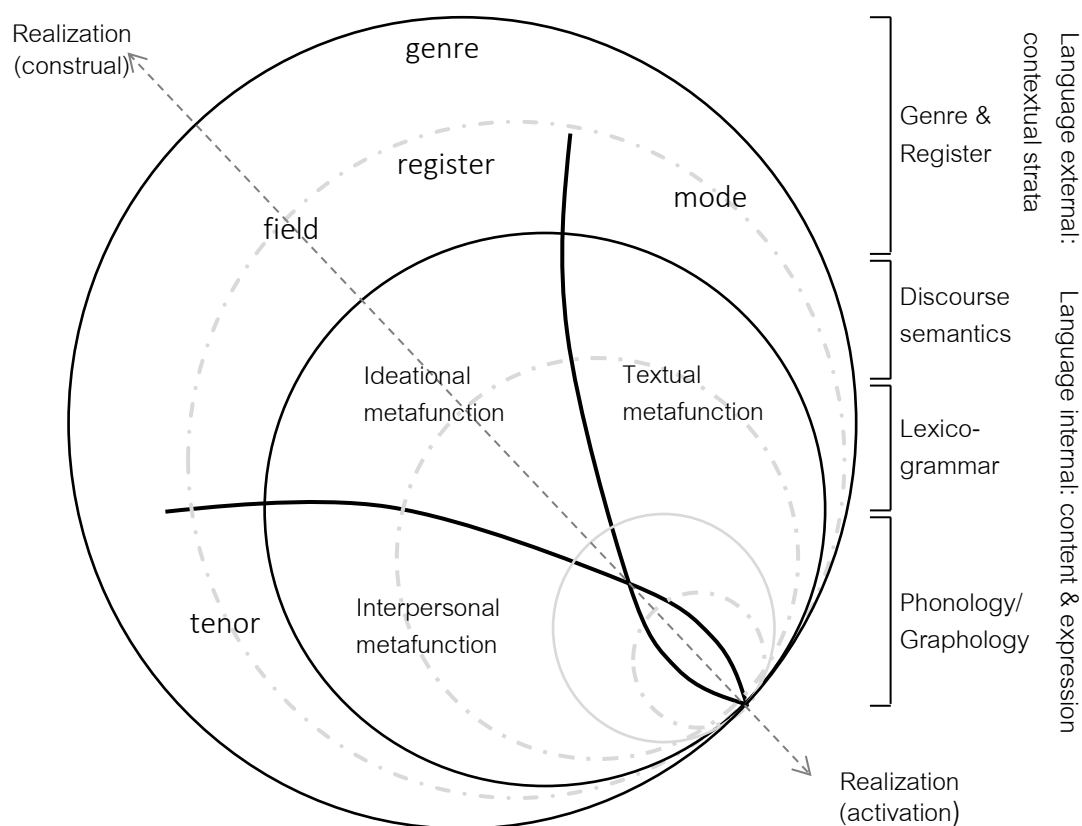


Figure 5.3: Social context and meaning realized through metafunctional strata

⁹ I refer the reader to more detailed examinations of the concept of 'register' in other works (Hasan, 1995).

If we take the variable field¹⁰ as an example, this is portrayed in figure 5.3 as primarily being associated with, or representative of, the ideational metafunction. I.e. field primarily concerns the construal of experience (naturalized reality or 'clause as representation'). The register variable tenor, meanwhile, is portrayed as being agnate with the interpersonal metafunction—it mainly concerns the relationship between a text's producer and its recipient (social reality or 'clause as exchange'). Finally, mode is said to be agnate with the textual metafunction—the symbolic configuration of rhetorical structures (semiotic reality or 'clause as message'). These relationships are summarised in table 5.2¹¹:

Register Variable	Metafunction	'Construal of reality'
Tenor	Interpersonal	social
Mode	Textual	semiotic
Field	Ideational (logical, experiential)	events

Table 5.2: Metafunctional agnation (Martin, 1992)

5.2.2.5 Paradigmatic choice

The 5th tenet relates most closely to language as a resource for meaning-making, comprising a set of potentials to mean. These sets of potentials, or options, make up systems, and it is within these systems that we find the potential for systemic choice. The 5th tenet, then, is SFL's organizing concept of **paradigmatic choice**, which is represented as a set of lexicogrammatical or semantic systems. As Halliday (2009) notes:

'A system, then, is a set of features which stand in contrast with each other in a specified environment—of which one will be chosen whenever the environmental conditions obtain.' (p.65)

An example of a basic system given by Halliday (2009) is POLARITY, which consists of two features in an either/or relationship of 'positive' or 'negative'. Figure 5.4 depicts POLARITY in diagrammatic form; it also shows two further properties: (1) each feature's realization (indicated by the downward facing arrow), and (2) their relative probabilities, which are predicted within SFL to be either equal or skewed (in this instance polarity in English is a skewed system, biased toward

¹⁰ In discourse semantics, field is interpreted as 'a set of activity sequences oriented to some global institutional purpose, alongside the taxonomies of participants involved in these sequences (organised by both classification and composition)' (Martin, 2013, p.24).

¹¹ This view is somewhat more simplified than that of other genre theorists (e.g. Bazerman). For e.g., Martin states that through genre, 'the principles for relating social processes to each other have to do with texture—the ways in which field, mode and tenor variables are phased together in text' (1997, p.12).

positive, as indicated by the 0.9:

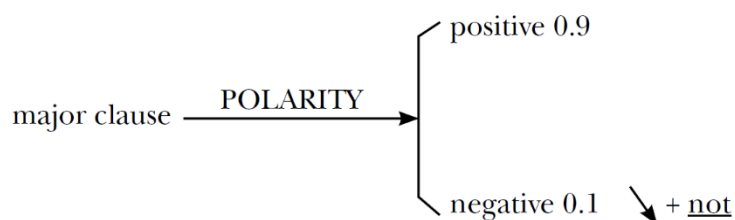


Figure 5.4: The system of POLARITY (from Halliday, 2009, p.65)

In the system of POLARITY, the entry condition is "major clause". The arrowhead next to this entry condition indicates movement from left to right into the system of POLARITY (denoted by the label 'POLARITY' above the line). This movement from left to right symbolizes the process aspect of systems. If the entry condition is met (i.e. if the clause is "major") 'then select either positive or negative (stated procedurally), or every major clause is either positive or negative (stated descriptively)' (Halliday, 2009, p.65). This principle of paradigmatic choice means the analyst describes the system and not the realization (syntagmatic choice):

'[w]e do not describe "negative", or "negation" [...] we describe POLARITY. We do not describe "passive"; we describe VOICE. We do not describe the "definite article"; we describe the system of NOMINAL DEIXIS [i.e. DETERMINATION]. And so on.' (Halliday, 2009, p.66).

In other words, in examining writing as it unfolds we are looking not at the sequence of words being produced, but at the possible¹² language choices (or systems) that the writer is making, and how they contribute meaning to the unfolding text.

Although, this introduction to SFL has been necessarily brief, there are additional elements that will be introduced as the need arises. To summarise what we have covered so far, though, we can say that SFL sees text as 'organised internally as patterns of logical, experiential, interpersonal and textual meaning' (Halliday & Matthiessen, 2013, p.43), where a 'person's personalised meaning potential is thus the aggregate of those registerial meaning potentials that he or she has mastered' (Matthiessen, 2009, p.219). Here, the ability of language to simultaneously map different meanings onto the same structure is explained in reference to a dimensionally based view of the architecture of language, where abstract hierarchies (or strata in SFL terms) are organized according to the principle of realization (construal vs. activation): From above (movement down through the strata), realization is said to 'activate' the level below, thus semantics activates (is realized by) lexicogrammar. From below (movement up through the strata), realization is said to 'construe' the level above, thus lexicogrammar construes semantics. This dialogic, two-way realizational relationship is the foundation by which language is both social

¹² These language choices are, of course, somewhat constrained by the sequence of words that surrounds them, otherwise there is the potential for a string of nonsensical language to be produced.

semiotic (downwards activation) and socially dependent (upwards construal).

5.3 Sampling selection

5.3.1 Participants

Participants were two 2nd year, female undergraduates aged 19 years old. They were recruited via word of mouth, targeted emails, advertisements on campus, classroom visits, etc. In an attempt to control for genre and subject-matter knowledge, I screened participants for a 'high' achievement level (avg. grade of +65% in previous essays), and sampled only undergraduate 'Essays' in the field of linguistics. Participants were also screened for language impairment(s) (e.g. dyslexia) and the use of a computer that ran Windows. Several other participants took part in the data collection part of the research, but their datasets were either incomplete (i.e. they had missing writing sessions--IDFX files), or they did not receive a final grade of over 65% for their essay. Consequently, this study only examines the data from the two writers who provided a full record of their activity, and met the above requirements.

I limited my examination to two UK undergraduates for three reasons: (i) Using students from one country (and the same L1) should reduce variability, especially when both students come from state run education systems; (ii) UK undergraduates are the largest demographic of students in UK universities; (iii) Being a recent undergraduate, this gave me access to, and insider knowledge of, the context surrounding the research; and (iv) choosing to examine two writers rather than one, opened up the possibility that different writing 'signatures' (cf. §2.3) and writers' practices could be studied.

5.3.2 Raw Data

To provide a credible and significant contribution, it was important to use naturally occurring, learner output as primary data¹³. Thus, being able to use undergraduates' actual essays (and what they did while composing them) was of utmost importance. Although students produce many texts at university, only one genre-family was selected for analysis (the Essay). This was based on the Essay being both a high-stakes genre and the most frequently produced text-type across study-levels and disciplines (cf. §4.3). Ultimately the choice to focus on one distinctive, frequent, and highly valued piece of writing was a form of purposive (or criterion based) sampling¹⁴.

¹³ I see learner output as the best measure of language development/ability.

¹⁴ Purposive sampling is non-random, small, and provides theoretically grounded 'rich' data.

Two types of data were collected and organized according to participant and chronology:

5.3.2.1 Product data (type 1): Finished texts and grades

This data represented the students' final draft(s) of each essay—i.e. the actual essay(s) that they handed in for assessment—and took the form of MS Word Document files. Four essays were deemed suitable for analysis as they received grades over 70%¹⁵, and their accompanying KSL files were the most complete and appropriate¹⁶. This approach aimed to (1) combat problems related to assessing text quality (de Larios, Murphy, & Marin, 2002; Schoonen, 2005; Van Weijen, 2009, p.109), because the subjects' actual grades were used as a measure of writer ability (it was also thought that higher-rated essays would encompass the expected linguistic features, as per Gardner and Nesi's assumptions (2013)), and (2) address the ethical issues surrounding inappropriate data collection (cf. §5.8).

All four essays were approximately 1600 words (not including references). Three were collected from one participant (JD), and one essay from another participant (BB). To maintain anonymity and as a means to match the essays with their corresponding Inputlog datasets, these were labelled as 'JD1: Essay', 'JD2: Essay', 'JD3: Essay', and 'BB: Essay' (cf. *Appendix 5: Finished essays*).

5.3.2.2 Process data (type 2): Writing episodes

This data represented each student's interactions with their computer as they composed their essays, and consisted of Inputlog recordings containing detailed timestamp information about keystrokes and mouse movements made within MS Word, and focus events (programs used, websites visited, etc.). These recordings took the form of 28 .idfx files, or 56 hours 18 minutes of computer based activity, of which 11 hours 40 minutes was spent within MS Word. These .idfx files were anonymised as per the product data (above) and used to generate other file types (.xml, .txt files, etc.) using Inputlog's various analyses functions¹⁷. For example, via its 'source analysis' function, Inputlog provides data on users' application habits (or 'focus events'), such as the time, frequency, and duration spent in a program/webpage. This makes it possible to chart what programs/sources writers use, seek out, consult, and how long/often they do so.

5.3.2.3 Matching up data types

Inputlog recorded the composition of each essay in individual folders, and labelled the resultant IDFX files chronologically; for example, the very first writing session by JD was labelled 'JD_1'. However, in some instances the participant would start/stop the recording process without

¹⁵ Essays were independently rated according to Cardiff University's analytic scoring rubric.

¹⁶ I.e. these sets of KSL files were mostly uncorrupted and contained no personal information .

¹⁷ Screenshots can be seen in Appendix 6, whilst the full list of files used is contained on the appendix CD.

typing anything (probably due to an error in the program not opening their Word Document). In such instances, these datasets were empty and discarded. For full transparency, the corpus of raw data used and subsequently analysed (coded data) can be seen in *Appendix 6: Sampling matrix of data*.

5.4 Research site

In this study the research 'site' (contextual boundary) was both material and abstract.

5.4.1 Material site

The physical space surrounding text production comprised a large university in the UK. Both participants were enrolled fulltime on an English Language studies degree. The task environment varied: Sometimes the participants worked on their essays at the university (in the library or canteen), but mostly they worked at home, in isolation. Both participants used laptops with 15" screens, and both reported that they always worked on a desk/table rather than on their laps. Neither participant printed off copies of their work until the final draft (they both preferred to edit/write directly on the computer). Participants had at their disposal material artefacts such as digital and printed texts in the form of textbooks, articles, etc., which they used to augment the content of their essays in terms of quotes, ideas, opinions, etc.

5.4.2 Semiotic site

The abstract space surrounding writing is often overlooked in research. The largest (yet most implicit) space is that of language, which in this study is primarily engendered in a triadic exchange between the writer, their own text, and the content of other texts (most visible in reference lists and digital sources revealed via KSL data). The abstract space, then, is the meaning-making potential afforded by a complex interplay of topic knowledge, linguistic repertoires, heteroglossia, dialogism, and the logogenesis of text—any of which may be manifested physically (printed text) or virtually (digital world).

Symbolic artefacts (abstract mediating tools) may or may not be immediately recognizable as mediating the writer's thoughts and actions, yet they still provide a functional contribution to the writing process. These include the myriad of semiotic signs present in model texts (generic layouts¹⁸, technical lexis, etc.), and the re-contextualisation of knowledge through the unfolding

¹⁸ For e.g., BB's possessed knowledge of the layout of an Exposition as evidenced by her use of section headings before she had even begun adding content.

of the students' own text (Galbraith, 2009).

5.5 Data collection

5.5.1 Product data

Completed essays and their grades were stored in a password protected folder on a dedicated file storage server on the internet. The files were also backed up on a secure memory stick.

5.5.2 Process data

During an initial meeting with each participant, the functionality of Inputlog was explained and participants were told that it would record their computer-based activities when, and only when, they set it to record. And only then would it record what they typed within MS Word and the time spent in various windows (aka focus events). I gave each participant an information sheet (*Appendix 1*), and written instructions on how to use Inputlog (*Appendix 7*). Once they had read and understood the information and instruction sheets¹⁹, I installed a modified version²⁰ of Inputlog on their computers. This enabled me to collect data without having to be present, and allowed the participants to work on their essays whenever and wherever they pleased.

Participants were instructed to start Inputlog before opening their essays. Once Inputlog started they selected the 'record previous file' option and clicked 'Record'; this procedure opened their document (Wordlog.docx) from within Inputlog. At the end of each recording session they saved this document and selected 'Stop Recording' on Inputlog's user interface. This action generated an IDFX file for that particular writing session, which was stored in a folder created by Inputlog on the participants' computers. Upon each essay's completion, these folders were transferred to me via a USB memory stick during a face-to-face meeting with each participant.

5.6 Validity and reliability

Validity and reliability go hand-in-hand with credibility, and all three depend on the likelihood, trustworthiness, and verisimilitude of findings. Credibility comes through replicability, accuracy, and consistency. In qualitative studies, credibility can be enhanced through *thick description*, *crystallization*, *multivocality*, *member reflections*, and *transparency* (Tracy, 2013, p.235).

¹⁹ Participants were repeatedly afforded opportunities to ask questions.

²⁰ For ethical reasons (cf. §5.1) Inputlog was modified was altered so that it only recorded keystrokes within an MS Word document labelled 'Wordlog.docx'.

Thick description refers to my task, as a researcher, to provide a full enough account of participants' social actions (or behaviours), so that I may credibly assign rational purpose (motivation) and intentionality to these actions (Geertz, 1973). As Ponterotto (2006) puts it, thick description is the root of the tree, thick interpretation its trunk, and thick meaning its branches. It is my aim to successfully bring these three strands together to give you (the reader) a stronger sense of verisimilitude as you progress through this thesis, showing you the complex specificity and circumstances surrounding the data so that you may draw your own conclusions, which will hopefully align somewhat with mine.

Crystallization is a metaphor for reticulation of data, and in the words of Richardson (2000)

'combines symmetry and substance with an infinite variety of shapes, substances, transmutations, multidimensionalities, and angles of approach. [...] What we see depends upon our angle of repose.' (p.934)

Accordingly, this study brings together a quartet of 'angles': Participant perspectives (multivocality via teacher, student, researcher standpoints²¹), research methods (quantitative, qualitative, ethnographic), data collection (a bricolage of process, product, and contextual information), and multi-perspective analyses (top-down and bottom-up). The purpose of crystallization, then, is not to corroborate or converge findings, but to shed light on different aspects of the same phenomena—a complementarity of angles oriented to discovery rather than predetermined outcomes.

Member reflections include member checks, validations, and verifications. They bring insider perspectives to bear on a phenomena, and are thus a powerful methodological tool in interpretive research (Tracy, 2013, p.238). In this study I use member reflections to not only check the interpretation of data, but also to elaborate on previously overlooked themes. This was primarily achieved through informal meetings/emails with the participants.

Transparency is marked by disclosure of the study's challenges, unexpected twists and turns, and revelations of the ways research foci transformed over time. Transparency also means that credit is given in terms of acknowledgements to participants, funding sources, and supportive colleagues. Firstly, the research was part of an ESRC Doctoral Candidature program that provided full funding for this particular 'research problem'. Consequently, the focus of the thesis was somewhat rigidly set from the outset, and thus, whilst the design changed throughout the course of the research²², the initial set of research questions and main focal points did not. Secondly, my

²¹ These are assessed grades/feedback, participants' data, and my assumptions/views (cf. section 5.7).

²² Primarily due to ethical reasons and the quantity of the data provided by Inputlog.

insider perspective²³ meant easier entry into the field of study, increased understanding of the participants' task(s), and gave me a head start in understanding written Academic English, and how some writers compose on computers.

5.7 Data analysis

The data analysis was inductive, in that it looked for and described observable patterns, rather than testing hypotheses or drawing deductions. Furthermore, whilst my perspective was primarily emic, the analysis was decidedly 'iterative' (as opposed to 'grounded') in that it 'alternates between emic, or emergent, readings of the data and an etic use of existing models, explanations and theories' (Tracy, 2013, p.184). This decision was based on the belief that researchers are neither fully insider (emic) nor outsider (etic), but are temporarily and precariously positioned, where space, time, and context all contribute to the fluidity of perspective (Eppley, 2006).

5.7.1 Product analysis

Text analysis moved from quantification to explication to revelation. In this view, text linguistics (bottom-up perspective) was used in tandem with discourse analysis (top-down perspective). This analytic approach was primarily informed by SFL, drawing on functional grammar (Halliday & Matthiessen, 2013), discourse semantics (Martin & Rose, 2007), and indirectly register and genre theory (Martin & Rose, 2008). As Halliday (2009) states:

'[To] contextualize a problem — and ourselves in relation to it — [...] means taking up a descriptive stance — or rather, moving among a number of different stances, to achieve a “trinocular” perspective on various dimensions.' (p.79)

Accordingly, the analysis maps metafunctions (ideational, interpersonal, and textual) across strata (graphology, lexicogrammar, and discourse semantics), with context modelled as the stratification of register and genre (as per Martin, 1992). As Tracy (2013) eloquently states:

'theories serve as sensitizing concepts that help direct attention to meaningful data [...] they provide guidance and potential organizational frameworks.' (p.50)

Consequently, the linguistic analysis aimed to reveal the transformations that text, and the language contained within them, went through as these two students integrated new levels and forms of understanding concerning the texts they produce and consume.

²³ Having recently completed a similar degree at a university close by, and as a current PG student in the same department as both participants, I clearly had insider knowledge that other researchers may not have.

The first step in this process was to code the finished essays in terms of a thematic analysis, resulting in a set of 'synoptic texts' (*Appendix 8*).

In line with most functionalists²⁴, I examine Theme at the level of the T-unit: An 'independent conjoinable clause complex' (Fries, 1995, p.49). This approach is founded on the notion that the progression of text stems from the 'thematic structure of independent clauses' (Halliday, 1994, p.61). Accordingly, paratactic clauses are analysed separately for Theme, while hypotactic clauses are analysed for one Theme only²⁵: Clause-complexes were delimited as follows:

1. Each text was divided into T-units (roman numerals denoted paratactic relations).
2. The main verbal group (Process) was identified.
3. The main Process and any associated Participant(s) were demarcated (the main process marked the beginning of the Rheme).
4. Other elements were assigned component functions according to the view below.

To be clear from the outset, this thesis does not adopt the view of Theme espoused in IFG4 (2013). Instead, it agrees with a number of scholars (e.g. Berry, 1995; Enkvist, 1987; Fawcett, 2003) in that it includes everything up to, and including, the Subject as part of THEME (as per Halliday's (1967, p.219) initial position). The rationale behind this decision is based on the belief that when examining aspects of theme in complex written texts (i.e. academic essays), thematic choices are best seen as realizing two threads of meaning: Subject theme positions a text in relation to its participants (typically functioning to help maintain a topic), whilst other themes function as 'circumstantial frameworks' (Downing, 1991) or 'Contextual Frames' (Davies, 1997), positioning a text's purpose in relation to context and co-text. Moreover, a maximal approach to theme makes results cross-comparable, as minimal Theme (i.e. Halliday's current view) can be drawn out if need be.

Secondly, I have chosen to include a Rheme/N-Rheme divide based on the assumptions of Fries (2002, p.125) that: (1) efficiently written text should be sequenced to take into account the same cognitive resources as speech, and (2) the best place to highlight information—typically that which we present as 'New' in speech—is at the end of a clause, because the last major 'item' we read tends to be the most salient piece of information we carry with us (often referred to as the 'end-weight' principle). Ultimately, this approach attempts to address the following concerns: (1) that 'the process lies inbetween the peaks of textual prominence' (Matthiessen, 1995a, p.516) and, as such, it is often overlooked when analysing THEME/RHEME choices; (2) thematic and

²⁴ The notable exception being Matthiessen (1995a, 1995b).

²⁵ This approach also accounts for the placement of fronted dependent clauses as Theme.

information structures are inherently continuous, as illustrated in figure 5.5:

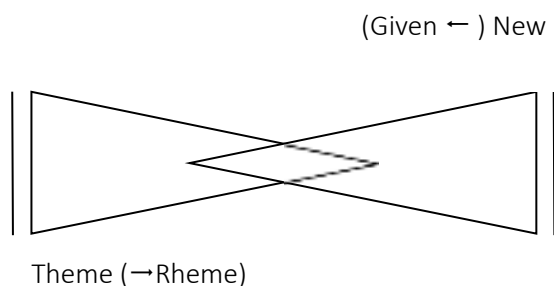


Figure 5.5: Information flow in the English clause (Halliday, 1994, figure 9-6)

And (3), mapping grammatical constituents onto functional elements (particularly ones that carry discourse semantic prominence) is intrinsically problematic (cf. Martin, 1995).

In terms of THEME/RHEME choices, then, each T-unit was partitioned into four component parts, split between the point of departure and the development of the clause²⁶. This arrangement is shown in figure 5.6, which displays 2 T-units, or 4 independent clauses:

T-unit	Point of departure: THEME → →		← ← ← ← ← ← Development of clause: RHEME		Theme selection			
	Theme	Subject Theme	Rheme	N-Rheme	text	Int.	Prog	M/U
1		Research	has looked at	how it has an affect on our daily interactions with family and friends.			HT	
2i	Although	there	are	many aspects of politeness,	+	-	EC	-
2ii		I	am particularly	interested in looking at face-threatening acts	-	-	-	-
2iii	and how	they	are	mitigated.	+	-	↗	-

Figure 5.6. Coding system for textual analysis

The point of departure represents choices in THEME, which are realized in two functional 'slots': (i) **Theme**, which can be occupied by Interpersonal/textual/marked themes. Interpersonal themes included modal and mood marking elements, grammatical metaphors in the form of it-clauses followed by extraposed subjects (Martin, 1995, p.244; Thompson, 2004), and projecting clauses that conveyed an element of opinion, as per Davies (1997) and Martin and Rose (2007). Textual themes incorporated conjunctive, structural, or continuative elements. Marked themes were any ideational element that was not congruent with the grammatical Subject, including if clauses, circumstantial adjuncts, and fronted dependent clauses. And (ii) **Subject Theme**, which is occupied by the Participant tied to the main process²⁷ (cf. Appendix 9 for the classification criteria of each

²⁶ The systemic selection of experiential, interpersonal, textual, and/or marked theme within the Theme component is noted on the right-hand side of the table: Realizations were either present (+) or absent (-). Thematic progression (prog) was signified via block arrows, as per Berry (1995).

²⁷ Hence this element may be ellipsed in some instances.

type). The development of the clause represents choices in RHEME, which also has two functional 'slots': (i) **Rheme**, which is where the verbal group denoting the main process is realized, and **N-Rheme**, which are those elements that proceed the main verbal group, and are believed to be that which the writer portrays as most 'newsworthy' (Fries, 2002). The retrospective arrows accompanying RHEME indicate that informational prominence is continuous, not discrete; conversely, a prospective arrow accompanies THEME.

5.7.2 Process analysis

To prepare the raw data for analysis, the IDFX files were first filtered for unwanted noise. Activities were considered noise when they did not directly or indirectly relate to the main task of composing. For example, if a participant took a break to browse a social website, this was recoded as 'downtime', and was coded as such. Typos, spelling mistakes, and false starts were omitted from analysis; only amendments made at the morpheme level and above were included.

I then used the synoptic texts generated from the product analysis (§5.7.1 above) as a starting point from which to isolate writing activity; i.e. to reveal the logogenesis of each text, I started with the synoptic texts and used KSL data to fill in the 'blanks'. Specifically, I used Inputlog's 'Analyze' function to generate the following analysis files for each IDFX file: Linear analyses, Revision matrix, and S-notation (Kollberg, 1998). This resulted in XML based text files that gave detailed information on mouse movements and keys pressed (linear analysis) deletions and insertions made (revision matrix), and locations in the text where amendments were made (S-notation). In combination with Inputlog's playback facility and the synoptic texts, these files allowed me to (re)construct a detailed picture of what each writer did as they composed their essay(s), filling in linguistic realizations that were absent from the synoptic texts. Screenshots of this montage of sources can be seen in *Appendix 10*.

During my (re)construction of each text, I categorized revisions according to **time** (sequence), **place** (movement within the text), **rank** (constituent level realization), **language function** (experiential, logical, interpersonal, and/or textual), **lexicogrammatical system** (e.g. MOOD, CLASSIFICATION, etc.) and, where relevant, **semantic type** (i.e. expansion/projection, which will be explained as the need arises).

5.7.2.1 Coding revisions for time and place

Temporally, revisions were numbered chronologically: Revision 1 was the first revision a writer made, revision 2 the next, and so on. Movement away from the leading edge (cursor position) was signified by standard numbers within braces. For example, {23} signalled that the writer moved away from this position in the text and made revision number 23. The corresponding

revision (i.e. revision 23) was signified by a matching superscript number ²³{revision}—the content of the revision being contained within braces. This allowed me to code revisions as follows:

1. Forward progressions (FP): Revisions made within the functional component currently being realised. Revision 116 below exemplifies an FP as the revision remains within the N-Rheme:

T-unit	Theme	Subject Theme	Rheme	N-Rheme
54		She	also found	a contrast ¹¹⁶ {in turn-taking} _{FP} {116} in pupils 'talking out of turn' (2004:292).

2. Commutative progressions (CP): Revisions made within the currently being realised clause but across component boundaries²⁸. Revision 95 below exemplifies this as the revision crosses over from Rheme to Subject Theme:

T-unit	Theme	Subject Theme	Rheme	N-Rheme
8	By using social media,	⁹⁵ {it it	uses gives _{CP}	a sense of relating to the whole the population.

3. Forward revisions (INSA): Revisions made at some location in advance of the cursor's (leading edge) last known position, but outside the currently being realised clause. Revision 227 below exemplifies this, as the cursor position prior to this was at T-unit 26.

T-unit	Theme	Subject Theme	Rheme	N-Rheme
38	Traditionally,	the mother	will care for and attend to	her own child, establishing a close ²²⁷ {mother-child} _{INSA} bond.

4. Backward revisions (INSB): Revisions made at some location before the cursor's last known position, but outside the currently being realised clause. I.e. these are the opposite of INSAs.

A catch all category of insertions (INS) was also used for revisions that occurred when no data was available for the cursor's last known position. This was primarily due to KSL data that was for some unknown reason corrupted in terms of positional data.

The revision type was signified by subscript letters after the braces. For example, if the revision was a forward progression, FP would be placed in subscript after the revision: ²³{revision}_{FP}. The inclusion of revision information resulted in a set of 'dynamic texts' (cf. *Appendix 11: Dynamic texts*). Revision types will be further explained in the next chapter, alongside detailed examples.

5.7.2.2 Coding revisions for language choices

In order to increase the robustness of the coding scheme, I made use of the various lexicogrammatical systems expounded in IFG4. By cross referencing a revisions rank level realization and its function, I could pinpoint which lexicogrammatical system it involved²⁹.

²⁸ For example, movement from Theme to Rheme within the same T-unit was coded CP.

²⁹ Some revisions had more than one function as will be shown in the following chapters.

Rank	Class	Logical	Experiential	Interpersonal	Textual	(cohesive)
clause		-	TRANSITIVITY (process type)	MOOD	THEME *CULMINATION	
group / phrase	nominal	TAXIS (INTERDEPENDENCY) & LOGICAL-SEMANTIC RELATION: <i>Enhancing</i> <i>Elaborating</i> <i>Expanding</i> <i>Projecting</i>	THING TYPE, NUMERATION, CLASSIFICATION, EPITHESIS & QUALIFICATION	PERSON ASSESSMENT **nominal MOOD *ATTITUDE	DETERMINATION	REFERENCE, ELLIPSIS & SUBSTITUTION
	verbal		EVENT TYPE ASPECT (non-finite)	POLARITY, MODALITY *FINITENESS	CONTRAST, VOICE *DEICTICITY	
	adverbial		MODIFICATION	**CIRCUMSTANCE TYPE *QUALITY	COMMENT TYPE	CONJUNCTION TYPE
	prep. phrase		-	minor TRANSITIVITY (Circumstance)	minor MOOD (mood Adjunct)	*CONJUNCTION
word		DERIVATION	DENOTATION (lexical content)	CONNOTATION (lexical register)		
info. unit		*ACCENTUATION		KEY		¹ INFORMATION *INFO. FOCUS
tone group		TONE SEQUENCE; TONE ACCORD		TONE	TONICITY	
		complexes		simplexes		

Table 5.3: Table of lexicogrammatical systems

For example, consider revision 82 from BB's dataset:

T-unit	Content
21iv	and helped ensure the continued use of ⁸² {vernacular} _{FP} {82} English ⁸³ {at times} _{FP} {83} during times it was greatly threatened, such as during the Norman Conquest.

Example 5.1: Revision 82 from BB

In this example, revision 82 deletes the adjective 'vernacular'. In terms of rank, this revision directly affects the nominal group 'the continued use of vernacular English'. In functional terms, it is experiential because it orients to field (or the construal of reality)—it provided further information about what kind of English the writer was referring to, rather than a personal judgement on something. In terms of systemic choice, we can cross reference this revision's rank (nominal group) and function (experiential) and see that it concerns one of the systems located in the corresponding square, as shown in figure 5.7:


Rank	Class	Logical	Experiential	Interpersonal	Textual	(cohesive)
Clause						
 group / phrase	nominal		THING TYPE, NUMERATION, CLASSIFICATION EPITHESIS & QUALIFICATION			
	verbal					
	adv.					
	prep.					
word						
info. unit						
tone group						
		complexes	simplexes			

Figure 5.7: Function-rank matrix

Upon closer examination, we see that this adjective was functioning as an Epithet³⁰, modifying 'English' and, thus, representing a choice in EPITHESIS.

The revision number (sequence), location (T-unit and functional component), content, linguistic analysis (rank, function, systemic choice), and type were extracted from the dynamic texts and entered into a 'Revision analysis matrix' for each dataset. An example of how one revision would be isolated in this fashion is shown below:

³⁰ 'vernacular' being descriptive rather than categorizing, which would represent a choice in CLASSIFICATION.

	Point of departure: THEME →→→→→	←←←←← Development of clause: RHEME			Theme selection		
T-unit	Theme	Subject Theme	Rheme	N-Rheme	text	Int.	Prog/M/U
54	6 th paragraph 90 ^{131} {As well as building on Goffman's work _{132} } _{INSA131} {19 ^{131} } _{INSA1901} {S ^{CP} T57 ^{131} } _{INSA124}	Brown and Levinson	also ¹³² {built developed	their ²⁴⁵ {argument theory ^{246} } _{INSA} based {q ^{CP} T56ii ^{132} } _{CP132} on Grice's maxims ¹⁵² {, as did . {153} _{CP} ¹⁵⁵ {, as did ^{155} } _{INSB155} Geoffrey Leech.	-	-	-

Rev	T	Content	Description	Loc	Type	Rank	Function	System
131	54	As well as building on Goffman's work,	Adds 'As well as ...' = ~minor TRANSITIVITY: +[Circumstance ((non-finite clause): extending: accompaniment: additive], and = ~THEME SELECTION: +[marked Theme ((fronted dep. Clause)]	T	INSA	Phrase Clause	Exp. (+) Text. (+)	minor Trans. Theme

Example 5.2: Creating a revision analysis matrix (master spreadsheet)

In the above example, revision 131 is extracted from JD1's dynamic text and entered into a 'Revision analysis matrix': The 1st column of the matrix lists the revision number, the 2nd column lists the T-unit where the revision took place, the 3rd column contains the revision's content, the 4th column the linguistic description (qualitative analysis), and so on. This matrix took the form of an excel spreadsheet, and was the basis from which revision data was quantified and further explored as part of an MS Excel Workbook entitled 'Revision Table (JD1)' for this particular dataset (cf. Appendix CD).

Identically laid out Workbooks were created for each of the three remaining datasets and labelled 'Revision Table (JD2)', 'Revision Table (JD3)', and 'Revision Table (BB)'. These Workbooks contained the analysis, findings, and graphs that informed the three discussion chapters that follow this chapter. For example, to explore metafunctional choice in revision activity, a spreadsheet called 'Metafunction matrix' was created in each Workbook. This spreadsheet isolated revision activity in terms of its functional contribution to each text (column 8 of the Revision analysis matrix above, labelled 'Function'), and looked at the overall number of functions added or removed (explored in §7.1), as well as the unfolding of functions (a running total, as explored in §8.1).

5.8 Researcher bias and assumptions

The desired perspective of the researcher is inductive and emic, in that I believe understandings should emerge from the field of study (Tracy, 2013, p.21). However, there are a number of personal factors that not only drove me to conduct this research, but also impacted on my understanding of undergraduate writing. These are as follows:

Firstly, being a recent undergraduate³¹, I had a number of preconceptions regarding academic writing. These included:

1. Essay writing is solitary and altruistic—students do not typically share how or what they write.
2. To get a good grade you must:
 - i. Show evidence of targeted, wide, reading (primarily reflected in a references list).
 - ii. Use clear signposting throughout, making your ideas visible and easy to follow.
 - iii. Identify weakness in your work and justify why they were not addressed.

Secondly, because linguistics was not my first degree³², I am acutely aware of the differing expectations (most of them implicit) across disciplinary fields, leading to the following assumptions:

1. Academic writing primarily develops through a pedagogy of osmosis.
2. This osmosis is primarily engendered through textual borrowing, discourse synthesis, and exposure to 'model' texts.
3. Practice makes perfect—the more you write disciplinary texts, the better you get at it.

Summary

This methodology chapter outlined how this thesis examined an underlying 'Research Problem' (cf. Chapter 1). It did so using Tracy's (2013) eight 'big tent' criteria of excellence in qualitative research as guiding tenets, so as to increase the study's resonance, contribution, richness, transparency, credibility, as well as its procedural, situational, and relational ethics. Accordingly, the chapter introduced the underlying assumptions, decisions, and theoretical framework that informed the research design, sampling selection, and the collection, handling, and analysis of the data. The results of which are presented and discussed in the following three chapters.

Chapter 6 moves us away from theory (Chapters 2-4) and design (this chapter), and begins our investigation of the 'Research Problem'. More specifically, it investigates the first set of RQs, which centre on the theme of 'how students write'. It is here that we begin the presentation and discussion of the data by contextualizing and quantifying it in terms of the mechanics of writing. I.e. we will examine these students' writing 'practices', the when and where of their revisions, and the types of revisions they used.

³¹ I graduated in 2012 with a degree in Language studies and TEFL.

³² I spent 10 yrs. working as an engineer.

Chapter 6 How students write

Introduction

The broad theme underlying this chapter is 'how the two students in this study wrote their essays'. It is here that we will explore the first set of research questions set out in Chapter 1, which were:

- 1(a). What 'practices' do students use when digitally composing text?
- 1(b). When (sequentially) and where (within the clause) are these practices employed?
- 1(c). Which practices (if any) are relatively stable, and which appear to change over time?
- 1(d). Do 'good' writers converge on similar practices?

These four questions are addressed separately in the following four sections: section 6.1 focuses on what 'practices' the two students used when digitally composing text. The term 'practices' refers to how text was added or removed from a document, and includes both normal typing (non-interrupted bursts of activity) and revision activity (movement away from the leading edge). It is in this section that we will see how the writing process of these two writers was spread out over a number of sessions/days, where revision types (FPs, CPs, INSAAs, etc.) were used in varying frequencies. Section 6.2 focuses on when and where revisions occurred. The discussion(s) in this second section, then, revolves around the sequencing (temporal placement) and location (spatial placement) of revisions. It is here that we will see how certain revisions types are more likely to occur at the start of composing (FPs), whilst others exhibit little patterning (INSBs and CPs). We will also see how the majority of revisions came toward the end of clauses, within the functional slot of N-Rheme. Section 6.3 explores if certain revision types are more likely to be employed at the start/middle/finish of composing and, if so, why? This section, then, builds on the findings of §6.2 by examining stability and instability in each dataset and each writer in an effort to address RQ 1(c). The final section (6.4) considers if any of the 'practices' discussed so far (i.e. normal production and revision activity) show any signs of 'stability' across writing sessions, across writers, or across texts, and, if so, what are the implications of such 'stability'? This section confirms the findings of the previous sections by providing more evidence that the two writers go about writing in two fundamentally different ways.

6.1 The evolution of digital text

In this section we examine JD and BB's writing practices in terms of normal production practices (i.e. where typing was uninterrupted and no movement away from the leading edge occurred), and revision types (as outline in Chapter 5, §5.7.2). This section, then, attempts to answer RQ

1(a): What practices (e.g., revision types) do students use when digitally composing text? And it is organised as follows: each dataset is given its own sub-section, which begins with a general overview of compositional activity (e.g., duration of each writing episode, time spent typing, no. of words typed, revisions made, etc.). Each sub-section then moves on to consider the frequency of revision types, and explores why some types are more frequent than others.

6.1.1 JD's first essay

Overview

JD's first essay was 'How are face-threatening acts mitigated in interactions between friends/family?' It was produced in 7 sessions, spread over 13 days. Table 6.1 summarizes its construction:

Session (IDFX)	Date	Time spent on computer	Time spent typing	Duration% Cumulative	Duration% Sessions	Words typed	Functional revisions
1 (1)	11/03/2015	01:54:53	00:42:31	22.55	22.55	994	52
2 (2)	12/03/2015	02:38:14	00:34:23	31.06	53.61	598	63
3 (5)	12/03/2015	01:31:42	00:20:50	18.00	71.61	476	37
4 (6)	12/03/2015	00:25:47	00:05:17	5.06	76.68	120	14
5 (7)	13/03/2015	01:10:13	00:13:27	13.78	90.46	314	52
6 (9)	13/03/2015	00:18:09	00:00:41	3.56	94.02	8	2
7 (18)	24/03/2015	00:30:27	00:01:40	5.98	100.00	32	12
Total		08:29:25	01:58:49	100.00		2542	232

Table 6.1. General overview of document construction (JD1)

Table 6.1 shows that this essay was constructed (or written) in 8hrs 29 mins (total time spent on computer), with 1hr 58 mins spent typing in MS Word. These figures represent only the time the student spent on the computer, and does not reflect time they may have spent researching the subject matter, looking for material sources (e.g. books), etc.

We can see from table 6.1 that the majority of text (2068 words, 81% of the total word count) was added in the first three writing sessions, which amounted to 71.6% of the total time spent working on the essay. During these first three sessions, 158 functional revisions were made (functional revisions are changes made to the text at the morpheme level or above). Compositional activity then tapered off, with JD typing just 474 more words and making 74 functional revisions in the remaining 4 sessions. The majority of this essay's content, then, appears to have been added over the first two days (four writing sessions).

Moving away from text production, figure 6.1 below is a network graph of how JD's time was distributed amongst different activities, or 'focus events'. The circles represent events (windows/programs) and the lines connecting them represent movement between them. The size of the circles is relative, and represents the time spent within each focus event—the larger

the circle the more time spent on that event. Similarly, the thickness of the lines connecting the events represents the number of times JD switched between events—the thicker the line the more movement between the events.

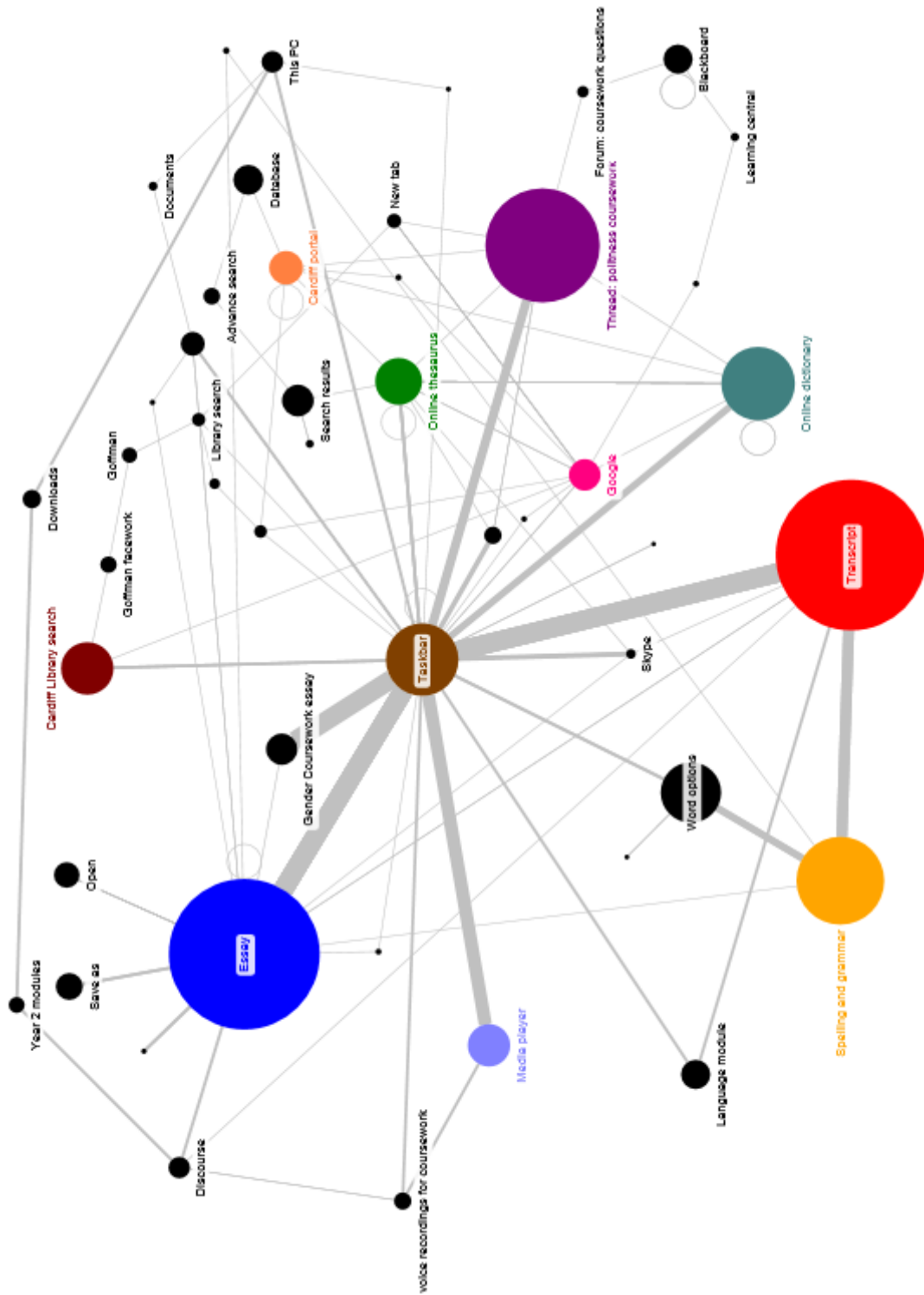


Figure 6.1: Focus events (JD1)

Figure 6.1 shows how the majority of JD's time was spent working on the Essay and a 'Transcript' (JD's main source of supporting evidence). Figure 6.1 also shows how JD used ancillary sources, such as the University's online module forum ('Thread: politeness coursework'), an 'Online dictionary', 'Cardiff Library search', 'Google', etc. What is perhaps most surprising here is that JD appears to do little in the way of online 'downtime' on her laptop (Leijten, Van Waes, Schriver, & Hayes, 2014), such as accessing social networking sites, emailing, etc.¹ (as a stark comparison we will consider BB's events in §6.1.4, and discuss reasons as to why this may be in §6.4.2).

Ultimately, whilst we cannot definitively say what kind of writer JD is from this brief section, it gives us valuable insights into how she wrote this essay. These insights will become clearer after we have considered the other three datasets in later subsections.

Revision types

As a reminder from Chapter 5, the revision types used in this thesis are: *Forward Progressions* (FPs), *Commutative Progressions* (CPs), *Backward Insertions* (INSB), and *Forward Insertions* (INSA). If it was impossible to classify a revision as one of these types (e.g. if it was impossible to tell where the cursor's previous position lay), then it was labelled *Insertion* (INS).

Table 6.2 shows the distribution of these revision types in JD1:

Session (IDFX)	FPs		CPs		INSAs		INSBs		INSBs		Total
	Count	%	Count	%	Count	%	Count	%	Count	%	
1 (1)	30	57.69	3	5.77	15	28.85	4	7.69	0	0	52
2 (2)	18	28.57	12	19.05	25	39.68	7	11.11	1	1.59	63
3 (5)	7	18.92	5	13.51	18	48.65	7	18.92	0	0	37
4 (6)	5	35.71	4	28.57	3	21.43	1	7.14	1	7.14	14
5 (7)	11	21.15	8	15.38	24	46.15	5	9.62	4	7.69	52
6 (9)	1	50.00	0	0.00	0	0.00	0	0.00	1	50	2
7 (18)	0	0.00	0	0.00	10	83.33	1	8.33	1	8.33	12
Total	72	31.03	32	13.79	95	40.95	25	10.78	8	3.45	232

Table 6.2: Frequency of revisions types (JD1)

Table 6.2 shows that in JD1, JD made a total of 232 functional revisions, of which INSAs were the most frequent ($n=95$), followed by FPs ($n=72$), CPs ($n=32$), and then INSBs ($n=25$).

INSAs are revisions made in advance of the cursor's last known position, but outside of the currently being realised T-unit. I.e. they can only occur in text that has already been written and, as such, they typically reflect revising whilst reading. For example, consider example 6.1, which shows two INSAs²:

¹ As we will discuss later on, although such 'downtime' may have taken place on a smartphone, or tablet, this still does not distract from the fact that JD spent half as long working on her computer as BB did.

² For the following example, and all that follow, I have stripped out any revisions that came before or after the revision(s) we are analysing.

	Content			
T-unit	Theme	Subject Theme	Rheme	N-Rheme
22i	It could be argued that	J's need to be admired	is	particularly prominent here
22ii	as	she	would be seeking	some sort of acceptance from her father ²³⁹ { . , wanting to know that he is proud of her {240}} _{INSA}
27i		N ,although doesn't say much,	tries to defend	himself by explaining who he was impersonating, by using the term 'mun'
27ii		²⁴⁰ { which	is	Welsh slang for 'man' {241}} _{INSA} often used for emphasis

Example 6.1: Two forward revisions (INSAs)

If we recall from Chapter 5, §5.6.2, the content of a revision is contained within braces, where red strike through indicates a deletion, and blue font indicates an insertion. Superscript numbers (²³⁹) denote the sequential ordering of the revision, subscript letters (_{INSA}) denote the revision type, and normal sized letters within braces denote the point where the writer moved **away** from the cursor's position (leading edge) to make a revision. With this in mind, revision 239 in T-unit 22ii (above) deletes a full stop (~~.~~) and inserts an elaborating circumstance (, wanting to know...). Once this revision is complete, JD then makes revision 240³ in T-unit 27ii, which is 10 clauses forward. These two revisions mark the beginning of a cluster of 6 INSAs, which seemingly represent JD proofreading/editing the final draft of her essay (i.e. they occur in session 7). Evidence of this comes from the time lapses and cursor positions between the revisions. For example, JD makes revision 239 at time stamp 24:02:44 (cf. Appendix CD: Linear analysis file, JD_20150324_18_LA). Six seconds then pass, during which JD selects text with the mouse before pressing the [BACK] key 31 times, deleting the hypotactic elaborating clause (revision 240). More shall be said about INSAs and proofreading later on.

FPs, which were the second most frequent revision type ($n=73$, 31.5% of all revisions made) occur within the functional component currently being realised: i.e. Theme, Subject Theme, Rheme, or N-Rheme. Example 6.2 should clarify this:

	Content			
T-unit	Theme	S. Theme	Rheme	N-Rheme
23ii		he	doesn't	¹⁵ⁱ { really } _{FP} {15i}respond other than laughing and mocking his accent.

Example 6.2: Forward Progression (FP) from JD1

In example 6.2, JD types 'he doesn't really', but upon reaching {15i} goes back and makes revision 15i, deleting 'really'. JD then continues on typing ('respond other...'). This revision, then, does not move outside the N-Rheme (a single functional component) and is, thus, classed as an FP.

The third most frequent revision type was CPs ($n=33$, 14.2%). CPs are revisions that occur within

³ This revision deletes a hypotactic elaborating clause, '~~which is...~~'.

the currently being realised clause but cross component boundaries (they can reflect backward or forward movement). Example 6.3 illustrates this:

Content				
T-unit	Theme	Subject Theme	Rheme	N-Rheme
33i		A ⁷⁵ {n order or} _{CP} command	is	threatening to the hearer, J 's negative face, {75}

Example 6.3: Commutative Progression (CP) from JD1

In example 6.3, upon reaching position {73}, JS moves back to the Subject Theme to make revision 75. This revision adds an additional Subject/Participant ('order') that is set up in a paratactic extending relation ('or') with the original Subject/Participant ('command').

Finally, the least frequent revision type was INSBs, or backward revision movements ($n=25$, 108%). INSBs are revisions that reflect backward movement across clauses; i.e. as opposed to CPs, these revisions take the writer's focus away from the current clause and result in additions/deletions/amendments in a section of previous text that may not be directly related to the writer's current focal point. Consequently, as per INSAs (forward insertions), they can revise text that was written minutes, hours, or even days before, as per example 6.4:

Content				
T-unit	Theme	Subject Theme	Rheme	N-Rheme
43		Examples of ways to do this ²²⁹ {in-my data} _{INSB}	are	justification or hesitations.
46	²²⁶ {However,{227}} Brown and Levinson ²²⁷ {also-{228}} _{FP} argue that	generic forms such as 'mate', 'buddy', 'pal'	help to soften	face-threatening acts.
47	They ²²⁸ {also {229}} _{INSA} state that	these in-group markers, when used to address children,	'turn	a command into a request' making less of an imposition on the hearer

Example 6.4: Backward revision (INSB) from JD1

In this example, revision 229 in T-unit 43 is an INSB that deletes 'in my data'. Prior to this, JD made 9 INSAs and 2 FPs, reflecting forward movement through the text. This indicates that JD was probably proofreading and making small additions along the way (revisions 226, 227, and 228 above exemplify this). Revision 229, however, involves backward movement across 4 T-units. The contents of the revision—the deletion of a circumstance of enhancement (location: place)—seems to be motivated by the content of T-units 46 and 47 (the ideas of 'Brown and Levinson'), as well as T-unit 42 (the ideas of 'Holmes and Stubbe'). More specifically, in making revision 229, JD changes the propositional content of T-unit 43 by making the Subject (Identified/Token in an 'intensive identifying' clause) non-specific and much broader, so that it now refers to a non-identified set of examples that are left unattributed. This unidentified set of examples is now implicitly linked to established research (Brown & Levinson, Holmes & Stubbe) via its positioning amongst co-text that centres on outside voices.

6.1.2 JD's second essay

Overview

JD's 2nd essay was 'Argue for or against the claim that there are cultural differences in early language socialization that might affect a child's chances of success at school'. Table 6.3 summarises its construction:

Session (IDFX)	Date	Time spent on computer	Time spent typing	Duration% Cumulative	Duration% Sessions	Words typed	Functional revisions
1 (11)	19/03/2015	08:37:50	01:30:12	63.40	63.40	1644	119
2 (13)	20/03/2015	01:34:46	00:21:41	11.60	75.00	403	41
3 (14)	20/03/2015	00:53:50	00:09:26	6.59	81.59	181	47
4 (15)	23/03/2015	01:16:37	00:10:11	9.38	90.97	175	60
5 (17)	24/03/2015	01:13:43	00:09:59	9.03	100.00	132	24
Total		13:36:46	02:21:29	100.00		2535	291

Table 6.3: General overview of document construction (JD2)

Table 6.3 shows that this essay took 13hrs 36 mins to construct, with 2hrs 21 mins spent adding text. Furthermore, we see that most of the words typed (2047 words, 80.7%) was added in the first two sessions, during which 160 functional revisions were made. These first two sessions also amounted to 75% of the total time spent on the essay. Once more, then, we see that JD seems to have added most of the essay's content in the first two (consecutive days) of writing.

Revision types

Table 6.4 gives the distribution of revision types in JD2:

Session (IDFX)	FPs		CPs		INSAs		INSBs		INS		Total
	Count	%	Count	%	Count	%	Count	%	Count	%	Count
1 (11)	62	52.10	33	27.73	18	15.13	6	5.04	0	0.00	119
2 (13)	23	56.10	4	9.76	9	21.95	4	9.76	1	2.44	41
3 (14)	7	14.89	6	12.77	26	55.32	7	14.89	1	2.13	47
4 (15)	11	18.64	6	10.17	36	61.02	5	8.47	1	1.69	59
5 (17)	6	24.00	2	8.00	7	28.00	9	36.00	1	4.00	25
Total	109	37.46	51	17.53	96	32.99	31	10.65	4	1.37	291

Table 6.4: Frequency of revisions types (JD2)

Table 6.4 shows that JD made 291 revisions, with FPs being the most frequent ($n=109$, 37.5%), followed by INSAs ($n=96$, 33%), CPs ($n=51$, 17.5%), and then INSBs ($n=31$, 10.7%). It is interesting to note that these figures are similar to the frequencies found in JD1, where FPs accounted for 31.5% of all revision types, INSAs=40.1%, CPs=14.2%, and INSBs=10.8%. At first glance, then, it appears that JD uses FPs and INSAs more frequently than CPs and INSBs when constructing texts of similar length.

6.1.3 JD's third essay

Overview

JD's 3rd essay was 'Using 3-5 images from any genre to illustrate your arguments, discuss the commonplace notion that 'an image is worth a thousand words' in persuasive communication'.

Table 6.5 summarises its construction:

Session (IDFX)	Date	Time spent on computer	Time spent typing	Duration% Cumulative	Duration% Sessions	Words typed	Functional revisions
1 (19)	22/04/2015	00:47:02	00:15:32	6.50	6.50	231	16
2 (20)	23/04/2015	06:44:19	01:46:41	55.92	62.42	1653	133
3 (21)	27/04/2015	00:15:31	00:01:32	2.15	64.57	39	8
4 (22)	27/04/2015	01:18:28	00:06:57	10.85	75.42	93	15
5 (23)	28/04/2015	01:13:35	00:09:04	10.18	85.60	214	43
6 (24)	29/04/2015	01:03:47	00:09:22	8.82	94.42	135	12
7 (27)	29/04/2015	00:40:21	00:03:22	5.58	100.00	43	6
Total		12:03:03	02:32:30	100		2408	233

Table 6.5: General overview of document construction (JD3)

Table 6.5 shows that this essay took 12hrs 3mins to construct, with 2hrs 32mins spent typing in MS Word. Furthermore, most of the words typed (1384 words, or 71%) were in the first two days/sessions of writing, with 149 functional revisions being made.

Overall, then, from these initial findings we could tentatively say that JD appears to be pretty consistent in how she spends time constructing an essay: on average, JD spends a total of 2hrs 17mins ($SD=17$ mins) typing each essay, where 70-80% of the total number of words typed occurs in the first two consecutive days.

Revision types

Table 6.6 gives the distribution of revision types in JD3:

Session (IDFX)	FPs		CPs		INSAs		INSBs		INS		Total
	Count	%	Count	%	Count	%	Count	%	Count	%	Count
1 (19)	7	43.75	6	37.50	2	12.50	1	6.25	0	0.00	16
2 (20)	65	47.10	18	13.04	36	26.09	17	12.32	2	1.45	138
3 (21)	3	42.86	0	0.00	1	14.29	0	0.00	3	42.86	7
4 (22)	4	28.57	2	14.29	3	21.43	2	14.29	3	21.43	14
5 (23)	11	25.00	3	6.82	12	27.27	3	6.82	15	34.09	44
6 (24)	1	8.33	1	8.33	4	33.33	2	16.67	4	33.33	12
7 (27)	0	0.00	0	0.00	1	14.29	1	14.29	5	71.43	7
Total	91	38.24	30	12.61	59	24.79	26	10.92	32	13.45	238

Table 6.6: Frequency of revisions types (JD3)

Table 6.6 shows that JD made 238 revisions during the construction of this essay, of which FPs were the most frequent ($n=91$, 38.2%). However, unlike JD's previous datasets, where INSAs were a close second, here we find a much lower figure for INSAs ($n=59$, 24.8%). This reduced figure is somewhat accounted for by the increased number of INSs ($n=32$, 13.5%), which were the result

of coding issues surrounding corrupted data⁴. CPs and INSBs, meanwhile, were at a comparable level to JD's other datasets, with figures of $n=30$ (12.6%) and $n=26$ (10.9%) respectively. With regard to three of the four revision types, then, it appears that JD has an almost distinguishable pattern with regard to the overall frequencies of revision types when composing texts of similar length. Rather than discuss this here, this will be left for §6.4.2, where we will explore stability within JD's writing practices in pursuit of answers to RQ 1(d).

6.1.4 BB's essay

Overview

The title for BB's essay was 'What can we learn from the Anglo-Saxon Chronicle about the development of the English language?' Table 6.7 summarizes its construction:

Session (IDFX)	Date	Time spent on computer	Time spent typing	Duration% Cumulative	Duration% Sessions	Words typed	Functional revisions
1 (7)	08/04/15	4:19:04	1:00:06	20.75	20.75	667	33
2 (8)	09/04/15	3:11:08	0:30:46	15.31	36.05	369	15
3 (9)	13/04/15	3:24:57	0:46:09	16.41	52.46	323	14
4 (10/11)	14/04/15	4:05:32	0:46:13	19.66	72.12	524	19
5 (33)	15/04/15	5:00:53	1:31:54	24.09	96.22	215	3
6 (35)	16/04/15	0:47:14	0:11:13	3.78	100.00	152	1
Total		20:48:48	04:46:21	100.00		2250	85

Table 6.7. General overview of document construction (BB)

Table 6.7 shows us that, unlike JD, BB's writing activity was more spread out, and with the exception of the last session, which primarily involved adding a reference list, she spent, on average, 4hrs ($SD=43$ mins) per session on the computer. Furthermore, BB spent a total of 20hrs 48mins with the document open, and 4hrs 46mins typing (considerably more time than JD spent on any of her essays). We also see that the majority of BB's text was added in the first 4 sessions (1883 words, 83.7% of the total word count), which were spread out over four days. However, within each session BB spent considerably more time outside MS Word than JD did. More specifically, most of her non-essay related time was spent on social websites (Facebook) and other forms of 'downtime'. Figure 6.2 on the next page, for example, is a network graph of BB's 'focus events'. The numerous focus events (solid circles) show how BB regularly broke away from working on her essay (green circles) to browse the internet, use Facebook, etc. (blue circles). This form of voluntary downtime⁵ can be considered a kind of meta-knowledge related to a writer's own sense of motivational limits; consequently, such downtime can be used to reduce boredom and maintain interest (Leijten et al., 2014, p.331). More shall be said of this in §6.4.

⁴ This limitation is further discussed in Chapter 9, §9.3.

⁵ Involuntary downtime can be socially or environmentally driven, such as when taking a phone call or piece of equipment malfunctions.

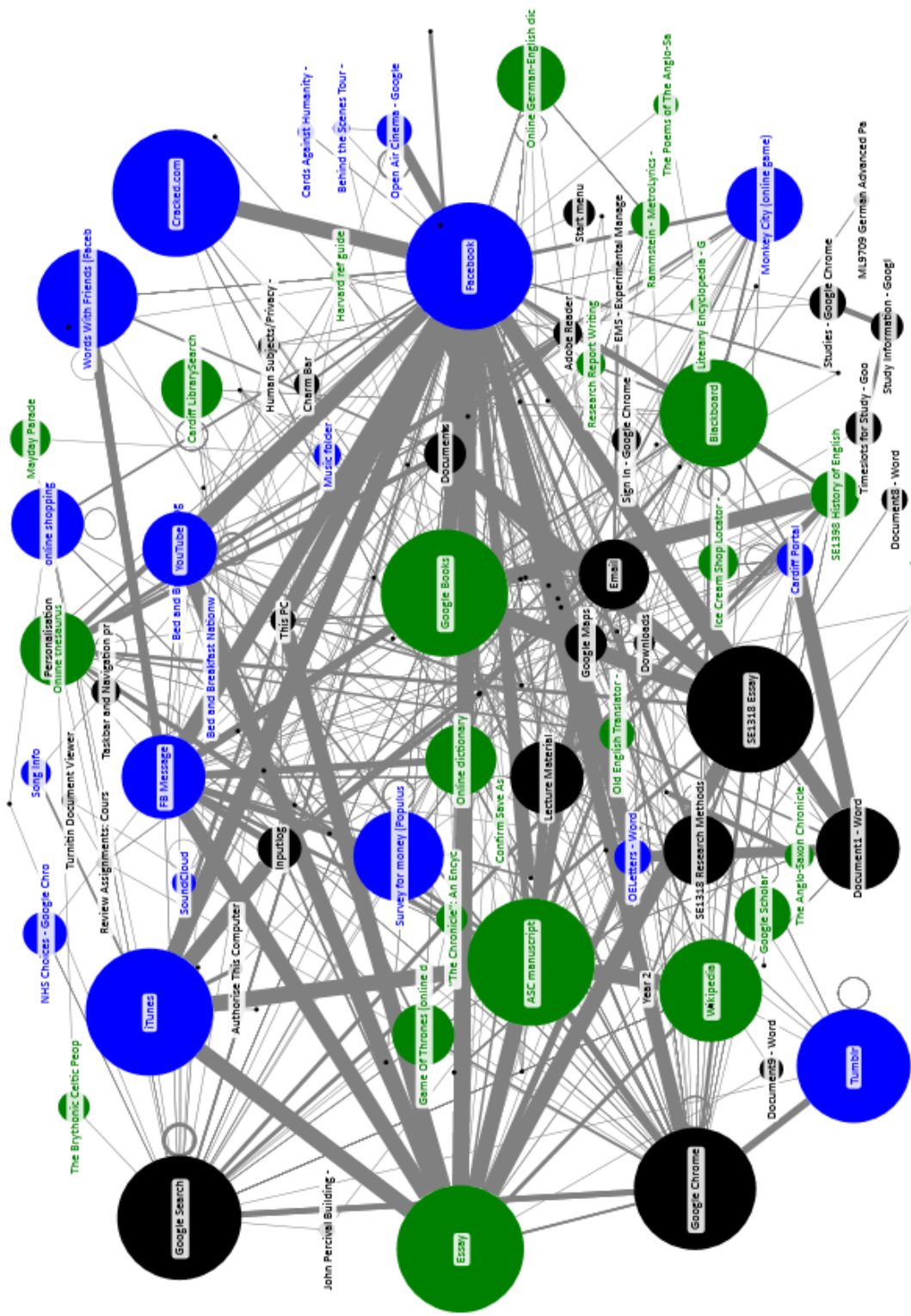


Figure 6.2 Focus events (BB)

Revision types

Table 6.8 shows the distribution of revision types in BB:

Session (IDFX)	FPs		CPs		INSAs		INSBs		INS		Total
	Count	%	Count	%	Count	%	Count	%	Count	%	Count
1 (7)	30	90.91	1	3.03	0	0.00	2	6.06	0	0.00	33
2 (8)	12	80.00	1	6.67	1	6.67	1	6.67	0	0.00	15
3 (9)	12	85.71	1	7.14	0	0.00	1	7.14	0	0.00	14
4 (10/11)	16	88.89	0	0.00	1	5.56	1	5.56	0	0.00	18
5 (33)	0	0.00	0	0.00	3	100.00	0	0.00	0	0.00	3
6 (35)	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	1
Total	71	84.52	3	3.57	5	5.95	5	5.95	0	0.00	84

Table 6.8: Frequency of revisions types (BB)

Table 6.8 shows that BB made just 84 revisions in total, and that a large proportion of these involved FPs ($n=71$, 84.5%). At first glance, then, BB's low number of revisions in combination with her preference for FPs seems to suggest that she does very little in the way of reflective revising; i.e. she very rarely edits beyond the immediate focus of what she is currently typing. This suggests that BB either plans extensively before typing and/or simply does not see the need for redrafting previously written text. This will be discussed further in §6.4.2.

Section summary

In this section we have examined writing in terms of how these two writers added/removed text from their essays. The main aim of here was to answer RQ 1(a). What practices (e.g. revision types) do students use when digitally composing text?

In the first instance, we examined each writer's overall activity, and saw how both writers spread their activity over multiple writing sessions, which lasted anything from 8mins (JD1, session 6) to 8hrs 37 mins (JD2, session 1). We also saw how the writing process as a whole was spread across a number of days, ranging from 5 (JD2) to 13 days (JD1) depending on the text/writer. Furthermore, the data seemed to reflect two writers that went about their task(s) in fundamentally different ways: JD spent less time working on the computer, where the majority of her focus was directly associated with the task at hand (i.e. composing an essay), and most of her writing took place over the first two (consecutive) days. BB, on the other hand, spent almost twice as long on her computer (20hrs, 48mins), spread her writing over more days, where a large proportion of her time was spent on activities not directly related to her essay (social websites, online shopping, etc.).

In the second instance, we saw a clear contrast between the writers in terms of the frequency with which they revised, and their use of revision types. Firstly, JD revised more frequently than BB, with an average number of revisions ($n=252$, $SD=33.8$) much higher than BB's ($n=85$).

Secondly, JD made more use of CPs, INSAs, and INSBs than BB, and showed an almost discernible pattern with regards to the use of three of the revision types. BB, meanwhile, relied almost exclusively on FPs (84.5% of all revisions), which suggests that she goes about essay writing in a fundamentally different way to that of JD. This initial difference between the two writers may reflect the basic distinction between free-writers/low-self monitors (JD) and planners/high-self monitors (BB) as discussed in §2.2. These issues, and more, will be explored in the next section, where we will consider the when and where of revision types.

6.2 The when and where of revisions

This section examines revision with respect to time (when) and space (where). It explores if some revisions types are more likely to be employed at the start/middle/finish of composing than others, and if some revision types are more likely to fall within one part of a T-unit than another. Ultimately, this section addresses RQ 1(b): 'When (sequentially) and where (within the clause) are these practices employed?'

The section is organised as follows: firstly, we will examine what happens at the start of the writing process (§6.2.1); specifically, what occurs when JD and BB start composing an essay (sessions 1 and 2) and what occurs at the start of each writing session. We will then move on to consider the middle of the writing process (the middle session(s) of each dataset) as well as the middle of each writing session (§6.2.2). Thirdly, we will explore the end of the writing process (the last two writing sessions of each dataset) and the ends of each writing session (§6.2.3). Finally, we will look at revisions in terms of their placement within the functional components of Theme, Subject Theme, Rheme, and N-Rheme (§6.2.4).

6.2.1 The start of the writing process

Firstly, FPs seem to be more frequent at the start of the writing process, regardless of the writer or the text⁶. For example, table 6.9 shows the frequency of FPs in each dataset alongside the percentage of revision types in each session that were FPs (the total percentages along the bottom rows are averages across all the sessions within each dataset). The far right columns display the total number of FPs in each session, the average percentage of revisions that were FPs and the standard deviations of these percentages:

⁶ NB. Although session 6 for BB shows 100%, she only made one revision in this session.

Session	JD1		JD2		JD3		BB		TOTALS		
	Count	%	Count	%	Count	%	Count	%	Count	M %	SD %
1	30	57.69	62	52.10	7	43.75	30	90.91	129	61.11	20.67
2	18	28.57	23	56.10	66	47.83	12	80.00	119	53.12	21.31
3	7	18.92	7	14.89	3	37.50	12	85.71	29	39.26	32.50
4	5	35.71	11	18.64	4	25.00	16	88.89	36	42.06	32.00
5	11	21.15	6	24.00	11	25.00	0	0	28	17.54	11.81
6	1	50.00			1	8.33	3	52.78	3	52.78	45.90
7	0	0.00			0	0.00	0	0	0	0	0
Total	71	32.41	109	37.46	92	38.17	341	49.22	341	49.22	22.88

Table 6.9: Distribution of FPs in each dataset

Although, we see a great deal of variation in the number of FPs and their averages, table 6.9 shows that the number of FPs was, on average, highest in the first two writing sessions of every dataset⁷. As further evidence of this consider the unfolding of revision types in the first session of each dataset in figure 6.3, which shows four graphs representing the first writing sessions in each of the datasets. The graphs show a frequency count on the y-axis and the revision number on the x-axis. Each coloured line represents one revision type⁸:

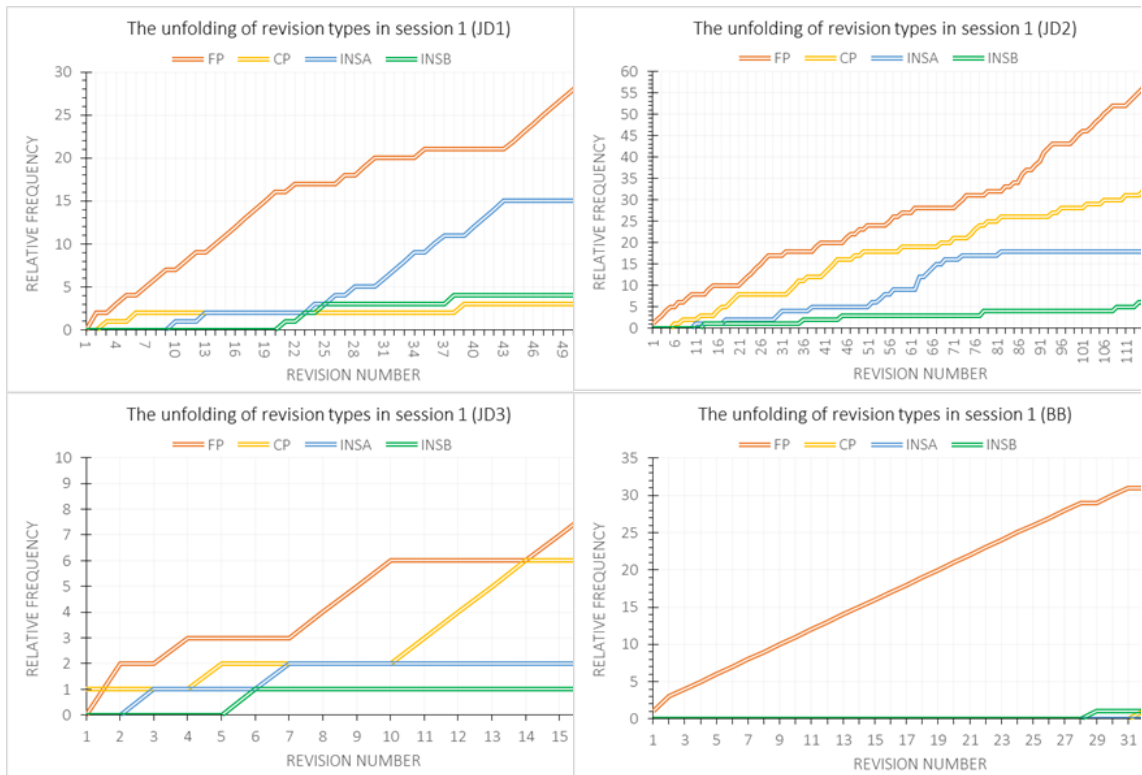


Figure 6.3: The unfolding of revision types in session 1 for each dataset

In all four graphs, FPs show a steady increase as revision unfolds in session 1 of each dataset. This pattern is also evident in session 2 of each dataset bar JD2, where INSAs take a slight lead (cf. *Appendix 12: The unfolding of revision types*). In relation to these two writers, then, FPs seem to

⁷ Session 6 and 7 had very low frequency counts in all datasets, so they were not examined here.

⁸ INS are not included in these graphs.

play a key role in the early stages of writing, where the majority of content/text is being added. However, it could be argued that the increased frequency of FPs at the start of writing is somewhat unsurprising considering that: (1) these writers may be using writing as part of the learning process, and (2) the majority of each essay's content was added in the first few sessions (cf. §6.1.1). However, as should be evident from §6.1.4 and table 6.9 above, FPs are the most frequent revision type in all of BB's dataset, and therefore, their increased importance at the start of writing can only be said to be true for JD. Moreover, there may be a combination of factors contributing to the increased use of FPs during the initial stages of writing besides just the addition of content. Prime amongst which may be the nature of FPs, as we shall now consider.

FPs occur in the immediate vicinity of the leading edge, where mistakes are probably easier to spot, and are, therefore, the revision type that is least likely to distract from the writing process. Fundamentally, because FPs occur within close proximity to the currently being realised constituent structure, they are perhaps cognitively simpler to process whilst also limiting their impact on other structures within the clause. For example, whereas an FP would be used to revise a participant or a process, a CP, INSA, or INSB is more likely to be used to revise larger spans of text—spans that stretched across constituent boundaries and thus typically had multivariate functions/meanings. In other words, a CP, INSA, or INSB has more potential to alter two or more functions/meanings because they cross component boundaries; FPs, on the other hand, are restricted in this potential and, therefore, are more likely to alter just one function/meaning. For instance, contrast examples 6.5 and 6.6:

T-unit	Content			
	Theme	S. Theme	Rheme	N-Rheme
15	This image is trying to show the audience that, again,	anyone	can have	a sexually transmitted disease, and that it is impossible to know who does have one, implying practising safe sex is ¹²⁸ { the only way forward extremely important} _{FP} .

Example 6.5: Forward Progression (FP) from JD3

In this example of an FP, revision 128 replaces a nominal group (NGrp), 'the only way forward', with an adjectival group ('extremely important'). Linguistically, this revision involves selections in five lexicogrammatical systems: DETERMINATION, EPITHESES, THING TYPE, QUALIFICATION, and ASSESSMENT, three functions: textual, experiential, and interpersonal, but just one rank level: the group (specifically a NGrp). Effectively, this revision only changes interpersonal meaning because the propositional content (experiential) remains the same, as does the specificity of the circumstantial attribute (textual).

Contrast this with the following CP:

					Content			
T-unit	Theme		Subject Theme	Rheme		N-Rheme		
8	By using social media,		⁹⁵ {it it	uses gives} _{CP}		a sense of relating to the whole the population.		

Example 6.6: Commutative Progression (CP) from JD3

In this example, revision 95 deletes 'it uses' and adds 'By using social media, it gives'. Although this revision involves three lexicogrammatical systems: EVENT TYPE, MINOR TRANSITIVITY, and THEME, and two functions: textual and experiential, it involves three ranks: verbal group, prepositional phrase, and clause, and two functional components⁹: Theme and Rheme. Consequently, it has a much greater impact on the clause than the FP in example 6.5: firstly, we have the addition of a fronted dependent clause ('By using social media') as marked Theme (THEME); secondly, this marked Theme enhances the clause via a circumstance of manner: means (MINOR TRANSITIVITY) (IFG4, p.313); thirdly, the change in process/verb (EVENT TYPE) alters the type of clause from an elaborating relation between the Subject and its Object (via the operating verb 'use') to an extending relation (via the possessing verb 'gives').

Ultimately, then, because FPs typically involve group or word level constituents, it is perhaps unsurprising that they are so prominent when it comes to the start of the writing process, because it is during this stage of writing that a writer is primarily concerned with adding 'content'. Furthermore, FPs occur near the leading edge, which is where the writer's main focus is when they are typing. Consequently, this is perhaps why we see a great deal of variation in relation to the deployment of the other revision types (CPs, INSAs, and INSBs) at the start of the writing process and at that start of each session.

6.2.2 The middle of the writing process

Continuing our focus on FPs from the previous section, if we look at the writing process as a whole (i.e. all the sessional data combined for each dataset), there seems to be a slight trend in JD's use of FPs (and INSAs) in the middle of the writing process. For example, consider figures 6.4 and 6.5, which represent the unfolding of revision types in JD1 and JD2:

⁹ The substituted 'it' remains the same and refers to the same entity. Hence it is not coded as a change.

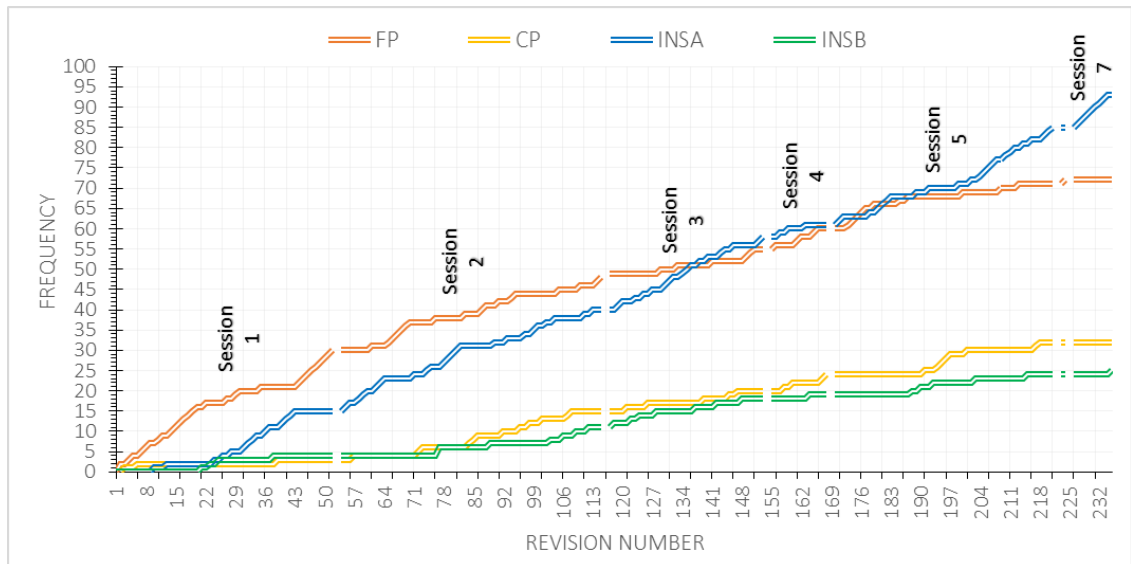


Figure 6.4: The unfolding of revision types in JD1

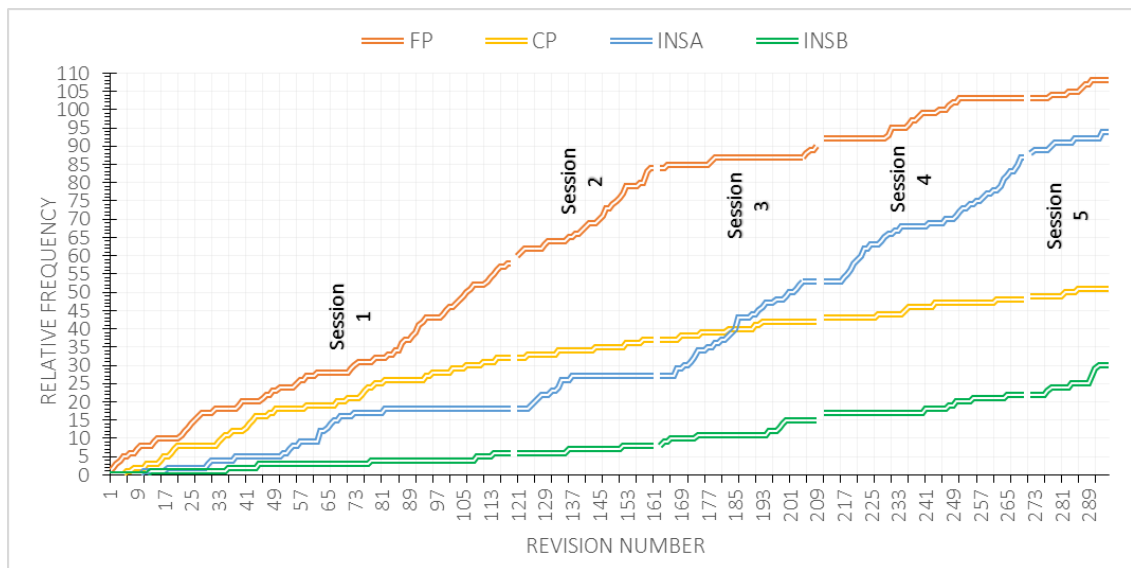


Figure 6.5: The unfolding of revision types in JD2

Both graphs show that FPs level off at about the midway point (session 3 in both instances), whilst INSA's start to increase at around the same time. Although, it is difficult to tell if this increase in INSA's was repeated in JD3 due to data corruption issues, which will be discussed later, there is a similar levelling off of FPs after the midway point. This initially suggests that the same thing may also be occurring in JD3 (cf. *Appendix 12: The unfolding of revision types*). Further evidence of this can be seen if we look at the frequency of FPs in each of JD's datasets, as show in figure 6.6:

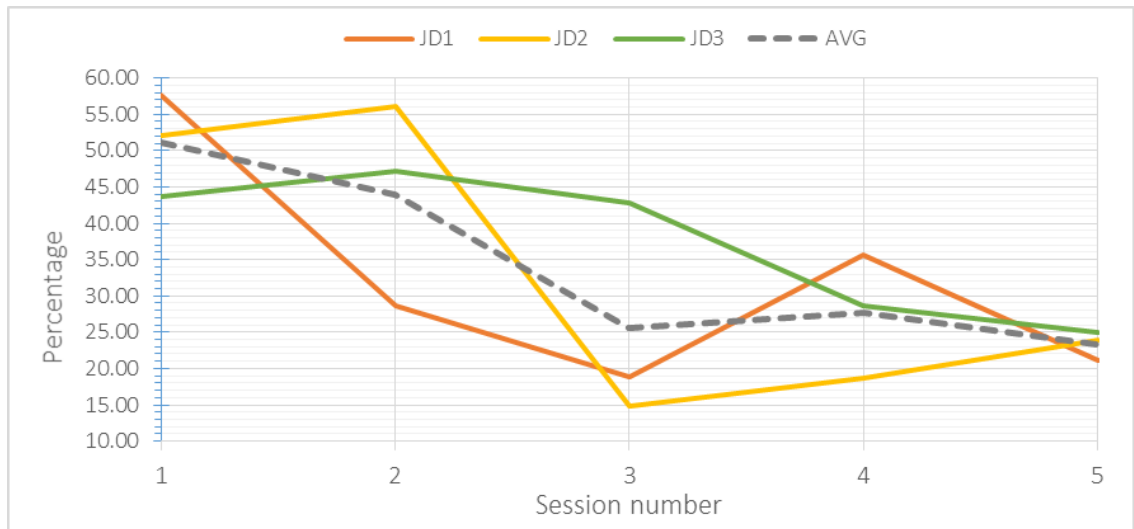


Figure 6.6: Percentage of revisions in each session that were FPs (JD)

Figure 6.6 illustrates how the percentage of revisions that are FPs fall from an average of 51.2% ($SD=7\%$) in session 1 to an average of 23.4% ($SD=2\%$) in session 5, with a marked dip in their occurrence around session 3 (from an average 44% to 25.6%). If we recall from §6.1, FPs reflect online revising, and typically occur when text is first being added, such as during an initial draft. INSAs, meanwhile, seem to be more representative of revising whilst reading (e.g. proofreading), and as such, we would expect to see a rise in their overall usage as the text evolved, and this appears to be the case, as evidenced by figure 6.7:

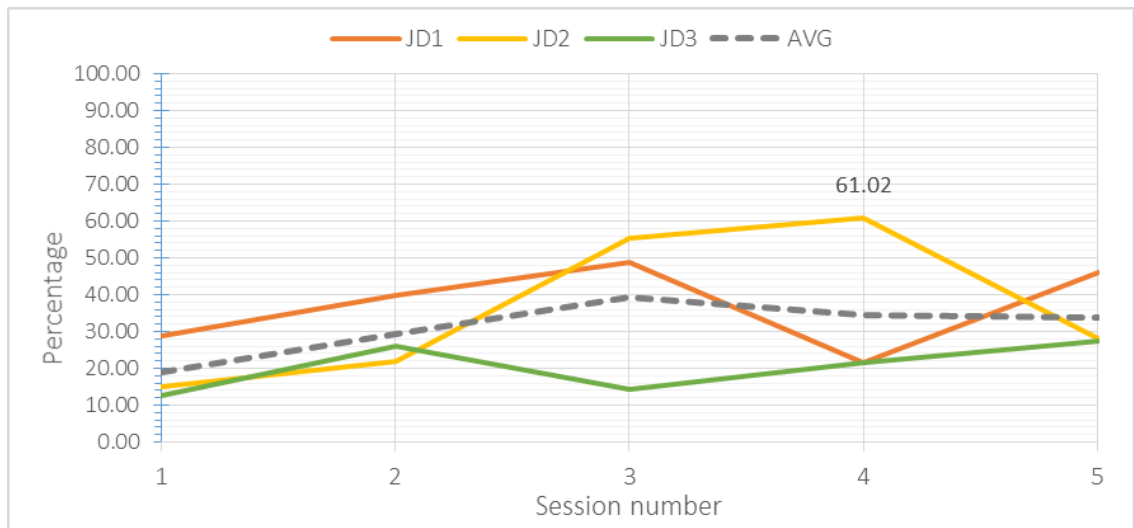


Figure 6.7: Percentage of revisions in each session that were INSAs (JD)

Figure 6.7 shows the distribution of INSAs in the first 5 sessions of JD's datasets. It shows a slight rise in the average number of INSAs at around session 3 (where FPs start to decrease)¹⁰. This suggests that once the majority of text has been added we see less of a potential for FPs to occur, but more of a potential for INSAs/INS to occur.

¹⁰ This drop may have been more pronounced if not for the issues surrounding JD3's dataset.

Whilst JD appears to show a decrease in the use of FPs as her text evolves, BB's dataset shows a different story: FPs are the most frequent revision type in nearly all her sessions (the only exception being session 5, which involved only INSAs). As already discussed above, BB's preference for FPs, in combination with her low level of revision activity, suggests that she is the kind of writer who rarely redrafts, and instead prefers to write once and leave the text as it is. This heavy reliance on FPs results in a somewhat linear revision profile, as shown in figure 6.8:

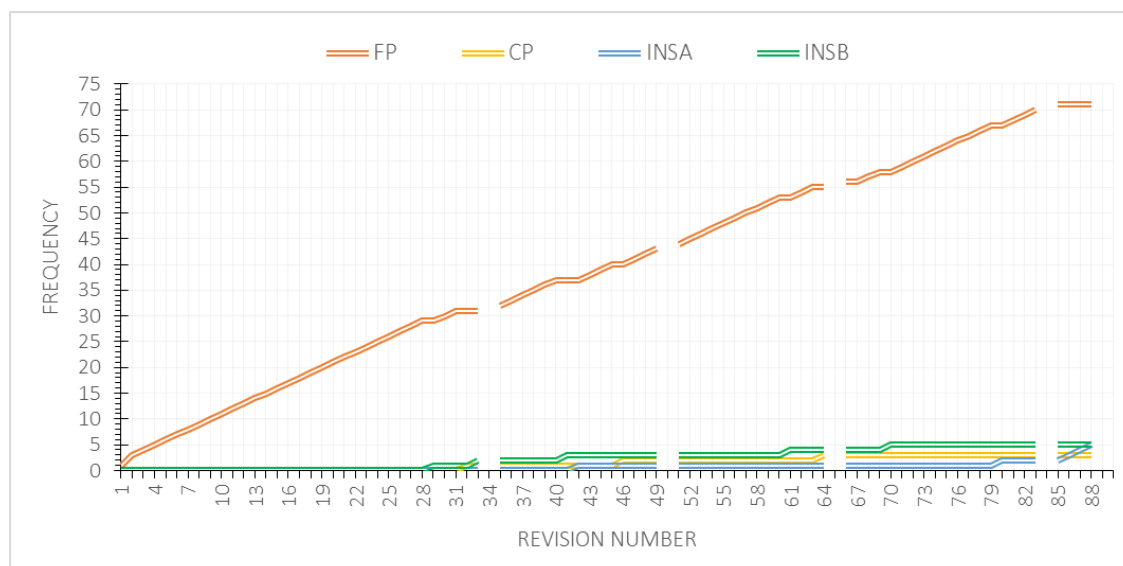


Figure 6.8: The unfolding of revision types in BB

Figure 6.8 clearly shows how BB rarely revises beyond the immediate vicinity of the leading edge, as evidenced by her reliance on FPs in every writing session but the last one.

With regard to JD's use of CPs and INSBs, there appears to be no discernible patterning in terms of their use over time. In fact, we see much wider variation in the frequency and distribution of their use in comparison to FPs and INSAs. This variation may be due to the increased cognitive demands of CPs and INSBs in terms of their reliance on a writer's 'text sense' (cf. §6.3.1) and/or their increased potential/tendency to realize multifunctional meanings (cf. §6.2.1), or it may simply be due to the amount of text visible on the screen (also discussed in §6.3.1). Either way, these two revision types were both the least frequent and most variable. It may already be evident, then, that if there is any commonality to be found within JD's writing sessions, it would involve FPs and/or INSAs. We have already concluded that FPs are more important/frequent at the beginning of the writing process, and that CPs and INSBs vary widely in their usage. However, there is a great deal of variation in terms of when INSAs start to be used within individual writing sessions. Take the following graphs in figure 6.9, for example (cf. *Appendix 12: The unfolding of revision types for all the sessions in each dataset*):

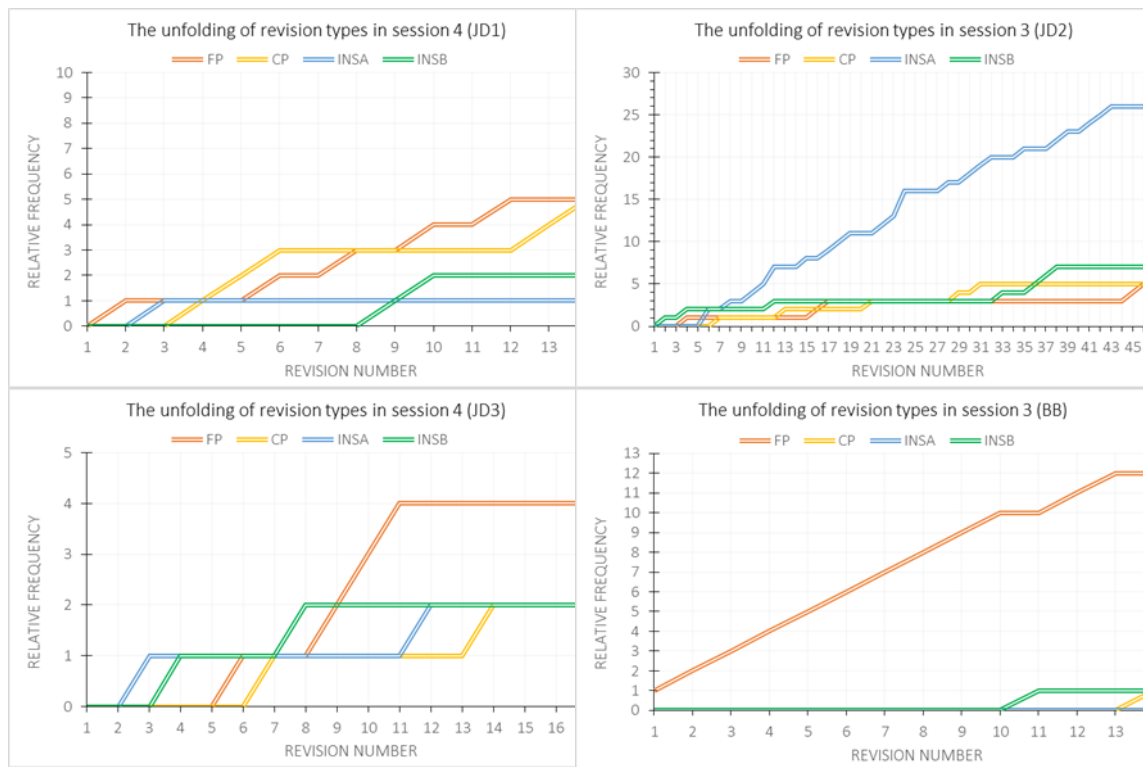


Figure 6.9: Frequency of revisions types in the middle session of each dataset

The graphs above show a great deal of variation in the middle sessions of each dataset. This may be because individual sessions vary with respect to number of revisions made, amount of words typed, time spent typing, etc. Ultimately, this increased variability in affective factors meant that it was extremely difficult (and perhaps unwise) to examine what happened in individual sessions between the time revision had begun and the time revision tapered off.

Overall, though, we can tentatively say that FPs decrease and INSAs increase around the middle of JD's writing process, which coincides with the view that she revises previously written drafts as her work evolves. However, in terms of the other revision types there is a great deal of variation in the middle of her writing process as a whole, and in each individual session. Consequently, it is difficult to say which practices, if any, play a key role in this part of the writing process.

6.2.3 The end of the writing process

Table 6.10 and figure 6.10 show how INSAs are most frequent in the penultimate/last session of each dataset:

	JD1		JD2		JD3		BB	
	Count	%	Count	%	Count	%	Count	%
Penultimate session ¹¹	24	46.15	36	61.02	4	33.33	3	100.00
Last session	10	83.33	7	28.00	1	14.29	0	0.00

Table 6.10: Percentage of revision types that were INSAs

¹¹ I have omitted session 6 for JD1 as this only involved one revision in total.

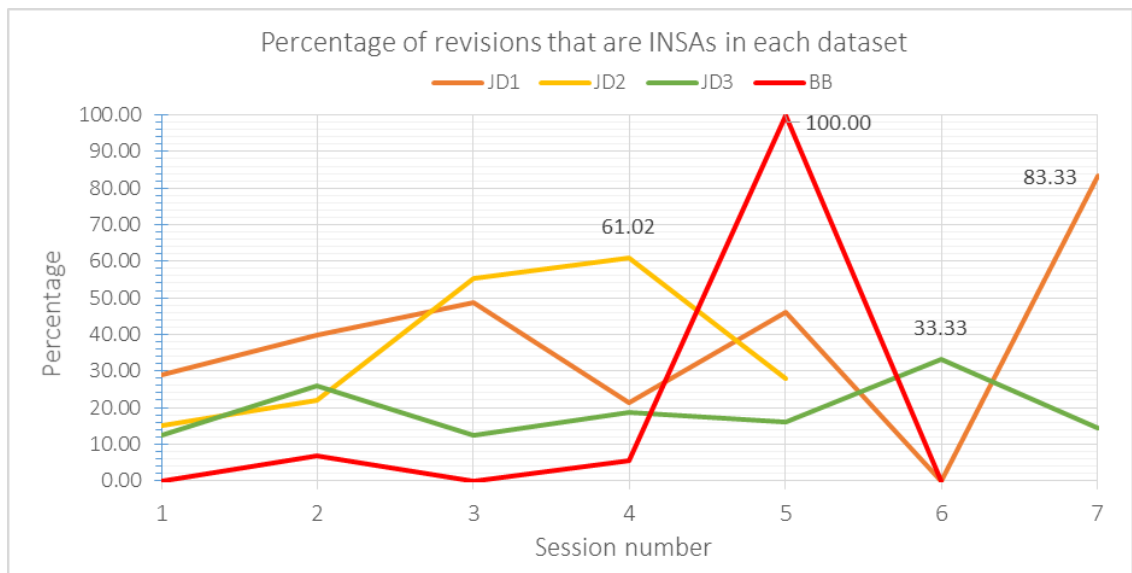


Figure 6.10: Percentage of revisions that are INSAs in each dataset

Although BB's figure of 100% in session 5 is somewhat questionable, given that she made only 5 INSAs in the whole dataset, and the penultimate session accounted for 3 of these, the data suggests that both writers made increased use of INSAs toward the end of the writing process. As we saw in example 6.1 (§6.1.1), INSAs appear to reflect proofreading, so to further contextualise this hypothesis let us consider the following examples:

	Content			
T-unit	Theme	Subject Theme	Rheme	N-Rheme
22i	It could be argued that	J's need to be admired	is	particularly prominent here
22ii	as	she	would be seeking	some sort of acceptance from her father ²³⁹ { , wanting to know that he is proud of her} _{INSA}

Example 6.7: INSA from JD1, session 7

In this example, revision 239 was the second revision of the session. The first revision was made in T-unit 16iv, 6 T-units back. After this first revision approximately 1min 30 secs elapsed before JD made revision 239¹². This time lapse is probably the result of JD reading through the text between T-unit 16 and 22 because the cursor remained at revision 238 for the duration of this time lapse, and JD did not leave MS Word. After this, JD then makes another INSA (revision 240), which we have already examined in example 6.1 (§6.1.1).

The next example is from JD2, session 4:

	Content			
T-unit	Theme	Subject Theme	Rheme	N-Rheme
38	Traditionally,	the mother	will care for and attend to	her own child, establishing a close ²²⁷ { mother-child } _{INSA} bond.

Example 6.8: INSA from JD2, session 4

¹² Revision 239 inserts a non-finite elaborating clause, which is set up in apposition (expository relation) with the contents of 22ii's N-Rheme.

Prior to this example, revision 226 was made in T-unit 26. The cursor was then moved several times with the mouse, and after 2 mins 45 secs, JD selected 'mother-child' and then pressed the [BACK] key, thus deleting the two words and realizing revision 227. Again these actions seem to portray someone reading through a text and making alterations as they do so.

The final example is from JD3's penultimate session:

Content				
T-unit	Theme	Subject Theme	Rheme	N-Rheme
27i		three ²²⁵ {of the} _{INSA} images I have chosen to discuss	are	all-static-photographs

Example 6.9: INSA from JD3, session 6

In this example, revision 225 came approximately 1 min 11 secs after the previous revision, which was also an INSA (time stamp=07:01:28 of LogFile JD_23.idx). Again between these two revisions we have forward movement of the cursor, indicating that JD was moving forwards through the text (probably reading it as she went).

Ultimately, we could go on examining examples similar to those above. However, what appears to be common to the majority of them is that the cursor never moves backwards and that INSAs tend to occur in 'clusters'. This supports the hypothesis that INSAs primarily reflect proofreading practices.

In terms of the other revision types, there appears to be no discernible patterning with regard to the end of the writing process. Whilst we see a drop in the use of FPs for JD, this was indirectly explored above in §6.2.1, where we discussed the start of the writing process.

6.2.4 The 'where' of revisions

As a reminder from Chapter 5, each clause was partitioned into 4 'slots' where choices in THEME/RHEME were realized (Appendix 9: *Coding thematic choices and thematic progressions*). This split the clauses within each synoptic text between the 'point of departure' and the 'development of a clause', as per figure 6.11:



Figure 6.11: The partitioning of a T-unit in terms of THEME/RHEME components

The point of departure represents choices in THEME, realized as **Theme** (interpersonal, textual, and/or marked Theme), and/or **Subject Theme** (Participant tied to the main Process). The development of the clause represents choices in RHEME, realized as **Rheme** (the verbal group associated with the main Process), and **N-Rheme**, which is where we find the information (in writing) that would be deemed most 'newsworthy' (Fries, 2002).

If we look at the overall frequencies of where revisions were made in each dataset, an interesting pattern arises, as shown in figure 6.12:

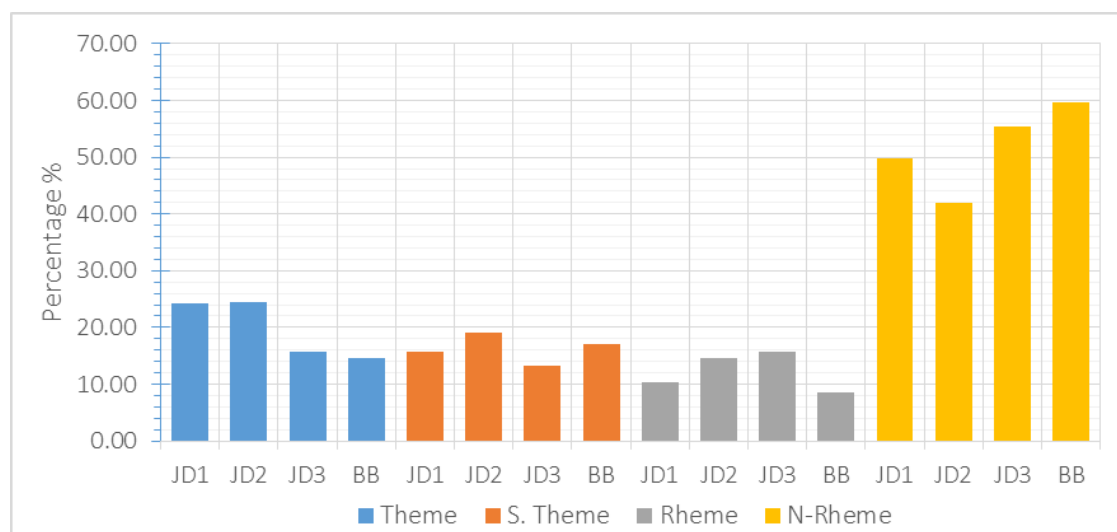


Figure 6.12: The distribution of revisions in terms of their realization in THEME/RHEME components

Figure 6.12 clearly shows how revisions made within the N-Rheme were by far the most common in all four datasets ($n=386$, $M=51.5\%$, $SD=7.7\%$), followed by revisions within Theme ($n=165$, $M=19.6\%$, $SD=5.5\%$), Subject Theme ($n=130$, $M=16.4\%$, $SD=2.3\%$), and finally Rheme ($n=103$, $M=12.4\%$, $SD=3.6\%$).

Fries (2002) believes that the overall patterning of content within the N-Rheme is representative of 'the goals of the text' (p.126). If we are to follow this logic, we could say that the N-Rheme is the most likely site where the text's purpose, and by association, its content are elaborated upon, reflecting the point(s) of a text by placing them in a salient position to highlight significant information (in the writer's mind anyway). The N-Rheme, then, is an indicator as to where we (the reader) are being taken. In this respect, it makes sense that in constructing a text that carries a message—in this case a writer's point of view or argument—that revision activity would most likely fall in that part of the clause which develops that message (i.e. the N-Rheme). Consider example 6.10:

	Content			
T-unit	Theme	Subject Theme	Rheme	N-Rheme
54		She	also found	a contrast ¹¹⁶ { in turn taking } _{FP} {116} in pupils 'talking out of turn' (2004:292).

Example 6.10: N-Rheme based revision (JD2)

In this example, revision 116 deletes the prepositional phrase 'in turn taking'. This phrase qualified the NGrp 'a contrast' by providing a projecting circumstance of matter; i.e. it answers the question 'what contrast?' by providing the answer 'in turn taking' ['with respect to'] (IFG, p.314). JD then types 'in pupils...' changing the focus from 'a contrast in turn-taking' to 'a contrast in pupils...'

Similarly, consider example 6.11:

T-unit	Content			
	Theme	S. Theme	Rheme	N-Rheme
10i		They	describe	face ⁸ {as something that is associated with _{9} } _{FP} {8} ¹⁰ {in terms of _{9i} } _{FP} emotion _{CP10} {9} as 'something that ¹¹ {can be _{FP} {11} is emotionally invested {12}

Example 6.11: N-Rheme based revision (JD1)

Example 6.11 contains four revisions¹³: three that alter propositional content (8, 9, and 10), and one that increases the epistemic certainty that this proposition is true (i.e. revision 11 concerns MODALITY).

Turning to Theme and Subject Theme revisions, we have already seen that these were less frequent than N-Rheme revisions at 19.6% and 16.4%, respectively. THEME is the means by which thematic function is realised in English. It is where 'a clause has meaning as a message, a quantum of information' (IFG4, p.83). As already noted, Themes (textual, interpersonal, or experiential/marked Themes) that come before the Subject Theme (unmarked Theme) are said to orient the message to the surrounding context/co-text. Consider example 6.12:

T-unit	Content			
	Theme	S. Theme	Rheme	N-Rheme
33	⁷² {As well as looking at the differences in class,} _{CP}	research in this area	has also looked at	the differences between {72} collectivist and individualistic countries.
34		Ochs (1997:430)	looked at	the differences between typical American mothers and traditional caregiving in Samoan families.

Example 6.12: Theme based revision

In this example, revision 72 adds 'as well as...', which equals a choice in two lexicogrammatical systems, only one of which we shall consider here, that of THEME¹⁴. In this instance, 'as well as...' represents a selection in THEME of +[marked Theme (↘fronted dependent clause)]. In textual terms, this addition orients T-unit 33 to the surrounding text by providing a 'contextual frame': T-unit 33 is the start of a new paragraph, so this marked Theme also provides an explicit segue to the previous paragraph by summing up what we (the reader) have just been reading (something concerning differences in class), and by pointing out that we are now going to be told something in addition to this (what other research in this area has looked at).

¹³ I have chosen this example to show the level of revision that often takes place within the N-Rheme

¹⁴ The following chapters explore systemic choice in more detail, so our focus here shall be much simpler.

With respect to Subject Theme revisions ($n=130$, $M=16.4\%$, $SD=2.3\%$), by its very definition, a Subject Theme (if present) will contain a major Participant, and the identity of this Participant, as we shall also see in §7.2.3, can be non-recoverable (presenting) or recoverable (presuming) (Martin, 1992, pp.136-140). The concept of recoverability is an assumption made on the part of the writer. He/she is, in essence, saying that you (the reader) can recover (or track) the identity of a (presumed) participant via one of a variety of sources, the basis of which are laid out below:

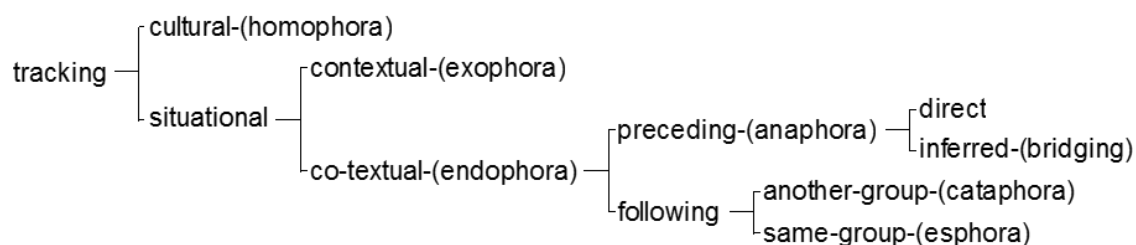


Figure 6.13: Participant tracking in English (Martin and Rose, 2007, p.183)

The Subject Theme is said to be typically stable throughout a short text, reflecting a text's (or a section of text's) thematic progression (Daneš, 1974) or Method of Development (Fries, 2002). Thematic progression is a patterning of themes which progress the text forward in one of four ways: constant Theme (\Downarrow), linear Theme (\Leftarrow), Theme return (\Downarrow), or derived Theme (\Downarrow)¹⁵. These progressions make use of cohesive devices such as semantic inference and paraphrasing (Nwogu & Bloor, 1991), pronouns, lexical repetition, ellipses, substitution, etc. (Halliday & Hasan, 1976). In other words, if a text (or a section of a text) has a Method of Development the kinds of referents used to develop this are typically presuming (recoverable).

If we look at the Subject Themes and their revisions in each of the datasets (*Appendix 13: List of Subject Theme revisions*), in the majority of cases we see that the Participant contained within the Subject Theme is typically introduced (presented) at the start of a paragraph. This paragraph will then typically have some form of thematic progression that relies upon the kinds of cohesive devices just mentioned (pronouns, substitutions, etc.). Only when there is a change in direction in the discourse, signalled by a new topic, do we see more complex structures being used as a means to (re)introduce non-recoverable (presenting) entities within Subject Themes. These presenting entities then become the basis for a new series of thematic progressions. For example, consider table 6.11 (Ellipsed Themes are inserted between square brackets []):

¹⁵ See *Appendix 9* for a full description of each of these.

T-unit	Content of Subject Theme	Thematic progression
1	Research	
2i	there	Existential clause
2ii	I	
2iii	they	↗
3	I	↘
4i	Brown and Levinson	↗
4ii	their names [=Brown and Levinson]	↓ Substitute
5	I	↘
6i	I	↓
6ii	they	↗
6iii	[=they]	↓ Ellipsed
6ivX	⁶ {which	↗
7i	The participants	
7ii	⁵⁸ {participants	↓
8i	the father ⁶⁰ {in the family{61}} _{INSA}	
8ii	the mother	↗
8ii	the daughter	↗

Table 6.11: Subject Themes and their revision activity in paragraph 1, JD1

This table shows how the majority of Subject Themes in this paragraph are simple constituents such as pronouns ('I', 'they'), specific NGrps ('their names', 'The participants', 'the mother'), or proper nouns¹⁶ (Brown and Levinson). It is only when there is a break in thematic progression (usually brought about by a change in topic/focus) do we see more complex structures being used; i.e. note how revision 60 in T-unit 8i is used to fine-tune the Subject Theme (presenting referent), which subsequently signals the start of a new topic. In these rare instances where Subject Themes contained more complex constituents, revisions often occurred in syndromes (cf. *Appendix 11: JD2's Dynamic text*, T-unit 2ii and 25 for clear examples of this). These multiple revisions seemed to indirectly serve the textual function by increasing the specificity of the 'topic' or focus of a clause by adding increased meanings that made the identity of the Subject Theme very explicit (cf. §7.3.1 for a more detailed discussion).

Ultimately, most of the Subject Themes in all four datasets were simple constituents that represented participants in terms of presumed referents (e.g. 'he', 'it', they, etc.) or specific NGrps (e.g. 'the mother', 'Brown and Levinson', etc.). This finding accords with previous research, which shows that we are more likely to find presumed (trackable) referents within Theme/Subject Theme than Rheme/N-Rheme (Moore, 2012), as they are often the result of the writer setting up some form progression from one clause to the next. Consequently, Subject Themes often take on much simpler, condensed forms. Perhaps as a consequence of this, the potential for revision activity involving Subject Themes was lessened—simpler structures meant simpler meanings,

¹⁶ Proper nouns are fully specific so they negate the need for determiners.

making them easier for readers to comprehend, and thus they did not need extensive revision.

Overall, then, it appears to be the case that Themes (textual/interpersonal/marked), which represent the 'writer angle', were used to introduce the clause's first major participant, the Subject Theme (if there was one) by organising mode (the clause's purpose), narrowing field (the clause's topic), and serving tenor (the writer's stance). Rhemes and N-Rhemes, on the other hand, which represent the 'reader angle', were used to expand ideational meaning and develop appraisal by looking back (the Rheme usually links back to the first major participant), drawing together previous meaning(s) (those contained with Theme) to elaborate upon field (introducing new information, typically via the major Participant in the N-Rheme) and, thus, ultimately realizing the clause's purpose. These two peaks of textual prominence, then, reflect the oft cited remark that Theme and Rheme can be likened to the movement of waves of informational prominence, where Subject Themes and N-Rhemes represent the 'peaks' of the clause as message.

And even if we add the figures together for THEME and then RHEME revisions, we would still see that the majority of revisions took place within the 'development of the clause' (RHEME=489, 64%), as opposed to the 'point of departure' of the clause (THEME=295, 36%). Consequently, we can say with some confidence that both writers appear to be more concerned with the 'reader angle' than the 'writer angle' when it comes to revising their essays.

Section summary

In this section we looked at revisions in relation to time (when) and space (where) in pursuit of answers to RQ 1(b): When and where during the writing process are these practices employed?

In terms of 'when' revisions occurred, we explored the deployment of FPs, CPS, INSAs, and INSBs at the start, middle, and end of the writing process as a whole, and in individual writing sessions. We saw that FPs and INSAs are employed strategically at different stages of the writing process. However, we also saw a great deal of variation in how JD made use of CPs and INSBs. Moreover, the evidence presented in this section added to the hypothesis that the two writers drafted their essays in two fundamentally different ways: JD drafts and redrafts, using INSAs to much greater effect to edit existing text in revision rounds that affected spans of text beyond the immediate vicinity of what she had just typed. BB, on the other hand, preferred to revise online, using FPs to a much greater extent and, thus, rarely edited outside the currently being realized functional component. However, we also saw that both writers proofread final drafts, as evidenced by the increased occurrence of INSAs in the last two sessions.

In terms of 'where' revisions occurred within the clause, we saw how the majority of both writers' revisions fell within the N-Rheme. We discussed how the structuring and presentation of Theme

and N-Rheme are likened to the movement of waves, where Subject Theme and N-Rheme represent the peaks of the clause as message (Martin & Rose, 2007, p.188). In this view, text is organized periodically, so that we are constantly reminded of where we have been and where we are going. In terms of these two writers, the majority of their revisions fell within that part of the clause which represents the 'reader angle'; i.e., both writers extensively revised the part of the clause that represents where we (the reader) are going (or being taken to). This is perhaps to be expected of 'good' writers, because we would assume that they would probably take on the role of a reader at some point, and what would be most salient to the reader (the end of a clause) should also be most salient to the 'writer come reader'.

In the next section we build upon the findings of this section and the last by exploring the commonalities and differences between the writers and their four texts.

6.3 Stability and instability of writing practices

This section brings together the previous findings in terms of 'stability' and 'instability' in an attempt to explore RQ 1(c): 'Which practices (if any) are relatively stable, and which appear to change over time?' i.e. how do the 'practices' of these two students change (if at all) during the course of an essay's construction?

6.3.1 Stable practices

The first 'commonality' we will consider is that INSBs were the lowest denominator in all four datasets, with overall ratios of 10.8% (JD1), 10.65% (JD2), 10.4% (JD3), and 5.8% (BB). Furthermore, with the exception of session 5 for JD2, there was very little variation in the number of INSBs used in each session, as shown in figure 6.14:

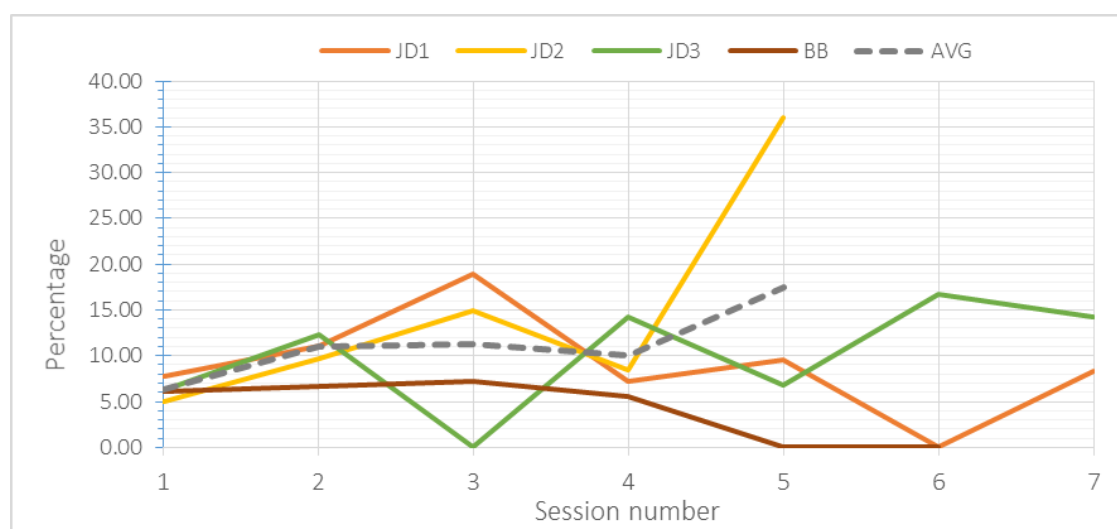


Figure 6.14: Percentage of revisions in each session that were INSBs

The main reason for such low figures may be due to the spatial location of INSBs. As discussed in Chapter 2, reading plays a central role in revision because writers need to build an adequate representation in memory of content, stance, intended goal, and the spatial arrangement of information in a text in order to revise efficiently. Regardless of the underlying function or structure of an INSB (or any kind of backward revision), what is important to note is that these kinds of movements rely on a writer to notice a 'mistake' in a section of text that comes before the text they are currently realizing. This 'noticing' relies on two sources: (i) the writer's memory of what they have already written—a representation of the text's 'sense' as stored in the writer's mind; and (ii) the amount of previously typed text displayed on the computer screen at any given time, which is dependent on the size of the screen and the amount of scrolling down that has occurred. By consulting these two sources a writer may realize that what they have typed, are about to type, or have just read, does not coincide with something they have previously written and, thus, they move backwards in the text to make the necessary change. The key point is that backward moving revisions rely on a representation of text that is either held in the writer's memory or displayed on the screen. Haas and Hayes (1986), for example, show that building a successful representation of a text's 'sense' is tied to the kind of representation a writer is exposed to. In their study, exposure to two pages at once resulted in a better representation of a text in the reader's mind than one page at a time. In other words, the more text we can see the better the overall 'sense' we get of where to find information within that text. In the present study, the students composed their essays on laptops, where the page layout presented them with less than a single page on 15" screens. Consequently, as they typed they would need to scroll down, which would move previously written text upwards and out of view. This kind of scrolling movement has relatively little effect on the realization of FPs, CPs and INSAs, but it limits visual exposure to text that lies before the leading edge, which is the source of material for many INSBs. It is perhaps unsurprising, then, that of the INSBs we see in all four datasets most of them occur within close proximity to the leading edge; i.e. it was very rare to see the writer move backwards more than two or three T-units when making an INSB. Consequently, the frequency of INSBs may well be an epiphenomenon of the medium of composition: a small computer screen, as well as the writer's capacity to store information in memory.

The second commonality is that FPs were primarily used by both writers to make minor changes at the phrase or group level. However, the criteria by which FPs are classified means that they are somewhat necessarily confined to isolated units (i.e. one functional component). This means that FPs typically incorporate fewer constituent elements than other revision types (as discussed above). If an FP was to involve a unit larger than a phrase (i.e. a clause) that unit would have to be downranked (embedded), otherwise the revision would cross a component boundary; for example, in the following T-unit from JD1, the N-Rheme contains a downranked clause that

functions as an Identifier in an intensive, identifying relational clause:

T-unit	Content			
	Theme	Subject Theme	Rheme	N-Rheme
8i		Early language socialization	⁵ {means is} _{FP} {5}	where we learn the norms about language use,

Example 6.13: A Downranked clause functioning at the group level

However, even though such downranked units provide the potential for FPs to involve multiple constituents, there were no instances of FPs in any of the datasets that involved alterations to meanings above the phrase level¹⁷.

6.3.2 Unstable practices

In examining the datasets, we see a great deal of variation between the number of revisions made and the number of words typed in each session. For example, JD1's ratios remained relatively flat (5-11%) through sessions 1-4 and then steadily climbed through sessions 5-7, ending up at 37.5% in the final session. JD2's ratios steadily rose through sessions 1-3 (7-26%), peaked at session 4 (34%), and then fell to 18% in the final session. JD3's ratios, on the other hand, show somewhat of a rise and fall patterning, which seemingly mirrors itself on either side of session 4. Finally, although BB's ratios remained relatively low in all of her sessions—due to the decreased level of her revision activity in general—they do show a steady decrease throughout the writing process. Overall, though, revision activity as a percentage of words typed showed great variation.

Secondly, there appeared to be no discernible patterning with regard to CPs, both with respect to the writing process as a whole and in each individual writing session, as shown in figure 6.15 below, which displays the percentage of revisions that were CPs in each session for each dataset:

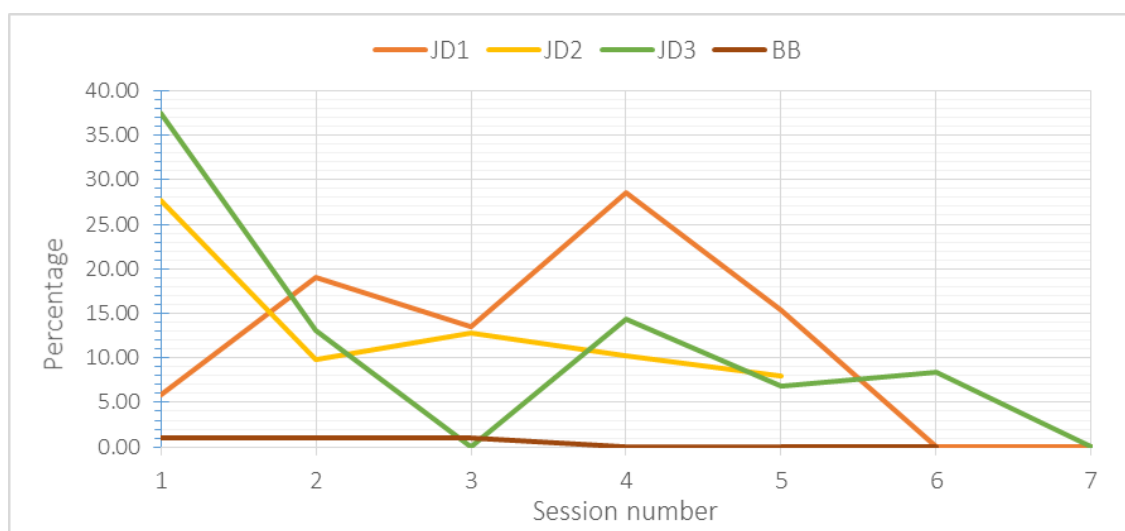


Figure 6.15: Percentage of revisions in each session that were CPs

¹⁷ Most of these phrase level revisions involved Qualifiers; i.e. NGrp post-modification.

As already discussed, CPs reflect backward/forward movement within a currently being realised clause, but, unlike FPs, they cross component boundaries. On the basis of such classification criteria, one might expect that CPs would manifest themselves in choices that engender movement between functional components at the clausal level (i.e. choices in TRANSITIVITY, THEME, etc.). However, in all 4 datasets there was a great deal of variation in terms of clausal level systems and CPs; for example, THEME (JD1=1/33, JD2=1/51, JD3=1/29), INFORMATION FOCUS (JD1=6/33, JD2=4/51, JD3=0/29), TAXIS (JD1=11/33, JD2=9/51, JD3=6/29), etc. This variation also extends into systems at the lower ranks (e.g. EVENT TYPE: JD1=6/33, JD2=4/51, JD3=10/29). CPs, then, seem to have no specific purpose or regularity, and thus can be said to be unpredictable in terms of both frequency and purpose.

Thirdly, there was no patterning in how writers used external activities besides those directly involved with writing. It was clear from BB's dataset, for example, that she repeatedly used some form of 'downtime' during each writing session. For example, her focus event graph (cf. figure 6.2) showed extensive use of internet based social media and non-essay related sources (shopping websites, online articles, etc.). Its inclusion in BB's dataset seemed to account for the extra time she spent working on her essay in comparison to JD. However, there was no one clear form of 'downtime' that she used. Instead her 'downtime' activities were seemingly random and often triggered on impulse, rather than outside stimulus (such as an incoming email). The use of 'downtime' by JD, however, remains unanswered, as her dataset gave no indication that she took regular breaks from her essay.

Section summary

In terms of 'stability' and 'instability' in writing practices, then, this section has shown how inherently difficult it is to examine such concepts. Although the previous section showed some patterning to when and where revision types are employed, bringing these findings together across a dataset that varies with respect to writer, text-type, no. of writing sessions, time on task (both overall and in each session), etc., is inherently problematic.

6.4 Convergence and divergence in writing practices

This section explores if any of the practices discussed so far can be said to be 'stable' within a text's construction (JD1, JD2, JD3, or BB), within a single writer (JD), or between writers (JD and BB). In other words, it seeks to address RQ 1(d): Do 'good' writers converge on similar practices?

6.4.1 'Stability' within a text

In relation to JD's datasets, and as mentioned above, FPs tend to occur first in each of JD's writing episodes, and INSAs tend to occur in 'bunches' within each writing episode. However, FPs are, in essence, something that most 'free-writers' would likely engage in during the start of a writing session because the other revision types cannot occur until typing has taken place.

In relation to BB, it is clear that FPs are a constant feature across her 6 sessions. As discussed above, in every writing episode bar one, FPs account for 83.9% of her revisions, meaning that BB primarily revises as she types, and thus her attention rarely drifts away from the functional component currently being realized. This heavy reliance on FPs suggests two things. Firstly, BB carefully plans what she is going to write before she starts typing. This planning may be done on paper, or it may be done in her head. When asked if she used pen and paper she stated that she never did, instead she 'thought about each sentence before typing it': this is reflected in the amount of time she spent within MS Word (4hrs 46 mins), where she typically spent much longer pausing between sentences than JD did, and typed far fewer words (just 240 more words than her word limit) than JD¹⁸. Furthermore, BB's use of planning is somewhat evidenced by the fact that at the start of session 1, she typed four subheadings/cues: 'Intro', 'Chronicle as key point in initiating English literary tradition', 'Records change and variation during the time it was written', and 'Conclusion', under which she proceeded to enter content. These subheadings were no doubt inspired by the essay's rubric, and can be considered a kind of interactive metadiscourse that provided 'framing information about elements of the discourse' (Hyland, 2005, p.51). In well written essays, such subheadings often reflect a writer's underlying rhetorical schema in relation to the text as a whole. And although BB deleted these subheadings toward the end of the writing process, so they are no longer found in the final draft, they clearly helped shape the sequencing of information in her essay (*Appendix 5: Finished essay (BB)*). Secondly, her reliance on FPs also meant that she did very little revising when rereading text, (assuming that she actually reread her text). Ultimately, the data suggests that BB, for this particular text anyways, assumed the role of a high planner/high-self monitor (Torrance, Thomas, & Robinson, 2000).

6.4.2 'Stability' within a writer

It is unwise to make definitive statements about the stability of writing practices for BB because of the limited amount of data collected. For JD, however, there is slightly more data and, therefore, it seems feasible that we can gather some valuable insights into possible traits/habits

¹⁸ JD typed, on average, 799 words more than her word limit; BB also spent considerably more time on her essay (21hrs) than JD did on any of hers—the longest JD spent working on any one essay was 13hrs.

that she may exhibit.

Firstly, as we saw in discussions surrounding focus events, JD spent little time engaged in online 'downtime' such as accessing online social media, websites, etc. This perhaps explains why JD spent less time working on her essays than BB did. However, it could be that JD refrained from such online 'downtime' because she knew that she was being recorded, or perhaps she used other electronic devices (e.g. her phone) to perform such actions. It may also be that JD walked away from the computer to perform physical tasks as a means to take a break, or perhaps she did not take any breaks whilst writing—her longest session was 2hrs 38mins¹⁹.

Secondly, as highlighted above, JD appeared to use revision types in a somewhat distributed manner, as shown in figure 6.16:



Figure 6.16: Distribution of revision types across JD's dataset

Figure 6.16 shows how FPs accounted for 31% ($n=73$) of all revision activity in JD1, 37.5% ($n=109$) in JD2, and 38.2% ($n=92$) in JD3. A similar clustering emerges for CPs, which ranged from 12.6% to 17.5%, and INSBs, which ranged from 10.65-10.9%. INSA and INSSs, however, showed greater variation, which was probably due, in part, to the fact that some of JD3's data was corrupted, leading to an increase in revisions being coded as INS—many of these INSSs could have been INSA. Furthermore, JD appeared to regularly shift her focus away from the immediate vicinity of the leading edge as evidenced by the lower proportion of overall FPs in JD1 (33%), JD2 (36.8%), and JD3 (38.2%). In other words, JD either continually rereads what she has already typed, or has some kind of 'text sense' stored in memory that she consults whilst typing. Let us consider the

¹⁹ Without recording her physical actions (via a camera, for example) we will not know for sure what JD did in-between typing bouts and, even then, the placement of a camera could prove so intrusive that she would focus on the task even more stringently. And whilst the idea of incorporating post writing session questionnaires was considered, this was thought to be too burdensome on the already overlaid participants. These, and other issues, will be discussed further in section 9.3: Limitations and weaknesses.

first of these propositions: that JD continually rereads text as she types. In JD1, JD2, and JD3, we see evidence that many of JD's revisions stem from rereading text, both in terms of reading text within the immediate vicinity of the currently being realized t-unit, and in terms of rereading previous drafts when she begins a new session. For example, in JD1, INSAs were the highest frequency revision type in sessions 2, 3, 5, and 7. This suggests that after the majority of content has been added in session 1, JD refined her essay through continual rounds of online revisions (FPs) as she added more content in combination with the fine-tuning of existent content (INSAs).

Let us now consider the second of these propositions: that JD uses some kind of 'text sense' when revising. An unfolding written text is both a concrete and abstract object because it is constantly fluctuating between actual and intended representations. The mediating factor between these representations is the reader's current 'text sense'. Text sense, in its broadest conceptualisation, is a mental representation of the structure and meaning of an unfolding text in the writer/reader's mind. Subsequently, this representation includes ephemeral entities such as spatial, episodic, and propositional memories. Consequently, it is believed that the longer a text is (or becomes), and the more ideas/knowledge it incorporates, the harder it becomes to formulate a representation of its 'sense'²⁰ (Haas, 1996, p.121).

From the data, we have some evidence that JD possesses a kind of 'text sense' by the higher proportions of CPs and INSBs we find in her datasets (JD1=26% combined CPs and INSBs, JD2=29%, and JD3=22%, as compared to BB's 10% combined²¹).

Thirdly, JD typed the majority of her text (+80%)²² in the first 3 sessions, as shown below:

	Words typed in sessions 1-3	Words typed in all sessions	Product word count at end of session 3	Product word count at end of all sessions
JD1	2068 (81%)	2524	1702	1702
JD2	2228 (88%)	2535	1590	1721
JD3	1923 (80%)	2408	1782	1809
BB	1359 (60%)	2250	1664	2010

Table 6.12: No. of words typed (process counts) and no. of words in each text (product counts)

Table 6.12 shows that the total number of words typed in the first 3 sessions by JD were 2068 (JD1), 2228 (JD2), and 1923 (JD3). Although it is difficult to say what proportion of these words remain in the final essay because text was frequently moved around, copied and pasted, etc., JD appears to pack most of her writing into an intense window of activity, ranging from 6hrs 4mins (JD1) to 11hrs 6 mins (JD2), which is spread across two days. Over these first three sessions, then,

²⁰ We can relate this back to the discussion of genre complexity and cognitive demands covered in §4.4.

²¹ This does not mean that BB does not also possess a sense of her text. It could just be that many of BB's writing practices occur internally and do not manifest themselves on the screen as prominently as JD's do

²² This is a percentage of total words typed and is thus not related to her essays' word limit, which were all exceeded in the first three writing sessions.

JD actually exceeds the word limits of each of her essays. After this initial burst of activity, JD then spent, on average, 3hrs 3 mins ($SD=1hr\ 2mins$) completing her essays, of which an average 23 mins ($SD=4mins$) was spent typing, where she made between 76 (JD3) and 84 (JD2) functional revisions. The majority of JD's compositional activity, then, clearly took place within a short period of time.

Fourthly, JD presents somewhat of a pattern in how much text she types when writing. Table 6.12 above, shows that JD typed, on average 799 words more ($SD=50.8$) than each essay's final word count (end column). This figure is approximately 45% more than her average word limit (1753 words, $SD=73.1$), and is reflected in the increased frequency of her revisions—compare JD's average of 253 functional revisions ($SD=32.7$) to BB's 85, where BB only typed 240 words more than her word limit.

6.4.3 'Stability' between writers

One interesting commonality across the datasets is that the highest frequency of INSAs occurred in the penultimate writing episode. As remarked earlier, INSAs seem to reflect revising whilst reading, and we see that JD uses INSAs at a rate of 27-39% when working on the penultimate draft, whilst BB used INSAs at a rate of 60%. Although BB's figure is somewhat questionable, given that she only made 5 INSAs, it nevertheless appears to be the case that both writers proofread their essays before submitting them.

Section summary

In this section we explored if any of the practices discussed above appeared to be 'stable' within a dataset (JD1, JD2, JD3, or BB), a single writer (JD), or between the writers (JD and BB). Overall, the findings added to the hypothesis that we have two fundamentally different types of writers in JD and BB. Consequently in light of the underlying RQ that informed the basis of this section—1(d). Do 'good' writers converge on similar practices? We can conclude that these two 'good' writers do not necessarily have to converge on the same writing 'practices' in order to construct texts of comparable qualities. This finding is perhaps unsurprising given the conclusions of previous research into process-product relationships (cf. §2.3). However, the discussions held in this section will be used as evidence in the following chapters, where I will be arguing for a move away from studying physical practices in isolation, and suggest that we also need to examine semogenesis (or meaning-making practices).

Summary

The underlying motif for this chapter was 'how students write'. It was here that we sought to explore the first set of RQs outlined in Chapter 1 and at the start of this chapter.

Consequently, in §6.1 we explored JD's and BB's writing practices in terms of how they added/removed text from their essays in an effort to address RQ1 (a). We saw how both writers spread the task of essay writing over multiple sessions, which lasted from 8mins (JD1, session 6) to 8hrs 37 mins (JD2, session 1). The findings also pointed toward two writers that went about essay writing in two fundamentally different ways: JD appeared more focused on the task at hand, revised extensively ($M=252$, $SD=33.8$), and moved around the text quite a lot. BB, on the other hand, divided her time between the task and online 'downtime' (e.g. Facebooking), revised minimally ($n=85$), and when she did revise, her revisions were predominantly FPs (84.5%). This difference between the writers was said to reflect the basic distinction between free-writers/low-self monitors (JD) and planners/high-self monitors (BB).

In Section 6.2 we explored revision activity in relation to time (when) and space (where) in pursuit of answers to RQ 1(b): When and where during the writing process are these practices employed? Here, we saw that FPs and INSAs were employed differently at different stages of the writing process, with FPs showing a slight tendency to be used at the start of writing, and INSAs toward the end of writing, reflecting writing as discovery and writing as a reader (proofreading). However, we also saw a great deal of variation in how revision types were used across the writing process as a whole and within each writing session. In terms of 'where' revisions occurred, we saw how the majority of revision types fell within the N-Rheme. The Theme and N-Rheme components were likened to the movement of waves, where Theme and New (the focus of the N-Rheme) represented the peaks of the clause as message (Martin & Rose, 2007, p.188), so that a text is organized periodically, reminding us of where we have been and where we are going. Consequently, it appeared that both writers' overall revision activity was more concerned with where we (the reader) are going (or being taken to), than with reminding us where we have been; i.e. revisions primarily helped develop a text's purpose.

In Section 6.3 we explored writing practices in terms of 'stability' and 'instability'. However this section proved how inherently difficult it was to examine such concepts when there are a large number of affective variables in place. Consequently, finding an answer to RQ1(c): 'Which practices (if any) are relatively stable, and which appear to change over time?' seemed impossible because of the nature of the data being examined. Rather than dwell on this shortfall here, this issue shall be taken up further in Section 9.3, where we will consider the limitations and weaknesses of the thesis in general.

In Section 6.4 we explored if any of the practices appeared to be 'stable' within a dataset (JD1, JD2, JD3, or BB), within a writer (JD), or between the writers (JD and BB). The overall conclusion was that the data once again pointed to the presence of two different types of writer. Consequently in light RQ 1(d). Do 'good' writers converge on similar practices? It was concluded that these two 'good' writers do not draw on the same composing practices in order to construct texts of comparable qualities.

Ultimately, the findings of this chapter have served to introduce the overall writing characteristics of each dataset and each writer, and will be subsequently used to inform the following chapters, where we will move away from physical practices (revision types) and discuss semiotic practices (revision functions, ranks, and systemic choices).

In Chapter 7, then, we move away from the 'how' of writing and consider the 'what' of writing. More specifically, the next chapter looks at how the revisions we have been discussing so far contributed to each text in terms of language choices. It is in the next chapter, then, that we will explore the second motif of this thesis: the development of **what** students write.

Chapter 7 What students write

Introduction

The underlying motif for this chapter is 'the development of what these two students wrote'. It is here that we will examine the second set of RQs previously outlined and replicated below:

2(a). What are the key linguistic features of 2nd year undergraduates' revisions?

2(b). Are these features comparable between/within different writers/texts?

2(c). Are these features comparable to those of more experienced writers?

In order to address these questions, this chapter is split into three sections. Each section will attempt to address one RQ, and thus covers the following topics:

section 7.1 explores the linguistic features (or systemic choices) that emerge through the revision activity in each of the four datasets introduced in the previous chapter (JD1, JD2, JD3, and BB). In this section, we will see how four lexicogrammatical systems: THING TYPE, EVENT TYPE, DETERMINATION, and TAXIS, show up consistently in the top five choices amongst revisions in both writers and all four texts; we will also see how QUALIFICATION is another prime system affected by revision activity.

Section 7.2 outlines which of these language features are comparable between/within writers, and then goes on to discuss possible reasons/benefits for why particular language functions, ranks, and ultimately systemic choices are more frequent than others when these two writers revise academic text. Here we will see how both writers utilised the grammar's ability to construe experience in increasingly complex ways via THING TYPE, EVENT TYPE, and QUALIFICATION, how the use of the deictic element (DETERMINATION) in combination with post-modification (QUALIFICATION) served to decrease specificity whilst increasing information content, and how choices in TAXIS&LOGICO-SEMANTIC TYPE are tied to simplexes as well as complexes. Finally, section 7.3 examines if the features found in these students' revisions are present in the texts of more experienced writers; i.e. we will explore to what extent these students' language choices reflect those features found in studies on 'model' academic texts (cf. Chapters 3 and 4). In this final section, we will see how many of the nominally based revisions we will have discussed in the previous sections contribute to the creation and modification of complex NGrps, which accords with the findings of existing literature that repeatedly illustrates how NGrp complexity is a key reflector of academic writing (Biber, 2006; Biber, Gray, & Poonpon, 2011; Parkinson & Musgrave, 2014).

7.1 Linguistic choice in revision activity

In this first section will look at overall revision activity in each of the datasets in terms of the four metafunctions of language as outlined in IFG4: these metafunctions are the experiential, logical, interpersonal, and textual. Following this, §7.1.2 will examine this same revision activity in terms of rank-level realizations. Finally, §7.1.3 will bring together the findings of §7.1.1 (language function) and §7.1.2 (language rank) in terms of a function/rank matrix. Such an analysis allows us to examine which lexicogrammatical systems are affected by revision activity because we can cross reference a revision's function with its rank level realization, resulting in a more delicate level of analysis in terms of systemic choice. For example, and as a reminder from §5.6.2.5, an experiential revision realized within a nominal group (NGrp) would fall within the corresponding function/rank cell where the two choices meet, and realise a selection in one of the systems listed in that cell¹, as shown in figure 7.1 below:

Rank	Class	Logical	Experiential	Interpersonal	Textual	(cohesive)
Clause			TRANSITIVITY	MOOD	THEME	
Group / Phrase	nominal		THING TYPE, NUMERATION, CLASSIFICATION, EPITHESES, or	PERSON ASSESSMENT	DETERMINATION	REFERENCE, ELLIPSIS & SUBSTITUTION
	verbal		EVENT TYPE ASPECT	POLARITY MODALITY	CONTRAST VOICE	
	adverbial		CIRCUMSTANCE TYPE	COMMENT TYPE		
	preposition		MINOR TRANSITIVITY	MINOR MOOD		
Word			DENOTATION	CONNOTATION		
Info. unit		INFO. TAXIS *info. unit		KEY	INFORMATION	
		complexes	simplexes			

Figure 7.1: Using a function-rank matrix to narrow down systemic choice

Ultimately, providing a synoptic description (summary of choices in revision activity as a whole) allows us to present the data in more a familiar fashion before moving on to more experimental representations in terms of a dynamic description in Chapter 8.

7.1.1 Metafunctional choice

In Chapters 1 (§1.2) and 5 (§5.6) we were introduced to SFL's view of how language is organized metafunctionally to construe reality (experiential function), link realities together (logical function), enact personal and social relationships (interpersonal function), and map these meanings onto one another and onto the context in which language is being used (textual

¹ See Chapter 5, section 5.6.2.5 for a fuller description of this table.

function). In this section we will discuss how revision activity contributed to each of these four functions of language in each dataset.

We will begin by looking at the overall level of functional realizations in each dataset's revision activity; i.e. we are not looking at figures for the final text (product data), but figures for text directly involved in revision activity (process data). As a quick comparison, figures 7.2 through 7.5 show a breakdown of how revision activity contributed to each text in terms of the four functions:

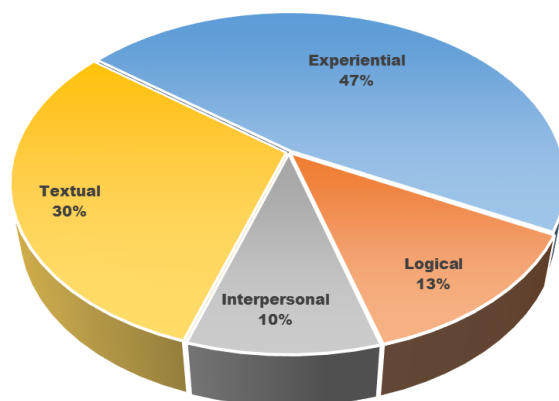


Figure 7.2: Functional choice in JD1's revisions

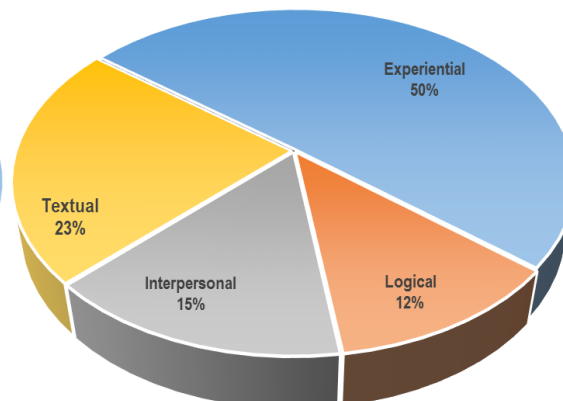


Figure 7.3: Functional choice in JD2's revisions

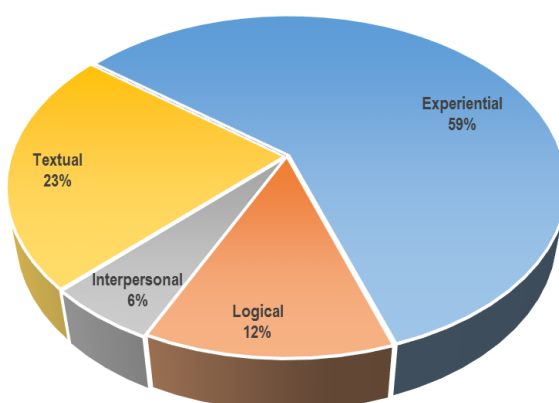


Figure 7.4: Functional choice in JD3's revisions

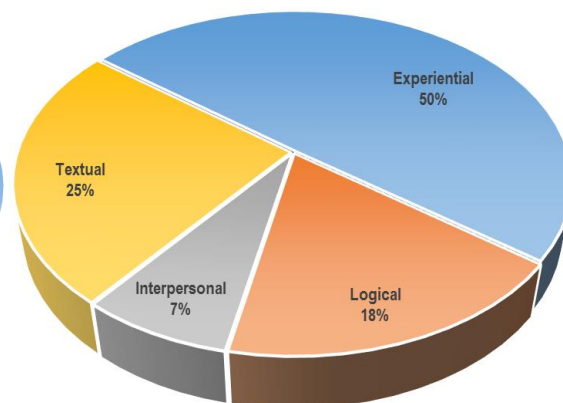


Figure 7.5: Functional choice in BB's revisions

Figures 7.2 through 7.5 show how the majority of revisions in each dataset involved experiential meanings, with figures ranging from 47% ($n=211$) in JD1 to 58.9% ($n=235$) in JD3, with an average across all four texts of 51.46% ($SD=5.16\%$). The second most frequently involved function in revision activity was the textual function, which ranged from 22.8% ($n=102$) in JD2 to 30.5% ($n=137$) in JD1, with an average across all four datasets of 25.4% ($SD=3.54\%$). Logical and interpersonal revisions, meanwhile, varied slightly in their ordering across datasets; in three of the four datasets, the logical function was the third most frequently involved function in revision activity. Table 7.1 below provides overall frequency counts (insertions and deletions) for each dataset and for the dataset as a whole in relation to functional choice in revision activity:

	JD1		JD2		JD3		BB		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Experiential	211	46.99	225	50.34	235	58.90	66	49.62	737	51.46
Logical	58	12.92	53	11.86	49	12.28	24	18.05	184	13.78
Interpersonal	43	9.58	67	14.99	22	5.51	10	7.52	142	9.40
Textual	137	30.51	102	22.82	93	23.31	33	24.81	365	25.36
Total	449	100	447	100	399	100	133	100	1428	100

Table 7.1: Frequency of revisions in functional terms

Table 7.1 shows that the total number of experiential revisions ($n=737$) is more than that of the other three functions combined ($n=691$). This increased number of experiential revisions is perhaps somewhat unsurprising because the experiential function mainly concerns the construal of experience (clause as representation), and as a piece of writing that is somewhat disconnected from a physical context, academic text relies heavily on an accurate representation of the writer's (naturalized) reality to make sense to the reader (Halliday, 1998). Furthermore, experiential meanings are prototypically realized through segmental structure, which 'is the simplest kind of structure, from which the other, more complex kinds can be derived' (Halliday & Matthiessen, 2013, p.85) and, thus, there appears to be two possible reasons why experiential meanings are more prevalent than the other meanings in revision activity: (1) they are the most common kind of meanings called for when construing a model of experience (describing a phenomenon is perhaps the most important aspect of academic text as one needs to add content and provide evidence to base a thesis on); and (2) the kinds of structures they favour (i.e. constituency based ones) are perhaps easier to add/remove during revision than other structures; for example, as we shall see later on, the prosodic structures favoured by interpersonal meanings, and the culminative structures favoured by textual meanings, are often 'tied' to other functions within the clause. It may be the case, then, that this increased complexity in revising multiple functions (or the structures they represent) is so cognitively demanding that it results in them being less frequent, and/or it may be that the seemingly easier experiential based revisions (or the need to add content) draws the writer's attention away from such concerns. Alternatively, as we will theorise in following sections, it may just be that these other meanings are simply not called for in a particular text-type, and are thus less likely to be involved in revision activity.

What is perhaps more surprising is the positioning of textual meanings in table 7.1, which shows us that in all four datasets, textual meanings are the second most frequently affected meanings when it comes to revising text and, thus, the ability to fine-tune the rhetorical structuring of a text—bringing together the text's other strands of meaning to create a harmonious whole in light of a specific context and purpose—appears to be an important aspect for these two writers when it comes to revising academic essays. The textual function, as we recall from Chapter 5, mainly

concerns the symbolic configuration of rhetorical structures. It deals with semiotic reality, or the 'clause as message'. Consequently, it is often cited as providing an enabling function, bringing together ideational and interpersonal meanings and operationalizing them in a given environment (Halliday & Matthiessen, 1999, p.398). In other words, textual meanings create relevance to the context or functional purpose of a text.

There are numerous reasons as to why revision activity may engender a preference for textual modifications as opposed to interpersonal or logical ones. However, perhaps key amongst them is the transformation from writer to reader (a shifting in mode). This transformation can induce the writer to make changes that reflect a realignment of the text toward its intended purpose (i.e. its generic expectation), making it easier for the reader to understand, follow, and, ultimately, accept or reject an underlying thesis (Lindgren, Leijten, & Van Waes, 2011). For instance, consider the following example (we have already been introduced to this example in the previous chapter):

T-unit	Content
7	It has marked a woman's genitals with an internet map marker, frequently used on Facebook to check in to a place or destination.
8	⁹⁵ {By using social media, it-uses {95} it gives} _{CP} a sense of relating to the whole population.

Example 7.1: A revision that increases readability/understanding (JD3)

In this example, part of revision 95 adds 'By using social media'. This prepositional phrase comes to function as a marked Theme and a Circumstance of enhancement (manner: means): it answers the question '*by what means does marking a woman's genitals with an internet map marker (T-unit 7) give a sense of relating to the whole population (T-unit 8)?*' Answer: *by the means of social media*. Whilst the content of T-unit 8 remains somewhat questionable, the addition of this marked Theme /Circumstance makes it somewhat clearer as to what the 'it' in T-unit 8 refers to—prior to this revision the 'it' could have been assumed to refer to 'Figure 1', representing a constant Theme (↴) progression as opposed to the derived theme (↷) that appears to result from revision 95.

Moving on to logical and interpersonal meanings, we see from table 7.1 that these functions appear to fluctuate in their ordering between texts. Logical meanings signify relations between complexes, and are realized via univariate, iterative structures. Typically, these involve clause complexing (as illustrated in §7.2.4 below), but sometimes they are also manifested as phrase or group complexes. The logical function, as Halliday and Matthiessen (2013) note 'makes a major contribution to the organization of text, serving to realize (rhetorical) sequences within (rhetorical) paragraphs' (p.549). However, logical meanings also contribute to the textual function in a number of ways: by sequencing tactic relations in a certain way a writer can (i) choose which element is given thematic prominence; (ii) change what he/she presents as New/Given, and (iii) engender choices in cohesive relations via ellipses/substitution, whereby a referent in a dominant

clause can be omitted/substituted in the dependent clause, creating a pattern of Subject Themes that moves the text forward. Consequently, a logical revision is often tied up with, or followed by, a revision in another function—typically these involve textual systems such as THEME, ELLIPSIS, etc. Consider example 7.2:

T-unit	Content
32	⁴⁷ { According to Bernstein this This} _{CP} would mean the literacy practices learnt by children in the working-class communities{47} did not prepare them well for mainstream literacy practices in school.

Example 7.2: A change in logical meaning accompanied by a change in THEME (JD2)

In this example, revision 47 deletes 'According to Bernstein'². This revision represents three, possibly four, systemic choices, depending on your view of interdependency relations³. It reflects: (1) a change in MINOR TRANSITIVITY of -[Circumstance (\searrow non-finite hypotactic clause): angle: source]; (2) a change in TAXIS of -[hypotaxis (\searrow dependent clause: β)]; (3) a change in LOGICO-SEMANTIC TYPE of -[projection: idea]; and (4) a change in THEME of -[marked Theme (\searrow fronted dependent clause)].

Similarly, in example 7.3, revision 25 affects not only logical meaning, but also textual meaning:

T-unit	Content
24i	It is common to use emotion in persuasion (Lang, A. et al 2003:111)
24ii	²⁵ { whether as it tends to have more effect} _{JNSA}

Example 7.3: A choice in logical meaning that engenders a choice in thematic progression (JD3)

In this example, revision 25 deletes the hypotactic binder 'whether' and replaces it with a hypotactic clause (T-unit 24ii) that enhances upon the dominant clause (T-unit 24i). This enhancement represents a systemic choice in TAXIS&LOGICOSEMANTIC TYPE (logical meaning) of +[hypotactic enhancement (\searrow conjunction): causal-conditional: reason]. We see, however, that this revision also sets up a referential relation (textual meaning) of 'substitution'; i.e. 'it' substitutes for 'using emotion in persuasion'. This substitution progresses the text in terms of a linear Theme (the Subject Theme being an element that occurred in the previous RHEME). From these two examples, then, we see how a single revision can often be multi-functional.

7.1.2 Rank scale realizations

Whilst the previous section introduced revisions and functional choice, this section covers revisions and rank; i.e. what constituent structures (words, nominal groups, etc.) were involved in revision activity. As a quick introduction to the data, figures 7.6 to 7.9 below show a breakdown of each dataset in terms of the frequencies of rank-level constituents involved in revision activity:

² 'this' to 'This' is simply a change in orthography as a capital letter is added to signify the start of the T-unit.

³ This is more fully explored in §7.2.4

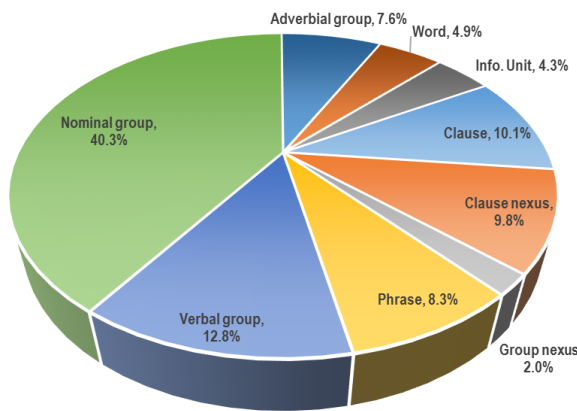


Figure 7.6: Rank realizations in JD1's revisions

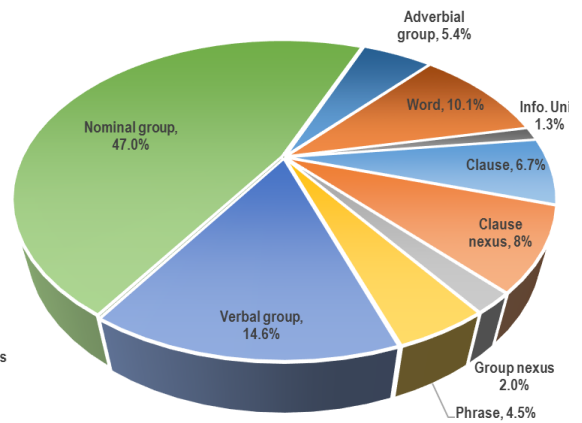


Figure 7.7: Rank realizations in JD2's revisions

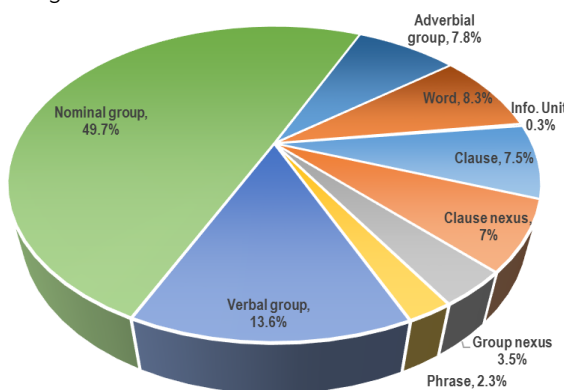


Figure 7.8: Rank realizations in JD3's revisions

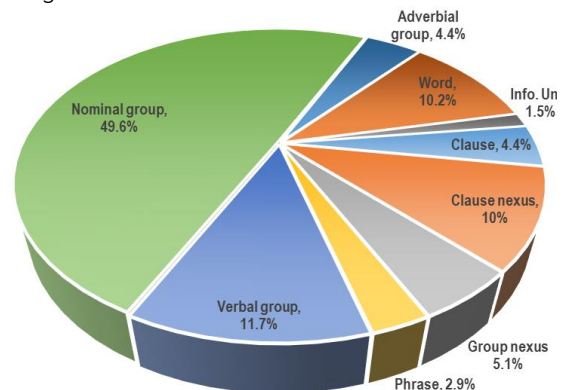


Figure 7.9: Rank realizations in BB's revisions

Figures 7.6 to 7.9 show that the majority of revisions involved alterations within nominal group (NGrp) structures. Revisions to NGrps ranged from 40.1% ($n=180$) in JD1 to 49.6% ($n=69$) in BB, with an average across all four datasets of 46.8% ($SD=4.8\%$). The second most frequently involved rank constituent in revision activity was the verbal group (VGrp), which ranged from 11.76% ($n=16$) in BB to 15.3% ($n=66$) in JD2, with an average across all four texts of 13.1% ($SD=1.2\%$). Table 7.2 below summarizes the above information in terms of overall frequencies and percentages for each dataset and for the dataset as a whole:

	JD1		JD2		JD3		BB		Total	AVG
	Count	%	Count	%	Count	%	Count	%		
Clause	45	10.02	30	6.71	30	7.52	6	4.41	111	7.17
Clause nexus	44	9.80	37	8.28	28	7.02	13	9.56	122	8.66
Group nexus	9	2.00	9	2.01	14	3.51	7	5.15	39	3.17
Phrase nexus	2	0.45	2	0.45	1	0.25	0	0.00	5	0.29
Phrase	37	8.24	20	4.47	9	2.26	3	2.21	69	4.29
Verbal group	57	12.69	65	14.54	54	13.53	16	11.76	192	13.13
Nominal group	180	40.09	209	46.76	198	49.62	69	50.74	656	46.80
Adverbial group	34	7.57	24	5.37	31	7.77	6	4.41	95	6.28
Word	22	4.90	45	10.07	33	8.27	14	10.29	114	8.38
Info. Unit	19	4.23	6	1.34	1	0.25	2	1.47	28	1.82
Total	449	100.00	447	100.00	399	100.00	136	100.00	1431	7.17

Table 7.2: Frequency of rank level realizations in revision based activity

Table 7.2 shows that from a total of 1431 revisions, 656 involved the NGrp. Writers can use NGrps

to 'expand the amount of information in each clause, establish and maintain referential relations, and distill and expand information as a text evolves' (Fang, Schleppegrell, & Cox, 2006, p.252). These are all key elements in academic writing, and it is thus hardly surprising that NGrps would be high on the list of concerns for academic writers. However, what is perhaps surprising is the frequency with which the NGrp is involved in revision activity regardless of the writer, and regardless of the text-type. Possible reasons as to why this may be are discussed in §7.2.

Second in terms of overall frequencies were revisions involving the VGrp ($n=192$). The VGrp is composed of several elements: in experiential terms, the key element is the Process, which represents a happening or being that is realized as a lexical choice in EVENT TYPE (the VGrp analogue of the NGrp's THING TYPE); as we shall see in §7.2, choices in EVENT TYPE made up the majority of revisions to the VGrp ($n=119$). In textual terms, the VGrp can be modified via selections in VOICE (Active/passive), CONTRAST (non-contrastive/contrastive), and ELLIPSES (non-elliptical, elliptical). The level of overall choice in these systems was extremely low ($n=4, 0$, and 3 , respectively), so they shall not be discussed further. In logical terms, the VGrp is grammaticalized by (SECONDARY) TENSE via logical (recursive) sequencing of modifying elements that represent choices in past/present/future tenses. These types of revision were slightly more frequent at $n=15$. Interpersonally, verbal modifiers concern POLARITY ($n=7$), FINITENESS ($n=0$), and MODALITY ($n=40$). The increased number of revisions involving MODALITY shall be discussed in §7.2 and §8.1.

The figures for other rank constituents varied between datasets, but the lowest frequency in every dataset concerned revisions to the information unit, and group and phrase complexes. Group and phrase complexes are typically realized as extending relations because groups and phrases generally do not consist of complete 'figures' (Halliday & Matthiessen, 1999); fundamentally, complete 'figures' have the potential to be joined (or sequenced) in more complex logical relations such as 'because', 'ergo', etc. Consequently, the low frequency of logical revisions to group and phrase complexes is perhaps unsurprising because their potential to occur in tactic relations is limited by the nature of their constituency; i.e. there are far fewer resources from which to base revision on. Clause complexes⁴, however, are not as limited. Consequently, their potential for being involved in revision increases, and we see that their overall frequency of occurrence in revision activity was much higher at $n=122$, making them the third most frequently revised rank constituent ($M=8.66\%$, $SD=1.28\%$).

In the next section we will take what we have learned from functional choices in revisions (§7.1.1) and rank level choices in revisions (§7.1.2), and combine the two to represent choice in terms of individual lexicogrammatical systems.

⁴ A clause complex engenders a choice in TAXIS, LOGICO-SEMANTIC TYPE and RECURSION.

7.1.3 Systemic choice

In this section we will discuss how revisions contributed to the unfolding of each text in terms of the lexicogrammatical systems outlined in Halliday's Introduction to Functional Grammar (fourth edition), or IFG4 as it is sometimes referred to IFG4 (Halliday & Matthiessen, 2013).

If we recall from the discussion of SFL's view of language outlined in Chapter 5, a choice in metafunctional meaning necessitates a choice in rank and vice versa—this results in what is referred to as a function/rank matrix. This complementarity between function and structure is both realized in, and construed by, a choice in a specific lexicogrammatical system. It is in this section that we will look at this concept of choice by exploring revision activity in terms of the lexicogrammatical systems of English (cf. §5.6.2.5). Ultimately, what follows is an overview of systemic choice in each dataset's revision activity (a synoptic description) that will be used as an introduction to, and evidence for, the discussion that follows (§7.2 and §7.3).

JD1

Table 7.3 gives an overview of revision activity in JD1 in terms of a function/rank matrix:

		Function				Total
		Experiential	Logical	Interpersonal	Textual	
Rank	Clause	29		2	14	45
	Clause nexus		44			44
	Phrase nexus		2			2
	Group nexus		9			9
	Phrase	33		4		37
	Verbal group	36	3	12	6	57
	Nominal group	100		7	73	180
	Adverbial group	3		6	25	34
	Word	10		12		22
	Info. Unit				19	19
Total	211	58	43	137	449	

Table 7.3: Function/rank matrix for revision activity in JD1

Table 7.3 shows that from 180 NGrp revisions, 100 involved experiential meanings, 7 interpersonal meanings, and 73 textual meanings. A function/rank matrix, then, gives us a convenient way to cross reference revision choices in terms of how they contributed to meaning (function) and structure (rank) at the same time, resulting in a more delicate level of analysis.

Table 7.4, then, gives a more detailed overview of how revision activity in JD1 contributed to meaning (function) and structure (rank) in terms of individual lexicogrammatical systems (system names are given at the intersections of the corresponding function/rank alongside their frequency counts):

		Function				Total				
		Experiential	Logical	Interpersonal	Textual					
Rank	Clause	Transitivity	29		Mood	2	Theme	14	45	
	Clause nexus			Taxis	44				44	
	Phrase nexus				2				2	
	Group nexus				9				9	
	Phrase	minor Transitivity	33		minor Mood	4			37	
	Verbal group	Event type	36	Tense	3	Polarity	1	Voice	3	43
		Aspect	0			Modality	11	Substitution	1	12
								Ellipsis	2	2
	Nominal group	Thing type	42			Person	1	Determination	50	93
		Pre-determination	2			Assessment	6	Reference	19	27
		Numeration	10					Substitution	3	13
		Classification	9					Ellipsis	1	10
		Epithesis	11							11
		Qualification	26							26
	Adverbial group	Circ. Type	3			Comment	6	Conjunction	25	34
	Word	Denotation	10			Connotation	12			22
Info. Unit					Key	0	Info. Focus	19	19	
Total		211		58		43		137	449	

Table 7.4: Revision activity and systemic choice in JD1

Table 7.4 shows that not all function/rank mergers correlate with one lexicogrammatical system, and that at the same rank, some lexicogrammatical systems appear to be more involved in revision activity than others. For example, from §7.1.1 and §7.1.2 we have already deduced that the majority of revisions involve experiential meanings and/or NGrps. Table 7.4 shows us that at this intersection of function (experiential) and rank (NGrp) the writer can make a choice in one of seven lexicogrammatical systems, and that of these systems, THING TYPE ($n=42$) is the most heavily involved in JD1's revision activity. Rather than go through each column and row in detail I have reproduced the data in figure 7.10:

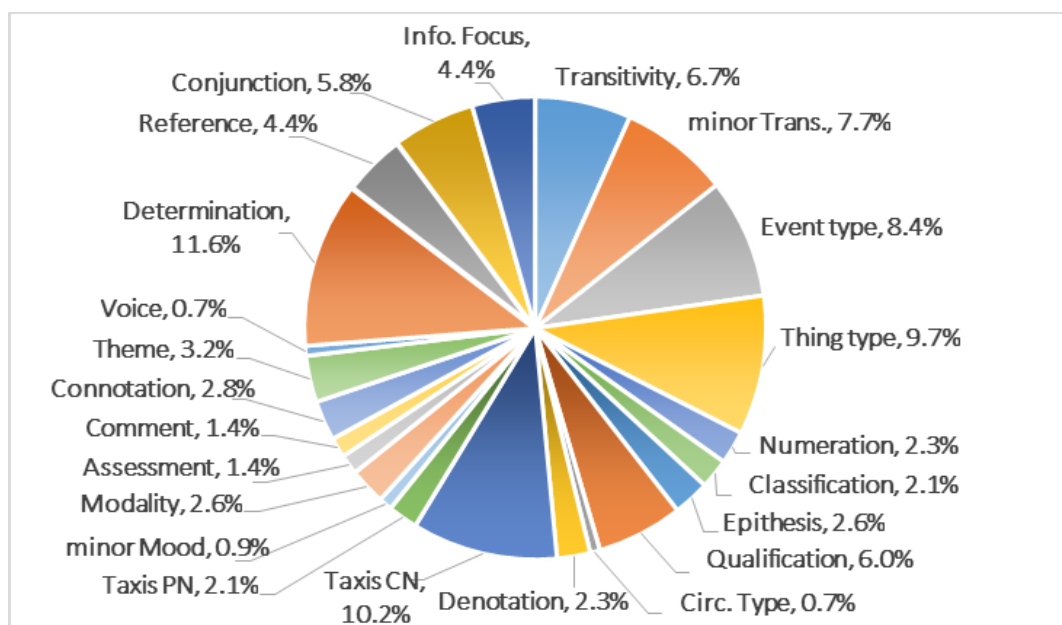


Figure 7.10: Distribution of revisions in terms of systemic choice (JD1)

Figure 7.10 shows that 10.2% ($n=44$) of revisions involved the system of TAXIS (rank: clause nexus, function: logical), 9.7% ($n=42$) involved THING TYPE (rank: NGrp, function: experiential), and so on. From table 7.5 and figure 7.10, we can see that the top 10 systems (function & rank) were:

	System (count)	Function	Rank
1	Determination 50 (11.6%)	Textual	Nominal group
2	Taxis 44 (10.2%)	Logical	Clause nexus
3	Thing type 42 (9.7%)	Experiential	Nominal group
4	Event type 36 (8.4%)	Experiential	Verbal group
5	minor Transitivity 33 (7.7%)	Experiential	Phrase
6	Transitivity 29 (6.7%)	Experiential	Clause
7	Qualification 26 (6.0%)	Experiential	Nominal group
8	Conjunction 25 (5.8%)	Textual	Adverbial group
9	Info. Focus 19 (4.4%)	Textual	Info. Unit
	Reference 19 (4.4%)	Textual	Nominal group

Table 7.5: Top ten systems/functions/ranks affected by JD1's revisions

JD2

As per JD1, table 7.6 shows a breakdown of revisions in JD2 in terms of a function/rank matrix:

		Function				Total
		Experiential	Logical	Interpersonal	Textual	
Rank	Clause	13	0	5	12	30
	Clause nexus	0	37	0	0	37
	Group nexus	0	9	0	0	9
	Phrase nexus	0	2	0	0	2
	Phrase	19	0	1	0	20
	Verbal group	40	5	19	1	65
	Nominal group	131	0	9	69	209
	Adverbial group	5	0	5	14	24
	Word	17	0	28	0	45
	Info. Unit	0	0	0	6	6
Total		225	53	67	102	447

Table 7.6: Function/rank matrix for revision activity in JD2

Once again, table 7.6 shows how revisions involving experiential meanings in the NGrp were the most prevalent ($n=131$), followed by textual meanings in the NGrp ($n=69$), and then experiential meanings in the VGrp ($n=45$). Once more, to explore these choices in systemic terms, table 7.7 below gives an overview of revision activity in terms systemic choice:

		Function				Total				
		Experiential	Logical	Interpersonal	Textual					
Rank	Clause	Transitivity	13	Mood	5	Theme	12	30		
	Clause nexus		Taxis	37				37		
	Phrase nexus			9				9		
	Group nexus			2				2		
	Phrase	minor Transitivity	19		minor Mood	1			20	
	Verbal group	Event type	40	Tense	5	Polarity	4	Voice	1	50
		Aspect	0		Modality	15	Substitution	0	15	
	Nominal group	Thing type	37		Person	1	Determination	37	75	
		Pre-determination	1		Assessment	8	Reference	26	35	
		Numeration	15				Substitution	1	16	
		Classification	9				Ellipses	5	14	
		Epithesis	18				69		18	
		Qualification	39						39	
	Adverbial group	Post-deictic	12						12	
		Circ. Type	5		Comment	5	Conjunction	14	24	
	Word	Denotation	17		Connotation	28			45	
	Info. Unit				Key	0	Info. Focus	6	6	
	Total		225	53		67		102	447	

Table 7.7: Revision activity and systemic choice in JD2

Unlike JD1, table 7.7 shows that QUALIFICATION ($n=39$) is the most frequent nominal system affected by revision activity, with THING TYPE ($n=37$) a close second. Figure 7.11 gives a pictorial view of this data:

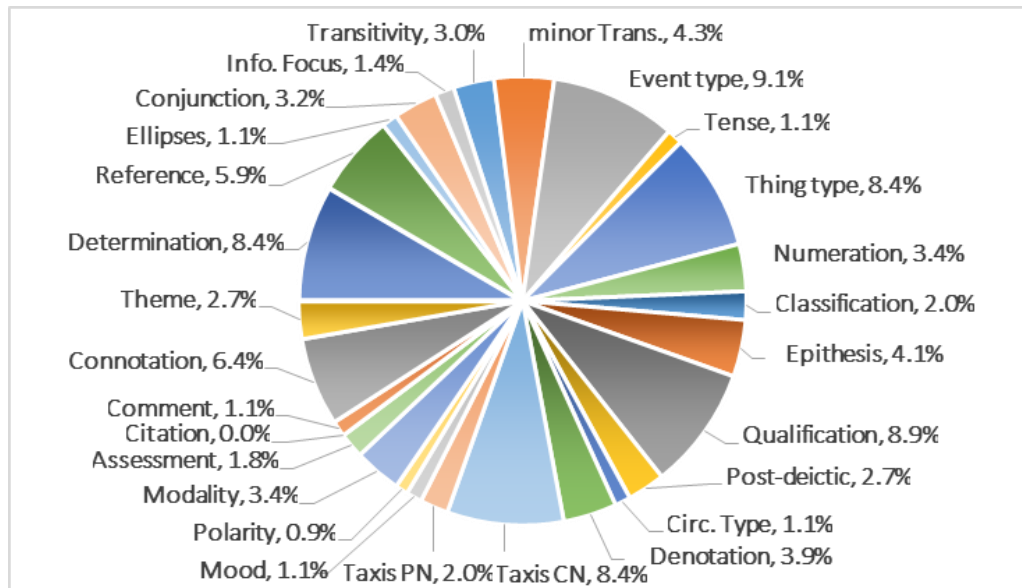


Figure 7.11: Distribution of revisions in terms of systemic choice (JD2)

Figure 7.11 shows that 9.1% of revisions involved EVENT TYPE (rank: VGrp, function: experiential), 8.4% TAXIS (rank: clause nexus, function: logical), 8.4% DETERMINATION (rank: NGrp, function: textual), and so on. Subsequently, the top 10 systems involved in JD2 were:

	System (count)	Function	Rank
1.	Event type 40 (9.1%)	Experiential	Verbal group
2.	Qualification 39 (8.9%)	Experiential	Nominal group
3.	Thing type 37 (8.4%)	Experiential	Nominal group
	Taxis 37 (8.4%)	Logical	Clause nexus
	Determination 37 (8.4%)	Textual	Nominal group
4.	Connotation 28 (6.4%)	Interpersonal	Word
5.	Reference 26 (5.9%)	Textual	Nominal group
6.	minor Trans. 19 (4.3%)	Experiential	Phrase
7.	Epithesis 18 (4.1%)	Experiential	Nominal group
8.	Denotation 17 (3.9%)	Experiential	Word

Table 7.8: Top ten systems/functions/ranks affected by revision activity in JD2

JD3

Table 7.9 below shows a breakdown of revision choices in JD3 in terms of a function/rank matrix:

		Function				Total
		Experiential	Logical	Interpersonal	Textual	
Rank	Clause	26		0	4	30
	Clause nexus		28			28
	Group nexus		14			14
	Phrase nexus		1			1
	Phrase	9		0		9
	Verbal group	35		13	0	54
	Nominal group	129		5	64	198
	Adverbial group	4		3	24	31
	Word	32		1		33
	Info. Unit			0	1	1
Total	235	49	22	93	399	

Table 7.9: Function-rank matrix for revision activity in JD3

Again, as per JD1 and JD2, table 7.9 shows revisions involving experiential meanings in the NGrp are the most prevalent in JD3 ($n=129$), followed by textual meanings in the NGrp ($n=62$) and experiential meanings in the VGrp ($n=35$). Table 7.10 below once again gives a detailed overview of revision activity in terms of systemic choice:

		Function				Total				
		Experiential	Logical	Interpersonal	Textual					
Rank	Clause	Transitivity	26		Mood	0	Theme	4	30	
	Clause nexus			Taxis	28				28	
	Phrase nexus				14				14	
	Group nexus				1				1	
	Phrase	minor Transitivity	9		minor Mood	0			9	
	Verbal group	Event type	34	Tense	6	Polarity	1	Voice	0	41
		Aspect	1			Modality	12	Substitution	0	13
	Nominal group	Thing type	57			Person	1	Determination	45	103
		Pre-determination	2			Assessment	4	Reference	16	22
		Numeration	11					Substitution	3	14
		Classification	11					Ellipses	0	11
		Epithesis	14							14
		Qualification	31							31
		Post-deictic	3							3
	Adverbial group	Circ. Type	4			Comment	3	Conjunction	24	31
	Word	Denotation	32			Connotation	1			33
	Info. Unit					Key	0	Info. Focus	1	1
	Total		235		49		22		93	399

Table 7.10: Revision activity and systemic choice in JD3

As per JD1, THING TYPE is the most frequently involved nominal system in JD2's revision activity ($n=56$), closely followed by QUALIFICATION ($n=32$). Figure 7.12 gives a pictorial view of this data:

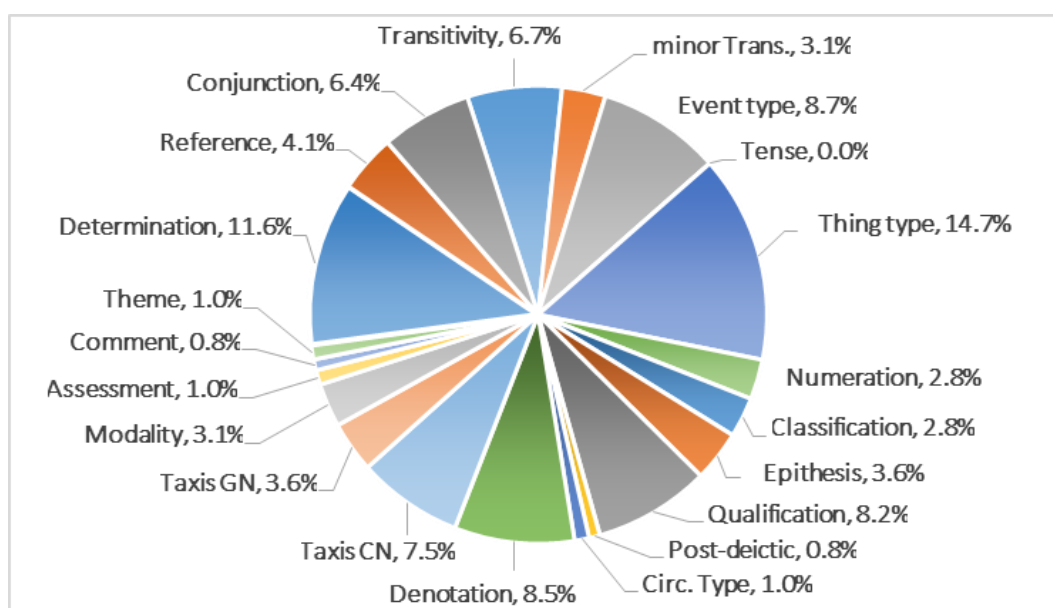


Figure 7.12: Distribution of revisions in terms of systemic choice (JD3)

Figure 7.12 shows that 14.9% of revisions involved choices in THING TYPE (rank: NGrp, function: experiential), 11.8% in DETERMINATION (rank: NGrp, function: textual), 8.9% in EVENT TYPE (rank: VGrp, function: experiential), and so on. The top 10 systems affected by revisions in JD3 were:

	System (count)	Function	Rank
1	Thing type 57 (14.7%)	Experiential	Nominal group
2	Determination 45 (11.6%)	Textual	Nominal group
3	Event type 34 (8.7%)	Experiential	Verbal group
4	Denotation 33 (8.5%)	Experiential	Word
5	Qualification 32 (8.2%)	Experiential	Nominal group
6	Taxis 28 (7.5%)	Logical	Clause nexus
7	Transitivity 26 (6.7%)	Experiential	Clause
8	Conjunction 24 (6.4%)	Textual	Adverbial group
9	Reference 15 (4.1%)	Textual	Nominal group
10	Epithesis 14 (3.6%)	Experiential	Nominal group
	Taxis 14 (3.6%)	Logical	Group nexus

Table 7.11: Top ten systems/functions/ranks affected by revision activity in JD3

BB

Finally, table 7.12 shows a breakdown of BB's revision choices via a function/rank matrix:

		Function				Total
		Experiential	Logical	Interpersonal	Textual	
Rank	Clause	2		1	3	6
	Clause nexus		14			14
	Phrase nexus		0			0
	Group nexus		7			7
	Phrase	4		0		4
	Verbal group	10	3	3	0	16
	Nominal group	39		0	25	64
	Adverbial group	1		2	3	6
	Word	10		4		14
	Info. Unit				2	2
Total	66	24	14	33	133	

Table 7.12: Function/rank matrix for revision activity in BB

As per JD1, JD2, and JD3, table 7.12 shows that revisions involving experiential meanings in the NGrp were the most prevalent ($n=39$), followed by textual meanings in the NGrp ($n=25$), and experiential meanings in the VGrp ($n=11$). Table 7.13 shows BB's revisions in terms of systemic choice:

		Function				Total
		Experiential	Logical	Interpersonal	Textual	
Rank	Clause	Transitivity 2		Mood 1	Theme 3	6
	Clause nexus		Taxis 14			14
	Phrase nexus		7			7
	Group nexus		0			0
	Phrase	minor Transitivity 4		minor Mood 0		4
	Verbal group	Event type 9	Tense 1	Polarity 1	Voice 0	12
		Aspect 1	Connotation 2	Modality 2	Substitution 0	4
	Nominal group	Thing type 11		Person 0	Determination 21	32
		Pre-determination 0		Assessment 0	Reference 4	4
		Numeration 1			Substitution 0	1
		Classification 6			Ellipses 0	6
		Epithesis 7				7
		Qualification 14				14
		Post-deictic 0				0
	Adverbial group	Circ. Type 1		Comment 2	Conjunction 3	6
	Word	Denotation 10		Connotation 4		14
	Info. Unit			Key 0	Info. Focus 2	2
Total	67	23	14	33	133	

Table 7.13: Revision activity and systemic choice in BB

As per JD2, QUALIFICATION ($n=14$) was the most revised nominal system in BB, followed closely by THING TYPE ($n=11$). Figure 7.13 gives a pictorial view of this data:

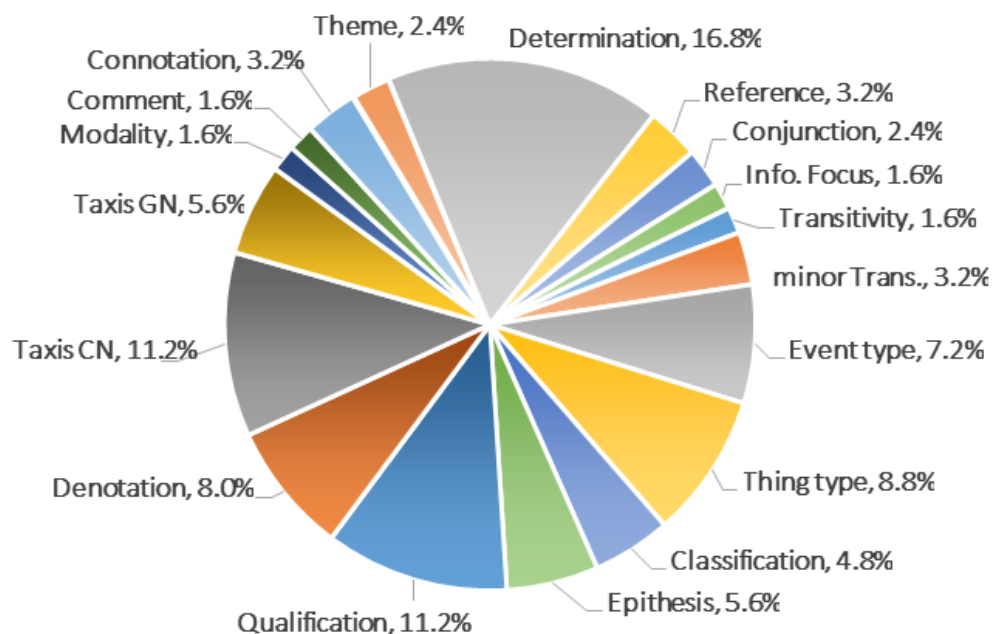


Figure 7.13: Distribution of revisions in terms of systemic choice (BB)

Figure 7.13 shows the most frequently involved systems in BB's revisions were DETERMINATION (rank: NGrp, function: textual) at 16.8%, TAXIS (rank: clause nexus, function: logical), and QUALIFICATION (rank: NGrp, function: experiential) at 11.2%. The top 10 systems affected by revisions were:

	System (count)	Function	Rank
1	Determination 21 (16.8%)	Textual	Nominal group
2	Qualification 14 (11.2%)	Experiential	Nominal group
	Taxis 14 (11.2%)	Logical	Clause nexus
3	Thing type 11 (8.8%)	Experiential	Nominal group
4	Denotation (synonymy) 10 (8.0%)	Experiential	Word
5	Event type 9 (7.2%)	Experiential	Verbal group
6	Epithesis 7 (5.6%)	Experiential	Nominal group
	Taxis 7 (5.6%)	Logical	Group nexus
7	Classification 6 (4.8%)	Experiential	Nominal group
8	minor Transitivity 4 (3.2%)	Experiential	Phrase
	Connotation 4 (3.2%)	Interpersonal	Word
	Reference 4 (3.2%)	Textual	Nominal group

Table 7.14: Top ten systems/functions/ranks affected by revision activity in BB

Now that we have presented the data in a systematic way, we are in a better position to answer the first RQ, which is 'what are the key linguistic features of 2nd year undergraduate revisions?'. Bringing together the findings presented above, we see that certain systems and, therefore, certain realizations, appear to be comparable between and within writers/text-types. This is perhaps more evident if we look at the top 5 lexicogrammatical systems affected by revisions in each dataset alongside their frequency counts:

Bringing together the findings presented above, we see that certain systems and, therefore, certain realizations, appear to be comparable between and within writers/text-types. This is perhaps more evident if we look at the top 5 lexicogrammatical systems affected by revisions in each dataset alongside their frequency counts:

JD1			JD2			JD3			BB		
1.	Determination	50	1.	Event type	40	1	Thing type	56	1.	Determination	21
2.	Taxis (clause)	44	2.	Qualification	39	2	Determination	45	2	Qualification	14
3.	Thing type	42	3.	Thing type	37	3	Event type	34		Taxis (clause)	14
4.	Event type	36		Taxis (clause)	37	4	Qualification	32	3.	Thing type	11
5.	minor Trans.	33		Determination	37		Denotation	32	4.	Denotation	10
			4.	Connotation	28	5	Taxis (clause)	28	5.	Event type	9
			5.	Reference	26						

Table 7.15: Top five systems involved in revision activity

It is evident from table 7.15 that four systems consistently show up in the top five regardless of the writer (JD or BB) or the text (JD1, JD2, JD3, BB). These are (in order of overall frequency): DETERMINATION ($n=153$), THING TYPE ($n=146$), TAXIS: clause nexus ($n=123$), and EVENT TYPE ($n=119$). Furthermore, in three of the four datasets, QUALIFICATION showed up in the top five, whereas in JD1 it ranked seventh with $n=26$, giving QUALIFICATION a total count of $n=111$, and thus making it the fifth most frequent system overall. Consequently, in answer to RQ 2(a). What are the key linguistic features of undergraduates' revisions? We can say that the key linguistic features when revising academic essays for these two writers appear to be items such as Determiners (the, their, etc.), Things (nouns), tactic relations (typically conjunctions), Processes (verbs), and Qualifiers (typically prepositional phrases).

With these findings in mind, in the next section we will move on to RQ 2(b) and examine in more

detail what these features actually represent, and why they appear to occur so frequently in revision activity regardless of the writer or text.

7.2 Key linguistic choices in revising academic essays

This section explores the commonalities between the revision choices in both the writers and the texts discussed above. The focus here is to discuss possible reasons/benefits as to why these commonalities exist, rather than simply list such commonalities.

As we saw from the previous section, certain systems and, therefore, certain language functions and their realizations, appear to be comparable between and within writers/text-types. This was evident from table 7.15, where four systems consistently showed up in our top five lists of system choices in each dataset. As a quick reminder these were: DETERMINATION ($n=153$), THING TYPE ($n=146$), TAXIS: clause nexus ($n=123$), and EVENT TYPE ($n=119$). We also saw how QUALIFICATION ($n=111$) was the fifth most frequently affected overall, being in the top five of three of the four datasets, and seventh in the fourth. Consequently, the features that these five systems represent will be discussed here in more detail.

If we consider the findings of §7.1.2, it is perhaps somewhat unsurprising that three of the top five systems operate at the nominal rank. More specifically, it is well known from research into academic writing that meanings at the level of the clause ('figures') are frequently condensed, distilled, and repackaged into constituents at the lower levels, and that it is the NGrp where most of these condensed or 'down-ranked' figures are realized (Halliday & Matthiessen, 1999). In their volume dedicated to scientific/academic language, for example, Halliday and Martin (1993, p.6) frequently refer to this realizational shift as grammatical intricacy or 'technical' grammar. They argue that grammatical intricacy is just as important as technical lexis (vocabulary) to the realization of written academic text: they see intricate lexis and intricate grammar as 'different aspects of the same semiotic process: that of evolving a technical form of discourse' (Halliday & Martin, 1993, p.8). In essence, technical grammar and technical lexis work together: lexis provides the potential for grammar to expand in the form of new words that help signify systematic relations in extended taxonomies (as explained in §3.3), while grammar provides the potential for lexis to expand. This is most evident in the NGrp, where nominal elements are a prime site where technical grammar and technical lexis unfold. Moreover, as we saw in Chapter 3, NGrp complexity is frequently cited as one of the hallmarks of academic texts. For example, as Fang, Schleppegrell, and Cox (2006) note 'nominal elements can pack a lot of information into a clause through a variety of pre- and post-modifying elements, including adjectives, adverbs, -ed/ing participles, prepositional phrases, and relative clauses' (p.253). However, while it is evident that the English NGrp incorporates these elements sequentially, by means of four basic elements:

[(Determiner)*^(Modifier)*^Thing ^(Qualifier)*]⁵ (Fontaine, 2012, p.48), the arrangement of these elements also constitutes an orbital (mono-nuclear) relation. In this mono-nuclear view of the NGrp, the 'Thing' functions as the nucleus to which the other elements are more or less gravitationally bound⁶, as shown in figure 7.14:

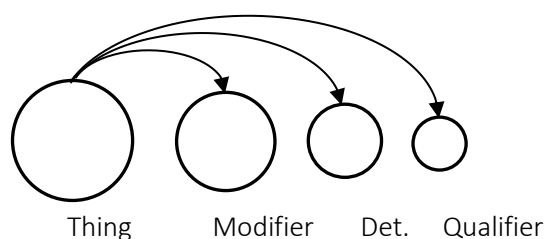


Figure 7.14: Orbital (mono-nuclear) structure of experiential meaning in the NGrp

Here the grammar provides four 'slots', where the meaning potential of a Participant (the 'Thing') can be modified, increasing/decreasing its specificity, description, identifiability, and so on. Accordingly, within these four elements there is significant leeway for a writer to manipulate meaning, texture, and cohesion and, it is here, incidentally, that we find the three nominal systems listed above (the 'Modifier' element is conspicuously absent for reasons that will become evident below). However, before we look at some examples, we shall say a bit more about the meaning potential of these four nominal elements.

If we examine the four basic elements in figure 7.14 above in terms of semantics we can say that '[t]he nominal group is organized as a move along two dimensions: the elements become increasingly stable in time, and increasingly complex in their taxonomy of features' (Halliday & Matthiessen, 1999, p.209). Alternatively, we can say that in modifying a NGrp a writer can move from grammar to lexis increasing or decreasing the permanence of a Thing and its experiential complexity via the addition/deletion of modifiers. Both these perspectives are valuable if we consider how nominal elements contribute to a text: seen from above the clause, a NGrp construes/realizes a gestalt entity (Medium, or Agent in a figure); whilst seen from below the clause, the four basic elements regulate (activate/realize) the description, specificity, and ascription of that entity in relation to context and co-text (Halliday & Matthiessen, 1999, p.183). As Halliday and Matthiessen (1999) state:

'it is in the category of the **thing** that the grammar captures to the greatest measure the complexity of the elemental phenomena of human experience.' (p.193, original emphasis)

One way to capture this complexity is to examine the choices our writers make with regards to MODIFICATION—a logical (univariate) view of constituent structure in the NGrp—in combination

⁵ The asterisk* denotes that an element can be repeated, while the parenthesis indicates optionality.

⁶ See Martin (1996) for a detailed discussion of structures and meanings.

with the other nominal systems—an experiential, interpersonal, and textual (multivariate) view of constituent structure in the NGrp. To further contextualise this view, the lexicogrammatical systems pertaining to the English NGrp are shown in table 7.16 (cf. §5.6.2.5 to see how these systems fit into the overall language system):

	Ideational			
	Logical	Experiential	Interpersonal	Textual
nominal group	MODIFICATION	THING TYPE, NUMERATION, CLASSIFICATION, EPITHESES & QUALIFICATION	PERSON ASSESSMENT ⁷	DETERMINATION

Table 7.16: Nominal systems in English as per IFG4 (p.87)

From this snapshot of English nominal systems we can locate the three systems as follows: THING TYPE is experientially based QUALIFICATION, meanwhile, is portrayed in IFG4 as both experiential and logical (via the broader system of MODIFICATION). The argument for this duality with regard to Qualifiers within IFG4 seems to be based on the fact that most Qualifiers are typically rankshifted units (such as prepositional phrases) that can be set up in a logicosemantic relation with the Thing⁸ (e.g., see IFG4, pp.313-314). Finally, DETERMINATION is a textually based system. So what possible advantages may these nominal systems (DETERMINATION, THING TYPE, and QUALIFICATION) afford the writer of academic text?

7.2.1 Thing Type

Firstly, being the semantic core of the NGrp, the Thing (selected through THING TYPE) is the nucleus around which the rest of the participant structure orbits. Consider example 7.3:

T-unit	Content
41i	Although a manager and its workforce ⁸⁸ {relationship} _{CP} are different in many ways to a parent-child relationship, {88}

Example 7.3: Fine-tuning a NGrp through THING TYPE (JD1)

Here we see that when 'relationship' is deleted in revision 88, another element ('workforce') moves from being a Classifier to being a Thing (a new head noun in a paratactic relation with another head noun 'manager'). In the first instance, then, this revision changes the propositional

⁷ IFG3 and 4 also include 'nominal MOOD'. However, such a system is conspicuously absent from both books.

⁸ On a brief aside, to account for Modifiers as per the view of the NGrp espoused above—i.e. making a correlation between sequential positioning of functional elements and their corresponding paradigmatic systems—we would need to group the systems of NUMERATION, CLASSIFICATION, EPITHESES, QUALIFICATION, and ASSESSMENT together, which appears to be what Halliday and Matthiessen (2013) denote via their use of MODIFICATION for the logical meanings espoused by these elements. If we were to do this, then their importance in revision activity would appear to be more important than any of the other systems. However, in keeping with the motif of systemic choice in this section, we will limit our discussion to the three individual systems discussed so far (the role of MODIFICATION will be discussed in §7.3.2).

content of the Subject from an abstract association between how two entities interact (the relationship between a manager and its [*sic*] workforce) to two concrete entities (a manager and its workforce). On the face of it, this deletion seems relatively straight forward to analyse: one 'Thing' is replaced with another 'Thing'. However, the Thing is also that element which is typically brought into focus (either Given or New) by taking prominence at the textual peaks of the clause. In example 7.3 above, what is presented as Given (the relationship) is also altered by the change in THING TYPE, so that the Given now becomes 'a manager and its workforce'⁹. Here, then, we also have a change in INFORMATION FOCUS.

Perhaps this becomes clearer if we consider another example:

T-unit	Content
33i	An order or command is threatening to the hearer, J ⁷⁴ { <i>'s negative face</i> }, _{CP}

Example 7.4: Fine tuning a clause's textual peak (New) through THING TYPE (JD1)

In example 7.4, revision 74 creates a new NGrp with 'face' as the Thing. In systemic terms, the addition of 's' equals a change in DEIXIS of +[Specific (↘possessive determiner): personal, determinative: non-interactant: one only: conscious], whilst the addition of 'negative' equals a change in MODIFICATION/CLASSIFICATION of +[Classifier (↘adjective)]. However, the addition of this new Thing ('face') also changes the New within the N-Rheme from 'the hearer, J' to 'J's negative face'.

Furthermore, through changes in THING TYPE a writer can manipulate a referent to make it more or less specific. Changes in the specification of a referent can aid the writer in building and maintaining reference chains that may be more or less easily followed by a reader. In example 7.5, for instance, revision 67 increases the specificity of the NGrp serving as the New:

T-unit	Content
21iii	a listener would need to see the pictures for ⁶⁷ {the <i>m</i> <i>ir stories</i> }, _{INSA} to make sense.

Example 7.5: Increasing specificity through DETERMINATION & THING TYPE (JD2)

Revision 67 deletes 'them', which is a change in REFERENCE of -[Personal reference (↘pronoun): determinative, plural], and adds 'their', which is a change in DETERMINATION of +[Deictic (↘possessive determiner): specific: personal, determinative]) and 'stories', which is change in THING TYPE of +[Thing (↘noun: plural). On the surface, this appears to be a straight forward swop from a pronoun to a possessive NGrp. However, the revision primarily contributes to a change in textual meaning (specification via DETERMINATION in combination with a new Thing); fundamentally, because 'them' and 'stories' refer to the same entity there is no change in experiential meaning, but there is a change in how the writer projects the recoverability of the

⁹ 'its' was deleted in a later revision, leaving just 'a manager and workforce'.

referent—the writer is saying the semantic core of this referent is now a generic entity that does not need to be recovered—'stories' is simply a homophoric reference that can be identified with respect to societal/cultural knowledge. What does need to be recovered, however, is whose story it is—'their' being an anaphoric referent that is recoverable from the Subject of the previous clause.

Ultimately, these three examples illustrate how a simple revision involving a choice in THING TYPE can contribute complex meanings in combination with shifts in other lexicogrammatical systems

7.2.2 Qualification

So what of QUALIFICATION? What does this system afford the writer in terms of revising academic text? Firstly, although the Qualifier is said to be the element with the least potential for increasing a Thing's specificity in contrast to pre-modifiers and Determiners (Halliday, 1998), it arguably has much greater potential for condensing and distilling information within the NGrp. As Halliday and Matthiessen (2013) state:

'With only rare exceptions, all Qualifiers are **rankshifted**. What this means is that position following the Thing is reserved for those items that, in their own structure, are of a rank higher than or at least equivalent to that of the nominal group.' (p.382, *emphasis in original*)

Prepositional phrases are the most typical form of rankshifted (or embedded) Qualifiers (Matthiessen, 1995, p.670). Due to their potential to contain many kinds of meaning, rankshifted units functioning as Qualifiers can expand the Thing in terms of elaborating (reiterating relation), enhancing (qualifying relation), extending (additive relation), or projecting upon it (Halliday & Matthiessen, 2013, p.666). Consider, example 7.6, which shows an enhancing Qualifier being added through revision:

T-unit	Content
7ii	and participants were aware of their right to withdraw ⁵⁹ {from my study.} _{CP}

Example 7.6: Enhancing a Thing through QUALIFICATION (JD1)

In this example, revision 59 from JD2 adds 'from my study'. This phrase qualifies the Thing 'withdraw', which is also part of a Qualifier. Revision 59, though, also adds further information in relation to the question 'where?' i.e. it provides the answer 'from my study'. In terms of systemic choice, it equals +[Qualifier (↳prepositional phrase): circumstance: enhancing: location: (abstract) place].

Conversely, consider example 7.7:

T-unit	Content
12i	Bernstein also claims that the social class ⁵⁹ {we are brought up in} _{FP} has the biggest influence on socialization

Example 7.7: Elaborating a Thing through QUALIFICATION (JD2)

In this example, revision 59 adds an embedded (down-ranked) defining clause 'we are brought up in'¹⁰. This qualifies 'the social class' by adding further information in relation to the question 'what as?' It provides the answer 'in the role/shape/guise of being brought up in a specific class'. In terms of systemic choice, it equals +[Qualifier (↘emb. defining relative clause): elaboration: apposition: expository]¹¹.

Finally, example 7.8 shows an extending Qualifier being added through revision:

T-unit	Content
41	Just as French words permeated the language, so did words from other languages ⁴⁵ { th with} _{PP} which{45}h the people of England had contact with.

Example 7.8: Extending a Thing through QUALIFICATION (BB)

Here we have a revision that performs more than one function. However, for our immediate purposes we will focus only on the contribution of 'with'. By inserting this preposition, BB creates a prepositional phrase that qualifies the Thing 'languages' by adding further information in relation to the question 'what with?' In terms of systemic choice, the revision equals +[Qualifier (↘prepositional phrase): extending: accompaniment: comitative].

Qualifiers can also be used to fine-tune a referent's identity. They do this by affording the writer a scale of gradation along which to move in terms of taxonomizing and/or describing (Fontaine, 2012, p.57). For example, revision 41 below adds the prepositional phrase 'within these communities' as a Qualifier to 'literacy event'. In systemic terms this equals +[Qualifier (↘prepositional phrase): circumstance: enhancing: location: place].

T-unit	Content
3	Heath looked at literacy events ⁴¹ {within these communities;} _{INS} , 'occasions in which written language is integral to the nature of participants' interactions and their imperative process and interpretive processes and strategies'

Example 7.9: Expanding upon a referent's identity through QUALIFICATION (JD2)

In the above example, 'literacy events' functions as the Phenomenon in a process of 'looking', whereby the preceding NGrp ('Heath') functions as the Senser. In referential terms, adding the Qualifier 'within these communities' increases the specificity of the Phenomenon—JD is effectively telling the reader that this Phenomenon is identifiable in relation to the communities I have already mentioned. We know, in her mind at least, that she is referring to communities she has already mentioned because she chooses to use the deictic 'these' before 'communities', which represents a choice in DETERMINATION of +[Deictic (↘determiner): specific: demonstrative, determinative: selective: plural, near]. The key selection here is 'near', which means in the close

¹⁰ The omission of the structural marker 'that/which' appeared to be a consistent 'error/style' for JD.

¹¹ Cf. Halliday & Matthiessen (2013, p.670) for equivalency relations at other ranks.

co-textual vicinity¹². This one example, then, shows how QUALIFICATION can fine-tune a referent's identity by incorporating within it a choice in DETERMINATION. DETERMINATION was the third nominal system we earmarked for discussion, so we shall now move on to a brief discussion of its potential benefit to a writer.

7.2.3 Determination

Within SFL, DETERMINATION¹³ is the system of options for the deictic element: 'The Deictic element indicates whether or not some specific subset of the Thing is intended' (Halliday & Matthiessen, 2013, p.365). DETERMINATION makes a primary distinction between whether a Thing is labelled as specific in relation to the here and now of the speaker/writer, or non-specific. I.e. It is the opposition between 'I am talking about a particular subset of the Thing that is identifiable from the context/co-text, e.g., **this** table', **that** apple', **your** pen', versus 'I am talking about some Thing, which may or may not be identifiable from the local context/co-text', e.g. **a** table', **an** apple'. In other words, DETERMINATION is a textual system within the NGrp that has close ties to REFERENCE through its potential to set up co-textual (endophora) or contextual (homophora/exophora) links (the system network for DETERMINATION is shown in figure 7.15, on the next page).

From the dataset (cf. *DETERMINATION work sheets, Appendix CD*), we see that the majority of revisions involved the non-selective deictics 'the' and 'a(n)'. For example, in JD1, 31 out of 50 (62%) revisions involving DETERMINATION concerned 'the' ($n=17$) or 'a(n)' ($n=12$). Similarly, in JD2, 24 of 37 (65%) revisions involved 'the' ($n=17$) and 'a(n)' ($n=7$), and in JD3, 30 of 45 (67%) revisions involved 'the' ($n=15$) and 'a(n)' ($n=15$). In BB, meanwhile, 17 of 21 revisions involving DETERMINATION (81%) concerned 'the'.

The Determiners 'the' and 'a(n)' are grammatical items (closed-class words) that represent a basic dichotomy between specific/non-specific (definite/indefinite). They are, in essence, the structural items with the most and least specifying potential. For example, if a Participant/Thing is made specific (e.g. **the** government') it is 'being held in a location within a referential space' (Halliday & Matthiessen, 1999, p.133). This means that 'the government' is being marked as a recoverable entity (a specific government that is identifiable) via one of three sources: (1) shared knowledge between writer-reader (*homophora*: context of culture); (2) information contained elsewhere in a text (*endophora*: co-textual); or (3) perceptible sources outside a text (*exophora*: context of situation) (Halliday & Hasan, 1976).

¹² This is a written text that is disconnected from a physical locale so it must refer to co-text.

¹³ DETERMINATION is the grammatical correlate of Martin's (1992) semantic system of IDENTIFICATION.

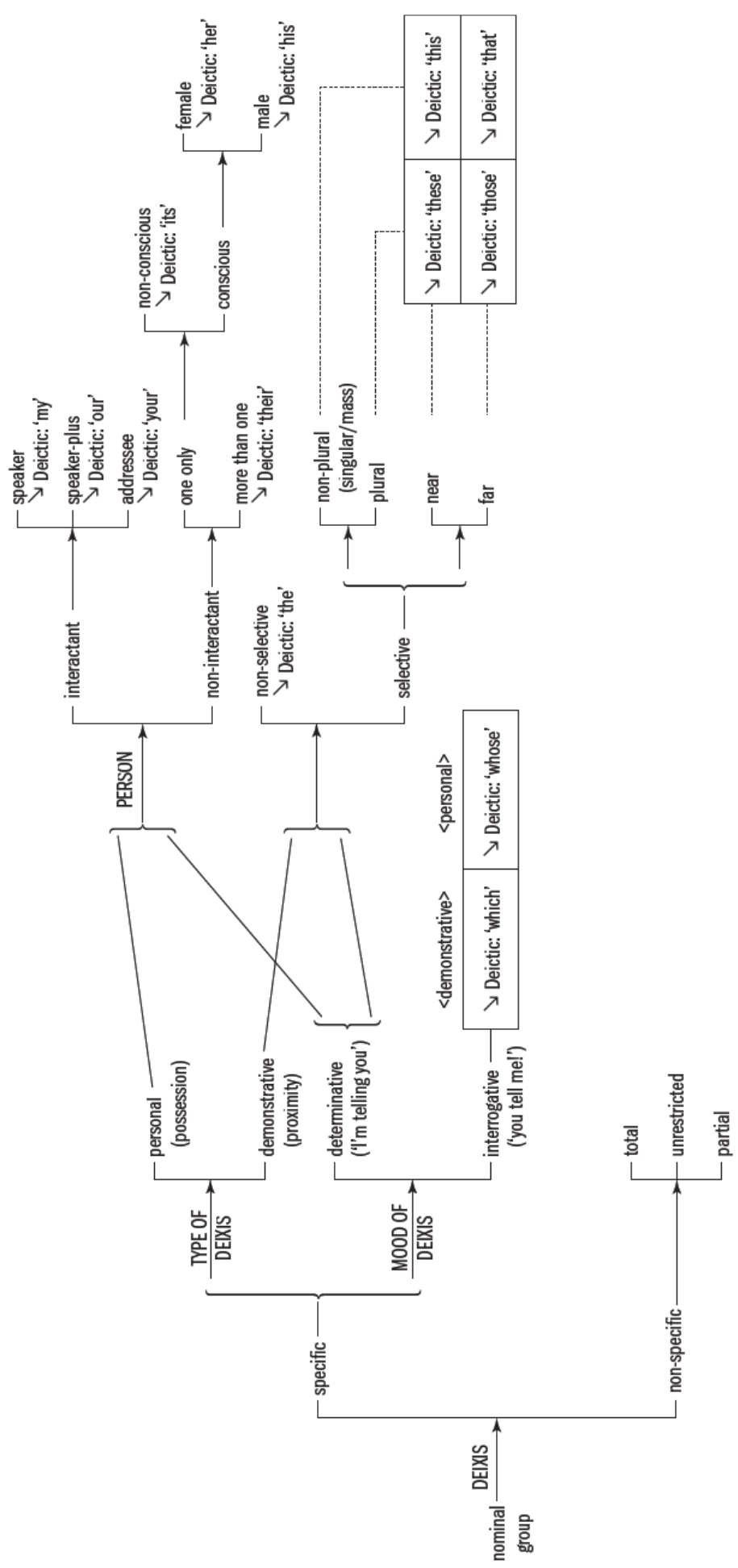


Figure 7.15: System of DETERMINATION (IFG4, p.366)

This basic distinction between labelling a referent as recoverable or not has obvious implications for a text's cohesiveness, particularly when elements are being added/removed through revision: if an entity is made specific via DETERMINATION alone it must be recoverable for the reader to make sense of it. This means that many of the NGrps using specific deictics, such as 'the', 'his', etc., need to be introduced earlier in the text—they are presumed referents in the eyes of the reader (cf. Martin, 1992, p.140). Whereas NGrps using non-specific deictics, such as 'a(n)', 'some', etc., are those that are doing the introducing (the presented referent). The identity of a referent being further specified by other elements within the NGrp (e.g. QUALIFICATION as discussed above).

In short texts with many different participants, then, we would expect to see more non-specific deictics than specific deictics; the assumption being that if reference chains are needed, they will be short. Consequently, perhaps this is why we see a decrease in the use of specific Determiners (e.g. 'the', 'my', 'his') and an increase in non-specific determiners (e.g. 'a(n)', 'some') through revision activity in all the datasets; i.e. this patterning is primarily a reflection of new participants being introduced as new content is added. As a case in point, consider example 7.10:

T-unit	Content
19	Bernstein claimed that while the middle-class were likely to have access to both codes, ¹⁹ {some sections of} _{CP} the working-class were {19} likely to have access only to the restricted code.

Example 7.10: Decreasing specificity through DETERMINATION (JD2)

In this example, revision 19 adds 'some', which is a choice in DETERMINATION of +[Deictic (↘determiner): non-specific: partial: selective] and 'sections of', which is a choice in MODIFICATION/NUMERATION of +[Extended Numerative (↘noun...'of'): measure: portion] (IFG4, p.395). The Determiner 'some' decreases the specificity of the NGrp 'the working-class' (Participant/Possessor) by referring to an indeterminate number of 'sections'.

Example 7.11 is an even clearer illustration of how a Determiner can decrease a Participant's specificity:

T-unit	Content
33i	⁷³ {The A} _{INSA} command is threatening to the hearer, J.

Example 7.11: Decreasing specificity through DETERMINATION (JD1)

In this example, revision 73 substitutes the definite article 'The' for the indefinite article 'A', creating a non-specific entity 'A command'. Initially, this revision appears to be slightly strange, because 'command' has already been introduced as a non-specific entity in T-unit 32ii ('N makes a command'). However, if we skip ahead to revision 75, which occurs later on in the same T-unit, and is shown in example 7.12 below, JD seems to have noticed this peculiarity and subsequently introduces a new referent 'An order', which she sets up in a paratactic extending relation with the original Subject/Carrier via the conjunction 'or'.

T-unit	Content
33i	A ⁷⁵ {n order or} _{CP} command is threatening to the hearer, J ⁷⁴ {'s negative face, _{CP} {75}}

Example 7.12: Introducing a referent through DETERMINATION (JD1)

Ultimately, these three brief examples show how DETERMINATION can be used to fine-tune text in terms of locating Participants/Things in a referential space. Writers can do this by marking structures as either recoverable or non-recoverable from one of the three sources discussed above ((1) context of culture (*homophora*); (2) co-text (*endophora*); or (3) context of situation (*exophora*) (Halliday & Hasan, 1976).

In the majority of cases, though, we see that each writer's main concern when revising NGrps for textual meaning was making a distinction between recoverable (presuming) and non-recoverable (presenting) via choices in the non-selective deictics 'the' and 'a(n)'. However, as hinted at in §7.2.2, when we discussed Qualifiers, and as we shall see in §7.3.1, these writers also used other nominal modifiers to indirectly fine-tune textual meanings by creating generic referents. These generic referents do not rely on DETERMINATION because they are technically bereft of a need for being held in a referential space—they are inherently presuming because they are shifted into the realm of *homophora*.

7.2.4 Interdependency relations

The next system(s) we will consider are TAXIS and LOGICO-SEMANTIC TYPE. These are collectively referred to in IFG4 as 'INTERDEPENDENCY' (Halliday & Matthiessen, 2013, pp.669-672). However, for ease of comprehension, I will use the two individual system names here. These two basic systems (in combination with RECURSION) determine how one unit is related to another when set in a complex (i.e. clause, phrase, or group nexus).

The systems of TAXIS (degree of interdependency) and LOGICO-SEMANTIC TYPE (expanding and projecting relations) intersect, so that whenever two elements are set in a complex there will be a relation between them that is a combination of both TAXIS and LOGICO-SEMANTIC TYPE. For example, consider the system network for clause complexing¹⁴:

¹⁴ This system can be transposed at other ranks and still hold true, only the entry condition will change.

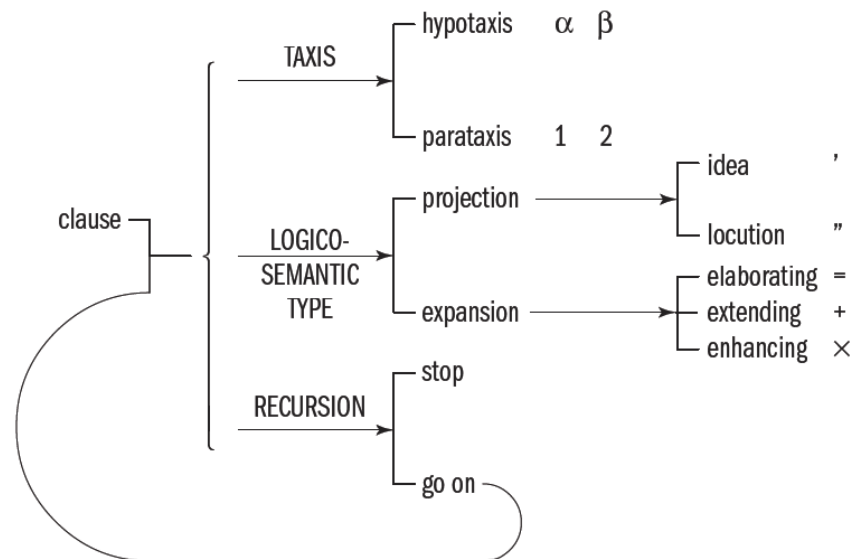


Figure 7.16: The systems of clause complexing (IFG4, p.438)

In this network, TAXIS concerns a basic distinction between whether two or more units in a sequence are of equal status (parataxis) or not (hypotaxis). This is essentially the difference between whether one unit is initiating (1) and the other unit(s) are secondary/continuing (2, 3, etc.), or one unit is primary/dominant (α) and the other unit(s) are secondary/dependent (β). However, as shown above, a choice in TAXIS also requires a choice in LOGICO-SEMANTIC TYPE (and RECURSION). Consider example 7.13:

T-unit		Content
30i	1	However, she does the opposite.
30ii	+2 α	and seems to almost 'side' with J, trying to defend her by pointing out that N's accent wasn't a very good one
	$x\beta$	⁴¹ {as it was unrecognisable} _{JINSA}

Example 7.13: Choice in TAXIS and LOGICO-SEMANTIC TYPE (JD1)

In this example, revision 41 adds a dependent clause headed by the conjunction 'as' (i.e. because). This represents a choice in TAXIS of hypotaxis (β) and a choice in LOGICO-SEMANTIC TYPE of enhancing (x)—an interdependency relation of causal-conditional: cause: reason (IFG4, p.672).

In most cases, tactic relations occur at the clausal level, where the grammar has evolved the ability to realize a 'clause nexus' (or T-unit¹⁵) as a means 'to assign different statuses to figures¹⁶ within a sequence' (IFG4, p.441). This ability to assign different statuses and relations between figures is a powerful tool by which a writer can guide the rhetorical development of a text. Consequently, it is perhaps unsurprising that the majority of revisions involving TAXIS&LOGICO-SEMANTIC TYPE involve clause complexing. However, because choices in TAXIS&LOGICOSEMANTIC

¹⁵ Cf. Chapter 5, Section 5.6.1.1, for an explanation of the T-unit.

¹⁶ 'figures are configurations consisting of elements—a process, participants and circumstances' (Halliday & Matthiessen, 1999, p.11)

TYPE can also be realized at phrase and group nexus levels, the following discussion also takes these into account.

As a quick reminder, the overall frequencies (and percentages) of revisions involving TAXIS for each text were: JD1=55 (12.25%), JD2=48 (11.06%), JD3=43 (10.83%), BB=20 (14.7%). However, as highlighted above, a choice in TAXIS also necessitates a choice in LOGICO-SEMANTIC TYPE. Choices in LOGICO-SEMANTIC TYPE, though, are not solely connected to TAXIS because LOGICO-SEMANTIC TYPE is technically not a lexicogrammatical system—it is a pervasive semantic system also manifested in simplexes (as we have already seen in relation to MODIFICATION&QUALIFICATION). Consequently, when we refer to LOGICO-SEMANTIC TYPE here, we are confining ourselves to relations present in complexes only; i.e. those where a choice in TAXIS is also being made¹⁷.

Because two systemic choices are being made when realizing an interdependency relation (TAXIS/LOGICO-SEMANTIC TYPE), we can represent the intersection of these choices by means of a matrix, as per table 7.17:

	JD1				JD2				JD3				BB			
	=	+	x	Total	=	+	x	Total	=	+	x	Total	=	+	x	Total
hypotaxis	7	0	17	24	6	2	12	20	10	0	10	20	1	0	4	5
parataxis	1	29	1	31	1	26	0	27	1	22	0	23	0	14	2	16
Total	8	29	18	55	7	28	12	47	11	22	10	43	1	14	6	21

Table 7.17: Summary of choices in interdependency relations for complexes

Key: elaborating (=), extending (+), enhancing (x)

Table 7.17 shows that hypotactic enhancing relations and paratactic extending relations are the most common types of interdependency relations involved in revision activity in each dataset¹⁸. However, this table is slightly misleading, because if we look at the unfolding of TAXIS&LOGICOSEMANTIC TYPE we see that revisions do not really contribute that much in terms of the overall level of such relations. Figure 7.17 below, for example, displays JD1's choices in these systems over the course of revision activity:

¹⁷ The patterning of logico-semantic types as a whole in each text will be covered in Chapter 8 (Section 8.4), where we will take into account other systems in addition to TAXIS—systems that have the potential to set up logico-semantic relations across elements within simplexes (e.g. MODIFICATION, EVENT TYPE, etc.).

¹⁸ Hypotactic enhancement is when the dependent unit (β) embellishes upon the dominant unit (α) in terms of some circumstantial feature of place, time, manner, cause, or condition. Paratactic extension is when the continuing unit (2) expands upon the initiating unit (1) in terms of addition (positive, negative, adversative) or variation (replacive, subtractive, alternative).

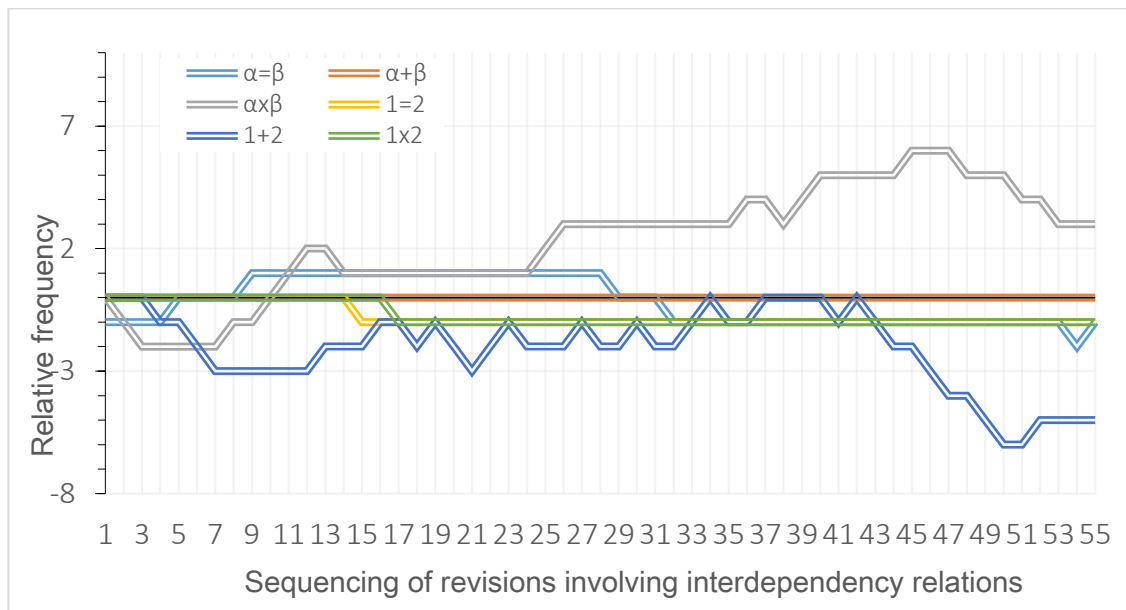


Figure 7.17: Unfolding interdependency choices in revision activity (JD1)

Figure 7.17 shows that there were 55 revisions involving interdependency relations (TAXIS&LOGICO-SEMANTIC TYPE), and these are plotted sequentially along the X-axis. The Y-axis displays a relative frequency count, which shows how each revision either contributed to (added) or subtracted from (deleted) the number of interdependency relations in the text. For example, if a revision added a hypotactic (TAXIS) relation of enhancement (LOGICO-SEMANTIC TYPE), as per example 7.13 above, a count of +1 would be added to the line representing this combination of choices. However, as we can see from figure 7.17, despite there being 55 interdependency revisions in JD1, the overall contribution from such revisions remained relatively low. The only two interdependency relations that show movement beyond ± 5 are hypotactic enhancement ($\alpha\beta$) and paratactic extension ($1+2$). If we look at the interdependency graph for JD2 we see a somewhat similar situation:

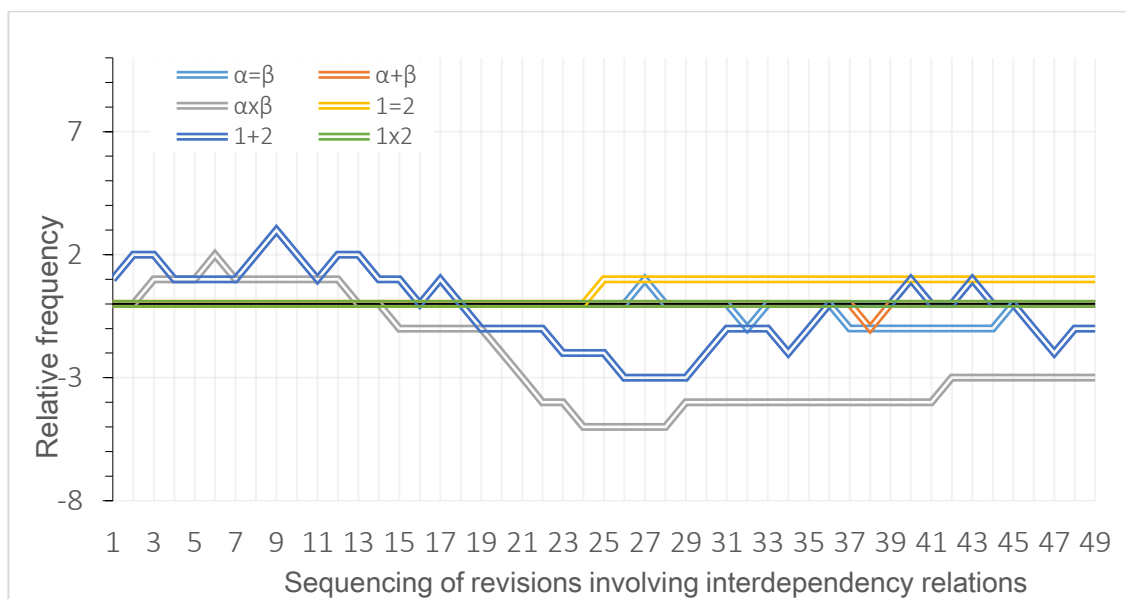


Figure 7.18: Unfolding interdependency choices in revision activity (JD2)

Figure 7.18 also shows that the only real change in interdependency relations via revision activity occurred in hypotactic enhancement ($x\beta$) and paratactic extension (1+2). Only this time, both relations remain in negative numbers. A similar pattern emerges for JD3 and BB, where we see little movement in terms of the overall number of interdependency relations contributed via revision activity, and even then it is only hypotactic enhancement and paratactic extension that show any kind of movement away from the baseline (cf. *Appendix 14: The unfolding of interdependency relations*). Therefore, although the proportion of revisions involving interdependency relations (TAXIS&LOGICO-SEMANTIC TYPE) is relatively high, their contribution to the number of such relations in each text is relatively low.

7.2.5 Event Type

The system of EVENT TYPE concerns experiential choice in the VGrp in terms of selecting the Process. The Process represents a happening or being, and it is the only VGrp element realized via a lexical choice (IFG4, p.410). Accordingly, EVENT TYPE is said to be the verbal analogue of THING TYPE. Furthermore, choices in EVENT TYPE are said to be closely linked to choices in 'the clausal system of PROCESS TYPE¹⁹, which is concerned with distinctions among processes relating to configurations of process plus participants' (IFG4, p.411). Consequently, the only way to decide if a revision involves EVENT TYPE as opposed to PROCESS TYPE (i.e. a selection in TRANSITIVITY) is to look directly at the rank level constituent(s) being altered. I.e. a revision was classed as EVENT TYPE if it did not involve a process **and** its associated participants. The number of revisions involving EVENT TYPE in the dataset was $n=119$.

Summary

In this section we sought to answer RQ 2(b): Are these features (i.e. those discussed in §7.1) comparable between/within different writers/texts? In attempt to answer this question we explored the commonalities between writers and their datasets in terms of the top five lexicogrammatical systems affected by revision activity. These were: THING TYPE ($n=146$), QUALIFICATION ($n=111$), DETERMINATION ($n=153$), TAXIS: clause nexus ($n=123$), and EVENT TYPE ($n=119$).

In terms of revisions involving THING TYPE, QUALIFICATION, and DETERMINATION, we saw how both writers utilised the grammar's ability to construe experience in increasingly complex ways, allowing them to pack more information into NGrps, add judgements and gradations to elements that typically occupy the textual peaks of a clause, and increase/decrease specificity to fine-tune

¹⁹ There seems to some confusion as to the terminology used in IFG4 as PROCESS TYPE is used interchangeably with TRANSITIVITY. I use TRANSITIVITY in my coding scheme as per IFG4, p.87.

cohesion. Furthermore, we saw how the potential of nominal revisions accorded with Halliday's view that the textual potential of modifiers are somewhat analogous to the relationship between Theme+Given → Rheme+New, where movement from the Deictic to the Qualifier typically decreases specificity whilst increasing the quality (informational content) of the Thing. In more technical terms, we could say that these writers exhibited a clustering of systemic choices in revision activity that drew on the NGrp's potential as both a sequential structure and an orbital (mono-nuclear) structure, and, in so doing, modified their texts in a number of complex, yet subtle ways.

In terms of TAXIS&LOGICO-SEMANTIC TYPE, we saw that the actual contribution of these systems²⁰ was relatively low. However, as we will see in Chapter 8, §8.4, these types of relations are also pervasive in simplexes, and it is here, in combination with their realizations in complexes, that we get a clearer picture of their contribution to the evolution of each text.

In terms of revisions involving EVENT TYPE, as will be argued later on, in much the same way as THING TYPE has an increased pool of potential meanings to draw from—both systems involve choices in the two largest groups of open-class words (verbs, and nouns), the increased frequency of revision activity involving this system may be in part due to its greater potential to provide subtle gradations in choice. Moreover, as I shall also argue later on, choices in EVENT TYPE are closely tied to choices in TRANSITIVITY (a clausal level system), because a change in EVENT TYPE (Process) can also reconstrue the relationship between the entities/qualities that fall either side of the Process. This makes exploring the nature of revisions involving EVENT TYPE quite complex, and beyond the limits of the current thesis. Therefore, this area is perhaps best left for future research, when the focus is not so broad, and these choices can be examined in terms of both lexicogrammar (Process type) and semantics (logicosemantic relation it provides at the clausal level).

In the next section we will compare the systemic choices outlined above with findings from existing studies on 'model' academic texts (cf. Chapters 3 and 4). In order for a fair comparison to be made it would be necessary to analyse each of the four finished texts produced by JD and BB. However, these kinds of comparative studies have already been done. Therefore, and because this thesis focuses on process rather than product, we will look at if the features found in these writers' revisions bare any resemblance to the typical features found in academic texts as covered in Chapter 3.

²⁰ I.e. adding/removing rhetorical relations between complexes.

7.3 'Appropriateness' of language choices in revision activity

As introduced in Chapter 3, §3.3, and further highlighted in §7.2 above, academic writing is often said to be nominal in nature. This essentially means that academic texts tend to construe reality as static and comprised of 'things' (both concrete and abstract) that can be quantified, measured, judged, and ultimately organized into taxonomies or relationships. A key mechanism for assigning these measures, properties, judgements, or interconnections was said to be the grammar's ability to modify a Thing by linking two or more elements in a syntagmatic relationship (cf. §7.2). Therefore, as a first port of call we will examine how revisions contributed to NGrp complexity, both in terms of the number of elements they added and by the kinds of elements they added.

In §7.3.1, we will look at NGrp complexity in terms of the number of, and types of elements that were added via revision. We have already touched upon this above, in relation to QUALIFICATION (§7.2.2) and DETERMINATION (§7.2.3). However, in this instance we will look at all the nominally based systems with the potential to modify the Thing, including experiential (e.g. EPITHESES) and interpersonal (e.g. ASSESSMENT) systems²¹. In §7.3.2 we will move on to look at the kinds of constituents contained within these revisions. For example, many scholars argue that grammatical metaphor (cf. §3.4) is a key enabler of academic writing and, therefore, our first port of call will be to see to what extent metaphorisation is present in revision activity.

7.3.1 Nominal group complexity

As touched upon in §7.2.2, NGrp complexity can be augmented quite substantially via QUALIFICATION. Specifically, a Qualifier (typically a prepositional phrase) can be used elaborate, extend, enhance, or project upon a Thing in many different ways; i.e. they also provide a choice in LOGICO-SEMANTIC TYPE. However, there are other elements that can contribute meaning to the NGrp, such as Numeratives, Epithets, Classifiers, and assessment modals, which also have the potential to provide a logicosemantic relation. In this section, then, we will examine how revisions to these functional elements served to increase/decrease the complexity of NGrps, with the assumption being that academic writing is likely to contain complex NGrps (structurally speaking), as per previous research findings.

Table 7.18 displays the relative frequencies (additions and deletions) of the nominal systems affected by revision activity in each dataset:

²¹ In IFG4, these choices are grouped together under the name MODIFICATION, when in essence they are contributing to LOGICO-SEMANTIC TYPE. I.e. there appears to be little need for the inclusion of an additional system that cuts across experiential, interpersonal, and textual modifiers at the group level.

System	JD1			JD2			JD3			BB		
	+	-	Count	+	-	Count	+	-	Count	+	-	Count
DETERMINATION	21	29	-8	15	22	-7	22	23	-1	8	13	-5
NUMERATION	9	1	8	7	8	-1	8	3	5	1	0	1
EPITHESIS	5	6	-1	10	8	2	8	6	2	4	3	1
CLASSIFICATION	4	5	-1	9	0	9	8	3	5	4	2	2
QUALIFICATION	15	11	4	17	19	-2	20	11	9	7	6	1
ASSESSMENT	3	3	0	6	2	4	3	1	2	0	0	0
Total	57	55	2	64	59	5	70	47	23	24	24	0

Table 7.18: Revisions contributing to NGrp complexity in each dataset

Although the overall figures for nominal revisions in JD's datasets were quite similar (JD1=112, JD2=123, and JD3=117), table 7.18 shows that the relative contribution of these revisions to NGrp complexity was quite low. Specifically, these nominal revisions added very few new constituents to each text's overall count. For example, in JD2, nominal revisions amounted to 57 additions and 55 deletions, resulting in just 2 nominal elements being added to the final text.

Furthermore, in terms of contributions from individual nominal systems, we see a great deal of intra- and inter-text variation. For example, in JD2, choices in QUALIFICATION amounted to 17 additions and 19 deletions, resulting in the final number of Qualifiers in the text being reduced by 2. Yet in JD3 (a text by the same writer) there were 20 additions and 9 deletions involving QUALIFICATION, resulting in an additional 11 Qualifiers being added. However, if we look at the contents of these revisions we see clear evidence of the level of complexity that is said to be typical of academic text.

The examples below are taken from each of the datasets²². In each instance we see how the writer has made a choice to qualify the Thing with either a complex prepositional phrase or a downranked unit (cf. *Appendix 15: List of revisions involving Qualifiers*).

T-unit	Content
5ii	but socialization and the environment ⁵³ {[*that] a child is brought up in} _{FP} is also vitally important in shaping the child's mind.

Example 7.14: +[Qualifier (\symb emb: DEF. REL. CLAUSE): elaboration: apposition: expository] (JD2)

T-unit	Content
35ii	and noted that as a young child begins to walk and talk, typically, an older sibling ⁷⁸ {of the child} _{CP} will begin to take more responsibility for the infant.

Example 7.15: +[Qualifier (\symb prep. phrase): circumstance: projecting: matter] (JD2)

T-unit	Content
11	The image of a woman straddling a man has been modified to give the man extra ten hands ⁹⁹ {to touch her with} _{FP} , implying that his previous sexual partners are present in some way.

Example 7.16: +[Qualifier (\symb prep. phrase): circumstance: enhancing: cause: purpose] (JD3)

²² The last example is slightly more complex in that 'from my study' qualifies the Thing 'withdraw', which is part of a prepositional phrase 'to withdraw' that functions as a Qualifier to the Thing ('right'), which is itself part of another Qualifier, post-modifying the Epithet (Head) 'aware'.

T-unit	Content
3	I will also discuss how, through persuasive communication and the notion of gaze, women can, and have been, sexualized ²³¹ {and shown in a submissive manner} _{JNSB} in order to convey warning messages about sexually transmitted diseases and the HIV AIDS virus.

Example 7.17: +[Qualifier (\backslash prep. phrase): circumstance: enhancing: manner: quality] (JD3)

T-unit	Content
2ii	and was a history of Britain ¹ {starting from 1AD and dating up to the year 1154AD.} _{JFP}

Example 7.18: +[Qualifier: (\backslash emb: DEF. REL. CLAUSE): enhancing: spatio-temporal: time] (BB)

T-unit	Content
7ii	and were aware of their right to withdraw ⁵⁹ {from my study}.

Example 7.19: + [Qualifier (\backslash prep. phrase): circumstance: enhancing: location: place] (JD1)

Matthiessen (1995, p.670) states that the origin of such contextualising Qualifiers tends to be endophoric (originating within the text), but in most cases revisions added or removed Qualifiers that were exophoric (originating outside the text). Consequently, as I will also argue later on, many qualifying revisions seemingly add a layer of redundancy (extra information) that create 'overspecified' referents, or referents that include generic identifying information and/or information not relevant to their recoverability. I.e. within each dataset we see overspecified referents being created that, whilst seemingly redundant in terms of creating/maintaining cohesion, still appear to increase comprehension during reading²³.

Ultimately, the above examples illustrate how many nominally based revisions contributed to the creation and modification of complex NGrps. This finding correlates with existing literature on academic writing which frequently states that complex NGrps are prevalent in academic texts (Biber, 2006; Biber, Gray, & Poonpon, 2011; Parkinson & Musgrave, 2014). However, many of these complex NGrps appear to be over-specified in terms of informational content, particularly those involving exophora (entities originating outside the text). These referents served to explicitly link each text to the context of situation and, therefore, in terms of 'texture' (i.e. cohesion) they typically contributed to the creation of text, rather than the integration of text (Halliday & Hasan, 1976, p.37).

7.3.2 Metaphorisation and rank shift

In the previous section we discussed participants, which are constitutive of Things and their accompanying qualities, in terms of NGrp structures. In this section, however, we will consider how participants can be represented in terms of the meaning-making resources of the grammar, specifically nominalisation and grammatical metaphor (Martin, 1992, p.138).

²³ This observation, incidentally, correlates with research into the cognitive benefits of maximal identification (Arts, Maes, Noordman, & Jansen, 2011).

As discussed in §3.4, grammatical metaphor (or GM) is frequently cited as a key enabler of academic discourse. In very basic terms, GM takes meanings at one level/constituent, such as figures inherent in clauses, events inherent in verbs, etc., and reconstrues/condenses/distils them into meanings at other levels/constituents. For example, a possessive relational clause 'john has an expensive piano' can be reconstrued as the NGrp 'John's expensive piano'. Such reconstruals give rise to the term 'incongruency' in SFL, and one key result of this incongruency is that dynamic processes that unfold over time (e.g. inflating) come to be represented as static entities (e.g. inflation). In the process, this reconstrual affords them the same potential to be modified as per the element they are being reconstrued as. This process is most evident in choices in THING TYPE (cf. §7.2.1). Fundamentally, it is within the Thing element that we find the archetypical form of GM: nominalization. A few examples should highlight this (the frequencies with which this occurred in revision activity shall be considered in table 7.18 on the next page):

T-unit	Content
4i	Brown and Levinson have ³ { contributed had a major contribution} _{CP} to this area of research{3}

Example 7.20: Revision involving 6 choices, one of which = +[Thing (↘nominalization)] (JD1)

Revision 3 above is a Participant-based revision centred on semantics rather than reference. I.e. it takes a figure (X contributed Y) and reconstrues part of it as an experiential configuration of nominal elements. This reconstrual turns a Process (contribute) into a Thing ('contribution'), which can then be assigned a quality of being 'major' (+[Epithet (↘adjective)]). This new Participant is then further elaborated via the existing prepositional phrase 'to this area of research' (a Qualifier). This revision, however, also foregrounds 'contribution' as the most newsworthy item in the clause, and thus transforms what was a simple statement of fact, which showed little of the writer's own voice, into a proposition that carries far more semantic weight.

In the following example, revision 35 replaces a simple referent ('this') with a complex NGrp containing two nominalizations: 'invasion' and 'transition':

T-unit	Content
35i	Although ³⁵ { this is the Norman invasion and consequent transition into Modern English} _{FP} is a specific example of where the Chronicle can illustrate changes in English,

Example 7.21: Revision involving 8 choices, two of which = +[Thing (↘nominalization)] (BB)

In this example, the two nominalizations are further modified by various elements (Deictic, Classifier, Epithet, and Qualifier) and joined in a paratactic relation of extension (addition: positive) to create a complex NGrp (Subject/Identified/Given) in an intensive identifying clause. The congruent realization of this NGrp complex would be something along the lines of: 'The Normans invaded England, and then the language of England became Modern English. This

example, then, shows how GM can be used in a participant structure to condense and distill a great deal of information.

The final example involves 12 systemic choices; however, we will only consider those that involve the change from 'a child's background' to 'a child's early language socialization':

T-unit	Content
79	The studies looked at here support the claim that a child's ²²¹ { background may have already paved the way for his or her future early language socialisation can affect a child's success at school} _{GP} .

Example 7.22: Revision involving 12 choices, one of which = +[Thing (↘nominalization)] (JD2)

Revision 221 deletes the original Thing 'background' and replaces it with 'early language socialisation' (Epithet^Classifier^Thing)—the new Thing being the nominalization 'socialisation'. As we can see, this new NGrp contains far more information than the previous one; i.e. it is more informationally specific²⁴. Consequently, as we saw in the previous section, we have another instance of informational specificity being increased through revision activity.

In terms of the frequency of occurrence of GMs in revision activity, table 7.19 shows the number of revisions that involved both THING TYPE and GM within each dataset:

	JD1	JD2	JD3	BB
No. of T-units in text	77	80	79	56
THING TYPE revisions	42	37	56	11
GM revisions	22	9	19	4

Table 7.19: Number of revisions involving GM in each dataset

Table 7.19 gives us the overall frequencies of revisions that involved GM in each dataset; these counts include changes in THING TYPE and insertions of THING TYPE. Table 7.18 indicates that regardless of whether GM is being added or removed, each writer has the potential to use it. Furthermore, although these are relatively low frequencies, it should be remembered that these are quite short texts, and the number of items that have the potential to become the Thing are thus quite low²⁵.

It is often said that through GM a writer gains the ability to expand their potential texturing resources by turning specific entities into non-specific, generic ones, which are subsequently easier to (re)introduce into the discourse when the need arises (cf. §3.4). However, the number of revisions involving GM in JD2 and BB highlight that it is not an all or nothing affair as some scholars argue (e.g. Martin, 2013). In fact, it may well be that the use of GM in academic discourse, whilst clearly discipline specific to some extent (Martin, 2007), may also be specific to text-type/content.

²⁴ 'background' could relate to anything, whereas 'early language socialization' is very specific

²⁵ If we hypothesize that each T-unit will have two major participants, we can see that the proportion of THING TYPE revisions would be relatively high, as would the proportion of GMs in JD1 and JD3.

Summary

In this chapter we focused on 'the development of what students write'. In §7.1, we explored the key linguistic features (or systemic choices) realized in each dataset's revision activity, and saw that five systems were frequently involved in revision activity, regardless of the writer or the text. In §7.2, we explored these five systems by considering what kinds of contributions they made to the unfolding of meaning(s) within a text. In the final section (§7.3) we considered if the linguistic features realized via choices in these five systems were found in the texts examined by research into academic writing in general, and concluded that many of these revisions fine-tuned NGrp complexity in terms of both the structural elements present and the semantic density of NGrps, which accorded with the findings of research into academic writing (cf. Chapters 3 and 4).

In the next chapter we will move away from synoptic descriptions, and explore revision activity in terms of dynamic description (unfolding choice). In this penultimate chapter we will once again look at revisions in terms of function and rank, only this time we will explore them in terms of the logogenetic timeframe (cf. Chapter 3); i.e. we will look at revision activity in terms of how it unfolded in time, examining the contribution of each revision to the unfolding of metafunctional meaning and the number of rank level constituents found in each text. As an exploratory endeavour, and as a forefront to the final chapter, we will then move away from lexicogrammatical choice (the primary focus of the thesis so far) and move into the realm of semantics. More specifically, we will look at ideational semantics in an effort to explore how a change in (analytical) perspective can give similar yet differing views on the same phenomenon.

Chapter 8 Product-process relationships

Introduction

Chapter 5 introduced us to SFL and its social-semiotic theory of language. In this very brief overview we saw how language can be organized metafunctionally to construe reality (experiential function), link realities together (logical function), enact personal and social relationships (interpersonal function), and map these meanings onto one another and onto the context in which language is being used (textual function). We also saw how language can be explored in terms of stratification (layers of language) and units of analysis (rank scale). We subsequently used these theoretical underpinnings in Chapter 7, where we explored revision activity in terms of language functions, ranks, and systemic choices (a mostly synoptic affair). The underlying motif for this chapter is 'product-process relationships'. Consequently, it is here that we will explore if a possible relationship can be discerned between a product and its process of creation in light of RQ 3: Is there a relationship between how a person writes and the perceived quality of their text(s)? This effectively means we will be moving between synoptic (product) and dynamic (process) descriptions.

We have already seen in Chapter 6 that how a person writes does not necessarily equate to the quality of a finished product; JD and BB went about essay writing in fundamentally different ways, yet they both received high grades. Consequently, in this chapter, I will be arguing for a change in perspective by suggesting that it may be better to examine product-process relationships in terms of semogenesis. More specifically, if we can examine how language choices representing societal expectations (Chapters 3 and 4) unfold in the logogenetic time frame¹ (a decidedly dynamic affair), we may be in a better position to understand what it is that 'good' writers 'create'. In simpler terms, by exploring revisions in terms of logogenesis (the instantiation of the language system in text), we can examine not how writers create text, but how writers create meaning (semogenesis). Consequently, whilst this chapter is included in pursuit of answering a RQ, it is also used as a prologue to the final chapter, and its notes on further research into product-process relationships.

The chapter begins with §8.1, which explores the logogenesis (unfolding) of revision functions. This first section examines how revisions unfolded in terms of the four functional strands of language that we were introduced to in previous chapters. This section illustrates how experiential and interpersonal revisions are more likely to increase/decrease the number of meanings/features in a text, whilst textual and logical revisions are less likely to increase the

¹ cf. Chapter 3, §3.1, figure 3.1.

overall number of features/meanings in a text.

The second section (§8.2) explores unfolding rank choice, and looks at how revisions contributed to, or subtracted from, the frequency of lexicogrammatical constituents within each text in terms of nominal groups (NGrps), clause complexes, etc. In this section, we will see how NGrp elements were the key constituents involved in unfolding choice in revision activity across the four texts. However, we will also see how the relative contribution of these elements (their end counts) varied, with JD3 and BB showing increased numbers through revision activity, whilst JD1 and JD2 remained relatively stable in terms of overall counts.

Finally, §8.3 moves away from lexicogrammatical choice (the primary focus of the thesis so far), and shunts us into semantics. More specifically, this section dips into the realm of ideational semantics (Halliday & Matthiessen, 1999), and explores how a change in (analytical) perspective can give us similar, yet differing views on the same phenomenon. By focusing on logicosemantic type, this section illustrates how a common thread of increased experiential meanings, as shown in Chapter 7, can be broken down into a more delicate analysis; this analysis subsequently reveals much greater variation between the types of revisions made than was initially revealed by looking at lexicogrammatical choice alone.

8.1 The unfolding of revision functions

This first section explores how revision activity affected the number of functional meanings/features in each text by considering how each revision contributed to, or subtracted from, the realization of one or more of the four functions of language outlined elsewhere (e.g. Chapters 5 and 6). More specifically, rather than look at revision as a finished product, here we will examine revision as it unfolded (as a process). As per the previous chapters, each dataset will be introduced separately, starting with JD1.

8.1.1 JD1

Figure 8.1 is a line chart illustrating how revisions in JD1 contributed to, or subtracted from, the final text in terms of experiential, logical, interpersonal, and textual meanings. The X-axis shows the sequential ordering of revisions, from the first revision made through to the last revision made². The Y-axis displays a relative frequency count, showing how each revision either contributed to (added) or subtracted from (deleted) the text's overall number of language functions. For example, if a revision added a Classifier this would equate to an experiential increase within the text and be counted as experiential +1³.

² Writing sessions are demarcated via gaps in the lines and marked accordingly as Session 1, Session 2, etc.

³ CLASSIFICATION being an experientially based nominal system.

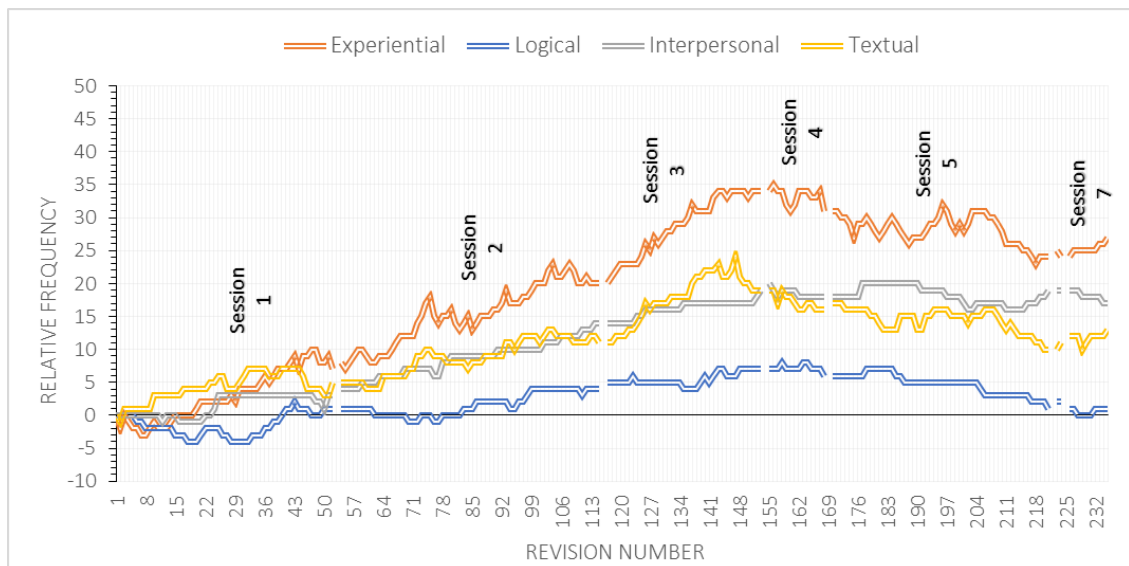


Figure 8.1: The unfolding of language functions in revision activity (JD1)

Figure 8.1 shows a steady increase in all four language functions during the first two sessions as one would expect, because this is where the majority of composition took place (cf. Chapter 6). During session 3, however, the number of interpersonal and logical meanings/features level off somewhat, whilst experiential and textual meanings/features continue to rise. At approximately the start of session 5 (revision 170), experiential and textual meanings fall slightly, before remaining fairly stable until the text's completion. At the end of the writing process, revision activity has resulted in the addition of 13 textual meanings/features, 16 interpersonal meanings/features, 27 experiential meanings/features, and just 2 logical meanings/features. Let us now consider the trajectories of each of these functional revision profiles.

In §7.1.3, our exploration of systemic choice in JD1 revealed 137 revisions involved textual systems (e.g. DETERMINATION, CONJUNCTION, etc.). These findings were based on a synoptic approach that simply counted the number of textual revisions. Figure 8.1 above, however, is based on a dynamic approach, and it tells us that the relative contribution of revisions to textual meanings/features in this text is +13; i.e. despite JD making 137 textual revisions, the overall number of textual meanings/features in the text increased by just 13. Consequently, if we were to look only at the figures from the synoptic description, we may think that augmenting textual meanings/features was particularly important when JD revised this text; conversely, if we were to look only at the relative frequency count of +13, we may think that revising for textual meanings was not so important when it came to editing this text. However, by combining synoptic and dynamic descriptions, we can see that JD, for the most part, played out a delicate balancing act of substituting one textually based choice for another (cf. §7.2.3 for an example of this re. DETERMINATION).

Let us now consider interpersonal revisions, which are represented by the grey line in figure 8.1. Here, we see that revision activity made a steady contribution to the text's overall level of

interpersonal meanings/features, peaking at +20 (revision 153) before coming to rest at $n=+16$. However, from our findings in Chapter 7, we see that only 48 revisions (+33, -15) involved choices in interpersonal systems (e.g. MOOD, COMMENT). Here, then, we have a direct contrast in how JD used revisions to augment meanings/features (interpersonal revisions), as opposed to using revision to modify existing meanings/features (textual revisions). Essentially, 48 interpersonal revisions resulted in a final count of +16, which means that for every 3 revisions made involving interpersonal choices, one additional interpersonal meaning/feature was added to the text's final count. This gives an 'uptake ratio' of 3:1⁴. Textual revisions, however, have an uptake ratio of 10.5:1. To explain why the uptake of interpersonal meanings/features is higher than textual meanings/features, we can examine a few examples:

T-unit	Content
3	I am also interested in looking at the people who have had major influences in this field of work, namely Geoffery Leech, Erving Goffman and ²² {the highly influential} _{INSB} Penelope Brown and Stephen Levinson.

Example 8.1: Fine tuning appraisal through COMMENT and ASSESSMENT (JD1)

In example 8.1, revision 22 pre-modifies 'Penelope Brown and Stephen Levinson' via DETERMINATION: 'the' = +[Deictic (↘definite article): specific], COMMENT ('highly'): +[comment Adjunct (↘adverb): intensity: degree: high], and ASSESSMENT ('influential'): +[Attitudinal Epithet (↘adjective)] (cf. IFG4, p.376). This revision, then, adds two interpersonal meanings/features that make it into the final draft (a comment Adjunct and an attitudinal Epithet), and one textual meaning/feature.

Overall, there were 20 insertions in JD1 similar to example 8.1 above, in that they all involved interpersonal systems at, or above, the group level (cf. Appendix 16: *Interpersonal additions in JD1*). However, there were also 16 deletions at, or above, the group level that involved interpersonal meanings/features. It would seem, then, that the increased uptake ratio of interpersonal meanings/features that we see in figure 8.1 above stems from revisions below the group level (i.e. at the word or morpheme level), and this is indeed the case. Specifically, in JD1 there are 12 revisions involving CONNOTATION; these are word level changes involving the formality of lexis, as illustrated in example 8.2:

T-unit	Content
26ii	and this type of mockery is something that happens often so is ²¹⁸ {taken-on-the-chin ignored} _{JNSA}

Example 8.2: Fine-tuning registerial expectations (i.e. mode) through CONNOTATION (JD1)

⁴ Uptake ratio is the overall no. of revisions divided by the relative end count. In this instance $48/16 = 3$.

In this example, revision 218 swaps the phrase 'taken on the chin' for 'ignored'. This revision appears to retain the original meaning and, hence, does not represent a change in lexical content (DENOTATION) but, rather, lexical register (CONNOTATION)⁵.

Of the connotative 12 revisions, 7 were forward insertions or INSAs (cf. §5.7.2.1). Hence, we may also consider that many of the interpersonally based uptakes in JD1 could be the result of JD adjusting the features of the text to align with a (virtual) reader's registerial expectations; i.e. that academic text should not contain idioms, slang, or other informal words/phrases.

Moving on to the logical function, figure 8.1 shows that the number of logical meanings/features added/removed by revision activity remained relatively stable. Specifically, we see that changes in logical meanings were somewhat balanced out, with deletions (e.g. between revisions 22–29) evened out by additions (e.g. revisions 36–43). Consequently, despite there being 55 logical revisions overall (TAXIS, TENSE, etc.), the number of logical meanings/features contributed by revision activity came to rest at +2. Combining our synoptic and dynamic descriptions, then, we can say that in this particular instance logical revisions were less likely to increase the overall number of logical meanings/features in the text.

Finally, we have experiential revisions. Figure 8.1 shows that the augmentation of experiential meanings/features via revision activity was much higher than the other functions. Specifically, the number of experiential meanings/features in the finished text was increased by 27 through revision activity, which is just under twice that of its nearest rival, interpersonal meanings/features ($n=16$). However, the overall number of experiential revisions was 211, which as we saw in Chapter 7, §7.1.1, accounts for 47% of all revisions in JD1. This number of experiential augmentations in relation to the overall number of experiential revisions, then, gives us an uptake ratio of 7.8:1. Consequently, although the overall number of experiential revisions was very high, we still have a relatively high uptake ratio. Ultimately, JD appears to be using experiential revisions to not just fine-tune existing text, but also as a way to continually add evidence to explain how face threatening acts are mitigated⁶.

⁵ IFG4's view does not seem to account for formulaic units as it places CONNOTATION at the word level. However, it is clear from other views of language that phrases such as the one here can act as whole units that 'stand in' for words. In SFL terms, it could be said that they are downranked phrases acting as words.

⁶ This evidence comes in the form of the writer describing their own data (transcripts).

8.1.2 JD2

Figure 8.2 shows how revision activity in JD2 unfolded in terms of language functions:

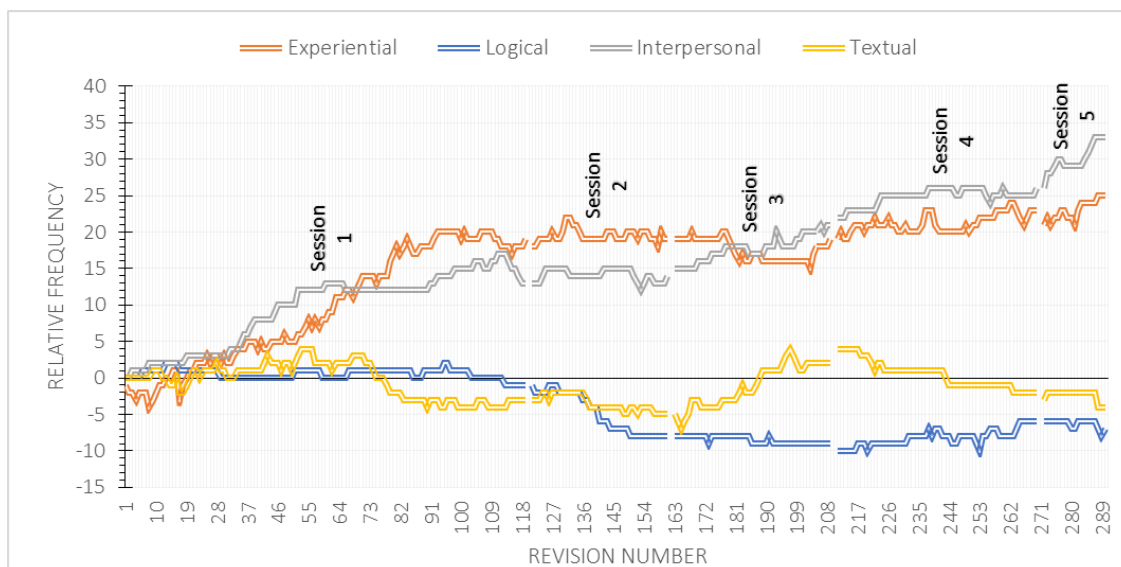


Figure 8.2: The unfolding of language functions in revision activity (JD2)

As per JD1, figure 8.2 shows that the number of logical meanings affected by revision activity in JD2 remained somewhat stable. Specifically, although 53 revisions involved logical meanings/features (cf. Chapter 7), these meanings/features were somewhat evened out, with deletions (e.g. those in session 2) balanced out by subsequent additions (e.g. in session 4), resulting in a negative end figure of $n=-7$ (7.6:1 uptake ratio).

In terms of textual revisions, however, we see a somewhat different pattern than in JD1. Specifically, in JD2, textual meanings/features remained relatively low and rarely peaked above zero⁷. This resulted in a fairly low number of textual meanings/features contributed by revision activity ($n=-4$). However, 102 textual revisions were made in total, giving an uptake ratio of 25.5:1.

In relation to the remaining functions, we see a steady increase throughout revision activity, with Interpersonal and experiential meanings/features coming to rest at +33 and +25, respectively. As discussed above, increased experiential meanings can contribute to the descriptive power of a text by providing more evidence for a thesis, and/or orienting a reader toward a particular field or topic. The augmentation of interpersonal meanings in JD2, however, was much higher than in JD1⁸, and their importance in the evolution of this particular essay becomes even more evident if we consider that only 75 revisions (54 additions, 21 deletions) involved interpersonal systems, whilst 230 revisions (127 additions, 103 deletions) involved experiential systems. These figures give uptake ratios of 2.3:1 and 9.6:1, respectively.

⁷ Exceptions being revisions 195–212.

⁸ Over double the final count of JD1 ($n=+16$).

Consequently, interpersonal revisions appear to be more measured in JD2 in relation to the other functions in much the same way as they did in JD1 (JD1, if you recall, had an uptake ratio for interpersonal revisions of 3:1). As a first port of call, we could look to the essay's title to explain why this may be the case. The title was 'Argue for or against the claim that there are cultural differences in early language socialization that might affect a child's chances of success at school'. Here we have a title that calls for an argument to be constructed, and arguments typically call on increased interpersonal meanings via choices in ASSESSMENT, MODALITY, etc. (Nesi & Gardner, 2012). However, if we look at the breakdown of interpersonal revisions in systemic terms, as shown in table 8.1, we see how, in much the same way as CONNOTATION played a key role in JD1, word level revisions also played a key role in the augmentation of interpersonal meanings in JD2:

		Revision type: Addition (+) or deletion (-)										Count	
		FP		CP		INSA		INSB		INS			
Rank	System	+	-	+	-	+	-	+	-	+	-		
		Clause	Mood		1	1	1		2				-3
Phrase		minor Mood					1					-1	
Verbal group		Polarity	1		1		1		1				4
		Modality		4	2	2	2	2		2	1		-5
Nominal group		Person		1									-1
		Assessment	2	1	2		2	1					4
Adverbial group		Comment	2					1		1	1		1
Word		Connotation	7	1	3		12		5				26
Info. Unit		Key											0
Totals		12	8	9	3	17	7	6	3	2	0		
Count		4		6		10		3		2		25	

Table 8.1: Breakdown of interpersonal revisions in JD2

Table 8.1 highlights how choices in CONNOTATION are the most frequent type of interpersonal revision in JD2 ($n=26$). These revisions were once again used to increase the text's formality, as per examples 8.3 and 8.4:

T-unit	Content
23	If a child is told that he/she is not good at a language the child may give up trying to ²²⁵ de better improve _{INSA} .

Example 8.3: Fine-tuning registerial expectations (i.e. mode) through CONNOTATION (JD2)

T-unit	Content
20	Bernstein conducted an experiment using five year old lower working-class and middle-class children who were given pictures to create a ²¹³ story narrative _{INSA} from

Example 8.4: Fine-tuning registerial expectations (i.e. mode) through CONNOTATION (JD2)

Both of these examples involve INSAs and, as per JD1, INSAs were the most frequent revision type involving CONNOTATION in JD2: of the 28 connotative revisions in JD2, 12 were INSAs, 8 were FPs, 5 INSBs, and 3 CPs. These figures, then, once again suggest that CONNOTATION seemingly plays a key role when proofreading/shaping academic text toward a registerial expectation of increased formality.

8.1.3 JD3

Figure 8.3 shows revision activity in JD3 terms of unfolding functional choice:

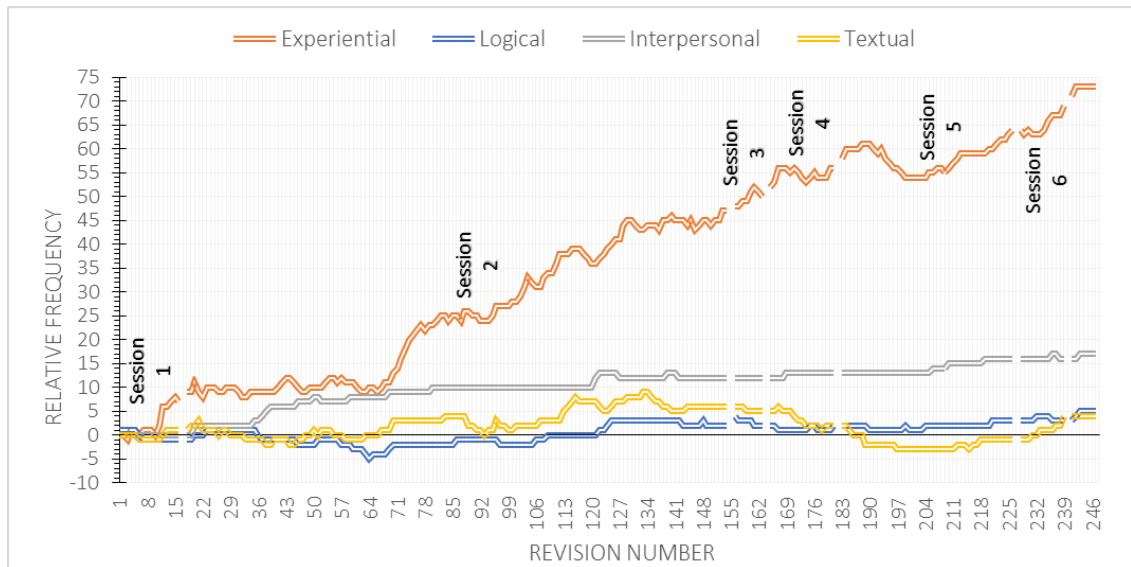


Figure 8.3: The unfolding of language functions in revision activity (JD3)

Figure 8.3 shows a marked difference in how revisions contributed to functional meanings/features in JD3 as compared to JD1 and JD2 (as a reminder, all three datasets are from the same author). Once again, experiential meanings/features were increasingly augmented through revision activity. However, whereas experiential meanings levelled off midway through JD1 and JD2, in JD3, experiential meanings continued to rise, coming to rest at $n=+73$.

As per the other datasets, the overall number of experiential revisions was quite high ($n=235$), but this time the uptake ratio was 3.2:1, which is considerably higher than JD's other two datasets. So why are experiential meanings more likely to be worked into this text than the others? Drawing on the essay title as the first port of call—'Using 3-5 images from any genre to illustrate your arguments, discuss the commonplace notion that 'an image is worth a thousand words' in persuasive communication'—we see that, in the first instance, as per JD's other essays, this text requires increased experiential meanings as a means to support an argument/thesis. In the second instance, though, we see that this text makes reference to '3–5 images', and it is here that we find the key difference between the experiential revisions in this dataset and the other two. Specifically, we see that JD frequently points the reader toward an image (deictic metadiscourse) or describes some aspect of an image (informational specificity), as per the examples below:

T-unit	Content
20	This ²³⁴ {lack of colour} _{CP} gives the images {234} a negative impact.

Example 8.5: Modifying a Subject via THING TYPE and QUALIFICATION (JD3)

Revision 234 adds a Thing ('lack'), a Qualifier ('of colour'), and a Determiner ('This'⁹), which describes an aspect of 'the images' she refers to (the Recipient in a material clause of 'giving').

The second example illustrates a metadiscoursal deictic:

T-unit	Content
48iX	This is demonstrated in my figures, ¹⁴¹ { particularly figure 2. } _{INSA}

Example 8.6: Adding an additional referent via CLASSIFICATION and THING TYPE (JD3)

In this example, revision 141 adds an endophoric marker, 'figure 2' (Hyland, 2005) and tells the reader to pay 'particular' attention to it. In this case the addition of '2' tells us which figure to look at. Whilst many of these revisions might be classed as a form of interactive metadiscourse, because they primarily serve the textual function, creating referents that point to other parts of the document, they are also experiential because they serve a descriptive function, increasing the informational specificity of a referent, adding ancillary information, etc.¹⁰ Ultimately, their incorporation into the text goes some way to explaining why revision activity in JD3 called so heavily on experiential meanings/features.

Moving on to interpersonal meanings/features. In a similar manner to JD's other datasets, interpersonal revisions in JD3 resulted in a final increase of +17 and a very high uptake ratio of 1.6:1; only 27 interpersonal revisions were made in total (cf. *Appendix 16: Interpersonal additions in JD3*). A breakdown of these interpersonal revisions is shown in table 8.2:

			Revision type addition (+) or deletion (-)										Count	
			FP		CP		INSA		INSB		INS			
Rank	System		+	-	+	-	+	-	+	-	+	-		
	Rank	Clause	Mood							1				1
Phrase		minor Mood											0	
Verbal group		Polarity		1										1
		Modality		3	2	1		3		2		1		8
Nominal group		Person							1					1
		Assessment		2	1			1						2
Adverbial group		Comment					1		1		1			3
Word	Connotation		1										1	
Info. Unit	Key												0	
	Total		7	3	1	0	5	0	5	0	2	0		
	Count		4		1		5		5		2		17	

Table 8.2: Breakdown of interpersonal revisions in JD3

Table 8.2 shows that the majority of interpersonal revisions in JD3 involved verbal group (VGrp) systems (+11, -2), particularly, MODALITY (+10, -2).

⁹ The revision takes an instance of REFERENCE (anaphora): +[Demonstrative reference (↘pronoun): specific: near] and repurposes it as DETERMINATION: +[Deictic (↘determiner): specific: demonstrative, determinative: selective: non]

¹⁰ Cf. also revisions 54, 55, 60, 79, 82-92, 99, 104, 121, 142, 144, 146, 152, 155, 167, 170, 173, 177, 183, 190, 202, 222, 223, 226, 227, 228, 235, 250.

As covered in Chapter 3, §3.7, MODALITY concerns the likelihood of a proposition or the desirability of a proposal, and the revisions involving MODALITY we see here mainly involved the addition of mood Adjuncts such as 'only', 'often', and 'commonly'. The real surprise here is that JD made significantly less use of CONNOTATION than in her other two datasets. There appears to be no logical explanation for why this may be the case. For example, we could say that the increased use of CONNOTATION in JD1 may be the result of JD working alongside a transcript of spoken language, which may have influenced her vocabulary during the initial drafting stage. However, JD2 saw a higher usage of CONNOTATION, yet she made no use of a transcript there¹¹. We could also say that JD3 saw the lowest occurrence of INSAs across all of JD's datasets, and that this could reflect less effort/time proofreading, which is somewhat supported by the lower occurrence of overall revision activity in the second half of JD3 in comparison to the number of words typed (cf. §6.1, tables 6.2, 6.4, and 6.6). Ultimately, though, the low number of interpersonal revisions in general, in combination with the relatively small corpus (just three essays from the same writer), means that it is difficult to draw definitive conclusions here as to why MODALITY was more involved in revision activity in JD3 than in CONNOTATION.

Moving on to the logical function, as per JD1 and JD2, logical revisions did not contribute greatly to the overall number of meanings/features present in the final text. Figure 8.3, for example, shows that the number of logical meaning/features contributed through revisions remained relatively low, ranging from -4 to +6. However, only 49 logical revisions were made, resulting in an uptake ratio of 8.2. I.e. logical revisions were somewhere between fine-tuning and adding/removing logical meanings.

Finally, we have textual revisions. The final count of textual meanings/features in JD3 was +5, with a range of -2 to +9. Overall, there were 93 textual revisions (+49, -44), resulting in an uptake ratio of +18.6:1. Once more, then, we see that textual revisions are seemingly used to fine-tune, rather than add new meanings/features. Furthermore, it can be seen that the majority of this 'fine-tuning' came via choices in DETERMINATION (cf. §7.2.3).

¹¹ This essay was purely theoretical and literature based.

8.1.4 BB

Figure 8.4 shows BB's revision activity in terms of unfolding functional choice:

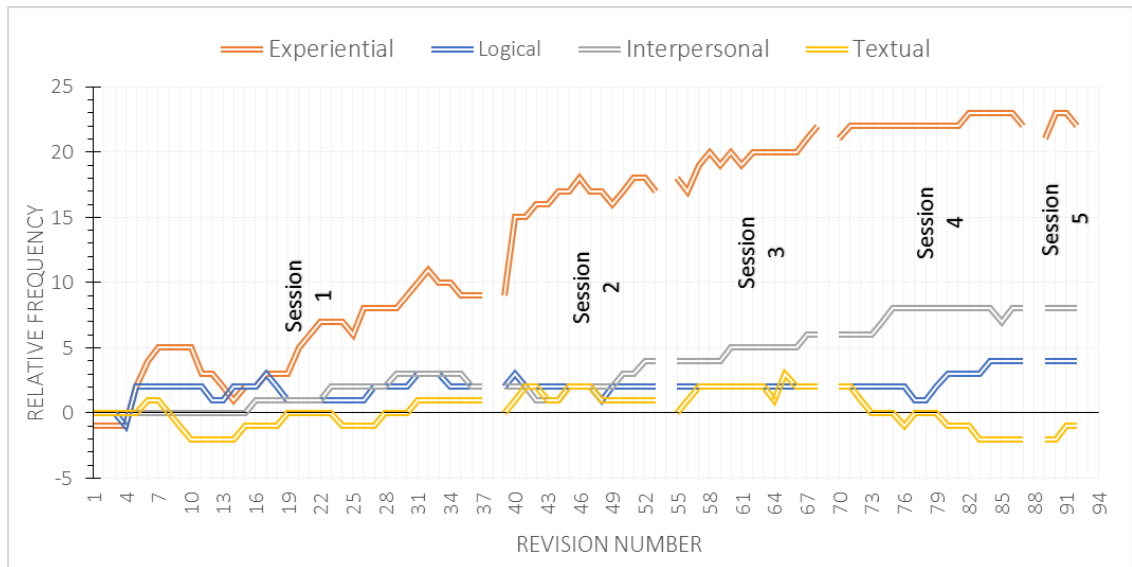


Figure 8.4: The unfolding of language functions in revision activity (BB)

As discussed in Chapter 6, BB was primarily an online reviser, meaning that she revised as she wrote, and rarely went back over previously written drafts. However, despite this underlying difference between her revision practices and JD's, there were some similarities in terms of the functional choices she made. For example, as per JD, the number of logical meanings contributed by BB's revisions remained relatively flat, resulting in a final figure of $n=+4$.

Similarly, the overall number of textual meanings/features added/removed by revision activity remained relatively flat, resulting in a final figure of -1 . And although interpersonal meanings showed a slight increase during the final stages of composition (from revision 47 onwards), resulting in a final figure of $+8$, many of these were last-minute insertions of citations¹².

What is perhaps most evident from BB's functional revision profile is the increased level of experiential meanings. Experiential meanings rise to $+18$ during the first half of the writing process, and then remain relatively high, resulting in a final figure of $n=+24$. As per the increased experiential meanings in JD's revisions. BB's experiential revisions appear to increase the amount of descriptive detail in the text. And, as per JD1, it could be argued that this increased attention to experiential meanings may be due somewhat to the essay's title: 'What can we learn from the Anglo-Saxon Chronicle about the development of the English language?' Again, this is a title that prompts description.

¹² I see these as primarily performing an interpersonal function, orienting to tenor by addressing the heteroglossic expectations of academic writing.

Section Summary

Ultimately, although this examination into unfolding revision functions has been brief, and limited to only 2 writers and 4 texts, it has shown that some meanings/features appear to take precedence over others when it comes to revising academic text, and that these meanings/features may be influenced somewhat by the task's demands (i.e. essay rubric/title), and the text's registerial expectations. Furthermore, it has shown that some functions seem to be more involved in 'fine-tuning', whilst others are more involved in augmenting meanings/features, as illustrated in figure 8.5:

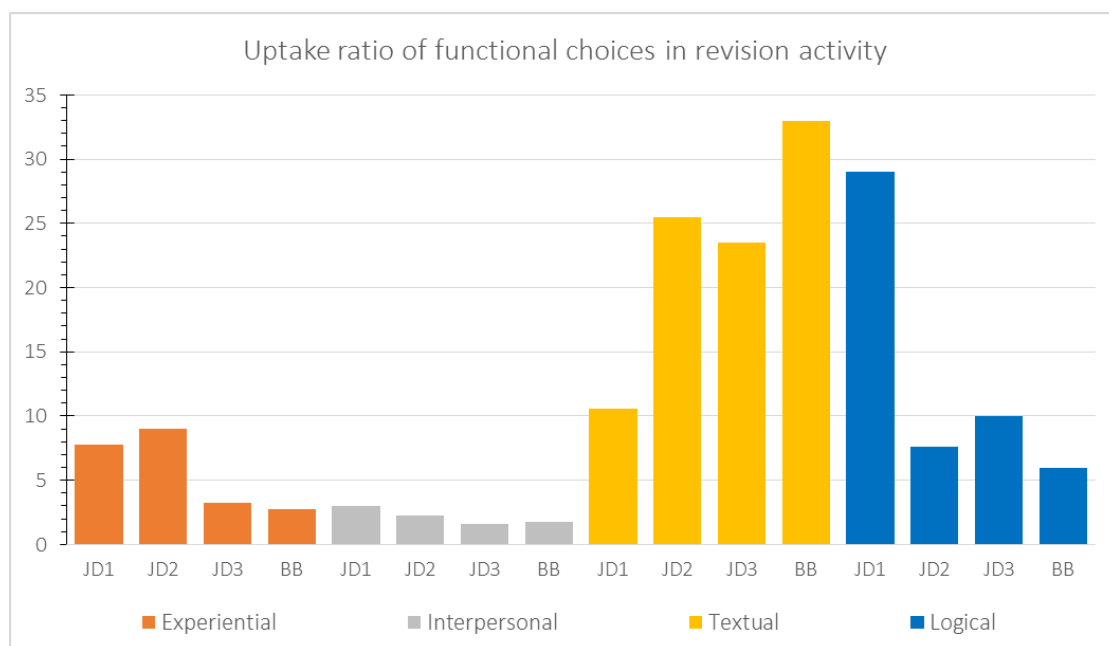


Figure 8.5: Comparison of functional uptake ratios across the four datasets

Figure 8.5 shows the uptake ratios of revision functions for each dataset. This graphical comparison, and the discussion that preceded it, show how revisions involving interpersonal meanings/features, and to a lesser extent experiential meanings/features, appear to be more measured. More specifically, although the number of interpersonal revisions is low, those that are made are more likely to contribute to the quantity of interpersonal meanings/features found in the final draft—as evidenced by the higher uptake ratios, ranging from 1.6:1 (JD3) to 3:1 (JD1). Conversely, despite experiential revisions being the most frequent in all 4 datasets, they are almost as likely to lead to an increase in experiential meanings/features in the text as interpersonal revisions are, with uptake ratios ranging from 9:1 (JD2) to 2.75:1 (BB).

The lower uptake ratios for¹³ textual revisions, on the other hand, suggest that the kind of meanings/features they provide are more likely to be used to fine-tune the text, as opposed to

¹³ Despite this anomaly, the similarity of many of the uptake ratios displayed in figure 8.5 seem to warrant further investigation with a larger dataset.

contribute to the overall level of meanings/features found in the final draft.

As for logical revisions, the uptake ratios for three of the four datasets (JD2, JD3, and BB) are remarkably close, ranging from 7.6:1 to 8.2:1, and in isolation could be taken as indicative of some kind of pattern. However, the uptake ratio for JD1 is very low at 29:1, and, moreover, although the quantity of logical meanings/features (choices in TAXIS, TENSE, etc.) contributed through revision activity remained relatively low, regardless of the writer or text, grouping meanings according to function alone is the least delicate way to systematize choice. Therefore, in §8.3 we will look at unfolding choice in more delicate terms by examining systemic choice (function/rank correlation) and semantic types (logico-semantic relations in terms of enhancement, elaboration, expansion, and projection). It should then become more evident that whilst unfolding revisions in terms of functional choices can give us broad insights into a text's evolution, to more fully understand these choices we need a more delicate level of analysis. Firstly, though, we will turn our attention to unfolding revisions in terms of rank.

8.2 The unfolding of revisions in terms of rank

This section focuses on the unfolding of revisions in terms of rank units and their constituent elements. To do this we will employ the same format as the previous section, using line graphs as a way to visualise revision activity, where each line will represent one rank scale (or unit of analysis). The X-axis will display the sequencing of revisions, from the first revision through to the last revision; the Y-axis will display a relative frequency count, indicating how each revision either contributed to (added) or subtracted from (deleted) a rank level constituent. For example, if a revision added a Classifier this would equate to a nominal element being added (Rank: NGrp), and a count of +1 would be added to the running total for the NGrp (the yellow line).

8.2.1 JD1

Figure 8.6 shows revision activity in JD1 in terms of rank level realizations. I have removed ranks that never fluctuated beyond ± 5 to improve the graph's clarity:

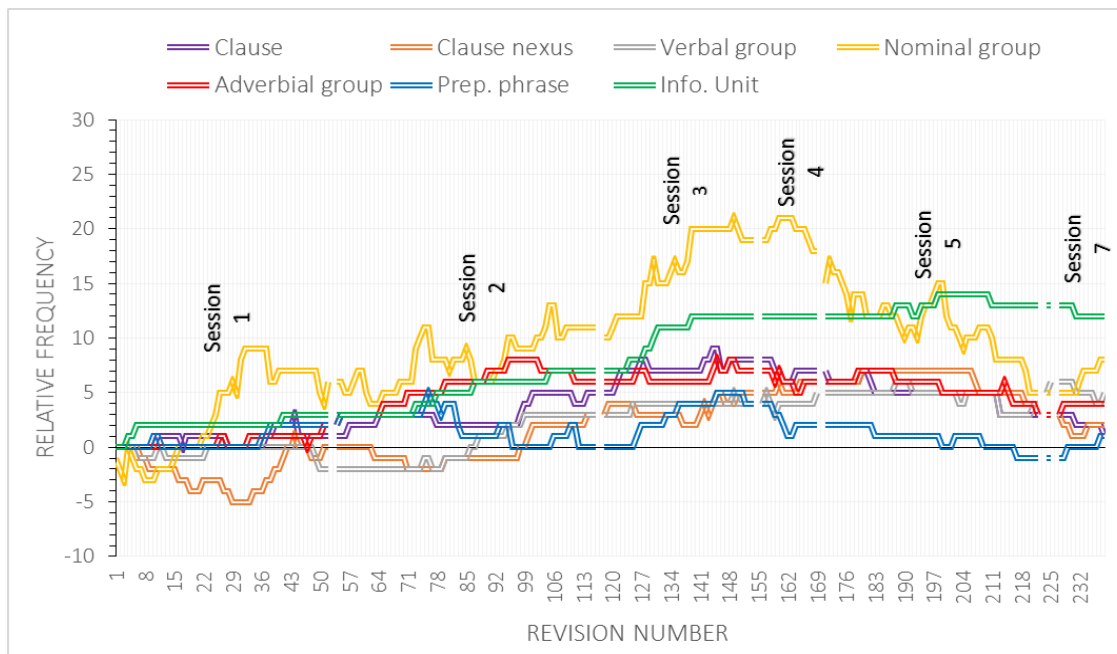


Figure 8.6: The unfolding of rank realizations in revision activity (JD1)

Figure 8.6 reveals that revision activity in JD1 mostly affected the number of NGrp elements (yellow line) and information units (green line). In sessions 3 and 4, for example, we see revisions involving NGrp elements climb from +12 (revision 117) to +23 (revision 157). This figure then falls back down to +8 at revision 216 (the end of session 5).

It is perhaps unsurprising that the constituent with the most movement would be the NGrp, given that 40.3% of revisions in JD1 involved NGrps (cf. table 7.2, §7.1.2). However, what is interesting to note is that the final (relative) count for NGrp additions/deletions was just +8, whereas the overall number of revisions involving nominal elements was 180. NGrp revisions, then, are seemingly being used to 'fine-tune' NGrp structures rather than simply increase or decrease the overall number of nominal elements in the text. Drawing on §7.2.1 (THING TYPE), §7.2.2 (QUALIFICATION), §7.2.3 (DETERMINATION), and §7.3.1 (NGrp complexity), there appears to be two benefits for a writer in terms of what these NGrp revisions achieve.

The first concerns a decrease in the specificity of the NGrp in textual terms. Nominal elements that contribute textual (and sometimes cohesive) meanings are tied to in choices in REFERENCE, SUBSTITUTION, and DETERMINATION. As we saw in §7.2.3, DETERMINATION concerns deictics, and deictics can directly label a Thing as presenting (non-recoverable/non-specific) or presuming (recoverable/specific). From our discussion of DETERMINATION, we saw how revision activity led to the decrease of specific referents in JD1's essay via the deletion of 13 instances of 'the' that were originally attached to NGrps, and 6 additions of 'a/an' (cf. *Revision Table (JD1)*:

Determination spreadsheet on Appendix CD). Overall, these revisions served to decrease the number of specific referents in the final draft by 19. In terms of REFERENCE, there were 13 additions and 6 deletions. These revisions fine-tuned what were relatively small cohesive chains that spanned one or two T-units at the most, and had relatively little effect on the overall text's cohesiveness or specificity of referents. A typical example is shown below:

T-unit	Content
48	Brown and Levinson built their theory on Goffman's work (1967)
49i	¹⁴⁴ {Goffman He} _{INSA} was also interested in the notion of face

Example 8.7: A localised instance of textual cohesion via REFERENCE (JD1)

Revision 144 substitutes a proper noun ('Goffman') for a personal pronoun ('he'); in systemic terms this represents a change in THING TYPE of -[Thing (↘proper noun: fully specific)] and REFERENCE of +[personal Reference (↘pronoun): determinative, singular: masculine]. This kind of revision, where a specific Thing gets exchanged for a personal Referent, was typical in JD1. Whenever JD made such revisions they were confined to localised areas and, thus, it was relatively straight forward to ascertain a referent's original identity. Thus, whilst such a change does little to alter a referent's specificity, this kind of revision may have served to increase the ease with which a reader processes the text--the inclusion of a repeated proper noun, for example, may cause the reader to question if this is the same referent or not.

The second benefit to the writer concerns the specificity of information within NGrps. A NGrp (or the Participant that it realizes) can be very general in terms of information, such as a single noun referring to a class of things (e.g., cars), or it can be very specific in terms of information, such as a complex NGrp referring to a detailed example of a subset of a Thing (e.g. very expensive business class sedan in a light blue colour with white leather seats). To compare this with nominal elements that perform a textual function (e.g. Determiners), we can say that whereas textually based modifiers exist at either side of a scale of specificity in terms of whether a Participant is specific or non-specific in relation to the co-text/context, the other nominal modifiers have the potential to situate a Participant (Thing) along a second scale of specificity, one based on a general class of things a Thing belongs to. For example, 'a hat' is non-specific; it denotes a member of the class of Things referred to as 'hat'. 'A blue hat on a table', however, whilst still non-specific in textual terms, is more informationally specific than 'a hat'.

In §7.2.2, we saw clear examples of how QUALIFICATION, despite having the least specifying potential of all nominal elements, had the potential to 'overspecify' a Thing in informational terms; i.e. some Qualifiers involved in revision activity provided information that could have been gleaned from the co-text/context, or provided information that was unnecessary in order to identify a referent. We could argue, then, that such informationally laden revisions are actually superfluous. For example, consider the following:

T-unit	Content
7ii	participants were aware of their right to withdraw ⁵⁹ {from my study.}{60}} _{CP}
7iiiX	and were given consent forms to sign before any recording took place.{59}
8i	In my transcript, the father ⁶⁰ {in the family}} _{INSA} is 'N',

Example 8.8: Increased informational content via QUALIFICATION (JD1)

In example 8.8, revision 59 adds 'from my study', realizing a choice in QUALIFICATION of +[Qualifier: enhancing: circumstance: location: place]. If we are to look at the surrounding co-text and the context of the essay (the study and its participants have already been introduced), we could argue that this addition adds little to the functionality of this clause and could be left out. Similarly, revision 60 in T-unit 8i adds another Qualifier that contributes little in terms of information that the reader could not have deduced from the co-text/context. There does, however, seem to be some benefit to this kind of informational overspecification in that it makes it undeniably clear to the reader as to what Thing/entity the writer is referring to and, in the process, essentially negates the need for a writer to decide between introducing (presenting) a new referent or tracking (presuming) an existent referent. Ultimately, a referent that is informationally overspecified can stand on its own, and does not need to be worked into a reference chain.

EPITHESES and CLASSIFICATION also have this potential to increase informational specificity, as shown in examples 8.9 and 8.10:

T-unit	Content
34	Using a pet name, instead of her ⁹³ {actual}} _{INS} name, or simply saying 'please', suggests a close bond

Example 8.9: Increased informational content via EPITHESES (JD1)

Revision 93 above adds the Epithet 'actual'. Whilst this addition emphasises the head noun under focus within the NGrp, it adds little to the recoverability of the Thing.

T-unit	Content
36i	In a family set-up, there doesn't seem to be much of a need for mitigating face-threatening acts
36ii	as ⁴⁷ {they}} _{FP} {47} all family members seem to be on the same page

Example 8.10: Increased informational content via CLASSIFICATION (JD1)

In the example above, revision 47 deletes a somewhat questionable anaphoric referent 'they' and replaces it with the NGrp 'all family members' (Determiner^Classifier^Thing). It could be argued that the choice to use such a participant structure instead of a simple pronoun increases the ease with which the reader can comprehend the clause in relation to the preceding one, because although the family mentioned in the previous clause is non-specific (presenting), it does not refer to the family under consideration in this essay.

Let us now consider figure 8.6 in terms of revisions to the information unit; i.e. the textual system

of INFORMATION, which is represented by the green line in figure 8.6. When presenting information, we are said to partition discourse into manageable units, where one unit represents one piece of information. Within SFL these are called information units, and are said to be primarily based in speech. The basis for this belief is that information units are said to be encapsulated within a tone unit, where the culmination, or focal point of a unit, is signalled by the tonic, which is the most prominent syllable holding a major pitch change. Everything presented before or after the tonic is assumed by the text's producer as 'Given', and thus this information is less likely to be made prominent via changes in pitch or tone. However, some scholars¹⁴ working with written text subsume that information units are somewhat coextensive with clausal units, in that the (Subject) Theme is usually where we find the 'Given', or that which the producer relays as obtainable from co-text/context, and that the N-Rheme is usually where we find the 'New', or that which the producer presents as new information or most 'newsworthy' (cf. §5.6.1.1 and §6.2.4 for further discussion). Therefore, assuming that an information unit can be examined in written terms, we can return to figure 8.6 and consider what revisions involving INFORMATION contributed.

Figure 8.6 reveals a steady increase in the number of information units as the text evolves. In the first two sessions, seven revisions involving information units are made, four of which change the New¹⁵. In session 3, five more revisions are made, all of which alter the New¹⁶. Finally, in session 5, four more revisions are made, three of which alter the New (revisions 197, 201, and 223). Overall, then, it appears that revisions involving information units are primarily used to make alterations to what is projected as New ($n=15$)¹⁷, or most 'newsworthy'¹⁸.

As Martin (1992) notes the New typically provides an elaborating function that reflects upon the point(s) of a text. Consequently, through INFORMATION, JD appears to be altering what she projects as important. Consider example 8.11:

T-unit	Content
4i	Brown and Levinson have ³ { contributed had a major contribution} _{CP} to this area of research{3}

Example 8.11: Adding an Attribute which becomes the new 'New'

In example 8.11, revision 3 deletes 'contributed' and inserts 'had a major contribution'. This revision changes the process from one of 'contributing' (simple past tense 'contributed') to one of 'possessing' (present perfect 'had'). The revision also adds the necessary Attribute for a newly created relational attributive clause. However, in the process of these changes we see a shift in

¹⁴ Fries (2002) and Moore (2012) subsume this view, as does Hood (2009, 2010, 2012), who (implicitly) draws on it via her use of KEY, which is the interpersonal correlate of INFORMATION.

¹⁵ Cf. revisions 3, 5, 74, and 109 in *Revision Table (JD1).xlsx sheet: Revision analysis matrix* on appendix CD.

¹⁶ Cf. revisions 128, 132, 134, 135, and 143.

¹⁷ Although revisions can also change the Given, these were infrequent ($n=4$).

¹⁸ This ties in with the findings of §6.2.4, where the majority of revisions occurred within the N-Rheme.

the focal point of the N-Rheme, where 'this area of research', which was the most likely candidate to be the New¹⁹, now becomes a Qualifier to 'a major contribution'—'a major contribution' being the new focal point of the N-Rheme, or the peak of 'the clause as message' that gets carried on in the following clause (Martin & Rose, 2007, p.188).

Similarly, revision 109 below adds a new Phenomenon, shifting the focus from 'power relationships' to 'strategies':

T-unit	Content
4i	and looked at ¹⁰⁹ {strategies to deal with {110}} _{JINSB} power relationships.

Example 8.12: Adding a Phenomenon (Ngp) which becomes the new 'New'

These two brief examples, then, highlight how a revision can change the focus of what the writer presents as most Newsworthy. These revisions, however, also highlight the multifaceted nature of choice encountered in all four datasets. For instance, example 8.11 above involved one VGrp and one NGrp, but six systemic choices: a deletion and subsequent addition in EVENT TYPE ('contributed'→'have had'), followed by a selection in DETERMINATION ('a'), EPITHESES ('major'), THING TYPE ('contribution'), and INFORMATION: New ('this area of research'→'a major contribution'). Moreover, many of these choices in INFORMATION are tied to NGrp choices (THING TYPE, CLASSIFICATION, etc.), because when a new Thing is added (or displaced by another element) then this is also likely to alter the focus of the information unit. Given and New, of course, being directly related to the major participants (typically NGrps) of a clause (cf. §7.2.1 for examples).

8.2.2 JD2

Figure 8.7 shows how revisions in JD2 unfolded in terms of rank level realizations:

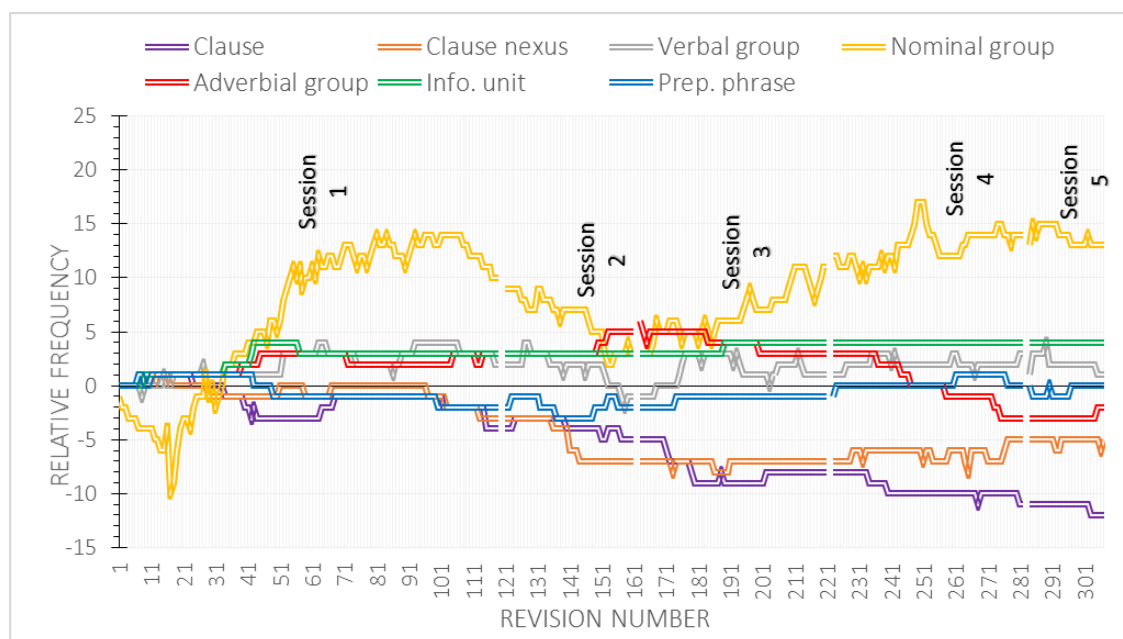


Figure 8.7: The unfolding of rank realizations in revision activity (JD2)

¹⁹ 'this area of research' being the Object of the verb phrase 'have contributed to'.

As per JD1, revisions in JD2 mostly affected the number of NGrp elements, and we see a similarly low end count of +15 even though the number of NGrp revisions totalled 209. Once again, then, it appears that the NGrp is not simply a place where information is added as revision unfolds. Instead it is the key constituent where experiential, interpersonal, and textual meanings are fine-tuned, with revisions being used for a wide range of functions (cf. §7.3.1 for some examples).

In terms of the other lower ranks constituents (e.g. VGrps), there appears to be little movement in their overall frequencies. However, from session 2 onwards there appears to be some movement in terms of the larger ranks, particularly the clause and clause nexus. Specifically, we see a marked drop in clause nexus realizations at revision 135 via deletions involving TAXIS/INTERDEPENDENCY ($n=-21$), but this then climbs slightly, resulting in a final figure of -5. What is perhaps more surprising, though, is the decrease in clausal level meanings/features realized via TRANSITIVITY ($n=-11$) and MOOD ($n=-4$)²⁰.

8.2.3 JD3

Figure 8.8 shows how revision activity in JD3 unfolded in terms of rank choices:

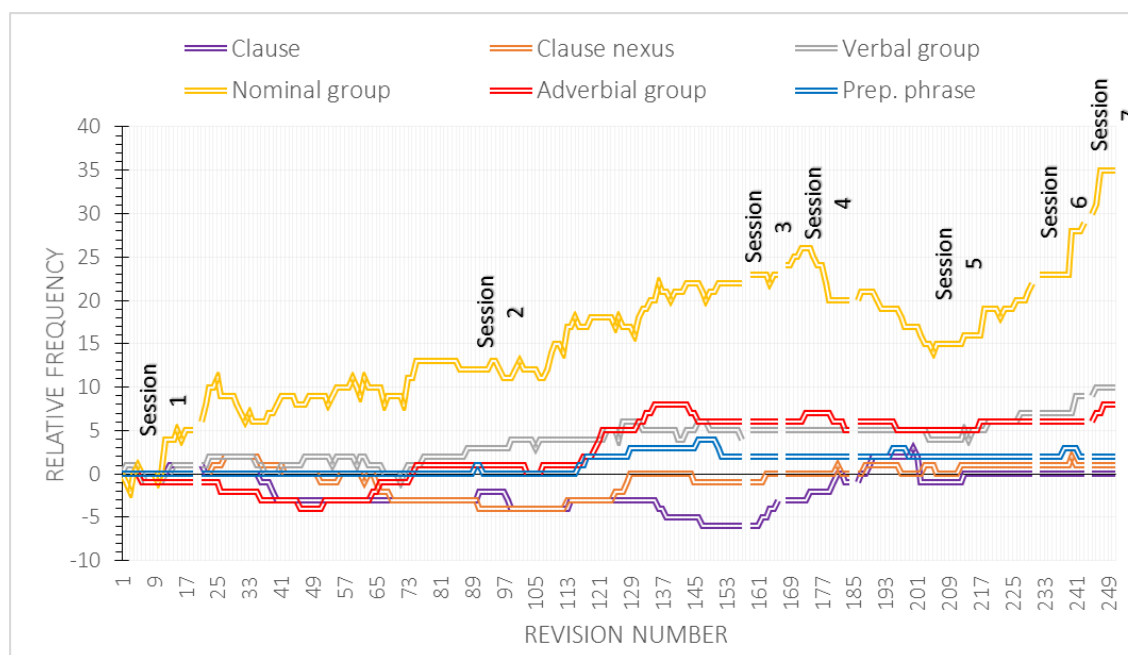


Figure 8.8: The unfolding of rank realizations in revision activity (JD3)

Once again, figure 8.8 shows that NGrp elements displayed the greatest amount of movement during revision activity. Specifically, there is a steady increase in nominal elements until session 4, where a number of deletions take place, starting with revision 166 ($n=+26$), and ending with revision 198 ($n=+15$). We then see more nominal elements being added, resulting in a final figure of $n=+36$.

²⁰ THEME, the other clausal level system, levelled out with 6 additions and 6 deletions overall.

As per the graphs for JD1 and JD2, it is perhaps unsurprising that the NGrp showed the largest amount of movement given that 199 (49%) revisions in JD3 involved NGrp elements (cf. §7.1.2, table 7.2). However, what is surprising is the trajectory taken by these NGrp revisions and their relatively high final count of +36. If we recall from §8.1, figure 8.3 (JD3's unfolding of language functions in revision activity), experientially based revisions steadily increased as revision activity unfolded, and ended on a final count of $n=+75$. This initially suggests that increases in NGrp elements in JD3 may be tied to increases in experientially based revisions. A quick examination of systemic choice in JD3 (cf. table 7.10, §7.1) confirms this hypothesis. Basically, if we cross reference experiential revisions with NGrp revisions (i.e. if we look through the lens of a function/rank matrix), we see that in JD3, there were 129 experiential revisions to NGrps (+82, -47). This means that of the 36 nominal elements added via revision activity, 35 (97.2%) had an experiential function. Alternatively, we could say that 35 (or 46.7%) of experiential revisions in JD3 involved NGrp elements. Either way, experiential meanings/features realized in NGrp elements played a key role in revising JD3²¹.

Turning to VGrp revisions, we see a steady increase in their number throughout revision activity, resulting in a final count of $n=+12$. Of these 12 additions, 4 involved EVENT TYPE, and 8 MODALITY. The contribution from EVENT TYPE is somewhat expected, because it was the second most frequently revised system in JD3 (cf. table 7.11, §7.1). Selections in MODALITY, however, represent much more measured choices in terms of interpersonal meanings/features.

In the previous section it was argued that interpersonal revisions were significantly more measured, and the evidence for this came via their uptake ratios. In JD3, for example, interpersonal revisions had an uptake ratio of 1.8:1 (from 27 interpersonal revisions, 15 could be found in the final draft). Of these 15 additions, 5 involved citations. Consequently, choices in MODALITY become much more prevalent, both in terms of their contribution as a VGrp element and in terms of contributing interpersonal meanings/features. However, as mentioned in §8.1.3 above, their relatively low number meant that they had little impact on the text as a whole.

²¹ Incidentally, the majority of the remaining 40 experiential additions came via DENOTATION ($n=+32$), which is technically neither an addition nor a deletion of a word as DENOTATION primarily represents a change in lexis. In this thesis, however, I have chosen to categorise them as additions because I see them as representing a positive (+) choice in a system. Moreover, this choice does not distract from the fact that nominally realized experiential meanings were a key contributor to the revision of the text.

8.2.4 BB

Figure 8.9 shows how BB's revisions unfolded in terms of rank choices²²:

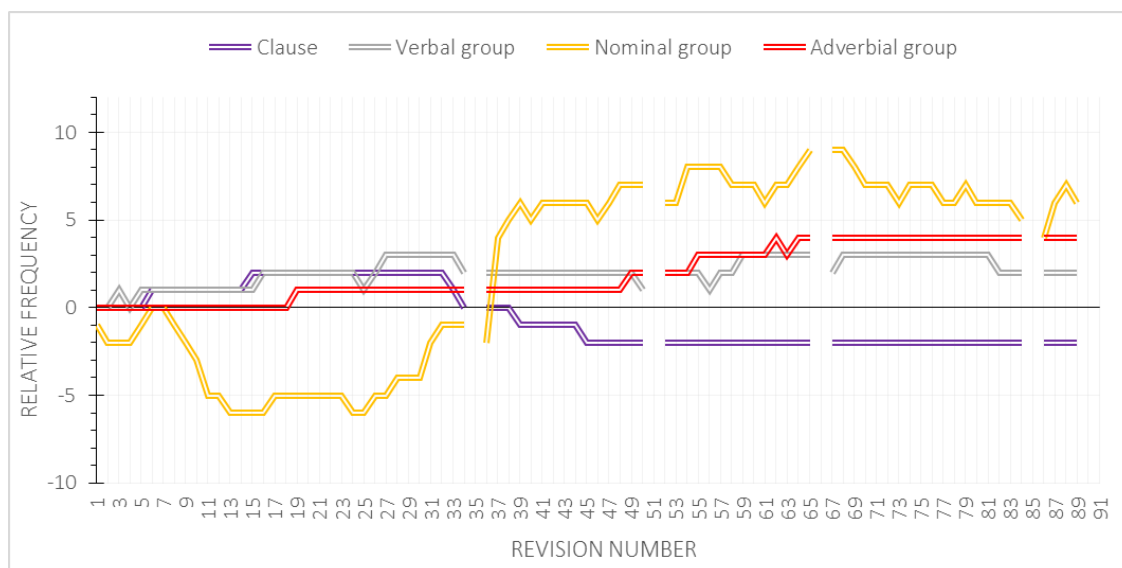


Figure 8.9: The unfolding of rank realization in revision activity (BB)

Although the overall number of BB's revisions was low ($n=85$), figure 8.9 still shows that NGrp elements were the major focus of revision activity, only at much lower ranges than the other datasets. Specifically, in BB, the relative frequency of NGrp revisions ranged from -6 to +9 and ended on $n=+7$. Furthermore, figure 8.9 shows that the other ranks were rarely involved in revision activity. The evidence presented here, in combination with that presented in Chapter 7, show quite clearly how most of BB's revisions involved NGrps ($n=69$, 50.7%), and that the majority of these revisions involved DETERMINATION ($n=21$), QUALIFICATION ($n=14$), and THING TYPE ($n=11$).

Section Summary

Overall, it appears that NGrp elements were the most heavily altered structures when it came to these writers' revisions. This was perhaps unsurprising given the findings of the previous chapter. In terms of experiential meanings, these writers utilised NGrp elements to orient to field via choices in NUMERATION, CLASSIFICATION, EPITHESES, and QUALIFICATION (informational specificity). In terms of interpersonal meanings, they used NGrp elements to orient to tenor via choices in PERSON, ASSESSMENT and, indirectly, COMMENT (there were many cases where adverbial groups acted as major participants and thus 'stood in' for NGrps). In terms of textual meanings, these writers utilised NGrp elements to orient to mode (specifically the readability of text) via choices in DETERMINATION and to a lesser extent REFERENCE²³. However, they also oriented to mode via choices in EPITHESES and QUALIFICATION.

²² I have removed ranks that ranged between -1 to +3; i.e. clause/group/phrase nexus, and info unit.

²³ CONNOTATION is a word level system, so it was not included here.

Ultimately, participant structures were introduced and cohesively tied into the surrounding context/context via a reduction in specificity (DETERMINATION), an increase in identifiability (REFERENCE), and, surprisingly, an increase in informational specificity (via pre- and post-modification). However, as discussed in §8.1, this is perhaps not the whole story, because if we look at how revisions contributed to the overall level of meanings/features in each text, we see that certain constituents are more likely to be added/removed by revision activity, whilst others are more likely to be altered by revision activity.

Figure 8.10 illustrates this by showing the uptake ratios of revisions in terms of rank:

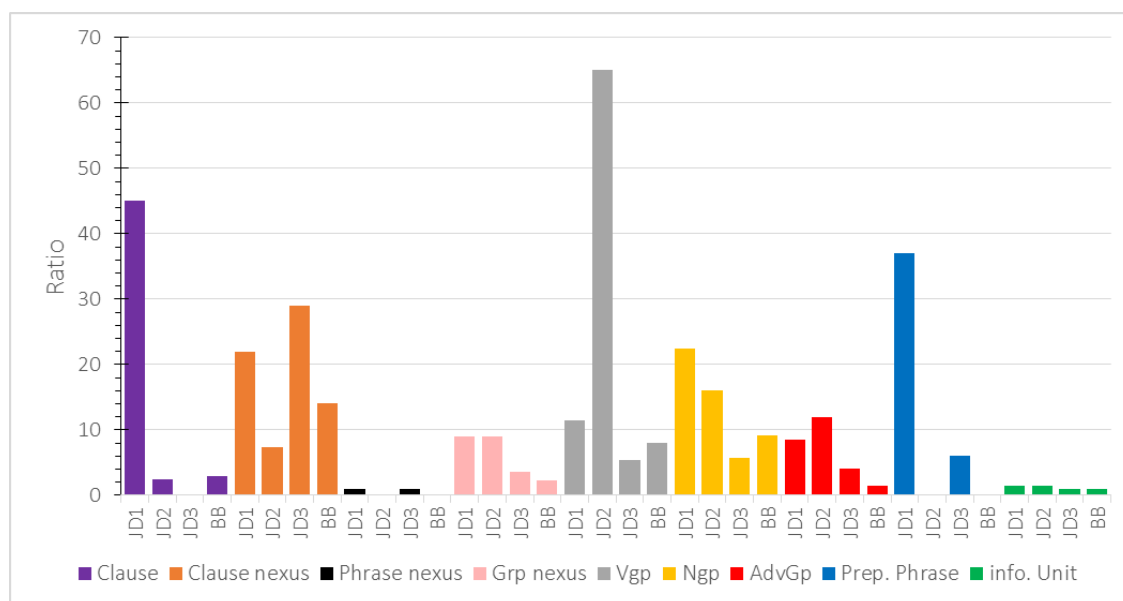


Figure 8.10: Uptake ratios of rank constituents via revision activity in each text

In figure 8.10, the lower the bars the more likely that a revision would lead to the frequency of a rank element in the final text being increased or decreased. For example, the uptake ratios for NGrps (yellow bars) show us that in JD3 (5.7:1) and BB (9.1:1), NGrp revisions are more likely to increase/decrease the final number of NGrp elements in the finished text than they are in JD1 (22.5:1) or JD2 (16.1:1). And although figure 8.10 shows a great deal of variation between datasets, we could say that based on their frequency of occurrence in combination with their uptake ratios, revisions involving the clause nexus and NGrp seem to be the most important kinds of structural revisions in all four datasets and, therefore, the types of constituents these revisions affected may lend themselves well to revising academic essays. The remaining constituents, on the other hand, show much greater variation in terms of their frequency and uptake ratios and, therefore, these types of constituents may be more dependent on variables such as text-type, content, etc.

8.3 The unfolding of logicosemantic relations

In this section we will explore revision activity in terms of ideational semantics. Specifically, we will look at unfolding revisions in terms of 'expansion' and 'projection'. We have already touched upon the three subtypes of expansion in §7.2, where we looked at some examples of Qualifiers (i.e. expansion within the NGrp via post-modification) and interdependency relations (complexes involving selections in TAXIS&LOGICO-SEMANTIC TYPE). In this section, however, expansion and projection are central motifs and, therefore, we will more fully define what is meant by the terms 'elaboration' (reiteration), 'extension' (addition), 'enhancement' (qualification), and 'projection'.

Halliday and Matthiessen (1999) define the three subtypes of expansion as follows:

(i) **elaboration** is a (partial) identity relation between figures: one is identified with another with a difference in perspective (it matters a lot; it plays an important role) or one is included under another as an example (it plays an important role; e.g., it provides the infrastructure). These are clearly related to one another: identity is the limiting case of inclusion and inclusion is partial identity.

(ii) **extension** is an additive relation between figures: a sequence is made bigger by the addition of another figure. This may involve pure addition ('and': *he is too young and he doesn't speak the language*) or addition with an adversative feature ('and yet': *he speaks the language but he is too young*). As a variant of addition, we also have alternation (*he is too young or else he is just immature*).

(iii) **enhancement** is a circumstantial or qualifying relation between figures: it is, in a sense, extension plus a circumstantial feature — 'and' + time ('and then', 'and at the same time', etc.), 'and' + manner ('and in the same way', 'and likewise'), 'and' + cause ('and therefore', etc.), etc.: *it is autumn, so the leaves are turning brown.*

(p.117, *emphasis in original*)

These three subtypes of expansion are considered 'pervasive semantic types that are manifested throughout the grammatical system' (IFG4, p.669); i.e. they can be found at any unit of analysis from the clause to the group and are, in a very broad sense, primarily logical relations because they rely on a sequence of interdependency relations for their realization (IFG4, pp.666-673). Projection, on the other hand, is a relation whereby a unit comes to function not as a direct representation of something, but as a representation of a representation (cf. IFG4, pp.508-548, for examples at the clausal level).

In the following sub-sections we will look at how expansion and projection (that is expansion/projection manifested across all rank scales) unfolded in each dataset's revision activity. To do this we will use the same format as above: the unfolding of expansion and projection types will be represented as line graphs, where three of the four lines will represent the three subtypes of expansion and the other line will represent projection. Once again, the X-

axis will display the sequential ordering of revisions from the first revision to the last revision, whilst the Y-axis will display a relative frequency count, indicating how each revision either contributed to (added) or subtracted from (deleted) expansion/projection.

8.3.1 JD1

Figure 8.11 below shows the unfolding of expansion and projection in JD1:

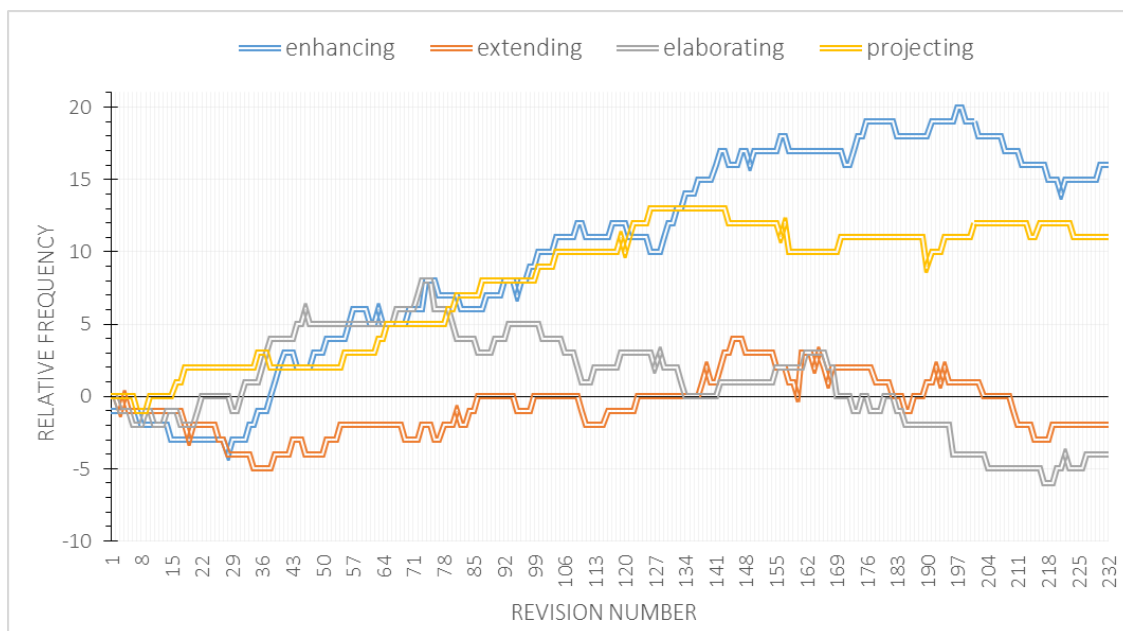


Figure 8.11: Unfolding expansion and projection in revision activity (JD1)

The first subtype of expansion we will cover is extension (the red line in figure 8.11). Following Halliday and Matthiessen's (1999) definition (above), extension typically manifests itself in terms of the following relations (all examples are from JD1; the revision number and lexicogrammatical system affected are provided in parenthesis):

1. **Addition:** 'and' (28, TAXIS: parataxis), 'while' (44, TAXIS: hypotaxis), 'also' (145, CONJUNCTION).
2. **Variation:** 'or' (18, TAXIS: parataxis), 'else' (69, TAXIS: hypotaxis), 'however' (46, CONJUNCTION).
3. **Accompaniment:** 'with each other' (39, QUALIFICATION), 'among conversations' (53, MINOR TRANSITIVITY), 'recorded' (5, EVENT TYPE) 'without using' (82, MINOR TRANSITIVITY).
4. **Possession:** 'their responses' (186, DETERMINATION), 'have contributed' (3, EVENT TYPE).

Figure 8.11 shows that extending relations appear relatively unaffected by revision activity; i.e. extending relations never rise above +4 or fall below -5, and end at $n=-2$. In JD1, then, revisions do little in the way of adding to, or subtracting from the overall number of extending relations in the final text. For example, despite the low end count ($n=-2$), 64 revisions (+31, -33) involved extending relations. This equates to an uptake ratio 32:1; i.e. out of every 32 revisions involving an extending relation, the overall count of extending relations in the text was only altered by -1.

The second subtype of expansion is elaboration (the grey line in figure 8.11). Elaboration typically manifests itself in terms of the following relations (again, all examples are from JD1):

1. **Apposition:** 'who...' (2, QUALIFICATION: embedding), 'which' (6, TAXIS: hypotaxis), 'for example' (32, CONJUNCTION).
2. **Clarification:** 'Overall' (217, CONJUNCTION), 'my **own** data' (3, EPITHESES).
3. **Role:** 'for man' (21, QUALIFICATION), '**being** the parent' (204, MINOR TRANSITIVITY), 'the **English** language' (168, CLASSIFICATION).

Elaborating relations, then, expand upon an element in terms of providing additional information that further specifies or describes it, 'restating it, clarifying it, refining it, or adding a descriptive attribute or comment' (IFG4, p.461) .

Within JD1, elaborating revisions, as per extending revisions, appear to be a minor motif, peaking at +6 (revision 73), falling to their lowest level at revision 204 ($n=-7$), and ending with the lowest relative frequency count of $n=-4$. Consequently, in a similar manner to extending relations (albeit on a smaller scale), we see from the total number of elaborating revisions ($n=64$) and their uptake ratio (16:1) that the overall number of elaborating relations within this text remain relatively unaffected by revision activity.

The final subtype of expansion is enhancement. It typically manifests itself in terms of:

1. **Place:** 'here' (197, CIRCUMSTANCE TYPE), 'from my study' (59, QUALIFICATION), 'in the programme' (32, MINOR TRANSITIVITY).
2. **Time:** 'then' (64, TAXIS: parataxis), 'yet' (156, CIRCUMSTANCE TYPE), 'as previously mentioned' (149, CONJUNCTION), 'when' (181, QUALIFICATION) 'during this interaction' (137, MINOR TRANSITIVITY).
3. **Manner:** 'as something...' (8, TAXIS: hypotaxis), 'by using the' (34, MINOR TRANSITIVITY), 'on Goffman's work' (143, QUALIFICATION), 'more difficult' (54, NUMERATION).
4. **Cause:** 'because' (104, TAXIS: hypotaxis), 'therefore' (24, CONJUNCTION), 'to soften' (77, MINOR TRANSITIVITY).
5. **Contingency:** 'if... then' (101, TAXIS: hypotaxis), 'however' (72, CONJUNCTION), 'instead of' (80, MINOR TRANSITIVITY).

Figure 8.11 shows that the number of enhancing relations (blue line) in JD1 increased considerably through revision activity. For example, despite a slight dip at the start of writing, enhancing relations peaked at $n=+20$ (revision 197) and finished at $n=+16$. Enhancing revisions, then, seem to be an important logicosemantic type when it comes to adding meanings/features to this text. However, before discussing the implications of this we will look at the final semantic type: projection.

As we have already noted, projection is a logicosemantic relation whereby a unit comes to function not as a direct representation of something, but as a representation of a representation. I.e. it is the projection of one element 'onto the plane of second-order, semiotic phenomena, so that it enters the realm of metaphenomena (meanings or wordings)' (Halliday & Matthiessen, 1999, p.106). At the clausal level, Halliday and Matthiessen (2013) state that there are 'three systems involved in the differentiation of different kinds of projection' (pp.509-510). These are:

1. **The level of projection:** projection of meaning (ideas) or wordings (locutions).
2. **Mode of projection:** paratactic ("direct, quoted") or hypotactic ("indirect, reported").
3. **Speech function:** major proposition (information) or major proposal (goods & services)²⁴.

At levels below the clause, projection manifests itself in terms of:

1. **Matter** (circumstantial equivalent to verbiage): 'his use of the term 'mun'' (34, QUALIFICATION), 'knowing the family' (166, MINOR TRANSITIVITY).
2. **Angle** (related to Sayer or Sensor): 'defends himself to himself' (15, QUALIFICATION) 'to outsiders' (167, MINOR TRANSITIVITY).

In terms of projecting revisions in JD1 (yellow line), we see a somewhat similar pattern to that of enhancement, with projecting relations climbing in the first half of revision activity. However, unlike enhancement, projection peaks at a lower level ($n=+13$, revision 126) and then evens out, dropping slightly before finishing on $n=+11$. Moreover, in a similar manner to enhancement, but on a slightly increased scale, we see that projecting revisions are more likely to add to the final number of projecting relations in the final text (uptake ratio of 3.2:1).

Overall, then, revisions involving projection are more likely to add meanings to JD1 than revisions involving extension and elaboration. Enhancing revisions, meanwhile, seem to be the most involved subtype of expansion in terms of adding meanings. In order to make sense of these findings, we can turn to the discussion held in §7.3.1.1. Here we discussed JD1's revisions in terms of functional choice, and saw how experiential meanings/features were continually added as the text evolved. The essay rubric/title²⁵ was cited as one possible reason as to why this may be the case; i.e. the title may have cued the writer to produce a more descriptive text. Therefore, we will now examine a few of JD1's revisions in terms of the five typical manifestations of enhancement cited above to see if this may be the case, starting with enhancement of **place**:

T-unit	Content
7ii	and participants were aware of their right to withdraw ⁵⁹ {from my study} _{CP} .

Example 8.13: Enhancement of place through QUALIFICATION

²⁴ A third option is 'projected minor', but there were no examples in the dataset.

²⁵ The title being 'How are face-threatening acts mitigated in interactions between friends/family?'

We have already considered this example above (example 8.8), where revision 59 added 'from my study'. This prepositional phrase is part of a Qualifier (an embedded non-finite clause) that post-modifies 'right'. This revision, then, is a choice in MODIFICATION/QUALIFICATION of +[Qualifier (↘prep. phrase): circumstance: enhancing: location: place], and augments description in terms of **where** 'participants' may withdraw from.

The next example concerns enhancement of **time**:

T-unit	Content
53	If this is the case or she states that for no reason, ¹⁴⁸ {as she hasn't had much opportunity to yet} _{INSB} , and could be viewed as she is helping to neutralise the conversation, and ensure it is still light-hearted.

Example 8.13: Enhancement of time through CIRCUMSTANCE TYPE

Here, revision 148 adds a hypotactic enhancing clause, part of which contains the adverb 'yet'. This adverb is free to move around the clause²⁶, so it forms its own adverbial group and represents a choice in CIRCUMSTANCE TYPE, specifically +[Circumstance type (↘adverb): enhancement: spatio-temporal: complex: terminal]. This revision, then, augments the text's descriptive power by telling us (the reader) that **up to this point in the conversation** 'H' (the person being referred to as 'she') has not had much input.

The next example concerns enhancement of **manner**:

T-unit	Content
28	³⁴ {His-use by using the of the} _{INSA} term 'mun' which is Welsh slang, often used for emphasis suggests he is trying to imply that his impression was good

Example 8.14: Enhancement of manner through MINOR TRANSITIVITY

In this example, revision 34 deletes what was a down-ranked clause ('His use of the') acting as a Carrier in an intensive attributive clause, where 'suggests' is being used incongruently as a relational rather than verbal process. It then adds 'by using the', creating a fronted dependent clause (marked Theme). In terms of enhancement, this addition represents a choice in MINOR TRANSITIVITY of +[Circumstance (↘prep. phrase): enhancing: manner: means]. This revision, then, enhances the description in terms of foregrounding **how** (the means by which) the impression may be said to be good.

The next example concerns enhancement of **cause**:

T-unit	Content
39X	¹⁰⁴ {because of t T} _{CP} he power relationship as it were suggests that N is able to make a command easier than J would be able to.

Example 8.15: Enhancement of cause through TAXIS

Here, part of revision 104 adds 'because'. This represents a choice in TAXIS (hypotaxis) of +[enhancement (↘conjunction): causal-conditional: cause: reason]. I.e. it takes two independent

²⁶ The clause could be rewritten as 'as yet she hasn't had much opportunity to'.

clauses and creates a logical relation between them, where the second clause enhances the first in terms of a causal reason as to **why** the proposition of the first is likely to be true.

The final example concerns enhancement of **contingency**:

T-unit	Content
44	⁹¹ { However, as As } _{FP} previously mentioned {91}, because of the close family bond there is not much need for such devices.

Example 8.16: Enhancement of contingency through CONJUNCTION

In this example, revision 91 adds 'However'. This represents a choice in CONJUNCTION of +[conjunctive Adjunct (↘adverb): enhancement: causal-conditional: specific: concessive]. This revision, then, is used to introduce what follows as being in a contradictory relation to what was said previously. I.e. it enhances description by linking one piece of information with another in terms of a **rational association**.

From these few examples, then, we see how enhancing relations can be used to augment the information contained within an element/clause in terms of a number of circumstantial types, tactic relations, cohesive links, etc. However, it cannot be said that the only reason for such augmentation within JD1 is the need for increased description (orientation to field). Rather, enhancement is used for a number of functions that involve not just experiential meanings (Examples 8.13 and 8.14: revisions 148 and 34, respectively), but also logical (Example 8.15: revision 104) and textual meanings (example 8.16: revision 91).

Ultimately, because enhancement is repeatedly cited as being the most highly developed type of expansion (e.g. IFG4, p.667). It is perhaps unsurprising that it provides a wide range of functions that JD utilised quite effectively when revising JD1.

We have just seen that expansion through enhancement is multifunctional, and that revisions involving enhancement do not just serve to increase the descriptive power of a text. But what of the steady increase in projecting relations through revision activity? For this essay, JD used a transcript of a recorded conversation to support her thesis. Consequently, she frequently used projecting relations to introduce what those in the transcript had said (locutions) or may have thought (ideas). Consider example 8.17:

T-unit	Content
31iX	This could ¹⁵ⁱⁱ { be implied imply that } _{FP} she was offended

Example 8.17: Projection of locution (indirect, proposition)

In this example, part of revision 15ii creates an 'indirect' (reported) projection of wording (locution) via the suggesting verb 'imply' combined with the binder 'that' (structural cataphoric marker). This is an example of projection at the clausal level. However, this revision also creates an interpersonal Theme or 'thematized comment' (Thompson, 2004, p.152), which objectively

frames the upcoming proposition that 'she was offended'²⁷. In realizational terms, the revision occurs in the VGrp and, therefore, it realizes a choice in EVENT TYPE²⁸ of +[verbal Process (↘verb): propositional: elaborated speech function] (IFG4, p.523).

In the following example, the mode of projection (locution) is direct:

T-unit	Content
34	Using a pet name, ⁸¹ {or simply just saying 'please',} _{JINSA} suggests a close bond.

Example 8.18: Projection of locution (direct, proposal)

Again, as per example 8.17, this revision is multi-functional. However, our focus is on how it adds a projection of wording (locution) that is a 'direct' (or pseudo-direct) quote of 'please'. Basically, part of revision 81 concerns a choice in EVENT TYPE of +[verbal Process (↘verb)] realized as the reporting verb 'saying'. JD uses this projecting relation to introduce what someone might say as evidence to suggest 'a close bond'. This projecting relation, then, appears to not only add descriptive detail relating to the data (transcript), but also provides additional warrant (in combination with 'pet name') for an upcoming proposition.

Moving away from projections of wording, example 8.19 shows a projection of meaning (idea):

T-unit	Content
28i	This suggests he ¹⁷⁹ { is trying to imply that believes that} _{JINSA} his impression was good

Example 8.19: Projection of idea (indirect, proposition)

Here, revision 179 adds a projection of meaning (idea) realized as 'believes that'. This represents a choice in EVENT TYPE of +[Mental Process (↘verb): 'like' type: cognitive] (IFG4, p.274) combined with the binder 'that'. The resulting projection, like example 8.17, is an indirect proposition, only this time it is the projection of an idea, which is attributed to 'N' (the 'he' referred to in the example).

The next example covers projection (matter) in the Ngp via post-modification (QUALIFICATION):

T-unit	Content
40ii	and looked at ¹⁰⁹ {strategies to deal with} _{JINSB} power relationships.

Example 8.20: Projection of matter through QUALIFICATION

Once again, example 8.20 illustrates a revision that is multifunctional: revision 109 actually affects 3 lexicogrammatical systems. However, we will only focus on choices related to projection, namely the non-finite embedded clause 'to deal with... ', which functions as a Qualifier to the (new) Thing 'strategies'. In systemic terms, it represents a choice in MODIFICATION/QUALIFICATION of +[Qualifier (↘non-finite): circumstance: projection: matter]; i.e. it answers the question '**what**

²⁷ It also realizes a choice in THEME, but this is not the focus of this section.

²⁸ However, as I have argued elsewhere, the line between EVENT TYPE (VGrp) and TRANSITIVITY (clause) is often blurred, so I have chosen to categorize this as EVENT TYPE because it affects only the VGrp.

about these strategies?' by providing the answer 'these are strategies we use to contend with power relationships'. This projecting relation, then, is used to augment description, rather than quote or report on what someone else has said or thought.

Example 8.21 is another instance of projection below the clausal level, only this time it is projection (angle) at the phrasal level:

T-unit	Content
66iii	although this may, again, come across as an awkward and uncomfortable situation ¹⁶⁷ {to outsiders} _{CP} ,

Example 8.21: Projection of Angle through MINOR TRANSITIVITY

Revision 167 represents a choice in MINOR TRANSITIVITY of +[Circumstance (↳prepositional phrase): projection: angle: viewpoint]. It provides the reader with additional information as to **whom** the 'situation' may be awkward or uncomfortable to. As per example 8.20, then, this revision primarily adds description.

8.3.2 JD2

The unfolding of expansion and projection in JD2's revision is shown in figure 8.12:

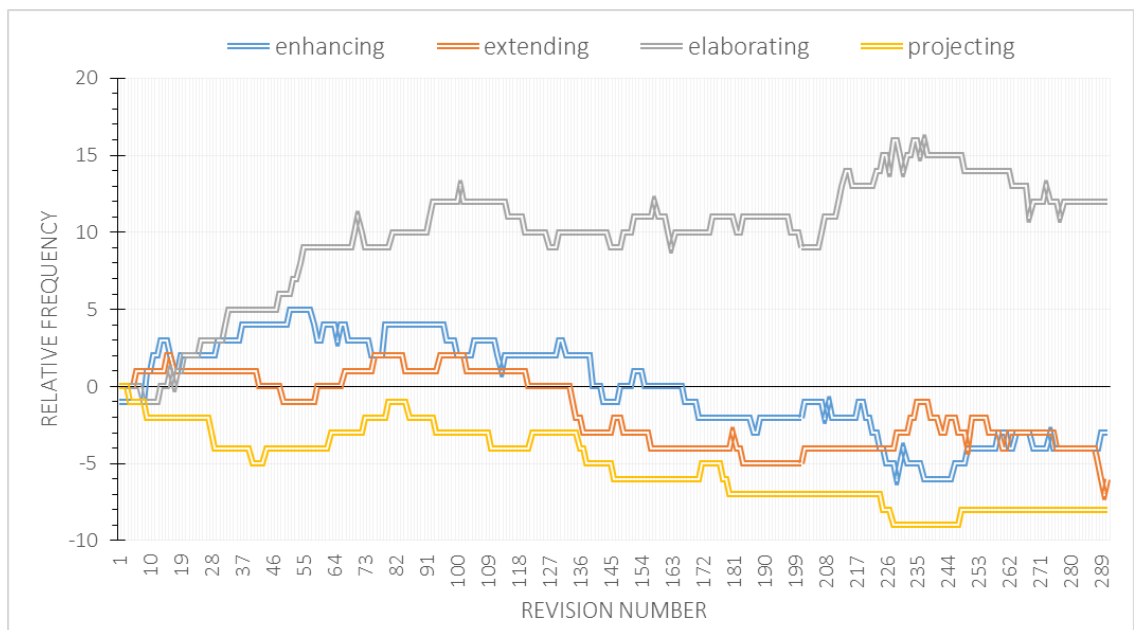


Figure 8.12: Unfolding expansion and projection in revision activity (JD2)

From figure 8.12, we can already see that the patterning of expansion and projection is markedly different from that of JD1. The trajectories of enhancement, extension, and projection remain relatively flat throughout the first half of revision activity, staying within ± 5 of the baseline. They then fall below zero and remain in negative figures until the end of the writing process, resulting in final counts of -5 for enhancing and extending relations, and -6 for projecting relations. Elaborating relations, however, continually rise, climbing above +5 at revision 52 (session 1),

reaching +10 at revision 71, and then peaking at +14 several times during session 4 (revisions 228, 234, and 237), before finally settling on $n=+10$.

Table 8.3 shows the uptake ratios for each subtype of expansion and projection:

	Enhancement	Extension	Elaboration	Projection
Total no. of revisions	69	45	82	28
Final relative count	-5	-5	10	-6
Uptake ratio	13.8:1	9:1	8.2:1	4.7:1

Table 8.3: Uptake of expansion and projection in JD2's revisions

Again we can turn to the task's demands as one possible reason as to why enhancement, extension, and projection remain relatively low/stable throughout JD2's revision activity. As discussed in §7.3.1.2, this essay²⁹ called for increased interpersonal meanings (meanings that contribute to the 'clause as exchange'). However, in discussing expansion and projection we are primarily dealing with ideational semantics. I.e. we are dealing with meanings that primarily contribute to the 'clause as representation'. Looked at from this perspective, it is possible to see why elaborating relations may be slightly more involved in revision activity than extension, enhancement, or projection. Elaborating relations primarily expand upon an element, 'restating it, clarifying it, refining it, or adding a descriptive attribute or comment' (IFG4, p.461). In constructing an argument a writer has to: (1) analyse, evaluate, and present content; (2) develop a position (clause by clause) in relation to that content; and (3) present that position coherently (overall text). Elaborating relations are important attributes when it comes to all three of these points and, thus, we could initially surmise that increasing elaborating relations may serve a supporting role in providing sufficient warrant for an argument. For example, consider the following elaborating revisions:

T-unit	Content
4i	The restricted code ¹⁴ {assumes all speakers share understanding on a topic of conversation} _{INSR}

Example 8.22: Elaboration through TRANSITIVITY

Revision 14 adds a new Rheme to T-unit 4i. This addition represents a choice in TRANSITIVITY. Specifically, it creates an intensive identifying clause (sign) via the verb 'assumes', creating an identifying (or equative) relation between an Identified element ('The restricted code') and its Identifier ('all speakers...'). This kind of extraposed complement clause is common in academic writing (Biber, Johansson, Leech, Conrad, & Finegan, 1999, p.674) and, in this instance, it enables JD to distance herself from what is effectively a definition of 'The restricted code' by using a verb that has judgemental connotations. This single elaborating relation, then, whilst primarily ideational and providing a definitional function, is also used to obscure the true source of an

²⁹ 'Argue for or against the claim that there are cultural differences in early language socialization that might affect a child's chances of success at school'.

appraisal, because it carries with it an interpersonal overtone, embedding a depersonalized and evaluative stance throughout the clause.

Example 8.23, illustrates an elaborating revision at the group level.

T-unit	Content
25	Heath's ²⁷ {ethnographic} _{FP} study on three communities in the south-eastern United States, each with different language socialization, {27} <u>has shown</u> that how children are brought up at home can affect on how well a child does in school

Example 8.23: Elaboration through EPITHESIS

Revision 27 inserts 'ethnographic'. This adjective comes to functions as an Epithet within a complex NGrp functioning as Subject/Actor in a process of 'showing'³⁰. This Epithet elaborates upon the Subject/Actor by clarifying what kind of 'study' it was. It could be argued that the addition of this elaborating element adds credence to the proposition held within the N-Rheme by stating that Heath's research was ethnographic; i.e. JD is increasing the credibility of Heath's research, which, in turn, supports her upcoming argument³¹.

Revision 33 below has a comparable function:

T-unit	Content
25	Heath's ethnographic research on three communities in south-eastern United States, each with ³³ {completely} _{CP} different language socialization, <u>has shown</u> that how children are brought up at home can affect on how well a child does in school

Example 8.24: Elaboration through ASSESSMENT

Revision 33 adds 'completely' to the same NGrp we discussed above. Only this time, 'completely' functions as an attitudinal (or interpersonal) Epithet (IFG4, p.376) that modifies 'socialization'. This noun is, itself, part of a Qualifier ('each with...') that provides an extending relation to another Qualifier ('on three communities...'). As per example 8.23 above, this small modification provides a subtle supporting role to JD's unfolding argument and, as noted in many SFL publications, shows how interpersonal meanings are often realized prosodically (i.e. spread throughout the clause at the lexical level).

Ultimately, these examples show how the addition of a single element, whilst providing a small contribution to the text as a whole, can play a subtle role in augmenting both experiential and interpersonal meanings and this, in turn, can aid the writer in constructing a particular point of view without injecting an explicit subjective stance.

³⁰ The main process/verb: 'has shown' is underlined.

³¹ She frequently used Heath's findings to support her propositions.

8.3.3 JD3

Figure 8.13 shows how revision activity in JD3 unfolded in terms of expansion and projection:

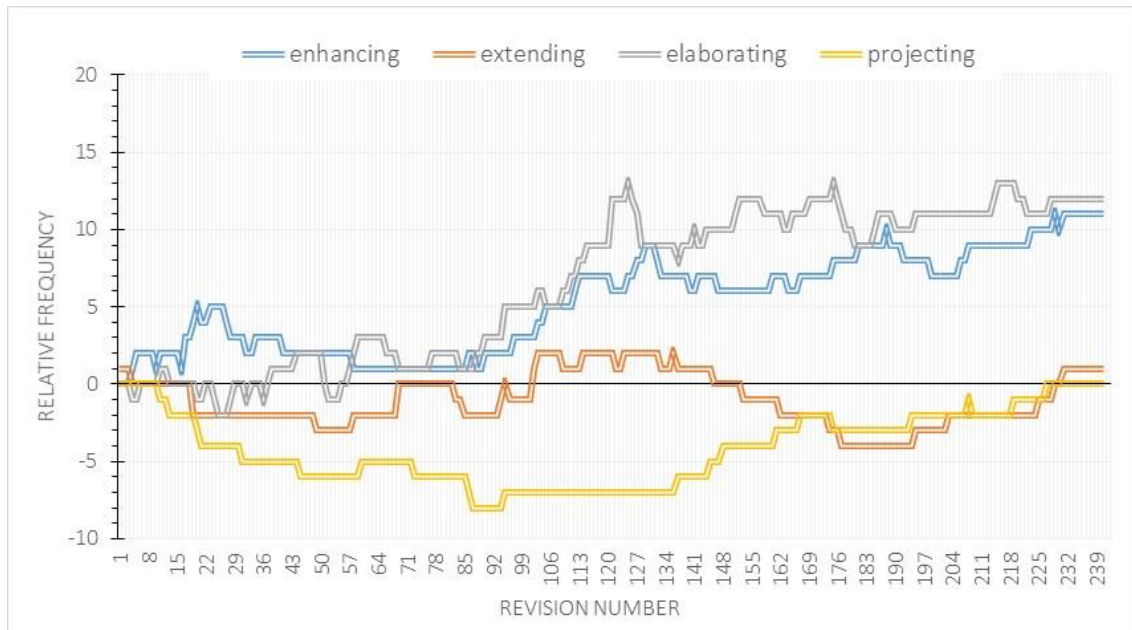


Figure 8.13: Unfolding expansion and projection in revision activity (JD3)

Figure 8.13 shows that the number of extending relations contributed through revisions remained relatively low, ranging from -2 to +4, and ending on +4. Projecting revisions, meanwhile, showed slightly more movement, ranging from -8 to +1, and ending on +1. These low figures suggest that extending and projecting relations are minor motifs when it comes to revision in JD3, and if we look into the overall number of revisions involving extension and projection, this initial assumption is somewhat accurate. More specifically, there are only 25 projecting revisions (+14, -11) and 40 (+23, -17) extending revisions. These figures result in uptake ratios of 25:1 for projection and 10:1 for extension.

If we look at enhancing and elaborating relations, however, these appear to be more prominent motifs. More specifically, we see that both relations steadily increase through revision activity, resulting in final figures of +14 for enhancement and +13 for elaboration. In terms of uptake ratios, there were 58 (+36, -22) enhancing revisions, and 86 (+48, -38) elaborating revisions, resulting in relatively high uptake ratios of 4.1:1 for enhancement and 6.6:1 for elaboration.

8.3.4 BB

Figure 8.14 shows BB's revision activity in terms of expansion and projection:



Figure 8.14: *Unfolding expansion and projection in revision activity (BB)*

Although we saw in §8.1.4, figure 8.4, that experiential meanings in BB rose to +24, and logical meanings to +4, the graph for expansion and projection above shows a different picture. Expansion and projection are prime motifs in SFL's view of ideational semantics (Halliday & Matthiessen, 1999). Consequently, in order to understand why they appear to be underrepresented in BB's revision activity, we need to examine what BB's experiential and logical revisions realized.

Firstly, 8 of BB's +25 experiential revisions involved THING TYPE (+10, -2). This system is concerned with distinctions amongst nouns, and relates to the numerous ways material and semiotic 'things' (animals, objects, abstractions, etc.) are labelled and taxonomized. Consequently, choices in THING TYPE do not directly contribute to expansion or projection because it is where the Thing is chosen, and if we recall from §6.1.3, the Thing is the nucleus (of a Participant) around which other (modifying) elements orbit. It is these orbiting elements that have the potential to provide expanding or projecting relations. Specifically, these orbiting elements have the potential to extend (e.g., possessive determiners), elaborate (typically Epithets/Classifiers), enhance (typically Numeratives), or project (e.g., Qualifiers) a relation between themselves and the Thing (Participant). Therefore, if we remove revisions involving THING TYPE, we can reduce the number of experiential revisions that have the potential to contribute to expansion/projection to +17. Ten of these remaining +17 experiential meanings involved DENOTATION. Choices in this system are realized at the word rank, and in BB these involved changes to 2 main verbs/processes, 1 post-Deictic, 3 conjunctions, and 4 nouns/participants. All of these changes involved synonymy, where

a word from one word class was swapped with another word from the same word class, yet the same core meaning was retained (e.g. in revision 8 'commissioning' is changed for 'initiating'). Consequently, as per THING TYPE, DENOTATION contributes little in the way of expansion or projection³². Taking this into account, we can again reduce the number of experiential revisions with the potential to provide expanding/projecting relations to just 7. Ultimately, then, looking at expansion and projection from this viewpoint (i.e. from the bottom up), we can see why figure 8.14 shows little change in terms of expansion and projection types, because there were only 11 revisions made that at the potential to provide expanding or projecting relations.

Section summary

To summarise, then, examining all four datasets in terms of revisions involving logico-semantic types reveals a markedly different outcome to our comparisons of experiential and logical revisions. Fundamentally, whilst there were noticeable patterns in terms of lexicogrammatical choices (function/rank) that permeated between writers and their texts, when we moved the analysis into the semantic plane of language (ideational semantics), and focused on just the ideational function (experiential and logical) there was much greater variation between writers and their texts as evidenced in figures 8.10 through 8.13 and their corresponding uptake ratios as shown in figure 8.15:

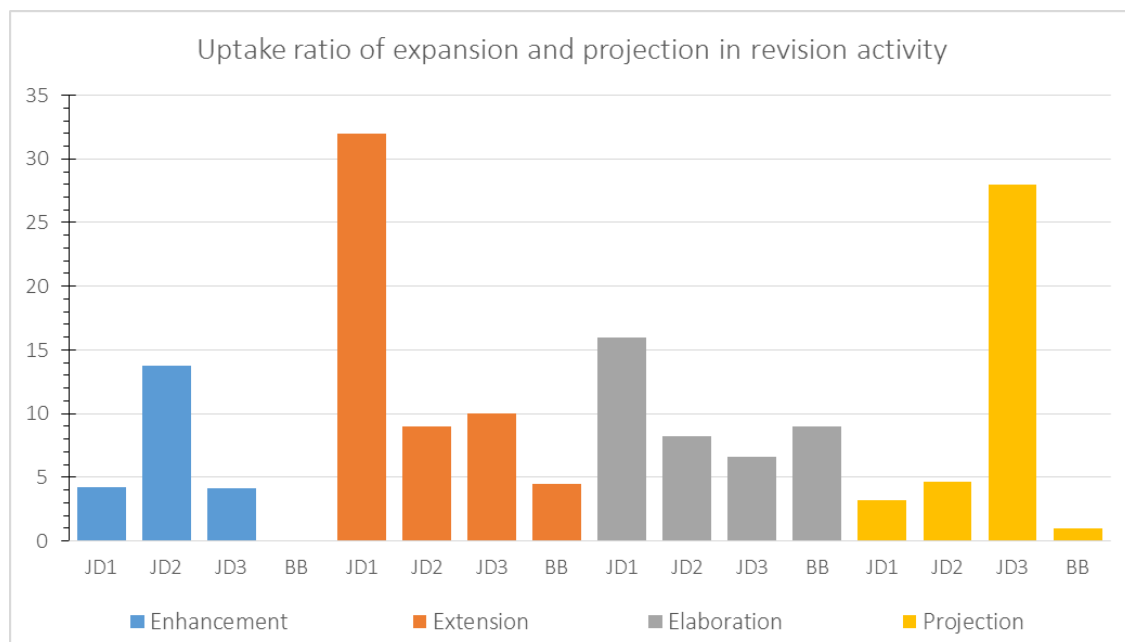


Figure 8.15: Uptake of expansion and projection in revision activity across all four texts

This increased variation is no doubt due to the fact that we have increased the delicacy of our analysis by categorizing ideational revisions in terms of the four semantic types. This effectively

³² Synonymous words have the same logicosemantic relationships with the words/elements around them.

combined two functions (experiential and logical), whilst also conflating all the ranks—expansion and projection are pervasive semantic types that permeate all levels of the content plane of language. As Matthiessen (2015) argues, it is in investigations of expansion and projection that we see the greatest variation across text-types in terms of circumstances of time, manner, cause, etc. It is here, then, that we would be more likely to find subtle differences between Discussions and Expositions (both members of the 'Essay' genre family, cf. Chapter 4). For example, although both text-types fall within the same genre family, each one calls upon slightly different kinds of descriptions to be built—Discussions call more on factual information, Expositions call more on recounting information.

Summary

In this chapter we moved away from a synoptic view of revisions and explored revisions in terms of dynamic description (unfolding choice). Specifically, this chapter has been an attempt to examine 'product-process relationships' in terms of an unfolding linguistic description (i.e. an analysis based in the logogenetic timeframe). The aim of this exploration was to address the final RQ: 'Is there a relationship between how a person writes and the perceived quality of their text(s)? I.e. does the process affect the product?'

In terms of unfolding lexicogrammatical choices (function and rank), there appeared to be some commonalities between the writers and their texts. Specifically, in §8.1 we saw that experiential and interpersonal revisions were more likely to increase/decrease the number of meanings/features in a text, and that their uptake ratios were somewhat similar across all four datasets. Textual and logical revisions, on the other hand, were less likely to increase/decrease the overall number of textual/logical meanings/features in the final text, and their uptake ratios showed much greater variation across datasets than experiential/interpersonal ones did.

In §8.2, we saw how the NGrp (and its associated elements) was the key rank constituent involved in unfolding choice in revision activity in all four datasets. However, we saw via their uptake ratios that NGrp elements were more likely to be added/removed by revision activity in JD3 (5.5:1) and BB (9.1:1), whilst the overall number of NGrp elements in JD1 (22.5:1) and JD2 (16.1:1) remained relative stable.

In §8.3 we moved away from lexicogrammatical choice and made a brief detour into semantic choice. Specifically we looked at unfolding revision activity in terms of ideational semantics. Specifically, logicosemantic types. The main aim here was to illustrate how a change in (analytical) perspective could give us a different, yet complementary view on the same phenomenon. Consequently, through our examination of unfolding revisions in terms of logicosemantic types,

we saw how a common thread of increased experiential meanings in revision activity, and a relatively low amount of movement in the number of logical meanings (cf. §7.1 and §8.1) could be broken down into a more delicate analysis, which showed much greater variation between texts. The cause of this variation could be down to the types of constituents being altered in each dataset, which was more fully explored in each subsection, particularly in light of BB's revisions, and reflects the findings of current research that indicates how circumstance types are distributed differently in different text-types.

The next, and final chapter concludes this thesis by drawing together the underlying threads, discussions, and findings of the previous 8 chapters. It begins by summarising the thesis's overall contribution with regard to research into how writers revise, SFL studies into academic writing, and, finally, studies into student writing in general. We will then consider the study's major findings, its limitations with regard to these findings, avenues of interest for further research, and concludes with some reflections on current research alongside a brief afterthought on this thesis and its subject matter.

Chapter 9 Conclusion

Introduction

From a theoretical viewpoint, the analysis drew on SFL's social semiotic view of language, particularly its underlying tenets of paradigmatic choice and the metafunctional organization of language. The key aim here was to move away from purely synoptic descriptions of written text and attempt to model written text dynamically. In so doing the purpose was to mirror research into the logogenesis of the spoken mode (e.g. Yang, 2010) in the written mode.

A second theoretical motivation was to combine a field of research usually associated with psychology (i.e. writing processes and revision activity) with an established linguistic framework (SFL). This motivation aimed to bring together two separate, yet complementary perspectives, in a systematic and beneficial way, and thus aimed to build on the experimental work of others (notably, O'Donnell, 2013). The underlying purpose of this combinatory approach was to show that the writing process and the unfolding of written text can be studied in terms of semogenesis (cf. Chapter 3), or how language meanings/features evolved through revision activity. This motivation, then, was primarily a means to argue for an additional perspective to compliment studies into what writers do by also studying how writers create and shape meaning (in real time).

As a way in to the data, we began with the mechanics of writing, or how the two students involved in this study created and revised text. The underlying aim here was to address the first set of research questions (RQs) in terms of normal text production (time spent typing, words typed, etc.), and revision activity in terms of time and space. Temporally, we looked at how revisions unfolded sequentially, both within writing sessions and across the writing process as a whole. Spatially, we looked at revision movement within or across functional components (or 'slots') related to the clause as message. Here, the analysis used the concept of 'texture', specifically the choices associated with thematic function (textual meaning at the clausal level), as a sensitizing concept, allowing revisions to be examined in terms of 'slots' where choices in THEME/RHEME could be realized. Ultimately, this operationalized revision movement in terms of textual meanings at the clausal level, and allowed revisions to be categorized as one of four types (FPs, CPs, INSAs, and INSBs¹).

After modelling the mechanics of writing, we then looked at revision activity in terms of its linguistic contribution to a text. Consequently, revisions were examined in terms of language metafunctions (experiential, logical, interpersonal, and textual), ranks (clause, phrase, group, etc.), and lexicogrammatical choices (the systems of English as espoused in IFG4). These analytical

¹ A 'catch-all' category of INSBs was also used for revisions that could not be coded.

concerns were initially modelled synoptically in Chapter 7 (revision as a static product) and then dynamically in Chapter 8 (revision as an unfolding process).

In what follows, these broad motivations, concerns, and resultant findings will be outlined in detail. The first section (§9.1), summarizes the contributions of this thesis to individual strands of research. The second section (§9.2) presents the major findings of the study in terms of the 3 main RQs that provided the basis for each of the literature review chapters (Chapters 2-4), and framed the discussions that followed them (Chapters 6-8). In §9.3, I attempt an honest criticism of this thesis (particularly its methodology) by outlining its limitations, and providing some suggestions on how these may or may not be overcome. The final section (§9.4) reflects upon the theme of the overall thesis and considers how the approach taken in this thesis, and its findings, may advance the study of student writing.

9.1 General contributions of study

9.1.1 Research into revision activity

Firstly, the study contributes to research into digitally constructed texts that are produced in a natural (non-experimental) setting (Leijten, Van Waes, Schriver, & Hayes, 2014). It did this by enabling the participants to record their own writing activity using keystroke logging (KSL) software. Hence, I was not present during any of their writing sessions, and they were free to choose when and where they worked on their essays. Moreover, once the program was set to record, it did not interfere with the students' normal writing activities or processes, such as verbal protocols or researcher interventions may have done.

Secondly, by examining revisions in terms of language functions and structures, this study has filled a void in process research in general (Abdel Latif, 2008), whilst also taking the first step toward developing a methodology/framework by which to examine revision activity through the lens of Systemic Functional Linguistics (SFL). In this respect it brings together two major analytical approaches: keystroke logging and text linguistics, and adds a new level of analysis to a growing field of research that is constantly developing new techniques and methods for examining writing behaviour (Leijten & Van Waes, 2013; Lindgren & Sullivan, 2006).

Thirdly, by examining the locations and frequencies of revisions, it has contributed to research that looks into the general properties of revision activity (Galbraith & Torrance, 2004; Hayes, 2004; Wallace et al., 1996). And by examining such properties in relation to text quality, it has provided further evidence that how a writer revises is not the decisive factor in determining a text's quality (Rijlaarsdam, Couzijn, & Van den Bergh, 2004). In a similar vein, whilst some research suggests that writers typically lean toward one of two approaches to writing, reflecting a broad

distinction between planners/high-self monitors and free-writers/low-self monitors (Galbraith, 2009; Levy & Ransdell, 1996; Torrance, Thomas, & Robinson, 2000), there has been little research into the benefits of either. This study has shown that in terms of the quality of the end product (receiving a final grade for an essay), there may be no benefit to using either approach, because although JD appeared to be a free-writer/low-self monitor and BB appeared to be a planner/high-self monitor², they both received grades of over 70%.

9.1.2 Research into the lexicogrammatical features of writing

The primary contribution of this thesis into lexicogrammatical studies of writing is that it builds upon the extreme rarity with which the logogenesis of written text is examined (Lindgren & Sullivan, 2002), particularly within SFL (O'Donnell, 2013). Fundamentally, research into text as process (dynamic descriptions based on paradigmatic choice) has primarily focused on spoken conversation (e.g. O'Donnell, 1999; Ventola, 1987; Yang, 2010), whilst research into text as product (synoptic descriptions) has been decidedly retrospective³. This focus is particularly evident in Australian 'Genre Theory' (Christie, 2012a), where an Essay is seen as 'a staged, goal-oriented social process realised through register' (Martin, 1992, p.505). And although some studies have looked at the logogenesis of meaning within written texts (Klein & Unsworth, 2014; Martin, 2011), they have used finished texts as the basis of their analysis. Consequently, with the exception of O'Donnell (2013) there has been no research into how lexicogrammatical choice unfolds as text is being written. This study attempted to fill this void via a pseudo-logogenetic⁴ analysis of the evolution of four academic essays.

As a secondary contribution, this thesis adds to the number of studies that examine the language of schooling through the lens of SFL (Achugar & Colombi, 2008; Christie & Derewianka, 2008), particularly those which examine academic texts from a synoptic standpoint⁵ (Aull & Lancaster, 2014; Hood, 2010; Martin, 2013; Wignell, 2007). In this vein, it has provided further evidence that student writing is fundamentally different to that of more experienced writers, as proposed by many scholars (Nesi & Gardner, 2012), and that some features found in 'model' texts are not necessarily that important when it comes to the functionality (or reception) of student texts. For example, although both writers used grammatical metaphors in their texts, the level of such

² The only other major difference between their datasets was the amount of time they spent working on their essays, but this could be accounted for by the time BB spent surfing the internet.

³ No doubt due to the difficulty of such a detailed level of analysis (cf. Ventola, 1987).

⁴ I say pseudo as it examined logogenesis in terms of how revisions shaped each text. To examine the logogenesis of four texts in terms of normal production would be a monumental task. For example, a total of 845 revisions were made across the four datasets, which equated to 1438 systemic choices. The overall number of words typed = 9735: if we were to make a rough estimate based on the systemic choices present in 845 revision, 9735 words typed could equal somewhere in the ballpark of 16,566 systemic choices.

⁵ Cf. the descriptions provided in Chapter 7 of this thesis.

'metaphorizations' in some datasets was so low that they seemed to have little impact on the end text's functionality. Conversely, NGrp complexity was shown to be an important concern when revising, which accords with the oft cited finding that academic writing tends to include high numbers of complex NGrps (cf. Chapter, particularly §3.2).

9.1.3 Research into student writing in general

The combination of KSL and an SFL-based analysis gave valuable insights into how revision activity contributed to the unfolding of meaning (or language choices) in each text. In this light, the study can be broadly situated within research that aims to explicate what writers do when they write on computers (Leijten, Van Waes, et al., 2014), how what they do contributes to meaning-making practices (Christie, 2012b), how material and symbolic spaces come to affect the writing process (Mills, 2016), how technology mediates writing (Haas, 1996), and how writers navigate new technologies (Stapleton, 2010, 2012). The findings also provide valuable insights for research that looks into how we can improve the academic writing of students (Coffin et al., 2003), particularly with respect to the importance of NGrps (Fang, Schleppegrell, & Cox, 2006; McCabe & Gallagher, 2008).

Ultimately, by examining how these two students revise for meaning (language choices) rather than how they revise in general (physical practices), the thesis has pointed toward the possibility of a new perspective into examining the writing process—one based on semogenesis through revisions activity. It may be that by using such an approach, we can increase our understanding of what student writers deem as important when (a) adding new meanings to their texts, (b) fine-tuning existing meanings, and (c) bringing these meanings together in light of an underlying goal/purpose.

9.2 Major findings

The first major finding was perhaps the most unsurprising, in that it showed how some students are unlikely to compose an essay in one session but, instead, they spread out their activity over a number of days/weeks. These multiple sessions reflect the key point of the first quote of this thesis:

'the composed utterance has a history where a sequence of interactions and possibly a series of externalized inscriptions have been organized around the project of a final text/performance.' (Prior, 2009, p.27)

However, as we saw in §6.1, the majority of these 'externalized inscriptions' came during the first two writing session of each writer, where they added the majority of their content/ideas during two intense periods of activity that were far longer than the rest of their sessions. After this initial

burst of activity, text production tapered off, and the remaining sessions were used to add small bits of information and fine-tune existing text. Moreover, from examining their revisions, we can tentatively conclude that these two writers did not use revision rounds to shape their text toward more complex structures by replacing simple structures with more complex ones, nor did they solely increase the complexity of their texts by adding units such as embedded figures or grammatical metaphorizations. Fundamentally, it appeared that if the features cited as integral to academic writing (cf. Chapter 3) were present, many could be found in the initial drafts. From this observation, then, we can conclude that these two writers seem to have already been engaged with many of the expectations of academic writing from the start. However, both writers appeared to use certain revision functions/structures to add meanings, whilst they used other revision functions/structures to bring these meanings in line with the expectations of the genre at hand. These shall be outlined in more detail below.

The second major finding relates to how each writer actually wrote on their computer. We saw how, overall, the two writers (JD and BB) seemingly reflected the two major poles of writing styles or 'signatures' cited in the literature (cf. §2.3 and §6.2). From the evidence provided, we saw how JD could possibly be classed as a free-writer/low-self monitor and BB as a planner/high-self-monitor. However, yet further evidence based on the language of their revisions seemed to suggest that 'signatures' could extend beyond that of writing activities (or processes), and may also manifest themselves in the language structures and functions that writers attend to. Consequently, it was suggested that these commonalities in revising language functions, structures, and lexicogrammatical systems could be conceptualized as a kind of 'text-type signature' derived from the registerial expectations of the genre/text-type being written; i.e. in conjunction with 'writing signatures' (how a writer writes) there could be the possibility of 'text signatures' (what revisions do linguistically), which are dictated by the functional demands of a genre (in this instance, the academic 'Essay'). Such 'text signatures' would call for increased attention to certain linguistic elements as explicated in the next paragraph. Ultimately, though, in both instances the quality of the finished product was not affected by how a writer wrote, which lends evidence to the proposal of Galbraith and Torrance (2004) that 'poor' planners (possibly JD) may compensate by having stronger revision skills, whereas 'good' planners (possibly BB) may not need to develop strong revision skills.

The third major finding was that the NGrp was the rank constituent where most revision took place. As noted in §3.3, and further expanded in §7.2 and §8.2, academic writing is often said to be nominal, which results from a writer's need to reconstrue notions, events, and dynamic happenings into things that can be judged, evaluated, quantified, taxonomized, etc. Furthermore, the NGrp typically provides the basis for where information concerning the major Participant(s)

of the clause can be found (major participants being those which take textual prominence in the Subject Theme and N-Rheme 'slots'). Moreover, it is also the structural component that has the most potential for encoding the four functional strands of language, whether it is textual (e.g., DETERMINATION), interpersonal (ASSESSMENT), experiential (QUALIFICATION, CLASSIFICATION, etc.), or logical (MODIFICATION). For instance, if we look at the table of lexicogrammatical systems for English (§5.6.2.3 and IFG4, p.87), we see that systems at the rank of the NGrp are the most numerous of all the function/rank correlates. It is perhaps unsurprising then, that this would be the key rank level constituent where writers would focus most of their attention, because it affords the producer of language a great deal of choice in fine-tuning meanings.

The fourth major finding relates somewhat to the third, in that the primary site where revision activity took place in terms of 'the clause as message' (thematic function) was the N-Rheme. As hinted at in §3.5, and expanded upon in §5.6 and §6.2.4, a key contributor to the creation of coherent grammatical patterning is the ability to provide the reader with cues as to whether information should be taken as newsworthy (New) or something already known (Given). The realization of such 'cues' depends heavily on the ability to project a referent as recoverable from the context or co-text. In the spoken mode, any potential ambiguity can be negotiated by the speakers involved (H. H. Clark & Wilkes-Gibbs, 1986). In the written mode, however, it is the writer's responsibility to provide sufficient linguistic markers, so any such ambiguity is avoided. However, research has shown that higher rated essays tend to include more information at the start of clauses⁶, in a sort of extended theme that not only contextualises what comes next, but also explicitly outlines how a clause and its participants relate to previous clauses and the content surrounding it (McNamara, Crossley, & McCarthy, 2010). Yet, the findings in this study show that in revising their essays, these two writers attended more to what came at the end of the clause (the N-Rheme). Consequently, it was suggested that revisions focused more on the goal(s) of the text, as content was elaborated upon, nominal structures were made more informationally dense, and that part of the clause which was likely to be more salient to the reader also became more salient to the writer come reviser. However, as students are no doubt learning about a topic as they write, it may also be the case that the N-Rheme becomes the primary means (or site of mediation) by which they develop their own understanding of what it is they are writing about. In essence, the N-Rheme may well be where new ideas are brought to the forefront not just for the reader, but also for the writer, who may be using this part of the clause as a means to visualise/realize their own thought patterns, creating a kind of dialogue with themselves via the medium of the screen, and the specific locale at the end of a clause.

⁶ I.e. more words before the main verb.

The fifth major finding was that five lexicogrammatical systems were most prominent when it came to revision activity. These were, in order of the most frequent first, DETERMINATION (textual, NGrp), THING TYPE (experiential, NGrp), TAXIS (logical, clause nexus), EVENT TYPE (experiential, VGrp), and QUALIFICATION & MODIFICATION⁷ (experiential/interpersonal & logical, NGrp). In §7.2, we discussed how two of these systems (DETERMINATION and QUALIFICATION) contributed to NGrp complexity in terms of specification and informational density. NGrp complexity is frequently cited as a both a key enabler of meanings in academic writing, and as a reflection of 'good' academic writing in general. EVENT TYPE, on the other hand, is said to be the verbal analogue of THING TYPE, and concerns choices involving the Process. Choices in THING TYPE and EVENT TYPE, then, reflect choices in nouns and verbs, respectively (i.e. open class words), and as such perhaps their increased inclusion in revision activity is a little unsurprising, because open class words have a much higher pool of potential 'candidates' or meanings that a writer can choose from, and as such they may lend themselves to indecisiveness on the part of a text's producer. However, choices in EVENT TYPE represent more than just synonymy (such as those represented by DENOTATION or CONNOTATION). For example, changes involving EVENT TYPE typically led to the relationship between the major participants being construed in a different manner. Here, then, we have choices at the group level (EVENT TYPE) closely tied to choices at the clausal level (TRANSITIVITY), as well as to choices at the semantic level (syntagmatic reconstructions of figures via changes in logico-semantic type). This meant that changes to the main Process were much more complex than say changes to THING TYPE, and as such a more delicate level of analysis would be needed to ascertain exactly what it was that these choices represented. Such a detailed level of examination was beyond the scope of this thesis, but further research in this vein would do well to make use of Neale's (TBP) detailed taxonomy of Process types. With such an examination, for example, choices in EVENT TYPE could be examined in terms of both lexicogrammar (Process type) and semantics (logicosemantic relation it provides at the clausal level). Here, we may see a tendency for the inclusion of certain processes over others as revision unfolds, such as the oft cited remark that academic writing makes extensive use of Relational processes (Halliday & Martin, 1993). In terms of TAXIS (parataxis/hypotaxis), we saw how revisions were more often than not used to 'fine-tune' existing text, rather than add or subtract from the overall number of tactic links in each text. This fine-tuning primarily involved choices in logico-semantic type⁸, particularly paratactic extension and hypotactic enhancement (cf. §8.3). However, logico-semantic type is a pervasive semantic system rather than a lexicogrammatical one. Consequently, the discussion in §8.3 highlighted how a combination of perspectives, or more specifically a move toward a top-down perspective (Halliday, 2009) can significantly alter a study's findings. For

⁷ IN IFG4, modifiers are seen to have a dual function, as they are both experiential/interpersonal and logical.

⁸ The three sub-types of expansion: enhancement, elaboration, and extension, as well as that of projection.

example, we saw how a shift into ideational semantics changed what was a seemingly widespread pattern—an increase in experiential meanings across all four datasets and a relatively stable level of logical meanings as revision activity unfolded—into a more delicate, and thus varied representation of these meanings in terms of expansion and projection.

The sixth major finding relates to the uptake of revision functions. More specifically, it was found that experiential and interpersonal meanings were more likely to be added through revision activity, whilst the overall number of logical and textual meanings in each text was more likely to remain the same despite being quite considerably involved in revision activity. This difference was revealed in our examination of uptake ratios in §8.1, and appears to reflect the fundamental difference between meanings that have evolved a communicating function (experiential and interpersonal), and meanings that have evolved an enabling or organizing function (logical and textual), as explicated by Halliday (1975). Fundamentally, adding content (orienting to field) and presenting opinions (orienting to tenor) draws heavily on experiential and interpersonal meanings, respectively, and it is these meanings that contribute more to the unfolding content and opinion(s) of each writer's text(s). Organizing this content/opinion, though, relies on the textual function (orienting to mode) and the construal of logical connections (connecting figures in sequences). It appears to be the case, then, that the addition of new content via insertions (experiential and interpersonal meanings) subsequently relies upon a reorganization of the text and the connections within it (textual and logical meanings).

To conclude this section, we can say that investigating revision activity in terms of semogenesis has revealed some interesting findings in relation to how these two writers composed their respective academic essays. However, it has also shown that there is a great deal of variation between writing sessions, and when individual lexicogrammatical choices are made. Ultimately, though, perhaps the two most important conclusions are: (a) it is possible to examine written text as a dynamic process in terms of semogenesis, and (b) such an examination highlights that it is not only important that we study practices (how writers write), and products (what writers produce), but also the language (functions and structures) that 'good' writers attend to when composing specific texts—i.e. choices they make in the course of semogenesis (meaning-making), and choices they make when they switch from text producers (writers) to text revisers (readers), and attend to the meanings/features found or not found in such texts.

9.3 Limitations and further research

As Levy and Ransdell (1996) noted two decades ago:

'It is generally accepted that data help shape theories, and research methods limit data. So an understanding of a process as complex as writing is determined at least as much by our methods as our data.' (p.160)

KSL as a methodology is primarily designed to record 'translation' and 'transcription', which are aspects situated at the process level of Hayes' model (cf. Chapter 2). However, there are no doubt many more distributed processes occurring in the writer's mind. The most significant of which for this thesis are language choices not directly realized on the page, and the non-digital sources writers use when constructing texts (i.e. material interactions). Consequently, whilst KSL allows us to examine written language choices akin to false starts, hesitations, reconstruals (e.g., paraphrases), etc., there is still the possibility that a great deal of choice is internalised, confined to the mind of the writer (as was probably the case with BB⁹).

One way to illuminate at least some of these internalized 'thoughts/actions' would be to ask participants to note down any deliberations as they write—a kind of 'written verbal protocol', which they can delete afterwards. This kind of 'hidden' note taking¹⁰ would be invaluable to the researcher, and although it could be said to be somewhat distracting in the same way as criticisms levelled at verbal protocols, and that it would still only reveal conscious/explicit thoughts/actions, the writer would still be engaged in the written mode, so it should be less distracting from the task at hand.

Secondly, whilst KSL allows for a very fine grained analysis, this also equates to huge amounts of data that can be difficult to interpret, especially when looking at individual language choices. Consequently, preparing, coding, and manually cross-referencing this data in a robust and systematic manner takes a very long time and, thus, the amount of data one person can analyse is severely limited¹¹. However, Inputlog (the KSL software used in this study) is being continually developed, particularly in terms of its automatic linguistic analysis. For example, during the course of this thesis (3 years) the Inputlog team have made great inroads in isolating revision activity at the word and phrase level (Leijten, Engelborghs, et al., 2014). Consequently, future studies may well be able to incorporate Inputlog's increasing functionality and combine it with an SFL-based

⁹ She confirmed in her comments that she formulated sentences in her mind before typing them.

¹⁰ Some very experienced writers use similar strategies to enable them to continue writing when they encounter a problem in text production, such as a disfluency in idea generation. In a current study of one prolific novelist, for example, Marielle Leijten and Luuk Van Waes note how one writer does just this (personal communication).

¹¹ For instance, to turn a 'synoptic text' into a 'dynamic text' took approximately 120 hrs of data preparation, coding, and filtering; To then analyse this dynamic text took a further +200hrs. Consequently, it was only feasible for this thesis to focus on four undergraduate essays.

corpus tool, such as Mick O'Donnell's UAM Corpus Tool. This would greatly speed up data preparation and coding and allow for larger datasets to be examined in the same time scale, as well as for allowing the examination of revision movement in terms of other clausal-level systems besides THEME/RHEME (e.g., TRANSITIVITY, MOOD, etc.).

Thirdly, because of the nature of KSL, it was difficult to recruit participants. Specifically, many of the students approached either thought that (a) KSL was too complicated to use, or (b) would record things that they did not want to be recorded. Moreover, because the program interacted differently with different computers¹², this caused unforeseen circumstances; the main downside of which was that it sometimes failed to run correctly (collecting only partial information), or would not run at all, which led to some participants dropping out. If I were to repeat this study, I see two possible ways around these problems: (1) provide the students with university owned laptops that were already tried and tested for use with Inputlog, such as those used in some of the department's modules, or (2) obtain further training for the participants and myself in some of the more advanced features of both anti-virus programs (the cause of many problems) and Inputlog¹³.

Another limitation was that the coding scheme for revision movement relied on tracking the cursor position. This decision was based on the assumption that the writer's main focal point would be in close proximity to the text's leading edge (last point of inscription). This assumption has several limitations. Firstly, whilst we can see from KSL data how long a writer takes between making the last inscription (leading edge) and any subsequent inscription, we cannot say for definite where the writer's attention lay between these movements, or if they focused for longer on one piece of text than another. Clearly the use of eye-tracking software would go some way to dealing with this limitation. However, the use of such software would have added an additional layering of analysis that would have been beyond the limits of a single researcher working in isolation. Nevertheless, as noted by numerous researchers (Olive & Passerault, 2012) studying writers' reading processes would undoubtedly increase our understanding of how they used their own text to generate new text/content and how they navigated amongst the existing ideas within their text.

Any similar studies in the future may also want to try to match up the situational characteristics of writing sessions, so as to better contextualise the differences between them. For example, the surroundings, work space setting, etc., may have had an effect on how and what each writer wrote. Such information could be entered into MS Word by the participants at the start of each

¹² For example, the program seemed to be quite 'glitchy' on computers that ran different anti-virus software.

¹³ No. 1 seems the most feasible, and would ensure screen sizes, keyboard sizes, etc., were identical.

session, and this could then be deleted, leaving a record only in the IDFX files. Alternatively, they could be asked to take photographs of their workspace with their smartphones, which would automatically include date/time stamps.

In terms of the linguistic analysis, there were clear limitations with regard to the level of detail (or delicacy) that could be covered. For instance, whilst selections in THING TYPE and EVENT TYPE were amongst the top five systems involved in revision activity in all datasets, it was not feasible to examine what these selections represented at the lexical level. For example, by examining more closely selections in EVENT TYPE, the analysis may have revealed interesting shifts toward a particular Process type¹⁴. A more fine grained analysis might also reveal interesting patterns with regard to the verbs and nouns involved in revision activity in terms of their frequency of occurrence in the English language; for example, such an analysis may show an increase in infrequent lexis through revision activity¹⁵, which would coincide with Halliday's remarks (Chapter 3) that infrequent items can contribute to the overall impression of a text's complexity, with academic text frequently being cited as more 'complex' than other text-types/genres.

Moreover, the similarity of some of the uptake ratios (particularly revision functions) seems to warrant further exploration with a larger dataset, as does the apparent importance of some rank-level constituents over others, and the top five lexicogrammatical systems involved in revision activity. If these figures can be corroborated, then there are obvious pedagogical implications for focusing on these functions/ranks/systems for this particular genre (i.e. the 'Essay'). Furthermore, it would be interesting to see if the same function/rank/system(s) would be affected when revising different text-types within the academic genre family. For example, one would expect that revising a Narrative may call on increased revisions to logical connectors and Circumstances/Qualifiers of time and place¹⁶.

Furthermore, as noted in Chapter 7, although studies into the cognitive benefits of maximal identification have revealed that the majority of overspecifications¹⁷ do not alter the recoverability of referents (Arts, Maes, Noordman, & Jansen, 2011, p.371), it was clear from this study that both writers created (and maintained) overspecified referents through revision activity. These 'overspecifications' often appeared to be somewhat superfluous in light of identifying referents and providing information that could not have been deduced from the

¹⁴ In academic writing, for e.g., research shows that relational processes take precedence over other process types

¹⁵ E.g., explorations into CONNOTATION revealed that the formality of lexis was most likely to be increased via INSAs (revisions typically representative of proofreading practices).

¹⁶ This kind of examination can also be applied to 'phases' of text. However, this would involve intense manual coding of the data, as such analyses are highly involved (Rose, 2006).

¹⁷ Their findings indicate that verticality (top/bottom) speeds up identification, which the authors attribute to a propensity to differentiate vertical symmetries easier than other dimensions.

context/co-text. However, there has been no research into how overspecified referents may affect the processability (or coherence) of academic texts, or if such overspecification is common in academic text¹⁸, making it a significant area for further investigation.

Finally, within this study there has been an implicit Cartesian dualism at work in moving from external (social) to internal (individual). Social origin: individual outcome. Although this is the fundamental tenet of most writing research, it presents problems to the conception of writing as a dialogue between writer and text: firstly, although constructing an Essay on a computer is very much goal-oriented and tool-directed, writing is inherently non-verbal and intra-psychological¹⁹. Secondly, writing draws heavily on visuospatial cognition (Olive & Passerault, 2012), which would effectively mean that to study the full semiotic mediating potential available to a writer, we would need to research their visual focal points, both in terms of their unfolding texts, and the texts they consult. However, such an integration of perspectives would still only reveal outward behaviour, and, therefore, for the time being at least, we seem to be confined to studying production in the writer, rather than production - reception - further production, which is the true nature of writing as a dialogue with oneself.

9.4 Reflections and afterthoughts

To fully explore the logogenesis of meaning in a sufficient number of written texts as complex as the Essay would require a huge amount of time and effort²⁰, and it may well be the case that by the time such a study was complete, the concept of what an 'Essay' is may very well have changed. Consider the increasing use of voice software recognition and the ever-changing nature of word processing programs (e.g., the ability to integrate various 'add-ons'). This equates to a medium of composition that is constantly changing in subtle ways (as noted in Chapter 1). This, in turn, could have unforeseen results for both how texts are produced and how texts are received. Secondly, the current system of submitting paper copies of essays for assessment may be phased out as a result of not only the increasing integration of online databases, but also the increasing drive for environmental conservation. If essays were to become 'electronic' rather than paper based, this could engender a move toward an increase in the use of other modalities besides words, such as colours, photographs, even videos and sound, because not only would the constraining nature of a static piece of paper be nullified, but so too would the cost of printing out visually rich documents.

¹⁸ For e.g., NGrp complexity is a frequent occurrence in academic text, but little is said about whether this complexity is needed, or if it simply means to eliminate any chance of ambiguity in a referent's identity.

¹⁹ Writing essays for assessment is inherently altruistic (Loudermilk, 2007).

²⁰ Nesi and Gardner's (2012) study, for example, took over eight years and involved a full research team, yet it only explored texts in terms of synoptic descriptions.

Ultimately, because of the ever-changing nature of technology, this study is very much a product of its time. For example, it is now widely accepted that writing is constitutive of thinking (A. Clark, 2008), yet what has been referred to as technologically based cognitive extension takes time to develop, both culturally and individually. The very earliest writing (*scriptura continuum*), for example, was simply a means to represent speech, and lacked the potential to distill, organize, and present information in a way that we now take for granted. As Smart (2012) highlights, in its earliest guise this is what the internet (and by association computers) represented: a medium constrained by 'the metaphors of a previous era' (p.456). However, this technology is now undergoing a transformation of its own, moving from a document-centric to a data-centric mode of information management. This move may very well engender the first step toward information technology becoming a true extension of mind, rather than a disconnected resource. This would, no doubt, once more transform how we consume and disseminate information, which could, in turn, fundamentally alter how we produce texts²¹.

However, in terms of writing as a semogenic process, as Richard Feynman once remarked:

'I actually did the work on the paper. [...] It's not a record, not really. It's working. You have to work on paper and this is the paper. Okay?'

(Gleick, 1993, p.409)

In other words, a text (and its contents/ideas) evolves through the writer, and the writer (and his/her ideas/knowledge) evolves through the text. In this light, writing truly is composed of histories of interactions. Interactions between what Vygotsky (2012) deemed 'inner' and 'outer' speech, as the writer formulates and transfers meaning (text) to the screen; interactions between the writer and the semiotic artefacts (both material and symbolic), as the two work in unison toward the construction of meaning; and interactions between the writer's current representation of the text, what comes next, and the intended text. All of which rely on a complex hybridity of cognitive ability, audience awareness, language proficiency, topic knowledge, writing experience, outside influence (e.g. reviewers), changing contexts, and changing environments from one writing episode to the next (as hinted at in Chapters 2, 3 and 4). It is in this rich hybrid environment of symbolic/material artefacts and implicit/explicit interactions that a writer has recourse to practice and, ultimately, adopt/reject new ways of organizing and integrating 'scientific concepts' (Vygotsky, 2012, p.155), or 'uncommon sense discourse' (Bernstein, 1999). In the context of academia, these interactions are embedded within institutionally and culturally shaped exchanges, which may occur in the classroom, via textbooks, or any number of other means. In these exchanges, students are challenged (often implicitly) to (re)negotiate their own knowledge, identities, and practices to realign with those of more experienced/knowledgeable

²¹ Writing from sources or 'patch writing', for example, may well become the new norm, where intertextual 'borrowings' become the basis for much of our writing.

peers (often under the lure of assessment targets (Hyland, 2013)). An intriguing question then becomes 'How occluded genres [e.g. the undergraduate Essay] emerge and stabilize [...] given that students have little access to the exemplars of the genre other than their own earlier attempts' (Gardner & Nesi, 2013, p.45). Consequently, whilst this thesis has focused on revision practices and the language of revisions in two writers when producing a single genre, the next logical step would be to also focus on how students interact with and use (re)sources. Such a view challenges the stigma currently attached to plagiarism, and embraces what has traditionally taken a backseat in writing education; namely, patch writing, copy and paste routines, and textual borrowing.

Appendix 1: Participant information sheet

Modelling choice in Academic Writing
Research into how students navigate the world of essay writing

PARTICIPANT INFORMATION SHEET

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully. Talk to others about the study if you wish.

What is the purpose of the study?

This study is part of my Doctoral research at the department of English, Communication, and Philosophy (ENCAP) at Cardiff University. The study investigates how students write essays, and examines how information is sourced, selected, and incorporated into text. I am primarily interested in how you write, and not what you write (any work you produce will remain your intellectual property).

Why am I being asked to take part?

I have approached you because I am interested in understanding how you, as a successful student, writes academic essays. I also believe that as a 2nd year undergraduate you are at a time in your studies where you would benefit most from taking part in a study that examines academic writing.

What do I have to do?

The study involves recording your computer activity whilst you compose three of your undergraduate essays. These essays will be independently set and graded by your tutor in the course of your normal studies, and your participation in, or withdrawal from, this study will not affect your undergraduate assessment in anyway. You will not be required to produce extra work for this study.

Recordings will be spaced out over the course of one academic year, to coincide with your essay writing periods. A computer program (called Inputlog) will run in the background as you work on these essays. You will be required to start this program, click on the 'Record' button, and then open your essay document (MS Word file) from within the program. Once you press record all future keyboard actions will be recorded, alongside information about which windows you access (e.g. time spent in internet explorer). At the end of each session, when you finish working on the essay, you will save your work and click on 'Stop Recording' via the Inputlog interface. Inputlog will then stop recording your activities.

Once you have completed the essay, you will be asked to complete a short questionnaire on paper (no longer than 20 minutes) regarding your thoughts, beliefs, and attitudes toward writing; i.e. you will be asked to complete 3 identical written questionnaires in total, spaced over one academic year.

What are the possible benefits of taking part?

Taking part will allow you to reflect on your own experiences of writing. This should help you to improve as a writer and as a communicator of ideas. At the end of the study I will also be able to give you feedback on your essays and your writing activity. Hopefully, this feedback will be invaluable as you go into your final year of study, where the weighting of your assessment is much higher.

What are the possible disadvantages and risks of taking part?

There will be no major disadvantages to taking part except for a small investment of your time. However, because of the nature of the software used (keystroke logging), there is a potential risk that sensitive information may be recorded, such as the composing of personal emails, internet log-in details, etc. You will be given detailed instructions on how best to avoid this. In the event that you do record something

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Taking part will allow you to reflect on your own experiences of writing. This should help you to improve as a writer and as a communicator of ideas. At the end of the study I will also be able to give you feedback on your essays and your writing activity. Hopefully, this feedback will be invaluable as you go into your final year of study, where the weighting of your assessment is much higher.

What are the possible disadvantages and risks of taking part?

There will be no major disadvantages to taking part except for a small investment of your time. However, because of the nature of the software used (keystroke logging), there is a potential risk that sensitive information may be recorded, such as the composing of personal emails, internet log-in details, etc. You will be given detailed instructions on how best to avoid this. In the event that you do record something

Appendix 2: Participant consent form

Modelling choice In Academic Writing

Research into how student writers navigate the world of essay writing

PARTICIPANT CONSENT FORM

Please fill in the following information. All collected data will remain anonymous.

Initials: Gender: Female Male

Date of birth (dd/mm/yyyy): First language:

Your secondary education (since 11 years old but before university) was:

All in the UK	All overseas	Some in the UK, some overseas (please state number of years in UK)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Name of degree studied:

Please read the following statements and sign (or initial) below if you agree with them all.

- I confirm that I have received, read, and understood the participant information sheet, which details my involvement in this study.
- I confirm that I understand the study, and that I am free to ask questions at any time. If for any reason I experience discomfort during participation in this project, I am free to withdraw or discuss my concerns with Neil Bowen.
- I understand that my participation in this study is entirely voluntary, and that I can withdraw from the study at any time without giving a reason and without loss of course credit.
- I understand that if I withdraw early any data collected from me will be deleted.
- I understand that there is the potential for sensitive information to be recorded, but that there are steps in place to ensure my privacy.
- I understand that information provided by me for this study, including my own words, may be used in the research report, but that all such information
- I also understand that at the end of the study I will be provided with additional information and feedback.

I (PRINT NAME) consent to participate in the study conducted by Neil Bowen, School of English, Communication & Philosophy, Cardiff University

Signed: _____

Date: _____

Appendix 3: Assessment of ethical concerns

Requirement	Problem	Possible solution(s)
<p>I am 100% honest about what Inputlog does and doesn't do.</p>	<p>No one will want to take part.</p>	<p>Make it safe for those taking part, and easy to repair any 'slip-ups'. This could potentially be done by giving the participants control over their own data; e.g. letting them review/delete information before they hand it over to me.</p>
<p>I don't record or store anything that will cause trouble for me both now and in the future.</p>	<p>Inputlog does not discriminate:</p> <ol style="list-style-type: none"> 1. Recording of login details 	<ol style="list-style-type: none"> A. Tell participants to change passwords after each session – likely to turn people off participating. B. Tell participants not to use online banking, etc. during collection; although they could potentially still do this by accident, I could include an information sheet so that they can delete these sessions themselves, which means I will never see the data files. C. Tell participants to log in to any sites they might use (emails, Facebook, etc.) before they start recording, or to access these sites on another device (e.g. phone or tablet). D. Tell participants to record their login details via the browser's 'remember password' option. This means they do not need to be typed in each time. E. Unfiltered raw data will be stored only on the participant's computer. Data can be anonymised, and any sensitive information deleted on the participants' devices, creating new 'clean' data files. Only this 'clean' data will be transferred to me; i.e. sensitive information never leaves the participants' device/possession.
	<ol style="list-style-type: none"> 2. Participants accessing inappropriate sites 3. Recording of personal information (chats, etc.). 	<ol style="list-style-type: none"> A. Inputlog only records URLs accessed, so actual content would not show up. B. Only a problem when using off campus internet access. <p>This can be filtered out through the pre-process module, meaning that new 'clean' (.idfx) data files can replace the originals. But there is still the potential that I can see this information before deletion.</p>
<p>Data loss is kept to a minimum.</p>	<p>Sensitive information will no doubt be recorded at some point. This will then need to be deleted.</p>	<p>Minimise logins and personal emails/chats by taking the steps outlined above.</p>

Appendix 4: Participant debriefing form

Modelling choice in Academic Writing Research into how students navigate the world of essay writing

DEBRIEFING SHEET

You have now completed one round of data collection. Thank you for your valuable contribution.

What is the purpose of this study?

Previous research shows that students have little trouble constructing and analysing single claims. Many students, however, struggle to combine multiple claims at the level of a whole text. Research has yet to show why this is the case. This study explores this issue by examining how you (2nd yr. undergraduates) compose argumentative text (essays) whilst drawing on, and making use of, digital information. This is an exciting new area of research, and you are amongst the first to contribute to it.

How was this explored?

In this study you recorded your activity whilst you composed an essay. You did this using a program called Inputlog. Inputlog recorded your keystroke activity (what you typed in MS Word) and your focus events (which windows you worked in). Looking at this data enables me to investigate how you navigate the process of constructing an essay on a computer. Following completion of your essay you also filled out a questionnaire. This questionnaire asked you about your attitudes, beliefs, and knowledge on essay writing, and will be used to supplement my investigation of your Inputlog data.

Main questions being investigated:

The study investigates three main areas of interest:

1. Development of what you write:	What are the key linguistic features of 2 nd year undergraduate essays? Are these features comparable to those of more experienced writers?
2. Development of how you write:	What practices (e.g. patch-writing) do students use when digitally composing text? When and where during the writing process are these practices employed? Which practices (if any) are relatively stable, and which appear to change over time? Do 'good' writers converge on similar practices?
3. Product/process relationship	Is there a relationship between how a person writes and the perceived quality of their text(s)? I.e. does the process affect the product?

Why is it important to study these specific areas?

By answering these questions we will learn more about what successful students actually do. We will then be in a better position to pass on this kind of knowledge to other, less successful students.

What if I want to know more?

If you have any questions, feel free to email me (Neil Bowen) at BowenNE@Cardiff.ac.uk.

If you are interested in learning about the process of writing, you may want to consult:

Deane, P., et al. (2008). *Cognitive models of writing: Writing proficiency as a complex integrated skill*. Princeton, NJ: ETS.

If you are interested in the language of university, and its various genres, you can consult:

Nesi, H., & Gardner, S. (2012). *Genres across the disciplines: Student writing in higher education*. Cambridge: CUP.

What next?

If you would like to receive a report of this research when it is completed, please email me at the above address. If you have any concerns about your rights as a participant in this study, please contact Dr Lisa Fontaine (FontaineL@Cardiff.ac.uk).

Once again, I would like to thank you for your participation, and remind you that your data will remain confidential and will be stored securely. You are also reminded that you are free to withdraw at any time, and that in no way would your withdrawal affect your undergraduate assessment.

Appendix 5: Finished essays

JD Essay 1

Title: How are face-threatening acts mitigated in interactions between friends/family?

Rubric: Record a short interaction between your family members and transcribe some extracts from the recording to support your thesis.

Essay contents:

Research on politeness has looked at how it has an affect on our daily interactions with family and friends. Although there are many aspects of politeness, I am particularly interested in looking at face-threatening acts and how they are mitigate. I am also interested in looking at those who have had major influences in this field of work, namely Geoffery Leech, Erving Goffman and the highly influential Penelope Brown and Stephen Levinson. Brown and Levinson have had a major contribution to this area of research and their names are almost synonymous with politeness. I will be looking for examples of face-threatning acts and strategies to mitigate, or reduce the severity of them, by looking at naturally occuring data that I have collected through audio-recording a Welsh family, consisting of a mother, father and a daughter. I have recordings of them during mealtimes, where they sat together at the table to eat, and would have the television on in the background. The particiapants were given consent forms to sign before any recording took place and were aware of their right to withdraw from my study. In my transcript, the father in the family is 'N', the mother is 'H' and the daughter is 'J'.

Brown and Levinson's politness theory (1987) is based on the notion on 'face'. They describe face as 'something that is emotionally invested' and they believe it can be either 'lost, maintained or enhanced' (Brown and Levinson, 1987 in Jaworski & Coupland, 1999:321-322). They also define two seperate types of face, positive and negative face. Positive face is the idea that we have the need to be admired or liked, whereas negative face is not wanting others to impose on us. Brown and Levinson formulated a list of face-threatning acts with positive politeness, and a list of face threatning acts with negative politness. In the data I collected, I found good examples of positive politeness. For example, in line 11, N jokes about J's degree and implies that it won't be much use to her when she is looking for a job. J doesn't seem to be offended by this, as she laughs it off and procedes to mock his 'Barcelonian' accent, by calling it French, however this could be because she genuienly didn't know what the accent was. Both J and H don't seem to understand that N is referring to the character 'Manuel' in the British sitcom 'Fawlty Towers'. N then feels that he has to explain himself to clear up any confusion, stating that Manuel learnt English in the programme. This indicates that N feels that J's degree is her simply learning a language that she is obviously already fluent in. By doing so, he implies that her degree is quite pointless which threatens J's positive face. It could be argued that J's need to be admired is particularly prominent here as she would be seeking some sort of acceptance from her father. Although N is insulting J, she doesn't respond other than laughing and mocking his accent. This could imply that she was offended and doesn't know how else to respond. However, this is unlikely to be the case because of the neuclear family set-up. They all have a close relationship with each other and this type of mockery is something that happens often so is ignored. N, although doesn't say much, tries to defend himself by explaining who he was impersonating by using the term 'mun', often used

for emphasis. This suggests he believes that his impression was good and it was obvious who he was trying to be. H, doesn't say much during this interaction, however when she does, it is because N has asked her to support what he has said, in line 15. However, she does the opposite and seems to almost 'side' with J, trying to defend her by pointing out that N's accent wasn't a very good one as it was unrecognisable. Although this interaction could be interpreted as awkward because of N's face-threatening comment, the tone of voice of all three is light-hearted and the laughter suggests it is only playful banter that is common in this household and isn't intended to be malicious.

Another example of a face-threatening act with positive politeness is in line 21 where N makes a command but juxtaposes it with a pet name for J. An order or command is threatening to the hearer, J's negative face, but N tries to mitigate it by using a pet name to soften his imposition. Using a pet name instead of her actual name, or simply just saying 'please', suggests a close bond between the two. It acts as an in-group identity marker, something that Brown and Levinson list as an FTA with positive politeness. In a family set-up, there doesn't seem to be much of a need for mitigating face-threatening acts as all family members seem to have a good understanding of each other. Also, in this instance, the parent is making the request and it could be argued that there is no need for the parent to be polite, because he/she is 'in charge'. This power relationships means there is less need for N to mitigate what he says. If J were to make the same command, it would be much more likely that she would need to use some form of mitigation.

Holmes and Stubbe (2003) carried out research into power and politeness in the workplace, and looked at strategies to deal with power relationships. Although a manager and workforce relationship are different in many ways to a parent-child relationship, their research can be useful to look at hierarchy within relationships. Holmes and Stubbe state that there are certain strategies that can be used to make power relationships more harmonious, such as mitigating directives or orders. Examples of ways to do this are justification or hesitations. However, as previously mentioned, because of the close bond in the family I recorded, there is less of a need for such devices. A manager would have to mitigate face-threatening acts, but there is less need for a parent to do the same. However, Brown and Levinson argue that generic forms such as 'mate', 'buddy', 'pal' help to soften face-threatening acts. They state that these in-group markers, when used to address children, 'turn a command into a request', making less of an imposition on the hearer.

Brown and Levinson built their theory on Goffman's work (1967). He was also interested in the notion of face and stated that there are two face-management strategies; the avoidance process and the corrective process. According to Goffman, 'when a face has been threatened, face-work must be done' (Goffman, 1987 in Jaworski & Coupland, 1999:315), whether it is by the one who carried out the face-threatening act, the one whose face is being threatened or by an observer. This could help to explain H's contribution to the conversation in line 16. As an observer, and as previously mentioned, she could be viewed as taking J's 'side', by mocking N. If this is the case, it could be assumed that she is helping to neutralise the conversation, and ensure it is still lighthearted.

Brown and Levinson also developed their theory based on Grice's maxims, as did Geoffrey Leech. Leech devised six interpersonal maxims that were built on Grice's co-operative principle (1975). Leech's maxims focused on cost and benefit to the hearer and speaker, and help to

explain why people continue to be polite. In line 33, N's command is an unusual one. He minimizes the cost on hearer's H and J, by making an offer and not allowing them to refuse. However, this is contradicted by the use of the expletive 'Christ sake' showing frustration. The frustration seems to be mirrored in H and J's responses, which are blunt and direct. There isn't any mitigation used, and their responses are quick. There is a break from the slightly tense atmosphere when, in line 43, H jokes that as soon as she has finished eating the bacon, N will say that he wanted to eat himself. As the topic isn't a serious one, the family move on with their conversation and are not at all fazed by what may seem an uncomfortable situation to an outsider. Then in line 87, N refers back to the previous conversation about the bacon once he realises H has actually eaten it and declares that he did in fact actually want some. Line 87 is quite face-threatening to H, particularly because of the expletive 'fucking'. Although this is a strong word to use and suggests anger, the tone of voice isn't an angry one and although this may, again, come across as an awkward and uncomfortable situation to outsiders, the family know N isn't serious. This is shown through J's laughter; she knows he is joking. However, H's frustrated tone of voice suggests that she may be slightly annoyed.

Throughout a lot of the conversation in my data, N is the main speaker. This could be described with a hierarchical view; a view that notes N as the head of the family and therefore holds the floor during a considerable amount during conversation. Overall there is a lack of hedging in my data, although laughter is often used for mitigation. My data provided good examples of face-threatening acts with positive politeness that supported Brown and Levinson's politeness theory, as well as commands that fulfilled Leech's tact maxim. This shows that the various approaches to face although may sometimes overlap, help to provide good analysis of face-threatening acts and mitigation.

Word count = 1592

References

- Brown, P., Levinson, S. and Gumperz, J.L. (2007) *Politeness: some universals in language usage*. 1st edn. United Kingdom: Cambridge University Press.
- Grice, H. P. (1975) 'Logic and conversation'. In P. Cole and J. Morgan (eds) *Studies in Syntax and Semantics III: Speech Acts*, New York: Academic Press.
- Holmes, J. and Stubbe, M. (2003) *Power and politeness in the workplace: a sociolinguistics analysis of talk at work*. United Kingdom: Longman.
- Jaworski, A and Coupland, N. (1999) *The discourse reader*. United Kingdom: Routledge

JD Essay 2

Title: Argue for or against the claim that there are cultural differences in early language socialization that might affect a child's chances of success at school.

Rubric: When we are socialized into language, we are socialized into literacy practices and if the literacy practices at home don't match those of the school, the child might be at a disadvantage. Drawing on Bernstein, Heath and others, argue for or against the claim that there are cultural differences in early language socialization that might affect a child's chances of success at school (this essay required a thesis statement which is the first two sentences of the essay).

Essay contents:

I claim that early language socialization certainly affects a child's chances of success at school. This is due to class and cultural differences meaning some children may find it difficult to adapt when mixed with other children.

At home, children are brought up learning the norms of the culture they live in from their parents or caregivers. There is an aspect of nature vs. nurture; genes are fundamentally important in determining basic intelligence and character, but socialization and the environment a child is brought up in is also vitally important in shaping a child's mind. Formal education is a subset of socialization; school is where we learn to write for example, something that we would not learn without being taught, although this could be done through home-schooling. Early language socialization is where we learn the norms about language use, such as how and when it is appropriate to say please and thank you. If children receive different types of language socialisation at home, for whatever reason, it may affect them when they start school.

There are basic agencies of socialization such as family, peer groups, school and, later on, work. According to Bernstein in Montgomery 1995, these agencies and the links between them are crucial. Bernstein also claims that the social class we are brought up in has the biggest influence on socialization but states that this is dependent on what the school subject is. He found there is a significant difference in children's abilities within language related subjects because of nurture's effect. When we compare this with subjects such as maths, there is less difference in pupil's abilities because maths is based on basic intelligence.

Bernstein's speech codes are influential in looking at early language socialization. He defined the codes as restricted and elaborated. The restricted code assumes all speakers have a shared understanding on a topic of conversation. The elaborated code however is more explicit. Bernstein claimed that while the middle-class were likely to have access to both codes, 'some sections of the working-class were likely to have access only to the restricted code'. Bernstein conducted an experiment using five year old lower working-class and middle-class children who were given pictures to create a narrative from. The middle-class children were specific with what they were referring to in their stories, while the working-class children were vague; a listener would need to see the pictures for their stories to make sense. This result could mean that working-class children are at a disadvantage because of these codes. If a child is told that he/she is not good at a language or language related subjects, the child may give up trying to improve. It is a self-fulfilling prophecy that is difficult to overcome and is detrimental to working-class children.

Heath's (1983) ethnographic research on three communities in south-eastern United States, each with completely different language socialization, has shown that different ways of being brought up at home can have an effect on how well a child does in school. The three different communities she looked at were a white middle-class community called Maintown, a white working-class community called Roadville, and a black working-class community called Trackton. Heath looked at literacy events within these communities; 'occasions in which written language is integral to the nature of participants' interactions and their interpretive processes and strategies' (Heath 1983 in Schieffelin, Ochs and Irvine: 97). For children who are yet to start mainstream education, literacy events, according to Heath, are things such as cereal boxes, stop signs and most notably,

bedtime stories. She looked at the functions of reading for each community and in what ways children were encouraged by their parents or caregivers. In Roadville, she found that parents would encourage children to tell a story, but often interrupted to correct the child. In Trackton, she found that the children had creative skills in story telling but there was often little connection to the real world. This observation meant the literacy practices learnt by children in the working-class communities did not prepare them well for mainstream literacy practices in school.

As well as looking at the differences in class, research has also looked at the differences between collectivist and individualistic culture. Ochs in Coupland and Jaworski 1997:430 looked at the differences between typical middle-class Anglo-American mothers and traditional caregiving in non-Western, families. She focused on Samoan society and noted that as a young child begins to walk and talk, typically, an older sibling of the child will begin to take more responsibility for the infant. As the infant continues to age, it will begin to spend more time with others of a similar age, often extended family, where numerous mothers are likely to be present. This contrasts with typical American/Western society as, according to Ochs, they are typically nuclear set-ups, with a father, mother and children. Traditionally, the mother will care for her own child, establishing a close bond. However, this is not the same in Samoan society. The child will call out to the mother, but the mother will signal an older child to attend to the infant. This Samoan way of caregiving is present in many different ethnic backgrounds and is existent in many households across the United States. Ochs notes that once a child reaches schooling age, he or she will be mixed with other children that have had very different upbringings, such as the two mentioned here. Not only do these children have to mix with other pupils, they also taught by teachers that have been socialized differently to them. The children from these collectivist backgrounds may struggle to interact with an adult in a way that is very different from how they would do so at home. This finding may stifle their abilities and restrict how well they perform in school. It could also raise problems for the teacher, who may not be aware of the different ways pupils may have been, and continue to be, socialized at home.

Ochs gives a good example of how children from different ethnic backgrounds or cultures may be at a disadvantage at school. However, although she herself states 'what has been observed is not universal, is not a fact', it is still an assumptive view that she takes; one that all middle class Anglo-American mothers have the same relationship with their young children. She also assumes that 'Americans tend to live in nuclear households' which is an over-generalization. This may be more common in middle-class families and it is a strong notion to contrast with Samoan society, but it is an oversimplification nonetheless. Echoing the work done by Ochs is the comparison between Indian and Anglo students by Susan Phillips, in Kiesling and Paulston, 2004. She looked at instances where pupils were 'competing for the floor' and found that it's not something that exists in Indian classrooms, contrasting with Anglo pupils who feel the need to compete for the teacher's attention. She also found a contrast in pupils 'talking out of turn' (2004:292). She found that Anglo students were more likely to answer before a teacher had finished asking a question or contribute a comment while the teacher was still talking. However, she found little evidence of this in Indian classrooms.

Phillips found in some cases that pupils who raised their hands more in class scored higher on tests, although this could be due to other circumstances; we cannot assume this is purely the reason the students performed well in tests. It could be due to confidence or because they have understood the work well. Both Ochs and Phillips give evidence to show that eastern, collectivist cultures are at a disadvantage in the classroom. However, there is also some evidence that means the research done by both contradicts each other. Phillips found that while Indian students did not participate or contribute as much as Anglo students in classroom discussions, they were much more likely to participate in one-to-one discussions with teachers. This finding contradicts what Ochs found in Samoan societies; children were not given the opportunity to establish a one-to-one bond with their mothers. Instead they were encouraged to spend time with siblings and extended family of a similar age, while being looked after by numerous mothers, again from extended family. This would make it unusual for children to be comfortable in one-to-one

situations that they are not familiar with. However, this outcome could be due to different communities within collectivist cultures. On the other hand, these two separate studies could offer good insight into a variety of collectivist cultures. Nevertheless, if children from different collectivist cultures were to attend a school containing children from individualistic cultures in Europe or the US for example, they may well be at a disadvantage, as they would have to adjust to feel at ease. Alternatively, they may not try to adjust and would feel like outsiders, limiting their chances of success in school.

Historically, in the pre-modern period in Japan, 'educated' automatically meant upper class. One may assume that this would mean lower classes were illiterate, but this was not the case. Through self-education and lending libraries, they were at no real disadvantage (Gottlieb 2005:40). Not going to school also meant that their literacy practices would remain the same; they would not have to adapt to different language practices in school.

It is clear that differences in class and cultural background have a profound effect on a child's education. The studies on various collectivist cultures show that children may be at a disadvantage when they start mainstream education particularly when compared to individualistic cultures. The studies support the claim that a child's early language socialisation can affect a child's success at school and later on in life.

Word count: 1611

References

- Coupland, N. and Jaworski, A. (1997) *Sociolinguistics: a reader and coursebook*. United Kingdom: Palgrave Macmillan: 430-435.
- Gottlieb, N. and Seifert, W. (2005) *Language and society in Japan*. 1st edn. Edited by H. Benu. New York, N.Y: Cambridge University Press.
- Kiesling, S. F. and Paulston, C. B. (2004) *Intercultural discourse and communication: the essential readings*. 1st edn. Malden, MA: Wiley, John & Sons, Incorporated: 291-300.
- Montgomery, M. (1995) *An Introduction to Language and Society*. 2nd ed. London: Routledge.
- Schieffelin, B. B., Ochs, E. and Irvine, J. T. (1999) *Language socialisation across cultures*. 1st edn. New York: Cambridge University Press.

JD Essay 3

Title: 'An image is worth a thousand words' in persuasive communication.

Rubric: Using 3-5 images from any genre to illustrate your arguments, discuss the commonplace notion that 'an image is worth a thousand words' in persuasive communication. (I can attach the images if you need me to).

Essay contents:

I will be arguing that images can be more persuasive than words by looking at a number of sexual health adverts. I will look at how images can have more of an emotional effect on the viewer than text alone. I will also discuss how, through persuasive communication and the notion of gaze, women can, and have been sexualized and shown in a submissive manner in order to convey warning messages about sexually transmitted diseases and the HIV AIDS virus. I will do so through looking at three images from three different countries. I will also discuss the concept of guilt appeal which can suggest those who see campaigns about sexual health are reminded about the risks they are taking if they are having unsafe sex.

Figure 1 was a Finnish AIDS council advertisement. It has marked a woman's genitals with an internet map marker, frequently used on Facebook to check in to a place or destination. By using social media, it relates to a large proportion of the population. Facebook is used by almost all age groups all over the world and this indicates that anyone, anywhere who is sexually active is susceptible to the disease. Figure 2 is from a HIV AIDS awareness advertising campaign. The image of a woman straddling a man has been adapted to give the man an extra ten hands to touch her with, implying that his previous sexual partners are also present in some way. Finally, figure 3 is an NHS sexual health campaign designed as a scratch card. The provocative image attracts the viewer's attention and implies that once scratched away, more flesh would be revealed. However, the name of a sexually transmitted disease is revealed instead. This image is trying to show the audience that, again, anyone can have a sexually transmitted disease, and that it is impossible to know who does solely by looking at their appearance.

There is a significant lack of colour in all three images. Figure 3 is void of colour and the only hue in figure 1 is the map marker, drawing even more attention to the area. Although figure 2 is in colour, it is very dull and the colours are very neutral. This lack of colour gives the images a negative impact. According to van Leeuwen (2011:2), black has connotations of severity and seriousness.

Aristotle first wrote about persuasion and defined it as 'communication designed to influence listeners' choices' (Lester, 2002:63). Persuasion can be used to change people's attitudes, making them take a different standpoint. With regards to advertising, and health campaigns, the purpose of persuasion is to gain awareness, prompt a judgement and make the viewer of the message take action. It is common to use emotion in persuasion (Lang, A. et al 2003:111) as it tends to have more effect on those who see the advert or campaign. Jamieson (1985:103) believes that images are purposely crafted in a certain way in order to obtain a particular response from the viewer. Visual rhetoric uses images to create a meaning. All three of the images I have chosen are static images and are all examples of verbo-pictorial metaphor. This is where there is narrative alongside the image. Although the image may attract attention from the audience, particularly in figure 2, the narrative is important to be able to understand the intent. Without the narrative, there would be no metaphorical meaning.

According to Forceville (1996), visual metaphor occurs when one visual element is compared to another. Figure 1 is comparing checking in on Facebook to having sexual intercourse, giving the impression that casual sex is common. It is intended to shock the viewer. The effect on the audience is vitally important as the aim of sexual health adverts is to try to persuade people to change their behaviour. As Hill (2004:31) notes, visual representations are more vivid than written representations. However, combining the two, gives an even stronger sense of vividness. Hill also believes that emotion has a great effect on how a viewer interprets a message. He states that

'the more vivid the information, the more likely it is that the information will prompt an emotional response from the viewer. Vivid information also seems to be more persuasive than non-vivid information.' (p31).

Guilt appeals have been used in figures 1 and 2. Guilt appeal is the idea that we all have moral codes that may affect our behaviour. It may make us feel guilty about our past behaviour or have an effect on something we may be thinking of doing. Mongeau and Stiff (2002:159) believe that guilt appeals are used to 'provide the audience members with a means of making up for their past behaviour by changing their attitudes and behaviours' (p.159). Figures 1 and 2 both have a message that reminds the viewer that their sexual partners have also got a history of sexual partners, urging them to change their behaviour, by practising safe sex. LaTour (1990) looked at sexual appearances and noted that some female viewers felt uncomfortable by female nudity. This finding could be linked to guilt appeal; female nudity could remind women of their past behaviour and who they have allowed to see them in the nude. There is often a stigma, particularly on women that is associated with the number of sexual partners one has.

Goffman (1979) looked at how women were portrayed in advertisements, and found that they were often shown to be in childlike poses, which he interpreted as the stereotypical notion that women are submissive to men. Furthermore, he found that women were often in a recumbent position, on a bed or on the floor, such as in figures 1 and 3, implying passivity. Camera angle is an important factor here, as in figures 1 and 3, the camera is looking down on to the women, suggesting subservience, supporting Goffman's argument. We often associate a high camera angle with power; it is a technique often used to express authority or dominance. There is a suggestion that the looking down is by men because of their stereotypically dominant role. This is supported by Mulvey (1973) who looked at the gaze in cinematic film and found that the looking is the male's active role. Goffman (1979) also found that women were often smiling turning away and in euphoria, features that all describe figure 1. It is worth noting that in all three images, the models' eyes cannot be seen which shows lack of involvement. It gives a sense of distance and allows the viewer to partake in voyeurism; the viewer is able to look at the women in the images without being seen, giving them more power over the women pictured. This, again, leads back to the stereotypical notion that women are submissive to men. We cannot of course assume that only men would see such adverts. However, Goffman (1979) found that while these ads were actually directed at men, they also attracted women. The women being photographed would treat the camera like a man watching her, so female viewers would believe that is how they themselves look to men.

All of the women in my images are slim and would be considered attractive in today's Western society. However, the idea of what the ideal female body should look like has changed over the years. Laneyrie-Dagen (2004:152) believes this is due to what men find attractive in the female body, women only feel they are attractive if men think they are. These images would be used in Western society without a second thought, as nudity and sex appeal is often used in advertising to sell products. However, in the Middle East, it would be much less common to see women's bodies used in this way (Toland Frith and Mueller, 2003:240). Casual sex tends to be more of a Western phenomenon, therefore such health campaigns may not be needed in places such as the Middle East

Leventhal and Cameron (1987) looked at persuasion and health attitudes and focused a lot of their efforts on AIDS. They looked at the two goals of health persuasion which were prevention of disease and compliance with treatment. In the figures I have selected, notably 1 and 3, prevention is the focus. They believe that 'the goal is to prompt action' (p.221), in this case, persuade the viewer to ensure they are having safe sex. Figures 1 and 2 are focused on HIV, which can lead to AIDS, while figure 3 is focused more on other sexually transmitted diseases. Leventhal and Cameron also found that mass media was successful at informing those who did not know about the health problem or were not aware that they were at risk (p.238). Images like these draw attention because of their unusual or surprising techniques, and most importantly attract attention of those unaware that their behaviour is dangerous.

The three images I selected were all from sexual health campaigns from three different countries; Finland, the US and the UK. However they all used similar techniques to persuade the viewer that safe sex is vitally important. Vividness and the use of emotion to get a response have shown to be very effective, as has guilt appeal. Voyeuristic gaze at the female body has also helped to explain why the female body is used in this way, as it helps to attract attention from both men and women.

Word Count: 1564

Reference list

- Forceville, C. (1996) *Pictorial Metaphor in Advertising*. London: Routledge
- Goffman, E. (1979) *Gender Advertisements*. London: Macmillan.
- Hill, C.A. and Helmers, M (eds) (2004) *Defining Visual Rhetorics*. Mahwah, N.J. and London: Erlbaum.
- Jamieson, G. H. (1985) *Communication and Persuasion*. London: Croom Helm
- Lang, A. & Wise, K. & Lee, S. & Cai, X. (2003). The Effects of Sexual Appeals on Physiological, Cognitive, Emotional, and Attitudinal Responses for Product and Alcohol Billboard Advertising. In: Reichert, T. & Lambiase, J. Sex in Advertising: Perspectives on Erotic Appeal. London: Lawrence Erlbaum Associates, Mahwah, New Jersey. 111.
- LaTour, M. S. (1990). In Messaris, P. (1997) *Visual Persuasion: The Role of Images in Advertising*. 1st edn. Thousand Oaks, Calif: Sage Publications 48.
- Lester, P, L. (2002) *Visual Communication: Images with messages*. United States: Wadsworth Publishing Co.
- Leventhal, H and Cameron, L (1987). In Shavitt, S. and Brock, T. C. (1994) *Persuasion*. Boston: Allyn and Bacon. 221.
- Mongeau, P.A. and Stiff, J. B. (2002) *Persuasive communication*, 2nd edn. New York: Guilford Publications.
- Mulvey, L. (1973) Visual pleasure and narrative cinema. In Evans, J and Hall, S. (eds.) (1999) *Visual Culture: The Reader*. London: Sage 381-389.
- Toland Frith, K. and Mueller, B. (2003) *Advertising and Societies: Global Issues*. New York: Peter Lang.
- Van Leeuwen, T. (2001) *The Language of Colour: An Introduction*. London: Routledge.

Sources of images

Figure 1

Website - Aids action Europe

URL - <http://www.aidsactioneurope.org/members/finnish-aids-council>

Date accessed - 20/04/2015

Figure 2

Website - Bristol Myers Squibb

URL - <http://www.bms.com/responsibility/access-to-medicines/Pages/research-development.aspx>

Date accessed- 20/04/2015

Figure 3

Website - Graphic and web design services

URL - <http://www.t-pw.com/work/nhs-sexual-health-campaign/>

Date accessed - 20/04/2015

BB Essay

Title: What can we learn from the Anglo-Saxon Chronicle about the development of the English language?

Rubric: NA

Essay contents:

The Anglo-Saxon Chronicle is one of the most notable Old English texts. It was commissioned by King Alfred the Great in around 890AD, and was a history of Britain starting from 1AD and dating up to the year 1154AD. Different versions of the Chronicle were held at different locations and recorded more specific local events. The four surviving manuscripts are the Parker Chronicle or Winchester Chronicle, the Worcester Chronicle, the Peterborough Chronicle (also known as the Laud Chronicle) and the Canterbury Epitome, which is another version of the Laud. The Chronicle is one of the limited sources of Old English that actually remains - the surviving Old English writings total just three and a half million words (Hogg and Denison, 2006:35) - and therefore is a valued resource when investigating lexis, orthography, grammar, and different dialects that were used at the time.

Alfred the Great is known for promoting religion and learning, and for having the personal goal of creating a strong national identity for his people. As part of this process, Alfred commissioned the translations of texts such as Bede's Ecclesiastical History of the English Nation from Latin into the English vernacular and translated other texts such as Boethius' Consolation of Philosophy, as well as initiating the Chronicle (Crystal, 2004). Prior to this, the vast majority of texts produced were in Latin. These Old English texts marked the beginning of the English literary tradition; "King Alfred was the founder of English prose" (Baugh, 1957:81). As Bragg said, "These Chronicles had been written in the language of the people; there was nothing like them anywhere in mainland Europe" (2003:42). Since Alfred ruled from Wessex - the then most powerful kingdom in Britain - this gave prestige to the texts he ordered, ergo the West Saxon dialect also became prestigious. This led to scribes using or at least incorporating many features of the West Saxon dialect in their writings, and so it developed into the Old English written standard (Gramley, 2012).

Despite the prominence of the West Saxon dialect, Alfred also employed scribes from other regions such as Mercia to assist with the literary works he sponsored. The influence of the dialect of these scribes is apparent in the Chronicle in such features as the vowel "a," which is sometimes written as the Mercian "a" as opposed to the West Saxon "ea" as in "alle" and "ealle," or "salde" and "sealde" (Crystal, 2004:39). As the Anglo-Saxon Chronicle is extensive in terms of the amount of scribes who made contributions, the time period over which it was written, the locations it was written in, and in the sheer amount of text available, the text can be analysed extensively to show which words and linguistic features belong to which dialects, or which may just be errors. This knowledge of dialects can illustrate how different varieties developed or gained prestige when examining which features prevailed.

The Chronicle was of particular importance as for about a century after the initiation of the Anglo-Saxon Chronicle, there was little further work produced in the vernacular (Loyn, 1962:283). This means that the Chronicle is the most significant text during that period of literary inactivity - in terms of the English language - and so is valuable evidence of how the language may have changed and developed over this hundred-year period.

In addition to prose, the Chronicle also includes, at times, poetry. The "Battle of Brunanburh," which appears under the year 937 (Williams, 1975), is one such poem, and the best known, although each version of the Chronicle contains several poems. The inclusion of poetry in this record of the language exemplifies the Old English poetic tradition, and the vernacular poems "heightened the Anglo-Saxons' sense of nationhood" and their "heroic past" (Frantzen and Niles, 1997:6), which strengthened the importance of the language and helped ensure the continued use of English during times it was greatly threatened, such as during the Norman Conquest. When compared with other poems such as "Pearl," the progression of the structure and style of the

poem can be clearly seen, and the features of the Old English tradition highlighted. The following extract of the "Battle of Brunanburh" displays the key Old English poetry features of caesuras, alliteration, and no rhyming:

Her Æþelstan cyning, eorla drihten
beorna beahgifa, and his broðor eac,
Eadmund æðeling, ealdorlangne tir
geslogon æt sæcce sweorda ecgum
ymbe Brunanburh; bordweall clufon

Manuscript A, dated 937 (Williams, 1975:60; Jebson, 2006)

The Peterborough Chronicle is particularly significant as it shows very clear and important developments of the language. The Chronicle contains entries consistently up until 1121, which means it continues after the Norman Conquest in 1066, an event that greatly influenced the language use in Britain. Additionally, in the year 1154, the Chronicle was updated to that point, and the language use in this section is dramatically different from the previous entries, identifying it as an example not of Old English but of Middle English; it is, in fact, the earliest written example of East Midland Middle English, which appears to be the dialect that Modern Standard English developed from (Crystal, 2004:117). The entries after 1121 were all written by the same scribe, entered on six different occasions, plus the final continuation in 1154. The differences between the Old English 1121 entries and the Middle English 1154 entries can be seen in the vocabulary, spelling and grammar used. For example, "the" changed from "se" to "þe," and the word order and syntax are much more "modern" than they were in Old English (Crystal, 2004:118-119).

First Continuation (1127)

Mcxxvii Ðis gear heald se kyng Heanri his hird æt Christesmæsse on Windlesoure.
þær wæs se Scotte kyng Daudid and eall ða heued, læred and læuued, þet wæs on
Engleland. And þær he let sweren ercebisopes and bisopes and abbotes and eorles
and ealle þa ðeines ða þær wæron his dohter Æðelic Engleland and Normandi to
hande æfter hid dæi, þe ær wæs ðes Caseres wif of Sexlande

(Burnley, 1992:68)

Final Continuation (1154)

Mcxxxvii Ðis gære for þe king Stephne ofer sæ to Normandi, and ther wes
underfangen forþi ðat hi uuenden ðat he sculde ben alsuic also the eom wes, and
for he hadde get his tresor; ac he todeld it and scatered sotlice. Micel hadde Henri
king gadered gold and syluer, and na god ne dide me for his saule tharof.

(Burnley, 1992:74)

Several differences can clearly be identified between these two extracts, including the "se" to "þe" change. There are many differences in orthography, such as "gear" becomes "gære", "kyng" becomes "king" (evolved from the earlier "cyning"). The First Continuation also retains some inflections ("ðes Caseres") and more Germanic word order than the Final Continuation, although both contain many differences from pre-Conquest Old English: for example, earlier entries start with "Ælfred cyning," not "king Stephne" (Burnley, 1992:76).

Although the Norman invasion and consequent transition into Modern English is a specific example of where the Chronicle can illustrate changes in English, it is not the only example of where changes in the language can be seen - and, moreover, approximately dated. As the Chronicle is a historical record and approximate dates are known for the entries, this can show us in greater detail when change occurred. In instances such as the Norman Conquest, the Chronicle also records why these changes came about. An example of where change can be seen is in the fact that the Chronicle uses terms for Welsh and Britons synonymously (Reno, 2000). The term British comes from the word "Brythonic," which was used to describe the Celtic people living in Wales, Cornwall and Breton, so while the Welsh were British, not all of the British were Welsh.

This shows us that by the time the Anglo-Saxon Chronicle was written, the meanings of the words had changed, or at least the clear distinction between the two had disappeared.

In the same way that French words permeated the language, so did words from other languages with which the people of England had contact with. Just as "abbod" (abbot) and "Sancti" (saint) appear in the Chronicle, in just the introduction there is "mila" (miles) and "and" (and), which are loaned from Latin. That means that as far back as 890, Latin words were being incorporated into the language, although the majority of them at this time seem to be proper nouns. The Anglo-Saxon Chronicle also contains a few of the scarce examples of Norse loan words (Crystal, 2004:70). The recording of place names in the Chronicle can illustrate the nationality or the language of the settlers in certain areas. Where Scandinavian place names are recorded, for example, it is clear that these places are where the Norse settled after invading, and this can show where the Norse loan words first entered the language, and therefore the spread and incorporation of them into the general lexicon and not just the local dialect can be tracked. This can show just which words prevailed, and perhaps why, as there are relatively few words of Norse origins in Modern English.

In addition to French loan words from after the time of the Norman conquest, there are also French words found from earlier years, such as "castel", "cancelere" and "serfice" (castle, chancellor, and service) (Kastovsky, 2006). This shows that the two nations did have contact before the invasion. In fact, the King of Wessex in 1043 was Edward the Confessor, who spoke French due to spending a lot of time in Normandy. The influence of French rulers can be seen in the Chronicle, as before Edward's reign there are only thirteen instances of the word "abbod" (or similar variations), whereas after 1043 there can be found forty-five (Jebson, 2006). This version of the Chronicle (Manuscript E, Laud) goes up to the year 1154, little over a hundred years after the beginning of Edward's reign, whereas it starts - after the introduction and one entry for 60BC - with the year 1AD, which means that the frequency of the term "abbod" went from about once every eighty years before French rulers, to once every two years, showing that foreign rulers had a significant influence on Old English, and that with these rulers, English developed to incorporate many French terms, so much so that Modern English is believed to attribute around 40% of its lexicon to French.

The Anglo-Saxon Chronicle has not survived for so many centuries to become insignificant. It can still show so much about what the English language was, how and why it changed and developed, and where it came from. It remains a highly important text due to the amount that can be learned from it of history, culture, and a language barely recognisable as our own, as it recorded over two and a half centuries of the journey the nation and the language took.

Word count: 1626

References:

- Baugh, A. C. (1957) *History of the English Language* (2nd Edition). London: Routledge and Kegan Paul Ltd.
- Bragg, M. (2003) *The Adventure of English: 500AD to 2000*. London: Hodder and Stroughton.
- Burnley, D. (1992) *The History of the English Language: a source book*. Essex: Longman Group UK Limited.
- Crystal, D. (2004) *The Stories of English*. London: Penguin Books.
- Frantzen, A. J. and Niles, J. D. (eds.) (1997) *Anglo-Saxonism & the Construction of Social Identity*. Gainesville: University Press of Florida.
- Gramley, S. (2012) *The History of English: An Introduction*. Abingdon: Routledge.
- Hogg, R. and Denison, D. (eds.) (2006) *A History of the English Language*. Cambridge: Cambridge University Press.
- Jebson, T. (2006) *The Anglo-Saxon Chronicle*. [Online] Available from: <http://asc.jebbo.co.uk/a/a-L.html>; <http://asc.jebbo.co.uk/e/e-L.html> [Accessed: 09/04/2015].
- Kastovsky, D. (2006) *Vocabulary*. In Hogg, R. and Denison, D. (eds.) *A History of the English Language*. Cambridge: Cambridge University Press.

- Loyn, H. R. (1962) *Anglo-Saxon England and the Norman Conquest*. London: Longman Group Limited.
- Reno, F. D. (2000) *Historic Figures of the Arthurian Era*. North Carolina: McFarland & Company Inc., Publishers.
- Williams, J. M. (1975) *Origins of the English Language: A Social & Linguistic History*. New York: The Free Press. pp. 60-61.

Appendix 6: Sampling matrix of data

Datasets	Raw data			Coded data
	Product data	Process data		
	Doc files	Session	IDFX file	
JD1	Finished essay (Word Document)	1	JD_1	Revision table (Excel Worksheet) Descriptive statistics (Excel Worksheet) Synoptic text (Word Document) Dynamic text (Word Document)
		2	JD_2	
		3	JD_5	
		4	JD_6	
		5	JD_7	
		6	JD_9	
		7	JD_18	
JD2	Finished essay (Word Document)	1	JD_11	Revision table (Excel Worksheet) Descriptive statistics (Excel Worksheet) Synoptic text (Word Document) Dynamic text (Word Document)
		2	JD_13	
		3	JD_14	
		4	JD_15	
		5	JD_17	
JD3	Finished essay (Word Document)	1	JD_19	Revision table (Excel Worksheet) Descriptive statistics (Excel Worksheet) Synoptic text (Word Document) Dynamic text (Word Document)
		2	JD_20	
		3	JD_21	
		4	JD_22	
		5	JD_23	
		6	JD_24	
		7	JD_27	
BB	Finished essay (Word Document)	1	BAB_7	Revision table (Excel Worksheet) Descriptive statistics (Excel Worksheet) Synoptic text (Word Document) Dynamic text (Word Document)
		2	BAB_8	
		3	BAB_9	
		4	BAB_11	
		5	BAB_33	
		6	BAB_35	

Appendix 7: Instructions on how to use Inputlog

1 Instructions for using Inputlog: Steps a-f

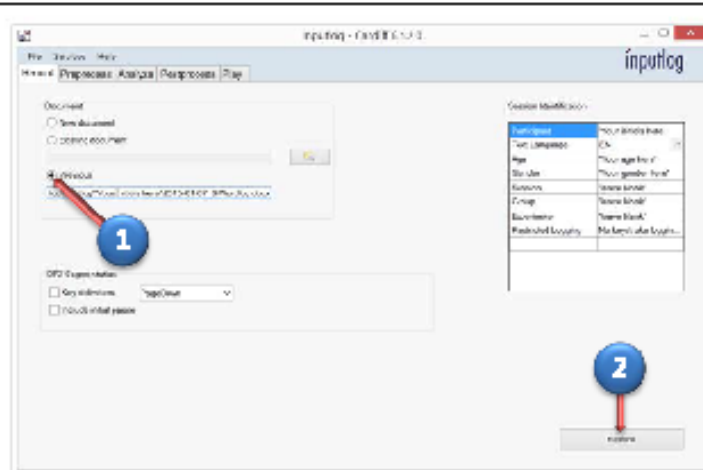
a

To work on your essay please open Inputlog first by double clicking the shortcut icon on your desktop:



*You will then be confronted with the following user interface:

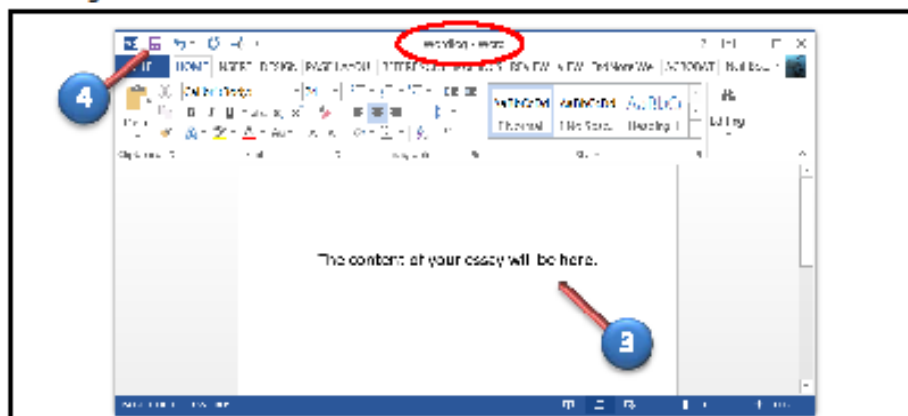
b



- 1 Please ensure that the record 'Previous' document option is selected.
- 2 Click the 'Record' button when you are ready to start.

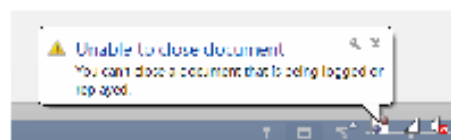
*The word document containing your essay will now open in a new window. Please check that this file is named 'Wordlog' as circled in red below:

c



- 3 Work on your essay as you would any other essay.
- 4 When you finish a writing session, save the document as per normal.

*Do not alter the filename, file directory, or close MS Word at this stage. *If you do try to close MS Word you will be confronted with the following message:



Please Turn Over...

Appendix 8: Synoptic texts

Synoptic Text for JD1								
Point of departure: THEME →→→→→				←←←←← Development of clause: RHEME				Theme selection
	Theme	Subject Theme	Rheme	N-Rheme	text	Int.	Prog	M/U
1st paragraph (Function: Introduction to topic and data)								
1		Research on politeness	has looked at	how it has an affect on our daily interactions with family and friends.				
2i	Although	there	are	many aspects of politeness,	+	-	EC	-
2ii		I	am	particularly interested in looking at face-threatening acts	-	-	-	-
2iii	and how	they	are	mitigate	+	-	↗	-
3		I	am also interested in looking at	those who have had major influences in this field of work, namely Geoffery Leech, Erving Goffman and the highly influential Penelope Brown and Stephen Levinson.	-	-	↘	-
4i		Brown and Levinson	have had	a major contribution to this area of research	-	-	↗	-
4ii	and	their names	are	almost synonymous with politeness.	+	-	↓S	-
5		I	will be looking for	examples of face-threatening acts and strategies to mitigate, or reduce the severity of them, by looking at naturally occurring data I have collected through audio-recording a Welsh family, consisting of a mother, father and a daughter.	-	-	↘	-
6i		I	have	recordings of them during mealtimes,	-	-	↓	-
6ii	where	they	sat	together at the table to eat,	+	-	↗	-
6iii	and		would have	the television on in the background,	-	-	↓E	-
7i		The participants	were given	consent forms to sign before any recording took place.	-	-	-	-
7ii	and	participants	were aware of	their right to withdraw from my study.	+	-	↓E	-
8i	In my transcript,	the father in the family	is	'N',	-	-	↗	+
8ii		the mother	is	'H'	-	-	↗	-
8ii	and	the daughter	is	'J'.	+	-	↗	-
2nd paragraph (Function: Introduce types of 'face' and then give exemplars)								
9		Brown and Levinson's politness theory (1987)	is based on	the notion on 'face'.	-	-	-	-
10i		They	describe	face as 'something that is emotionally invested	-	-	↓S	-
10ii	and they believe	it	can be either	'lost, maintained' or enhanced' (Brown and Levinson, 1987 in Jaworski & Coupland, 1999:321-322)	+	-	↗S	-
11		They	also define	two sepearte types of face, positive and negative face.	-	-	↘	-

12i		Positive face	is the idea that	we have the need to be admired or liked,	-	-	↗	-
12ii	whereas	negative face	is	not wanting others to impose on us.	+	-	↗	-
13		Brown and Levinson	formulated	a list of face-threatening acts with positive politeness, and a list of face threatening acts with negative politeness.	-	-	↘	-
14	In the data I collected,	I	found	good examples of positive politeness	-	-	-	+
15i	For example, in line 11,	N	jokes	about J's degree	+	-	-	+
15ii	and implies that	it	won't be	much use to her when she is looking for a job.	+	-	↗	-
16i		J	doesn't seem to be	offended by this,	-	-	↘	-
16ii	as	she	laughs	it off	+	-	↓S	-
16iii	and		proceeds to mock	his 'Barcelonian' accent, by calling it French,	+	-	↓E	-
16iv	however, this could be because	she	genuinely didn't know	what the accent was.	+	+	↗	-
17	Both J and H don't seem to understand that	N	is referring to	the character 'Manuel' in the British sitcom 'Fawlty Towers'.	-	+	-	-
18	N then feels that	he	has to explain	himself and clear up any confusion, stating that Manuel learnt English in the programme,	-	-	↓S	-
19	This indicates that N feels that	J's degree	is	her simply learning a language that she is obviously already fluent in.	+	-	↓	-
20i	By doing so,	he	implies that	her degree is quite pointless	-	-	↓S	+
20ii		which	threatens	J's positive face	-	-	↗	-
22i	It could be argued that	J's need to be admired	is	particularly prominent here	-	+	-	-
22ii	as	she	would be seeking	some sort of acceptance from her father.	+	-	↓S	-
23i	Although	N	is insulting	J,	+	-	?	-
23ii		she	doesn't	respond other than laughing and mocking his accent.	-	-	↗S	-
24i	This could imply that	she	was	offended	-	+	↓S	-
24ii	and		doesn't know	how else to respond,	+	-	↓E	-
25	However,	this	is unlikely to be	the case because of the nuclear family set-up'	+	-	↘	-
26i		They all	have	a close relationship with each other	-	-	-	-
26ii	and	this type of mockery	is	something that happens often so is ignored	+	-	-	-
27i		N, although doesn't say much,	tries to defend	himself by explaining who he was impersonating by using the term 'mun' ,often used for emphasis.	-	-	-	-
28i		This	suggests	he believes that his impression was good	-	+	↘	-

28ii	and	it	was	obvious who he was trying to be.	+	-	-	-
29i		H,	doesn't say	much during this interaction	-	-	-	-
29ii	however when she does,	it	is because	N has asked her to support what he has said, in line 15.	+	-	?	+
30i	However,	she	does	the opposite	+	-	↩	-
30ii	and		seems to	almost 'side' with J, trying to defend her by pointing out that N's accent wasn't a very good one	+	-	↓ E	-
30iii	as	it	was	unrecognisable	+	-	↩ S	-
31i	Although	this interaction	could be interpreted as	awkward because of N's face-threatening comment,	+	-	↩	-
31ii		the tone of voice of all three	is	lighthearted	-	-	-	-
31iii	and the laughter suggests	it	is	only playful banter that is common in this household	+	-	-	-
31iv	and		isn't intended to be	mallicious.	+	-	↓ E	-
3 rd paragraph (Function: Providing warrant via examples)								
32i		Another example of a face-threatening act with positive politeness	is	in line 21	-	-	-	-
32ii	where	N	makes	a command	+	-	-	-
32iii	but		juxtaposes	it with a pet name for J.	+	-	↓ E	-
33i		An order or command	is	threatening to the hearer, J's negative face,	-	-	?	-
33ii	but	N	tries to mitigate	it by using a pet name to soften his imposition	+	-	↩	-
34		Using a pet name, instead of her actual name, or simply just saying 'please',	suggests	a close bond between the two	-	-	↩	-
35i		It	acts as	an in-group identity marker,	-	-	↓ S	-
35ii	something that	Brown and Levinson	list as	an FTA with positive politeness.	+	-	-	-
36i	In a family set-up,	there	doesn't seem to be	much of a need for mitigating face-threatening acts	-	-	EC	+
36ii	as	all family members	seem to have	a good understanding of each other	+	-	-	-
37i	Also, in this instance	the parent	is making	the request	+	-	-	+
37ii	and it could be argued that	there	is	no need for the parent to be polite,	+	+	↓	-
37iii	because	he/she	is	'in charge'.	+	-	↓	-
38		This power relationships	means	there is less need for N to mitigate what he says.	-	-	↩	-
39	If J were make the same command, it would be much more likely that	she	would need to use	some form of mitigation.	-	+	TE	+

4 th paragraph (Function: discussion of face threats)								
40i		Holmes and Stubbe (2003)	carried out	research into power and politeness in the workplace,	-	-	-	-
40ii	and		looked at	strategies to deal with power relationships.	+	-	E	-
41i	Although	a manager and workforce	are	different in many ways to a parent-child relationship,	+	-	↘	-
41ii		their research	can be	useful to look at hierachy within relationships.	-	-	-	-
42	Holmes and Stubbe state that	there	are certain strategies that can be	used to make power relationships more harmonious, such as mitigating directives or orders.	-	-	↘	-
43		Examples of ways to do this	are	justification or hesitations	-	-	↘	-
44	However, as previously mentioned, because of the close bond in the family I recorded,	there	is	less of a need for such devices.	+	-	EC	+
45i		A manager	would have to mitiaqate	face-threatening acts,				
45ii	but	there	is	less need for a parent to do the same.	+	-	EC	-
46	However, Brown and Levinson argue that	generic forms such as 'mate', 'buddy', 'pal'	help to soften	face-threatening acts.	+	+	-	-
47	They state that	these in-group markers, when used to address children,	'turn	a command into a request', making less of an imposition on the hearer	-	-	-	-
5 th paragraph (Function: to give face work exemplars)								
48		Brown and Levinson	built	their theory on Goffman's work (1967)	-	-	-	-
49i		He	was also interested in	the notion of face	-	-	↘	-
49ii	and stated that	there	are	two face-management strategies; the avoidance process and the corrective process.	+	-	EC	-
50i	According to Goffman, 'when a face has been threatened,	face-work	must be	done' (Goffman, 1987 in Jaworski & Coupland, 1999:315),	-	-	-	+
50ii	whether	it	is	by the one who carried out the face-threatening act, the one whose face is being threatned or by an observer.	+	-	↘ S	-
51		This	could help to explain	H's contribution to the conversation in line 16.	-	-	-	-
52	As an observer, and as previously mentioned,	she	could be viewed as taking	J's 'side', by mocking N.	-	-	↘	+

53i	If this is the case, it could be assumed that	she	is helping to	neutralise the conversation,	+	+	↓	+
53ii	and ensure	it	is still	lighthearted.				
6 th paragraph								
54		Brown and Levinson	also developed	their theory based on Grice's maxims, as did Geoffrey Leech.	-	-	-	-
55i		Leech	devised	six interpersonal maxims	-	-	↗	-
55ii		that	were built on	Grice's co-operative principle (1975).	-	-	↗S	-
56i		Leech's maxims	focused on	cost and benefit to the hearer and speaker,	-	-	↓	-
56ii	and		help to explain	why people continue to be polite.	+	-	↓E	-
57	In line 33,	N's command	is	an unusual one.	-	-	-	+
58		He	minimizes	the cost on hearer's H and J, by making an offer and not allowing them to refuse.	-	-	↓S	-
59	However,	this	is	contradicted by the use of the expletive 'Christ sake' showing frustration.	+	-	↗	-
60i		The frustration	seems to be	mirrored in H and J's responses,	-	-	↗	-
60ii		which	are	blunt and direct.	-	-	↗S	-
61i		There	isn't	any mitigation used	-	-	EC	-
61ii	and	their responses	are	quick	+	-	↘	-
62i		There	is	a break from the slightly tense atmosphere	-	-	EC	-
62ii	when, in line 43,	H	jokes that	as soon as she has finished eating the bacon, N will say that he wanted to eat himself .	+	-	-	+
63i	As the topic isn't a serious one,	the family	move on with	their conversation	+	-	-	+
63ii	and		are not at all fased by	what may seem an uncomfortable situation to an outsider.	+	-	↓E	-
64i	Then in line 87,	N	refers back to	the previous conversation about the bacon once he realises H has eaten it	+	-	-	+
64ii	and		declares that	he did in fact actually want some.	-	-	↓E	-
65		Line 87	is	quite face-threatening to H, particularly because of the expletive 'fucking'.	-	-	↘	-
66i	Although	this	is	a strong word to use and suggests anger,	+	-	↗S	-
66ii		the tone of voice	isn't	an angry one	-	-	-	-
66iii	and although	this	may, again, come across as	an awkward and uncomfortable situation to outsiders	+	-	-	-
66iv		the family	know	N isn't serious.	-	-	-	-
67		This	is shown through	J's laughter;	-	-	↗	-
68		she	knows	he is joking.	-	-	↗S	-
69	However,	H's frustrated tone of voice	suggests that	she may be slightly annoyed.	+	-	?	-

7 th paragraph (function: Summary and conclusion)							
70	Throughout a lot of the conversation in my data,	N	is	the main speaker.	-	-	+
71		This	could be described with	a heirachal view;	-	-	✎
72i		a view	that notes	N as the head of the family	-	-	✎
72ii	and therefore		holds	the floor during conversation.	+	-	?
73i	Overall	there	is	a lack of hedging in my data,	-	-	EC
73ii	although	laughter	is often	used for mitigation.	+	-	-
74i		My data	provided	good examples of face-threatening acts with positive politeness that supported Brown and Levinson's politeness theory, as well as commands that fulfilled Leech's taxt maxim	-	-	-
75	This shows that	the various approaches to face may sometimes overlap,	help to provide	good analysis of face-threatening acts and mitigation.	-	+	-
Total Theme selection (75 T-units)							

Synoptic text: JD2								
Point of departure: THEME →→→→→			←←←←← Development of clause: RHEME			Theme selection		
	Theme	Subject Theme	Rheme	N-Rheme	text	Int.	Prog	M/U
1st paragraph (function: Thesis statement)								
1	I claim that	early language socialization	certainly affects	a child's chances of success at school.	+	+	-	-
2i		This	is due to	class and cultural differences	-	-	↻ S	-
2ii	meaning	some children	may find it difficult to	adapt when mixed with other children	+	-	-	-
2nd paragraph (function: Introduction to language socialization and norms)								
3	At home,	children	are brought up learning	the norms of the culture they live in from their parents or caregivers.	-	-	↓	+
4		There	is	an aspect of nature vs. nurture;	-	-	EC	-
5i		genes	are	fundamentally important in determining basic intelligence and character,	-	-	-	-
5ii	but	socialization and the environment a child is brought up in	is also	vitaly important in shaping a child's mind	+	-	-	-
6		Formal education	is	a subset of socialization;	-	-	-	-
7i		school	is	where we learn to write for example, something that we would not learn without being taught,	-	-	-	-
7ii	although	this	could be done	through home-schooling	+	-	↻ S	-
8i		Early language socialization	is	where we learn the norms about language use,	-	-	-	-
8ii	such as	how and when it is appropriate	to say	please and thank you	+	-	↻	-
9	If children receive different types of language socialisation at home, for whatever reason,	it	may affect	them when they start school.	-	-	TE	+
3rd paragraph (function: introduce literature on Bernstein)								
10		There	are	basic agencies of socialization such as family, peer groups, school and, later on, work.	-	-	EC	-
11	According to Bernstein in Montgomery 1995,	these agencies and the links between them	are	crucial	-	-	↻	+
12i	Bernstein also claims that	the social class we are brought up in	has	the biggest influence on socialization	-	+	-	-
12ii	but states that	this	is dependent on	what the school subject is	+	-	?	-
13	He found that	there	is	a significant difference in children's abilities within language related subjects because of nurture's effect	-	-	EC	-
14i	When we compare this with subjects such as maths,	there	is	less difference in pupil's abilities	-	-	EC	+
14ii	because	maths	is	based on basic intelligence.	+	-	↻	-
4th paragraph (function: further elaborate on Bernstein's ideas)								
15		Bernstein's speech codes	are	influential in looking at early language socialization.	-	-	-	-
16		He	defined the codes as	restricted and elaborated.	-	-	↻	-
17		The restricted code	assumes	all speakers have a shared understanding on a topic of conversation	-	-	↻	-
18		The elaborated code however	is	more explicit.	-	-	-	-
19	Bernstein claimed that while the middle-class were likely to have access to both codes,	some sections of the working-class	were likely to have	access only to the restricted code'.	-	+	-	+

20		Bernstein	conducted	an experiment using five year old lower working-class and middle-class children who were given pictures to create a narrative from	-	-	↓	-
21i		The middle-class children	were	specific with what they were referring to in their stories,	-	-	↗	-
21ii	while	the working-class children	were	vague;	+	-	↗	-
21iii		a listener	would need to see	the pictures for their stories to make sense.	-	-	-	-
22	This result could mean that	working-class children	are at	a disadvantage because of these codes.	-	-	↘	-
23	If a child is told that he/she is not good at a language	the child	may give up	trying to improve	-	-	↘	+
24i	It is	a self-fulfilling prophecy	that is	difficult to overcome	-	-	TE	-
24ii	and		is	detrimental to working-class children.	-	-	↓ E	-
5 th paragraph (function: provide warrant for upcoming thesis)								
25		Heath's (1983) ethnographic research on three communities in south-eastern United States, each with completely different language socialization,	has shown that	different ways of being brought up at home can have an affect on how well a child does at school	-	-	-	-
26		The three different communities she looked at	were	a white middle-class community called Maintown, a white working-class community called Roadville, and a black working-class community called Trackton.	-	-	↓	-
27		Heath	looked at	literacy events within these communities; 'occasions in which written language is integral to the nature of participants' interactions and their interpretive processes and strategies' (Heath 1983 in Schieffelin, Ochs and Irvine: 97)	-	-	↘	-
28	For children who are yet to start mainstream education,	literacy events, according to Heath,	are	things such as cereal boxes, stop signs and most notably, bedtime stories.	-	-	↗	+
29i		She	looked at	the functions of reading for each community	-	-	↘	-
29ii	and in what ways	children	were	encouraged by their parents or caregivers.	+	-	-	-
30i	In Roadville,	she	found that	parents would encourage children to tell a story,	-	-	↘	+
30ii	but		often	interrupted to correct the child.	+	-	↗ E	-
31i	In Trackton,	She	found that	the children had creative skills in story telling	-	-	↘	+
31ii	but	there	was often	little connection to the real world.	+	-	EC	-
32		This observation	meant	the literacy practices learnt by children in the working-class communities did not prepare them well for mainstream literacy practices in school.	-	-	↗ S	-
6 th paragraph (function: Ochs' & Phillip's findings – warrant?)								
33	As well as looking at the differences in class,	research	has also looked at	the differences between collectivist and individualistic culture.	+	-	-	+
34		Ochs in Coupland and Jaworski 1997:430)	looked at	the differences between typical middle-class Anglo-American mothers and traditional caregiving in non-Western families.	-	-	-	-
35i		She	focused on	Samoan society	-	-	↓ S	-

35ii	and noted that as a young child begins to walk and talk, typically,	an older sibling of the child	will begin to take	more responsibility for the infant.	+	+	↓ E	+
36i	As the infant continues to age,	it	will begin to spend	more time with others of a similar age, often extended family,	+	-	↗ S	+
36ii	where	numerous mothers	are likely to be	present.	+	-	-	-
37i		This	contrasts with	typical American/Western society	-	-	↘	-
37ii	as, according to Ochs,	they	are	typically nuclear set-ups, with a father, mother and children.	+	-	↗ S	+
38	Traditionally,	the mother	will care for	her own child, establishing a close bond.	-	+	↗	-
39	However,	this	is not	the same in Samoan society.	+	-	↘	-
40i		The child	will call out to	the mother,	-	-	-	-
40ii	but	the mother	will signal	an older child to attend to the infant.	+	-	↓	-
41i		This Samoan way of caregiving	is present in	many different ethnic backgrounds	-	-	↘	-
41ii	and		is existent in	many households across the United States.	-	-	↓ E	-
43i	Ochs notes, that once a child reaches schooling age,	he or she	will be mixed with	other children that have had very different upbringings	-	+	?	+
43ii	, such as	the two	mentioned	here.	+	-	↗ S	-
44	Not only do these children have to mix with other pupils	they	also taught by	teachers that have been socialized differently to them	-	+	↓ S	+
45		The children from these collectivist backgrounds	may struggle to interact with	an adult in a way that is very different from how they would do so at home.	-	-	↓	-
46i		This finding	may stifle	their abilities	-	-	↓	-
46ii	and		restrict	how well they perform in school.	-	-	↓ E	-
47i		It	could also raise	problems for the teacher,	-	-	↓ S	-
47ii		who	may not be aware of	been, and continue to be, socialized at home.	-	-	↗ S	-
7 th paragraph (function: Critique of literature?)								
48		Ochs	gives	a good example of how children from different ethnic backgrounds or cultures may be at a disadvantage at school.	-	-	-	-
49i	However, although she herself states 'what has been observed is not universal, is not a fact',	it	is still	an assumptive view that she takes;	+	-	↗ S	+
49ii		one that all middle class Anglo-American mothers	have	the same relationship with their young children..	-	-	↗	-
50i	She also assumes that	'Americans	tend to live in	nuclear households'	-	+	↘	-
50ii		which	is	an over-generalization.	-	-	↘ S	-
51i		This	may be	more common in middle-class families	-	-	↘	-
51ii	and	it	is	a strong notion to contrast with Samoan society,	-	-	↓ S	-
51iii	but	it	is	an oversimplification nonetheless.	+	-	↓	-
52		Echoing the work done by Ochs	is	the comparison between Indian and Anglo students by Susan Phillips, in Kiesling and Paulston, 2004	-	-	-	-
53i		She	looked at	instances where pupils were 'competing for the floor'	-	-	↗ S	-
53ii	and found that	it	's not	something that exists in Indian classrooms, contrasting with Anglo pupils	+	-	↗ S	-

53iii		who	feel the need to	compete for the teacher's attention.	-	-	↪S	-
54		She	also found	a contrast in pupils 'talking out of turn' (2004:292).	-	-	↪	-
55i	She found that	Anglo students	were more likely to answer before	a teacher had finished asking a question	-	+	↪	-
55ii	or		contribute	a comment while the teacher was still talking.	-	-	↪E	-
56	However,	she	found	little evidence of this in Indian classrooms.	+	-	↪	-
8 th paragraph (function: literature review)								
57i	Phillips found in some cases that	pupils who raised their hands more in class	scored	higher on tests,	-	-	-	+
57ii	although	this	could be due to	other circumstances;	+	-	↪S	-
57iii	we cannot assume	this	is purely	the reason the students performed well in tests.	-	+	↪	+
58i		It	could be due to	confidence	-	-	↪S	-
58ii	or because	they	have understood	the work well	+	-	↪	-
59	Both Ochs and Phillips give evidence to show that	eastern, collectivist cultures	are at	a disadvantage in the classroom.	-	+	-	-
60	However,	there	is also	some evidence that means the research done by both contradicts each other.	+	-	EC	-
61	Phillips found that while Indian students did not participate or contribute as much as Anglo students in classroom discussions,	they	were much more likely to participate in	one-to-one discussions with teachers.	-	-	TE	-
62		This finding	contradicts	what Ochs found in Samoan societies;	-	-	↪	-
63		children	were not given	the opportunity to establish a one-to-one bond with their mothers.	-	-	-	-
64	Instead	they	were encouraged to spend	time with siblings and extended family of a similar age, while being looked after by numerous mothers, again from extended family.	+	-	↪S	-
65		This	would make it	unusual for children to be comfortable in one-to-one situations that they are not familiar with	-	-	↪S	-
66	However,	this outcome	could be due to	different communities within collectivist cultures.	+	-	↪S	-
67	On the other hand,	these two separate studies	could offer	good insight into a variety of collectivist cultures.	+	-	-	-
68i	Nevertheless,	if children from different collectivist cultures	were to attend	a school containing children from individualistic cultures in Europe or the US for example,	+	-	-	+
68ii		they	may well be at	a disadvantage,	-	-	↪	-
68iii	as	they	would have to	adjust to feel at ease.	+	-	↪	-
70i	Alternatively,	they	may not try to	adjust	+	-	↪	-
71ii	and		would feel	like outsiders, limiting their chances of success in school.	-	-	↪E	-
9 th paragraph (function: class & education in Japan)								
72	Historically, in the pre-modern period in Japan,	'educated'	automatically meant	upper class.	-	-	-	+
73i	One may assume that	this	would mean	lower classes were illiterate,	-	+	↪	-
73ii	but	this	was not	the case.	+	-	↪	-
74	Through self-education and lending libraries,	they	were at	no real disadvantage (Gottlieb 2005:40)	-	-	-	+

75		Not going to school	also meant that	their literacy practices would remain the same;	-	-	-	-
76		they	would not have to	adapt to different language practices in school.	-	-	☹	-
10 th paragraph (function: Summary)								
77	It is clear that	differences in class and cultural background	have	a profound effect on a child's education.	-	+	-	-
78	The studies on various collectivist cultures show that	children	may be at	a disadvantage when they start mainstream education particularly when compared to individualistic cultures.	-	+	-	-
79	The studies support the claim that	a child's early language socialisation	can affect	a child's success at school and later on in life.	-	+	-	-

Synoptic text: JD3								
Point of departure: THEME →→→→→			←←←←← Development of clause: RHHEME			Theme selection		
	Theme	Subject Theme	Rheme	N-Rheme	text	Int.	Prog	M/U
1st paragraph: (function: Thesis statement)								
1	I will be arguing that	images	can be	more persuasive than words by looking at a number of sexual health adverts.	-	-	-	-
2	I will look at	how images	can have	more of an emotional affect on the viewer than text alone.	+	-	↓	-
3	I will also discuss	how, through persuasive communication and the notion of gaze, women	can, and have been	sexualized and shown in a submissive manner in order to convey warning messages about sexually transmitted diseases and the HIV AIDS virus.	+	-	-	-
4		I	will do so through looking at	three images from three different countries.	-	-	↓	-
5i		I	will also discuss	the concept of guilt appeals	-	-	↓	-
5ii		which	can suggest	those who see campaigns about sexual health are reminded about the risks they are taking if they are having unsafe sex.	-	-	↗s	-
2nd paragraph (function: Description of images)								
6		Figure 1	was	a Finnish AIDS council advertisement.	-	-	-	-
7		It	has marked	a woman's genitals with an internet map marker, frequently used on Facebook to check in to a place or destination.	-	-	↓s	-
8	By using social media,	it	relates to	a large proportion of the population.	-	-	↗s	+
9i		Facebook	is	used by almost all groups all over the world	-	-	-	-
9ii	and	this	indicates that	anyone, anywhere who is sexually active is susceptible to the disease.	+	-	↗s	-
10		Figure 2	is from	a HIV AIDS awareness advertising campaign.	-	-	-	-
11		The image of a woman straddling a man	has been	adapted to give the man an extra ten hands to touch her with, implying that his previous sexual partners are also present in some way.	-	-	↓	-
12	Finally,	figure 3	is	an NHS sexual health campaign designed as a scratch card.	+	-	-	-
13i		The provocative image	attracts	the viewer's gaze	-	-	↓s	-
13ii	and	this	implies that once scratched away,	more flesh would be revealed.	+	-	↓	-
14	However,	the name of a sexually transmitted disease	is	revealed instead.	+	-	-	-
15i	This image is trying to show the audience that, again,	anyone	can have	a sexually transmitted disease,	-	-	↘	-
15ii	and that	it	is	impossible to know who does has one solely by looking at their appearance.				
3rd paragraph (function: Description of colours used in the images)								
16		There	is	a significant lack of colour in all three images.	-	-	-	-
17i		Figure 3	is	void of colour	-	-	-	-
18i	and	the only hue in figure 1	is	the map marker, drawing even more attention to the area.	+	-	-	-

18ii	Although	figure 2	is	in colour,	+	-	-	-
18iii		it	is	very dull	-	-	↓ S	+
19	and	the colours	are	very neutral	+	-	↻	-
20		This lack of colour	gives	the images a negative impact.	-	-	↻	-
20b	According to van Leeuwen (2011:2),	black	has	connotations of severity and seriousness.	-	+	↻	-
4 th paragraph (function: topic intro – persuasion through metaphor)								
21i		Aristotle	first wrote about	persuasion	-	-	-	-
21ii	and		defined	it as 'communication designed to influence listeners' choices' (Lester, 2002:63).	+	-	↓ E	-
22		Persuasion	can be	used to change people's attitudes, making them take a different standpoint.	-	-	↻	-
23i	With regards to advertising, and health campaigns,	the purpose of persuasion	is to gain	awareness, prompt a judgement	+	-	↻	+
23ii	and		make	the viewer of the message take action,	+	-	↓ E	-
24i		It is common	to use	emotion in persuasion (Lang, A. et al] 2003:111)	-	-	-	-
24ii	as	it	tends to have	more effect on those who see the advert or campaign.	+	-	↻	-
25		Jamieson (1985:103)	believes that	images are purposely crafted in a certain way in order to obtain a particular response from the viewer.	-	-	-	-
26		Visual rhetoric	uses	images to create a meaning.	-	-	-	-
27i		All three of the images I have chosen	are	static images	-	-	-	-
27ii	and		are	all examples of verbo-pictorial metaphor.	+	-	↓ E	-
28		This	is where there is	narrative alongside the image.	-	-	↻	-
29	Although the image may attract attention from the audience, particularly in figure 2,	the narrative	is	important to be able to understand the intent.	+	-	↻	+
30	Without the narrative,	there	would be	no metaphorical meaning.	-	-	-	+
5 th paragraph (function: To give examples of power through images)								
31	According to Forceville (1996)	visual metaphor	occurs	when one visual element is compared to another.	-	+	-	+
32		Figure 1	is comparing	checking in on Facebook to having sexual intercourse, giving the impression that casual sex is common	-	-	-	-
33		it	is	intended to shock the viewer.	-	-	↓ S	-
34i		The effect on the audience	is	vitaly important	-	-	↻	-
34ii	as	the aim of sexual health adverts	is to try to persuade	people to change their behaviour.	+	-	-	-
35	As Hill (2004:31) notes,	visual representations	are	more vivid than written representations.	-	+	-	-
36	However,	combining the two,	gives	an even stronger sense of vividness.	+	-	↻	-
37		Hill	also believes	that emotion has a great effect on how a viewer interprets a message.	-	+	-	-
38a		He	states	that 'the more vivid the information, the more likely it is that the information will prompt an emotional response from the viewer.	-	-	↓ S	-
38b		Vivid information	also seems to be	more persuasive than non-vivid information.' (p31).				

6 th paragraph (function: Guilt appeals)					
39		Guilt appeals	have been used in	figures} 1 and 2.	- - - -
40		Guilt appeal	is the idea that	we all have moral codes that may affect our behaviour.	- - ↓ -
41		it	may make us feel	guilty about our past behaviour or have an effect on something we may be thinking of doing.	- - ↓ s -
42	Mongeau and Stiff (2002:159) believe that	guilt appeals	are used to 'provide	the audience members with a means of making up for their past behaviour by changing their attitudes and behaviours' (p.159).	- + ↓ -
43		Figures 1 and 2	both have	a message that reminds the viewer that their sexual partners have also got a history of sexual partners, urging them to change their behaviour, by practising safe sex	- - - -
44i		LaTour (1990)	looked at	sexual appearances	- - - -
44ii	and		noted that	some female viewers felt uncomfortable by female nudity.	- - ↓ E -
45		This finding	could be linked to	guilt appeal;	- - ↗ -
46i		female nudity	could remind	women of their past behaviour and who they have allowed to see them in the nude.	- - ↘ -
47		There	is	often a stigma, particularly on women that is associated with the number of sexual partners one has	- - - -
7 th paragraph (function: Power in images)					
48i		Goffman (1979)	looked at	how women were portrayed in advertisements,	- - - -
48ii	and found that	they	were	shown to often be in childlike poses,	+ - ↗ s -
48iii	which	he	interpreted as	the stereotypical notion that women are submissive to men.	+ - ↓ s -
49	Furthermore	he	found that	women were often in a recumbent position, on a bed or on the floor, such as in figures 1 and 3 implying passivity.	+ - ↓ s -
50i		Camera angle	is	an important factor here, as in figures 1 and 3,	- - - -
50ii		the camera	is looking down on to	the women, suggesting subservience, supporting Goffman's argument.	- - ↓ -
51		We	often associate	a high camera angle with power;	- - - -
52		it	is	a technique often used to express authority or dominance.	- - ↗ -
53	There is a suggestion that	the 'looking down'	is	by men because of their stereotypically dominant role.	- + ↘ -
54i		This	is supported by	Mulvey (1973)	- - ↘ -
54ii		who	looked at	the gaze in cinematic film	- - ↗ s -
54iii	and		found that the looking is	the male's active role.	+ - ↓ E -
55		Goffman (1979)	also found that	women were often smiling turning away and in euphoria, features that all describe figure 1.	- - - -
56i	It is worth noting that in all three images,	the models' eyes	cannot be	seen	- + - +
56ii		which	shows	lack of involvement.	- - ↗ -
57i		It	gives	a sense of distance	- - ↗ -
57ii	and		allows	the viewer to partake in voyeurism;	+ - ↓ E -
58		the viewer	is	able to look at the women in the images without being seen, giving them more power over the women pictured.	- - ↘ -
59		This, again,	leads back to	the stereotypical notion that women are submissive to men.	- - ↗ -

60		We	cannot of course assume that	only men would see such adverts.	-	-	-	-
61	However,	Goffman (1979)	found that	while these ads were actually directed at men, they also attracted women,	+	-	-	-
62i		The women being photographed	would treat the camera like	a man watching her,	-	-	-	-
62ii	so	female viewers	would believe that is	how they themselves look men.	+	-	-	-
8 th paragraph: (function: Sex in images)								
63i		All of the women in my images	are	slim	-	-	-	-
63ii	and		would be considered	attractive in today's Western society.	+	-	↓ E	-
64	However,	the idea of what the ideal female body should look like	has changed	over the years.	+	-	-	-
65		Laneyrie-Dagen (2004:152)	believes this is due to	what men find attractive in the female body, women only feel they are attractive if men think they are.	-	-	-	-
66i		These images	would be used in	Western society without a second thought,	-	-	-	-
66ii	as	nudity and sex appeal	is often used in	advertising to sell products.	+	-	-	-
67	However, in the Middle East,	it	would be much less common to see	women's bodies used in this way (Toland Frith and Mueller, 2003:240).	+	-	-	+
68i		Casual sex	tends to be	more of a Western phenomenon,	-	-	-	-
68ii	therefore,	such health campaigns	may not be needed in	places such as the Middle East (and Asia)	+	-	-	-
9 th paragraph: (function: Literature review)								
69i		Leventhal and Cameron (1987)	looked at	persuasion and health attitudes	-	-	-	-
69ii	and		focused	a lot of their efforts on AIDS.	+	-	↓ E	-
70i		They	looked at	the two goals of health persuasion	-	-	↓ S	-
70ii		which	were	prevention of disease and compliance with treatment.	-	-	↗ S	-
71	In the figures I have selected, notably 1 and 3	prevention	is	the focus.	-	-	↗	+
72i		They	believe that	'the goal is to prompt action' ((p.221)).	-	-	↗	-
72ii	in this case,		persuade	the viewer to ensure they are having safe sex.	+	-	?	-
73i		Figures 1 and 2	are focused on	HIV,	-	-	-	-
73ii		which	can lead to	AIDS,	-	-	↗ S	-
73iii	while	figure 3	is focused more on	other sexually transmitted diseases.	+	-	-	-
74		Leventhal and Cameron	also found that	mass media was successful at informing those who did not know about the health problem or were not aware that they were at risk (p.238).	-	-	-	-
75i		Images like these	draw	attention because of their unusual or surprising techniques,	-	-	-	-
75ii	and most importantly		attract	attention of those unaware that their behaviour is dangerous.	+	+	↓ E	-

10 th paragraph (function: Conclusion)							
76		The three images I selected	were all from	sexual health campaigns from three different countries; Finland, the US and the UK.	-	-	-
77	However,	they all	used	similar techniques to persuade the viewer that safe sex is vitally important.	+	-	↕ s
80X		Vividness and the use of emotion to get a response	have shown to be	very effective, as has guilt appeal.	-	-	-
79i		Voyeuristic gaze at the female body	has also helped to explain	why the female body is used in this way,	-	-	-
79ii	as	it	helps to attract	attention from both men and women.	+	-	↕ s
Total Theme selection (79 T-units)							

Dynamic text: BB								
Point of departure: THEME →→→→→			←←←←← Development of clause: RHEME			Theme selection		
Theme	Subject Theme	Rheme	N-Rheme	text	Int.	Prog	M/U	
1st paragraph								
1		The Anglo-Saxon Chronicle	is	one of the most notable Old English texts.	-	-	-	-
2i		It	was	commissioned by King Alfred the Great in around 890AD,	-	-	↓ S	-
2ii	and		was	a history of Britain starting from 1AD and dating up to the year 1154AD.	+	-	↓ E	-
3i		Different versions of the Chronicle	were held	at different locations	-	-	↘	-
3ii	and		recorded	more specific local events.	+	-	↓ E	-
4i		The four surviving manuscripts	are	the Parker Chronicle or Winchester Chronicle, the Worcester Chronicle, the Peterborough Chronicle (also known as the Laud Chronicle) and the Canterbury Epitome, which is another version of the Laud.	-	-	↘	-
5i		The Chronicle	is	one of the limited sources of Old English that actually remains – the surviving Old English writings total just three and a half million words (Hogg and Denison, 2006:35) -	-	-	↘	-
5ii	and therefore		is	a valued resource when investigating lexis, orthography, grammar, and different dialects that were used at the time.	+	-	↓ E	-
2nd paragraph								
6		Alfred the Great	is known for	promoting religion and learning, and for having the personal goal of creating a strong national identity for his people.	-	-	-	-
7i	As part of this process,	Alfred	commissioned	the translations of texts such as Bede's Ecclesiastical History of the English Nation from Latin into the English vernacular	-	-	↓	+
7ii	and		translated	other texts such as Boethius' Consolation of Philosophy, as well as initiating the Chronicle (Crystal, 2004).	+	-	↓ E	-
8	Prior to this,	the vast majority of texts produced	were in	Latin.	-	-	-	+
9i		These Old English texts	marked	the beginning of the English literary tradition;	-	-	↓ S	-
9ii		"King Alfred	was	the founder of English prose" (Baugh, 1957:81).				
10		As Bragg	said,	"These Chronicles had been written in the language of the people; there was nothing like them anywhere in mainland Europe" (2003).	-	-	-	-
11i	Since	Alfred	ruled	from Wessex - the then most powerful kingdom in Britain -	+	-	-	-
11ii		this	gave	prestige to the texts he ordered,	-	-	↘	-
11iii	ergo	the West Saxon dialect	also became	prestigious.	+	-	?	-
12i		This	led to	scribes using or at least incorporating many features of the West Saxon dialect in their writings,	-	-	↘ S	-
12ii	and so	it	developed into	the Old English written standard (Gramley, 2012).	+	-	↘ S	-
3rd paragraph								
13	Despite the prominence of the West Saxon dialect,	Alfred	also employed	scribes from other regions such as Mercia to assist with the literary works he sponsored.	-	+	-	+

14i		The influence of the dialect of these scribes	is	apparent in the Chronicle in such features as the vowel "a,"	-	-	↘	-
14ii		which	is sometimes written as	the Mercian "a" as opposed to the West Saxon "ea" as in "alle" and "ealle," or "salde" and "sealde" (Crystal, 2004:39).	-	-	↘ S	-
15	As the Anglo-Saxon Chronicle is extensive in terms of the amount of scribes who made contributions, the time period over which it was written, the locations it was written in, and in the sheer amount of text available,	the text	can be analysed extensively to show	which words and linguistic features belong to which dialects, or which may just be errors.	-	-	-	+
16		This knowledge of dialects	can illustrate	how different varieties developed or gained prestige when examining which features prevailed.	-	-	↘	-
4th paragraph								
17i		The Chronicle	was	of particular importance	-	-	-	-
17ii	as for about a century after the initiation of the Anglo-Saxon Chronicle,	there	was	little further work produced in the vernacular (Loyn, 1962:283).	+	-	-	+
18i		This	means that	the Chronicle is the most significant text during that period of literary inactivity - in terms of the English language -	-	-	↘ S	-
18ii	and so		is	valuable evidence of how the language may have changed and developed over this hundred-year period.	+	-	↘ E	-
5th paragraph								
19	In addition to prose,	the Chronicle	also includes, at times,	poetry.	+	-	↘	-
20i		The "Battle of Brunanburh," which appears under the year 937 (Williams, 1975),	is	one such poem, and the best known,	-	-	-	-
20ii	although	each version of the Chronicle	contains	several poems.	+	-	-	-
21i		The inclusion of poetry in this record of the language	exemplifies	the Old English poetic tradition,	-	-	↘	-
21ii	and	the vernacular poems	"heightened	the Anglo-Saxons' sense of nationhood" and their "heroic past" (Frantzen and Niles, 1997:6),	+	-	↘	-
21iii		which	strengthened	the importance of the language	-	-	↘	-
21iv	and		helped ensure	the continued use of English during times it was greatly threatened, such as during the Norman Conquest.	+	-	↘ E	-
22i	When compared with other poems such as "Pearl,"	the progression of the structure and style of the poem	can be	clearly seen,	-	-	?	+
22ii	and	the features of the Old English tradition	[= are]	highlighted.	+	-	?	-

23		The following extract of the "Battle of Brunanburh"	displays	the key Old English poetry features of caesuras, alliteration, and no rhyming:	-	-	-	-
6th paragraph (Extract from ASC manuscript inserted above)								
24i		The Peterborough Chronicle	is	particularly significant	-	-	-	-
24ii	as	it	shows	very clear and important developments of the language.	+	-	↕	§
25i		The Chronicle	contains	entries consistently up until 1121,	-	-	↕	-
25ii		which	means	it continues after the Norman Conquest in 1066, an event that greatly influenced the language use in Britain.	-	-	↕	§
26i	Additionally, in the year 1154,	the Chronicle	was	updated to that point,	+	-	↕	+
26ii	and	the language use in this section	is	dramatically different from the previous entries, identifying it as an example not of Old English but of Middle English;	+	-	-	-
27i		it	is, in fact,	the earliest written example of East Midland Middle English,	-	-	↕	§
27ii		which	appears to be	the dialect that Modern Standard English developed from (Crystal, 2004:117).	-	-	↕	§
28		The entries after 1121	were all written by	the same scribe, entered on six different occasions, plus the final continuation in 1154.	-	-	-	-
29		The differences between the Old English 1121 entries and the Middle English 1154 entries	can be seen in	the vocabulary, spelling and grammar used.	-	-	-	-
30i	For example,	"the"	changed	from "se" to "pe,"	+	-	-	-
30ii	and	the word order and syntax	are	much more "modern" than they were in Old English (Crystal, 2004:118-119).	+	-	-	-
7th paragraph (Extract from ASC manuscript inserted above)								
31		Several differences	can clearly be identified between	these two extracts, including the "se" to "pe" change.	-	-	-	-
32		There	are	many differences in orthography, such as "gear" becomes "gære", "kyng" becomes "king" (evolved from the earlier "cyning").	-	-	-	-
33i		The First Continuation	also retains	some inflections ("ðes Caseres") and more Germanic word order than the Final Continuation,	-	-	-	-
33ii	although	both	contain	many differences from pre-Conquest Old English:	+	-	?	-
34	for example,	earlier entries	start with	"Ælfred cyning," not "king Stephne" (Burnley, 1992:76).	+	-	↕	-
8th paragraph								
35i	Although	the Norman invasion and consequent transition into Modern English	is	a specific example of where the Chronicle can illustrate changes in English,	+	-	-	+
35ii		it	is not	the only example of where changes in the language can be seen - and, moreover, approximately dated.	-	-	↕	§
36i	As	the Chronicle	is	a historical record	+	-	-	-
36ii	and	approximate dates	are known for	the entries,	+	-	-	-
36iii		this	can show	us in greater deal when change occurred.	-	-	↕	-
37	In instances such as the Norman Conquest,	the Chronicle	also records	why these changes came about.	-	-	-	+

38	An example of	where change can be seen	is	in the fact that the Chronicle uses terms for Welsh and Britons synonymously (Reno, 2000).	+	-	↗	-
39i		The term British	comes from	the word "Brythonic,"	-	-	-	-
39ii		which	was used to describe	the Celtic people living in Wales, Cornwall and Breton,	-	-	↗s	-
39iii	so while	the Welsh	were	British,	+	-	↘	-
39iv		not all of the British	were	Welsh.	-	-	↗	-
40i	This shows us that by the time the Anglo-Saxon Chronicle was written,	the meanings of the words	had	changed.	+	-	↘	+
40ii	or at least	the clear distinction between the two	had	disappeared.	+	+	-	-
9 th paragraph:								
41	In the same way that	French words	permeated	the language, so did words from other languages with which the people of England had contact with.	-	-	-	+
42i	Just as	"abbod"(abbot) and "Sancti" saint)	appear in	the Chronicle,	+	-	-	-
42ii	in just the introduction	there	is	"mila" (miles) and "T" (and),	-	-	-	+
42iii		which	are loaned	from Latin.	-	-	↗s	-
43i		That	means that	as far back as 890, Latin words were being incorporated into the language,	-	-	?	-
43ii	although	the majority of them at this time	seem to be	proper nouns.	+	-	↗	-
44		The Anglo-Saxon Chronicle	also contains	a few of the scarce examples of Norse loan words (Crystal, 2004:70).	-	-	-	-
45		The recording of place names in the Chronicle	can illustrate	the nationality or the language of the settlers in certain areas.	-	-	-	-
46i	Where Scandinavian place names are recorded, for example, it is clear that	these places	are	where the Norse settled after invading,	-	+	↘	+
46ii	and	this	can show	where the Norse loan words first entered the language,	+	-	↗s	-
46iii	and therefore	the spread and incorporation of them into the general lexicon and not just the local dialect	can be	tracked.	+	-	↘	-
47i		This	can show	just which words prevailed, and perhaps why,	-	-	↘	-
47ii	as	there	are	relatively few words of Norse origins in Modern English.	+	-	?	-
10 th paragraph								
48	In addition to French loan words from after the time of the Norman conquest,	there	are also	French words found from earlier years, such as "castel", "cancelere" and "serfice" (castle, chancellor, and service) (Kastovsky, 2006).	+	-		+
49		This	shows that	the two nations did have contact before the invasion.	+	-	↗s	-
50i	In fact,	the King of Wessex in 1043	was	Edward the Confessor,	-	+	?	-

50ii		who	spoke	French due to spending a lot of time in Normandy.	-	-	↗ S	-
51i		The influence of French rulers	can be seen in	the Chronicle,	-	-	↘	-
51ii	as before Edward's reign	there	are	only thirteen instances of the word "abbod" (or similar variations).	+	-	-	+
51iii	whereas after 1043	there	can be found	forty-five (Jebson, 2006).	+	-	-	+
52i		This version of the Chronicle (Manuscript E, Laud)	goes up to	the year 1154, little over a hundred years after the beginning of Edward's reign,	-	-	-	-
52ii	whereas	it	starts	- after the introduction and one entry for 60BC - with the year 1AD,	+	-	↘ S	-
52iii		which	means that	the frequency of the term "abbod" went from about once every eighty years before French rulers, to once every two years, showing that foreign rulers had a significant influence on Old English,	-	-	?	-
52iv	and that with these rulers,	English	developed to incorporate	many French terms,	+	-	-	+
52v	so much so that	Modern English	is believed to attribute	around 40% of its lexicon to French.	+	-	?	-
11th paragraph								
53		The Anglo-Saxon Chronicle	has not survived for	so many centuries to become insignificant.	-	-	-	-
54		it	can still show	so much about what the English language was, how and why it changed and developed , and where it came from.	-	-	↘ S	-
55		it	remains	a highly important text due to the amount that can be learned from it of history, culture, and a language barely recognisable as our own,	-	-	↘	-
56	as	it	recorded	over two and a half centuries of the journey the nation and the language took.	+	-	↘	-
Total Theme selection (# T-units)								

Appendix 9: Coding thematic choices and thematic progression

Theme type	Classification Criteria	Example (bold and italics for illustration only)
Subject	Thematic element is congruent with the grammatical subject*	<i>Public transport</i> is third on the list of major expenditures at 15% (NE: 7)
Marked/ Experiential	Any ideational element that is not congruent with the grammatical Subject (including if-clauses). Circumstantial adjuncts occurring before Subject Theme were labelled marked Themes. Fronted dependent clauses were categorized as marked in relation to the T-unit Theme.	I will argue that <i>if CO2 emissions are to be reduced</i> [...] (NE: 10) since <i>these days</i> most goods are transported by truck [...] (L: 14ff) However, <i>even with the shift to electric cars</i> this figure seems (NE: 12)
Textual	Conjunctive, structural, and continuative elements situated before the Subject Theme were categorized as textual Themes.	<i>Consequently</i> , this may result in a decrease in the amount [...] (NE: 17)
Interpersonal	Modal and mood-marking elements before Subject theme were categorized as interpersonal Theme GMs in the form of it-clauses followed by extraposed subjects were marked as interpersonal Theme, as per Martin (1995, p.244) and Thompson ¹ (2004). Projecting clauses conveying an element of opinion were taken as encoding interpersonal meaning, as per Davies (1997), and Martin and Rose (2007).	<i>Essentially</i> , many railway services are now public [...] (NE:22f) <i>It should be noted that</i> this picture is complicated by [...] (DM: 3f) However, I <i>would suggest that</i> the majority of redistributed funds be taken from [...] (NE: 21)
*As is common in SFL research (Fries, 2009, p.13), elliptical Subjects were sometimes lexically rendered to reveal the true thematic perspective of each clause. These were represented as [=ellipsed item]		
Thematic Progression (from Berry, 1995)	⇓ Constant Theme	Theme is an element that occurred in the previous T-unit's THEME.
	↗ Linear Theme (Digression)	Theme is an element occurring in the previous RHEME.
	↖ Theme Return	A preceding Theme is restored after a digression, or after a derived Theme.
	↘ Derived Theme	The Theme is derived from some aspect of the previous THEME (or RHEME)
To limit subjectivity when classifying thematic progression, the analysis focused on the presence of cohesive devices such as paraphrased elements and semantic inference (Nwogu and Bloor, 1991), or pronouns, lexical repetition, synonyms, substitution, ellipsis, etc. (cf. Halliday and Hasan, 1976).		

¹ Thompson (2004) calls these 'thematized comments'.

Appendix 10: Screenshots of Inputlog's analysis files

Type	#Revisions	P-fits	Chars				Words					
			Duration	Length	Chars without space	Words						
All	750	9659	06:28:58.7	27150	20925	16229	5106					
Normal Production	27	588	05:52:86.2	528	405	318	103					
Delete	240	2247	02:02:98.2	11191	0597	6696	2100					
Insert	375	6824	51:32:73.3	15631	11923	9225	2903					
Revisions												
#Revision	Type	Content	Edits	Start	End	Duration	BeginPos	EndPos	Length	Chars	Chars without space	Words
0	Normal Production	There has been a lot of research into the	59	852073	852078	06:05:205	0	42	42	32	23	9
1	Delete	rd nature	9	852080	852088	06:08:375	42	33	9	6	4	2
0	Normal Production	on-politica	10	852069	852091	06:01:075	33	40	10	0	7	2
2	Delete	em	2	852091	852092	06:00:578	63	41	2	1	1	1
0	Normal Production	rainculturalism will:	21	852062	852111	06:18:282	41	62	21	16	12	5
3	Delete	c	1	852111	852111	06:00:063	62	61	1	0	0	0
0	Normal Production	nd-out-	9	852111	852112	06:01:172	61	70	9	6	4	2
4	Delete	L	2	852113	852113	06:00:187	70	68	2	0	0	1
0	Normal Production	ness	4	852113	852114	06:00:391	68	72	4	2	1	2
5	Delete	in	2	852114	852114	06:00:172	72	70	2	1	1	1
0	Normal Production	daily-interactions. I	22	852114	852164	01:59:613	70	91	21	17	15	3
6	Delete	I	1	852165	852165	06:00:062	91	90	1	0	0	0
0	Normal Production	Although there are,	21	852165	852169	06:03:922	90	110	20	15	12	3
7	Delete	r	2	852169	852169	06:00:140	110	100	2	0	0	0
0	Normal Production	ma	2	852190	852190	06:00:125	108	110	2	1	1	1
0	Delete	am	2	852190	852190	06:00:172	110	100	2	1	1	1
0	Normal Production	many aspects out-	18	852191	852193	06:02:094	108	120	18	13	9	3
0	Delete	in	3	852193	852194	06:00:375	126	124	3	1	0	1
0	Normal Production	ppolime	9	852194	852195	06:01:427	122	132	9	7	6	2

Revision matrix

Revision Matrix

file:///C:/Users/My PC/Desktop/Dropbox/Participant data (PHD)/JD Coded and filtered data/1st Essay - Gender/output/JD_20193311_1_Sum1

Cardiff University Login Neil Bowen | Cardiff U. CLCR Postgraduate S... Thesaurus.com Find... Your ClearScore Job search

5-Notation Analysis

There has been a lot of research into the.]1 | on polit [me]2 | eness and how it aff [c]3 | 3e
 cts out [t.]4 | r [sa]5 | 5 daily interactions. . []6 | 6 Although there are [,]7 | 7 ma8 | 8 many aspects of ut.]9 | 9 polit [me]10 | 10 ness, [i. m.]11 | 11 I am particularly inter [set]12 | 12 e
 sted in looking at face threat [n [gn]13 | 13 ng]14 | 14 ng acts and how they are mitigated [.]15 | 15 . I am also inter [set]16 | 16sted in looking at the people who have [a.]17
 | 17 had major influences in t [eh]18 | 18 his f [rieis]19 | 19 ield of work, namely [Geo]20 | 20 Geoffrey. []21 | 21 Leech, []22 | 22]23 | 23 Erving { . }29 | 30 Goffman and [tho [s. who
 24 | 24 se who have had a stro [mg. in]25 | 25 ng influence.]30 | 31 {the highly influential. }485 | 486 {P}31 | 32 on this are [s]26 | 26 a. Penelope Brown and Ste {Brown [a. d]}33 | 34 { an
 d Levinson have [o.]35 | 35 {had a major. }39 | 40 {contr [buted.]40 | 41 {bution. }41 | 42 to t [is.]37 | 38 {his area of research { and []488 | 489 {t. is th [r]490 | 491 {erefore rare to. }
 491 | 492 | 492 | 493 }489 | 490 {their names a [nd]494 | 495 {r. }496 | 497 {e almost synonymous with politeness }497 | 498 }495 | 496 }493 | 494 }487 | 488 { . and have been very influential
]486 | 487 . I will be looking for e [c]43 | 44 {xamples of face threatening acts and strategies to. [ti]45 | 46 {mitigate them [m.]47 | 48 { . }48 | 49 | 49 }499 | 500 { . and will do
 . s [.]51 | 52 {o by [audio]53 | 54 }498 | 499 {looking at naturally occurring d [ta.]55 | 56 {ata [that.]500 | 501 { . }501 | 502 I have collected { my own data. }502 | 503 through audio { . }57 |
 58 recording a { Welsh family, consisting of a mother, father and [daugh]59 | 60 { a daughter. . I [recorded them]61 | 62 { have reording [.]63 | 64 { s of them during [. m]65 | 66 {
 meal [nes]67 | 68 { mes, wh []69 | 70 { re. t }70 | 71 | 72 { ere they sat together. { a }503 | 504 round [f. the.]73 | 74 { d the dining room table [.]75 | 76 { . and would have the televis
 [oi]77 | 78 { ion on in [t]79 | 80 { the background, w [hich occasionally gave them things to. [s]81 | 82 { occasionally discussing [t.]85 | 86 { something th [st.]87 | 88 { at wa [s. on. teh
 television]89 | 90 { s on [/ .]91 | 92 { . [the.]93 | 94 { The pa [ti]95 | 96 { rticipa [t]97 | 98 { nts were aware of [.]99 | 100 { f their [w]101 | 102 { right [.]103 | 104 { to withdraw and were giv [in
 g. con]105 | 106 { en consent forms to. [i]107 | 108 { sign be [fre.]109 | 110 { fore any recording took place. [. { [in. my.]211 | 212 { In my transcript, the fat [ehr.]213 | 214 { h [r.]215 | 216
 { er. is 'N' . the mot [ehr]217 | 218 { her. is. [h @.]219 | 220 { H' and the daughter is 'J' . }220 | 221 }218 | 219 }216 | 215 }214 | 213 }212 | 211 }110 | 111 }108 | 109 }106 | 105 }102 | 101
 03 }100 | 101 }98 | 99 }96 | 94 }93 }92 | 91 }88 | 89 }87 | 86 | 84 }85 { discuss. }83 | 84 }209 | 210 }82 | 83 }81 }79 }76 | 77 }74 | 75 }72 | 73 }68 | 69 }66 | 67 }64 | 63 }60 | 61 }58 | 59 }57 | 56 | 55 }52 | 51 }50 | 47 }44 | 45 }42 | 43 }38 | 39 }36 | 34 | 35 }32 | 33 phe [[[]113 | 114 { brow }114 | 115 | 115 | 116 { brow }116 | 117 | 117 | 118 { Brown and Lev [on]119 | 120 { [s.]121
 12 }56 | 57 }54 | 55 }52 | 51 }50 | 47 }44 | 45 }42 | 43 }38 | 39 }36 | 34 | 35 }32 | 33 phe [[[]113 | 114 { brow }114 | 115 | 115 | 116 { brow }116 | 117 | 117 | 118 { Brown and Lev [on]119 | 120 { [s.]121
 | 122 { nson's p [oi]123 | 124 { olitness. the [ery]125 | 126 { ry. is based on the notion on 'f [ce]127 | 128 { ace [e.]129 | 130 { [.]131 | 132 { . [they.]133 | 134 { They desc [rbe]135 | 136 { ribe. f
 ace [[[as something that. is.]147 | 148 }149 | 150 { . { in terms of [g]153 | 154 { f }154 | 155 }152 | 153 }150 | 151 { a }148 | 149 associated w [i]137 | 138 { as 'something that [. [c [n.]161 | 162 { a
 n. be. }162 | 163 | 163 | 164 { [is { invested. }169 | 170 | 170 | 171 { [is. }504 | 505 mot [oi] in]165 | 166 { ion }166 | 167 | 167 | 168 { ionally { [in [t]505 | 506 { v }507sted. }171 | 172 }168 | 169 }164 | 165 }
 160 | 161 { t }151 | 152 h. emo [f. ition.]139 | 140 { tio [.]141 | 142 { n [a.]143 | 144 }159 | 160 { and [.]155 | 156 { they. }507 | 508 { belie [f]157 | 158 { ve. it. c. }158 | 159 }156 | 157 can be either { . }172 | 173 | 173 | 174

Revision Matrix	S-Notation Analysis	General Analysis	Search	0	1	0	277703	00:04:37	277812	00:04:37	109	0	COMBINATION KEY
16	keyboard	LSHIFT		0	1	0	277703	00:04:37	277812	00:04:37	109	0	BEFORE SENTENCES
17	keyboard	T		0	1	1	277797	00:04:37	277843	00:04:37	46	94	WITHIN WORDS
18	keyboard	h		1	2	1	277953	00:04:37	278031	00:04:38	78	156	WITHIN WORDS
19	keyboard	e		2	3	2	278078	00:04:38	278172	00:04:38	94	125	WITHIN WORDS
20	keyboard	r		3	4	3	278125	00:04:38	278234	00:04:38	109	47	WITHIN WORDS
21	keyboard	e		4	5	4	278218	00:04:38	278312	00:04:38	94	93	WITHIN WORDS
22	keyboard	SPACE		5	6	5	278562	00:04:38	278609	00:04:38	47	344	AFTER WORDS
23	keyboard	h		6	7	6	278906	00:04:38	278968	00:04:38	62	344	BEFORE WORDS
24	keyboard	a		7	8	7	278984	00:04:38	279078	00:04:39	94	78	WITHIN WORDS
25	keyboard	s		8	9	8	279047	00:04:39	279140	00:04:39	93	63	WITHIN WORDS
26	keyboard	SPACE		9	10	9	279172	00:04:39	279250	00:04:39	78	125	AFTER WORDS
27	keyboard	b		10	11	10	279328	00:04:39	279406	00:04:39	78	156	BEFORE WORDS
28	keyboard	e		11	12	11	279406	00:04:39	279468	00:04:39	62	78	WITHIN WORDS
29	keyboard	e		12	13	12	279515	00:04:39	279593	00:04:39	78	109	WITHIN WORDS
30	keyboard	n		13	14	13	279593	00:04:39	279656	00:04:39	63	78	WITHIN WORDS
31	keyboard	SPACE		14	15	14	279734	00:04:39	279797	00:04:39	63	141	AFTER WORDS
32	keyboard	a		15	16	15	279812	00:04:39	279875	00:04:39	63	78	BEFORE WORDS
33	keyboard	SPACE		16	17	16	279890	00:04:39	279968	00:04:39	78	78	AFTER WORDS
34	keyboard	i		17	18	17	280031	00:04:40	280093	00:04:40	62	141	BEFORE WORDS
35	keyboard	o		18	19	18	280187	00:04:40	280265	00:04:40	78	156	WITHIN WORDS
36	keyboard	t		19	20	19	280281	00:04:40	280343	00:04:40	62	94	WITHIN WORDS
37	keyboard	SPACE		20	21	20	280343	00:04:40	280437	00:04:40	94	62	AFTER WORDS
38	keyboard	o		21	22	21	280484	00:04:40	280593	00:04:40	109	141	BEFORE WORDS
39	keyboard	f		22	23	22	280593	00:04:40	280656	00:04:40	63	109	WITHIN WORDS
40	keyboard	SPACE		23	24	23	280687	00:04:40	280765	00:04:40	78	94	AFTER WORDS
41	keyboard	r		24	25	24	280797	00:04:40	280906	00:04:40	109	110	BEFORE WORDS
42	keyboard	e		25	26	25	280859	00:04:40	280953	00:04:40	94	62	WITHIN WORDS
43	keyboard	s		26	27	26	281093	00:04:41	281172	00:04:41	79	234	WITHIN WORDS
44	keyboard	e		27	28	27	281265	00:04:41	281343	00:04:41	78	172	WITHIN WORDS
45	keyboard	a		28	29	28	281484	00:04:41	281547	00:04:41	63	219	WITHIN WORDS
46	keyboard	r		29	30	29	281640	00:04:41	281703	00:04:41	63	156	WITHIN WORDS
47	keyboard	c		30	31	30	281859	00:04:41	281906	00:04:41	47	219	WITHIN WORDS
48	keyboard	h		31	32	31	281922	00:04:41	281968	00:04:41	46	63	WITHIN WORDS
49	keyboard	SPACE		32	33	32	282078	00:04:42	282156	00:04:42	78	156	AFTER WORDS
50	keyboard	i		33	34	33	282187	00:04:42	282312	00:04:42	125	109	BEFORE WORDS
51	keyboard	n		34	35	34	282281	00:04:42	282390	00:04:42	109	94	WITHIN WORDS
52	keyboard	t		35	36	35	282422	00:04:42	282468	00:04:42	46	141	WITHIN WORDS
53	keyboard	o		36	37	36	282422	00:04:42	282531	00:04:42	109	0	WITHIN WORDS

General analysis file

Appendix 11: Dynamic texts

Dynamic Text for JD1								
Point of departure: THEME →→→→→			←←←←← Development of clause: RHEME				Theme selection	
	Theme	Subject Theme	Rheme	N-Rheme	text	Int.	Pro g	M/ U
	1 st paragraph							
4iX		²⁰⁶ {There	has-been	a-lot-of-research{207}} _{INDB} ¹ {into the} _{PP(1)} on politeness				
1	and	²⁰⁷ {Research on politeness how-it	has looked at ²⁰⁸ {effects has an	how it{208}} _{CP207} affect on{210}} _{CP} our daily interactions ²⁰⁹ {with family and friends{209}} _{CP} .{<→ T3} ²¹⁰ ²⁶ {particularly among-conversations-between-family and-friends-{57}} _{IN, {211}}} _{CP}	-	-		
2i	Although	there	are	many aspects of politeness,	+	-	EC	-
2ii		I	am	particularly interested in looking at face-threatening acts	-	-		
2iii	and how	they	are	mitigate	+	-	↗	-
3		I	am also interested in looking at	⁵⁷ {the-people those} _{IN, IN, IN} who have had major influences in this field of work, namely Geoffery Leech, Erving Goffman and ² {those-who-have-had-a-strong-influence} _{CP} {on-this-area} ²² {the highly influential} _{IN, IN, IN} {23} Penelope Brown and Stephen Levinson.{2}	-	-	↘	-
4i		Brown and Levinson	have ³ {contributed had	a major contribution} _{CP} to this area of research{3}	-	-	↗	-
4iix	²³ {and		have-been	very-influential-{24}} _{IN, IN, IN} . {99<→ T5} _{IN, IN, IN} .				
4ii	and ²⁴ {it-is therefore-rare to}	their names	are	almost synonymous with politeness.{25}} _{CP}	+	-	↓ S	-
5		{sa} I	will be looking for	examples of face-threatening acts and strategies to mitigate ²³⁶ {them-by or reduce the severity of ²³⁷ {TTAs}} _{PP} .{237}} _{IN, IN} them by ²⁵ {and-will-do-so-by}{26}} _{IN, IN, IN} ⁴ {audio} _{CP} {4} {27} looking at naturally occurring data ²⁶ {that {27}} _{CP} I have collected ²¹²⁻²⁷ {my-own-data} _{PP} .{213}}{28} through audio-recording a Welsh family, consisting of a mother, father and a daughter.	-	-	↘	-
6i		I	⁵ {recorded have	them} _{PP} {5} recordings of them during mealtimes,	-	-	↓	-
6ii	where	they	sat	together ²¹³ {around at the dining room}{214}} _{IN, IN, IN} table ²¹⁴ {to eat}{215}} _{CP} .	+	-	↗	-
6iii	and		would have	the television on in the background, ²¹⁵ {occasionally-discussing something-that-was-on}{216}} _{CP}	-	-	↓ E	-
6ivX	⁶ {which		occasionally-gave	them-things-to-discuss} _{PP} .{6} ⁷ {on-the television} _{CP} .{7}				
7i		The participants	were given	consent forms to sign before any recording took place.	-	-		
7ii	and{53}} _{IN, IN, IN}	²⁶ {participants	were aware of	their right to withdraw ²⁵ {from my study}{60}} _{CP}	+	-	↓ E	-
7iiiX	{end		were-given	consent-forms-to-sign-before-any-recording-took-place.}{59}				
8i	{b} In my transcript,	the father ⁶⁰ {in the family}{61}} _{IN, IN, IN}	is	'N',	-	-	↘	+
8ii		the mother	is	'H'	-	-	↘	-
8iii	and	the daughter	is	'J'. {c<→ T15}	+	-	↘	-

2 nd paragraph								
9		Brown and Levinson's politeness theory ⁶¹ {(1987){62}} _{IN,ISA}	is based on	the notion on 'face'.	-	-	-	-
10i		They	describe	face ⁸ {as-something-that-is-associated-with{9}} _{PP} {8} ¹⁰ {(in-terms-of {9}) _{PP} emotion } _{CP10} {9} as 'something that ¹¹ {can-be} _{PP} {11} is emotionally invested (12)	-	-	-	↓ S
10ii	and ²⁸ {they} _{IN,ISA} {29} ³ {believe	it {10}} _{IN,ISA}	can be either	'lost, maintained or enhanced' {8} ¹² {(Brown and Levinson, 1987 in Jaworski & Coupland, 1999:321-322)} _{IN,ISA} .	+	-	-	↗ S
11		They	also define	two separate types of face, positive and negative face.	-	-	-	↘
12i		Positive face	is the idea that	we have the need to be admired or liked, not wanting others to impose on us	-	-	-	↗
12ii	whereas	negative face	is	{ac→T14}.	+	-	-	↗
13		⁴⁴ { Brown and Levinson	²⁰ {give devised} _{PP} formulated}	²¹ {lists} a list {21ii}} _{IN,ISA} of face-threatening acts with positive politeness, and {a list of} face threatening acts with negative politeness.	-	-	-	↘
14ix	⁴⁵ {While	I	found	a few examples of positive politeness				
14iix	I	I	didn't	find any negative politeness strategies: _{IN,ISA} CP {h→T32}				
14	{ac} In the data I collected,	I	found	^{21c} {good {22 in T3}} _{IN,ISA} examples of positive politeness ¹³ {#} _{CP} {13} {ad→T15}{40}	-	-	-	+
15i	²² {For example,} _{IN,ISA} {30} {ad} in line 11, {b→T3}	{c} N	⁶² {makes jokes	a joke{63}} _{IN,ISA} about ⁶³ {the-fact-that 177}{# is{64}} _{PP} doing-on-English J's{178}} _{IN,ISA} 177 degree	+	-	-	+
15ii	and implies that	it	won't be	much use to her when she is looking for a job.	+	-	-	↗
16i		J	doesn't seem to be	offended by this,	-	-	-	↘
16ii	as	she	laughs	it off	+	-	-	↓ S
16iii	and ⁶⁴ {then {65}} _{IN,ISA} ²³² {although However{239}} _{IN,ISA} this could be because		proceeds to mock	his 'Barcelonian' accent, by calling it French . {c→T17} ³⁰ {t	+	-	-	↓ E
16iv		she	genuinely didn't know	what the accent was. _{IN,ISA} {31}	+	+	-	↗
17	Both J and H don't seem to understand that	N	is referring to	the character ^{14c} {in-the-British 'Manuel'} _{PP} {14} in the British sitcom 'Fawlty Towers'.	-	+	-	-
18	N then feels that	³¹ {then he	^{defends} has to explain _{IN,ISA} 31	himself ^{14c} {by} _{PP} to himself and{32} clear up any confusion, stating that Manuel learnt English ³² {in the programme{33}} _{PP} .	-	-	-	↓ S
19	⁶² {suggesting implying} ²¹⁷ {This suggests implies indicates that {218} N feels that{66}} _{IN,ISA}	J's degree	is	her simply learning ¹⁷⁸ {the-English a language which that {179 in T25}} _{IN,ISA} she is obviously already fluent in. {d→T25}	+	-	-	↓
20i	⁶⁶ {By doing so,	he	implies ³³ {implying {67}} _{IN,ISA} that	her degree is quite pointless} _{IN,ISA} 33 {34 in T26}	-	-	-	↓ S
20ii		which	⁶⁷ {is} _{IN,ISA} threatens	J's ⁶⁸ {face{68} ⁶⁹ {politeness{69}} _{PP} ⁷⁰ {positive} _{CP} face {70}} _{CP}	-	-	-	↗
22i	It could be argued that	J's ⁷¹ {want-to-be} _{IN,ISA} {71} need to be admired	is	particularly prominent here	-	+	-	-
22ii	as	she	would be seeking	¹³³ {134} {hope-her-father-would} _{IN,ISA} 134 {135} some sort of {136 in T28}} _{PP} 133 acceptance from her father., ²³⁹ {wanting to know that he is proud of her{240}} _{IN,ISA}	+	-	-	↓ S

22iii	{however	when she does}{64 in 73}						
23i	{d} Although	N	is ¹³⁶ {mocking insulting}{137 in 129}}	J.			+	- ? -
23ii		she	doesn't	¹⁵ {really} _{pp} {15} respond other than laughing and mocking his accent.			-	- ↘ S -
24i	³⁶ {This could imply that	she	was	offended{36} _{PA37233}			-	+ ↓ S -
24ii	and		doesn't know	how else to respond.			+	- ↓ E -
25	³⁶ {However,	³⁷ {this	is unlikely to be	the case because of ³⁸ im{38} _{IN28} the nuclear family set-up ³⁹ { .			+	- ↘ -
26i		£ T{39} _{CP} hey all	¹⁷ {share have} _{ca} {17}	a close relationship ³⁹ {with each other{40} _{CR}			-	- - - -
26ii	and	this type of mockery	is	something that happens often so is ²¹⁸ {taken-on-the-chin ignored{219} _{IN24} } _{QA77233} : ¹ {37}			+	- - - -
26b		H	seems to	almost side with J by trying to defend her by mocking N's accent pointing out that N's accent wasn't a very good one. {E↔T34}				
27i		{f} N ⁴⁰ {although doesn't say much}{41 in 730} _{IN28}	tries to defend	himself by explaining who he was impersonating.			-	- - - -
28X		³⁴ {his	use	by using the ³⁵ of-the{35} _{IN24} term 'mun'				
27i		²⁴⁰ {which	is	Welsh-slang ¹⁹ { for-'man' {241} _{IN28} } often used for emphasis ²⁴⁷ {in Wales			-	- ↘ S -
28i		This _{IN28} {g↔T13} {248} _{IN28}	¹⁵ {implies} _{pp} {18} suggest ²⁴⁸ {s ing s-{249} _{CR}	he ¹⁷³ {is-trying-to-imply-that believes that{↔T70} _{IN24} } his impression was good			-	+ ↘ -
28ii	and	it	was	obvious who he was trying to be.{19}			+	- - - -
29i		H, ²¹⁵ {although {220} _{IN24}	doesn't say	much ¹³⁷ {during this interaction{138 in 739} _{IN24}			-	- - - -
29ii	⁷² {else} _{pp} {72} however when she does,{73}	{r} {it	is because	N has asked her to support what he has said, in line 15.			+	- ? +
30i	However,	she	does	the opposite			+	- ↘ -
30ii	and{149 in 732} _{IN24}		seems to	almost 'side' with J, trying to defend her by pointing out that N's accent wasn't a very good one			+	- ↓ E -
30iii	⁴¹ {as	it	was	unrecognisable{42} _{IN24}			+	- ↘ S -
24ix	³⁶ {This could ¹⁵ {be implied imply-the} _{pp} {15}	she	was	offended			-	+ ↓ S -
24iix	and		doesn't know	how-to-respond, _{CR733}			+	- ↓ E -
22ix	¹⁶ {or} _{pp} {16}. However, in the nuclear-family setup	they all	¹⁷ {share have} _{pp} {17}	a-close-relationship			+	- ↘ -
22iix	and	this type of mockery	is	something that happens often so is taken on the chin. _{CR733}			+	- - - -
31i	{e} Although	this interaction	could be interpreted as	awkward because of N's face-threatening comment,			+	- ↘ -
31ii		the tone of voice of all three	is	lighthearted			-	- - - -
31iii	and the laughter suggests	²⁴¹ {it	is	only{242} _{IN24} only} ⁴² {lighthearted playful {43} _{IN24} } banter that is common in this household {f↔T27}			+	- - - -
31iv	⁴³ {and		isn't intended to be	malicious. _{IN243} {g↔T14}			+	- ↓ E -

* After footnote 1, 25-26i was deleted and reinserted twice in a row.

3 rd paragraph								
32x		⁴⁴ {(a) Brown and Levinson}	²⁰ {give-o}pp{20} devised	²¹ {lists e-list}INISS of face-threatening acts with positive politeness, and {a-list-of} face-threatening acts with negative politeness.	-	-	?	-
32ix	While	+	found	a few examples of positive politeness				
32iix		I	didn't	find any negative politeness strategies{21}C1784			↓	
32i		{h} Another example of a face-threatening act with positive politeness	is	in line 21	-	-	-	-
32ii	where	N	makes	a command	+	-	-	-
32iii	but	[= N]	juxtaposes	it with a pet name for J.	+	-	↓	E
33i		⁷³ {The A{74}}INISA ⁷³ {n order or{76}}CP command	is	threatening to the hearer, J ⁷⁴ {s negative face. {75}}CP	-	-	?	-
33ii	but	N	tries to ⁷⁶ {mitigate	it by us e ing{77}}INISATC a pet name ⁷⁷ {to soften ⁸² {the his{93}}INIS imposition{78}}PP ⁸⁰ {instead-of ⁷⁸ {the traditional 'please' or simply using}PP her actual name {81}}INISS{I <- 126}	+	-	↪	-
34		⁷⁹ {By- U{80}}INISS using a pet name, {instead of her ⁸³ {actual{94}}INIS name, ⁸¹ {or simply ⁸⁶ {just {95}}PP saying 'please', {82}}INISA	suggests	a close bond ⁸⁵ {between the two{96 in 101}}CP	-	-	↪	-
35i	²²⁰ {and	It{221}}INISA	acts as	an in-group identity marker.	-	-	↓	S
35ii	⁸² {one something {83}}INISS that	Brown and Levinson	list as	an FTA with positive politeness. {79}	+	-	-	-
36i	{i}In ²⁴² {e this{243}}INISA {a} family set-up.	there	doesn't seem to be	much of a need for mitigating face-threatening acts	-	-	EC	+
36ii	as	⁴⁷ {they}PP{47} all family members	seem to ⁸³ {be have	on-the-same-page a good understanding of each other{84}}INISS	+	-	-	-
37i	⁴⁷ {However}PP {47a} Also, ⁹⁶ {in this instance ⁸⁴ {N being-the-parent and-J-being-the-child, regardless of age}INISA	the parent	⁴⁸ {suggests implies}PP is making	the request}INISAC	+	-	-	+
37ii	⁸⁷ {N-being-the-parent-and-J-being-the-child, regardless of age}PP{97} and it could be argued that {98}	there	is	no need for the parent to be polite,	+	+	↓	-
37iii	because	he ⁹⁸ {/she ²²¹ {being the-parent{222}}INISA ¹¹⁶ {and-J-being-the-child, regardless of age{117}}INISS	means means is}	there-is-less-of-a-need-for-mitigation-on-his-part} ⁹⁹ {- in charge	+	-	↓	-
38x	The}PP{99} ¹⁰⁰{and then}PP{101} {if J were ¹⁰²{to}CP{102} ¹³⁶{make the same command {139}}INISA, it would be ¹³⁵{much{140}}PP more likely that	she	would-be-able to{100} ⁹⁹ {without-using {j <- 143}}INISA{101}}CP ¹⁰⁰ would need to use	some form of {103} mitigation.				

39x	¹⁰⁴ {because of t F (105)} _{CP} he power relationship as it were ¹⁰³ {suggests that	N	N is able to make implies	a command easier than J would be able to ⁴⁹ {N-ean more or less say what he likes} _{CP} {49} is-able-to ³⁰ {make a command(s2)} _{CP} eas ³³ {fer ily and(s4)} _{CP} {48} tha ⁴⁰ {t n it would be ³⁴ {more difficult (55)} _{CP} for(49)} _{CP} J to ³⁵ {mak ³² {ing e}(53)} a-command do the same(104)} _{CP} {46}{50} {51 in 71}} _{CP} there is less need for ²²³ {mitigation} _{CP} (223) N to mitigate what he says.				
38		²²² {the This} power relationships	means}					
39	¹⁰¹ {if J were ¹⁰² {to} } _{CP} {139}} _{CP} it would be ¹³⁹ {much (140)} _{CP} more likely that	she	would need to use	some form of mitigation.	-	+	TE	+
4 th paragraph								
40i		{j} Holmes and Stubbe ²⁰ {s (2003)}	carried out}	research into ⁸⁶ {power and(87)} _{CP} politeness in the workplace (86).	-	-	-	-
40ii	¹⁰⁵ {and this		looked at could-be	¹⁰⁵ {strategies to deal with (110)} _{CP} power relationships. applied-here} (106)	+	-	E	-
41i	Although	a manager and ²⁴³ {his(244)} _{CP} workforce ⁸⁸ {relationship} _{CP}	are	different in many ways to a parent-child relationship. (88)	+	-		
41ii		¹⁵² {they-both their research	could-still-be can be	⁸⁹ {and-assessed} _{CP} in-a-similar way-(89) useful to look at ¹⁵³ {relationships that} (183) ²²⁴ {all-kinds-of (184)} _{CP} hierachy within relationships.(184)	-	-	-	-
42	Holmes and Stubbe state that	there	are certain strategies that can be	used to make power relationships ⁷⁵ {less} _{CP} {75} more harmonious, such as mitigating directives or orders.	-	-		
43		¹⁰⁶ {Examples of (107)} _{CP} ways to do this ²²⁵ {in-my-date (108)} _{CP} {230}} _{CP}	are	justification or hesitations ¹⁰⁷ {for example(108)} _{CP} .	-	-		
44	⁹¹ {However, as As} _{CP} previously mentioned (91), because of the close ¹⁴⁰ {family bond in the family recorded, (141)} _{CP}	there	is	¹⁰⁸ {not-much less of s(109)} _{CP} need for such devices. (77)	+	-	EC	+
45ix		²²³ {this	could-be ¹⁸⁵ {because} _{CP} {185} purely-down-to	the-relationships;				
45iix		a manager	would-have-to make-oommands	by-using-face-saving-strategies	-	-	?	-
		A manager	would have to mitiaqate	face-threatening acts.(226)} _{CP}				
45ii	but	there	is	less need for a parent to do the same. (186)	+	-	EC	-
46	²²⁶ {However,(227)} _{CP} Brown and Levinson ²²⁷ {also(228)} _{CP} argue that	generic forms such as 'mate', 'buddy', 'pal'	help to ¹⁸⁶ {soften soften(187)} _{CP}	face-threatening acts.	+	+	-	-
47	They ²²⁸ {also(229)} _{CP} state that	these in-group markers, when used to address children,	'turn	a command into a request' ¹⁸⁷ { making ¹⁸⁸ {the-oommand} _{CP} less of an imposition on the hearer} (189)	-	-	-	-
48x		²⁴⁴ {which	would-also-help-to explain	why-N-uses-a-pet-name-(245)} _{CP}				

5 th paragraph									
48		¹¹⁸ {Brown and Levinson}	built	¹⁴² {their theory{144}} _{INSA118} ¹¹⁸ {on Goffman 's work {119}} _{INSA118} ¹⁴¹ {who ¹¹² {1967}} _{INSA118} {142}} _{INSA118}	-	-	-	-	
49i		¹¹¹ {Leech's-politeness-principle} _{CP} {111} ¹⁴⁴ { ¹¹³ { ¹⁴² {Goffman{143}} _{INSA142} He{145}} _{INSA144} {118}} _{INSA117} {120}} _{INSA117}	was (112) also interested in	the notion of face {n}	-	-	↗	-	
49ii	¹⁴⁵ {and{146}} _{CP} stated that	there	are	¹²⁴ {two {125 in 126}} _{INSA} face-management strategies; the avoidance process and the corrective process.	+	-	EC	-	
50x		¹²⁵ { ¹¹³ {The-avoidance-process-as ¹¹³ {# the name{114}} _{CP} suggests;	is	avoiding ¹¹⁴ {threats-that-are-likely-to-damage-one's-face{113} face-threatening-goes-by-using-defensive-and-protective-measures} _{CP} {114}{190}} _{INSA114}					
50i	The corrective process on the other hand is ¹¹⁵ {e} _{INSA} (115) According to Goffman, 'when a face has been threatened,	face-work	must be	done' _{INSA} {116} ¹¹⁷ {(Goffman, 1987 in Jaworski & Coupland, 1999:315). - {118}} _{CP}	-	-	-	+	
50ii	{n} whether	¹²⁴ {it	is{126}} _{INSA}	by the one who carried out the face-threatening act, the one whose face is being threatened or by an observer.	+	-	↓ S	-	
51		This	could help to explain	H's ¹²⁰ {part contribution} _{CP} {120} to the conversation in line 16.	-	-	-	-	
52	¹⁴⁵ {As an observer, and as{150}} _{INSA} previously mentioned,	she	could be ¹²⁸ {viewed as{129}} _{INSA} taking	J's 'side', by mocking N.	-	-	↗	+	
53i	¹⁰³ {Whether if} _{CP}	this	is	the case	-	+	↓	+	
53ii	or ¹²⁰ {However it could be that} _{INSA}	¹²⁷ { ¹²⁶ {she she	states simply-wants	that-for-no-reason,{127}}_{INSA126} to-contribute-to-the-conversation,{128}}_{CP}{127} ¹⁴⁸{as-she-hasn't-had-much-opportunity-to-yet{149}}_{INSA} {r<> 125} {152}}_{INSA127}					
53ii	¹⁴⁷ { ¹⁴⁶ {and-could-be-viewed as{147}} it could be assumed that	she	is{148}} _{CP} {147} help ¹²⁹ {# ing{130}} _{INSA} to	neutralise the conversation,					
53iv	and ensure	it	is still	lighthearted.					
6 th paragraph									
54	¹³⁰ { ¹³¹ {As-well-as building-on Goffman's work{132}} _{INSA131} {191}} _{INSA130} {S<> 137}} _{INSA134}	Brown and Levinson	also ¹³² {built developed	their ²⁴⁵ {argument theory{246}} _{INSA} based {q<> 134}} _{CP} {132} on Grice's maxims ¹⁵² {-as-did . {153}} _{CP} ¹³³ {, as did} _{INSA133} Geoffrey Leech.	-	-	-	-	
55x		Geoffrey Leech	¹³⁴ { ¹³³ {also-built-on ¹³⁵ {also-did	Grice's maxims-and{154}} _{INSA133} {his{155}} _{CP} {134}/ _{INSA133}					
55i		¹³⁴ {He{S<> 137} Leech {192}} _{INSA}	devised	six interpersonal maxims	-	-	↗	-	
55ii		that	were built on	Grice's co-operative principle (1975).	-	-	↓ S	-	
56i		Leech's maxims	focused on	cost and benefit to the hearer and ¹²¹ {the} _{CP} speaker ² .	-	-	↓	-	
56ii	{q} and		help to explain	why people continue to be polite.	+	-	↓ E	-	

² End of section 2.

57X	¹³³ {However,	Leech's politeness maxims	are not	set rules, just _{FP} {133}{134 in 122}				
57	{s} In line 33,	N's command	is	an unusual one.	-	-	-	+
58X		{He	is	fulfilling ¹³⁶ {the} _{FP} {156} Leech's <i>taut maxim</i> ¹³³ { ¹⁵⁷ {by maximising the benefit} _{FP} {193}} _{NISA} {157} where the focus is on the hearer}				
58		He	minimizes	the cost on hearer's H and J, by making an offer and not allowing them to refuse.	-	-	↓	-
59	However,	this	is	contradicted by the use of the expletive 'Christ sake' showing frustration.	+	-	↘	-
60i		The frustration	seems to be	mirrored in H and J's ¹³⁹ { ¹⁵² { <i>immediate</i> } _{NISA} {193}}{200}} _{NISB} responses,	-	-	↗	-
60ii		which	are	¹³⁹ { <i>blunt</i> <i>blunt</i> {160}} _{NISB} and direct.	-	-	↗	-
61i		There	isn't	any mitigation ¹³⁷ { <i>here</i> <i>used</i> ²⁰¹ { <i>by either</i> { ¹⁶⁷ } _{CP} ¹³⁶ { <i>down</i> {198}}{199}} _{CP}	-	-	EC	-
61ii	and	¹³⁸ { <i>all</i> } _{FP} ²⁰⁰ { <i>the</i> } _{FP} {158} ²⁰¹ { <i>their</i> {201}} _{NISA} responses	are	quick ¹³⁵ { <i>and</i> {159} ¹⁶⁰ { <i>frank</i> ¹³⁴ { <i> candid</i> <i>direct</i> {195}} _{NISA} } _{FP} {155}	+	-	↘	-
62i		There	is	a ²³⁰ { <i>relief</i> <i>let-up</i> {231}} _{NISA} { <i>break</i> } from the slightly tense atmosphere ²³¹ { <i>about how she will eat the last piece of bacon and as soon as she finishes</i> as soon as she has finished eating the bacon} _{CP} . N will say that he wanted to eat himself.	-	-	EC	-
62ii	when, in line 43,	H	²³² { <i>makes a joke</i> <i>jokes that</i> } _{CP}	+	-	-	+	
63i	As the topic isn't a serious one,	the family	move on with	their conversation	+	-	-	+
63ii	and	[= the family]	are not at all fased by	what may seem an uncomfortable situation to an outsider.	+	-	↓	-
64i	Then in line 87,	N	refers back to	the previous conversation about the bacon once he realises H has ²⁴⁶ { <i>actually</i> {247}} _{NISA} , eaten it	+	-	-	+
64ii	and		declares that	he did in fact actually want some.	-	-	↓	-
65		Line 87	²⁴⁹ { ¹⁶² { <i>really</i> {163}} _{NISA} {250}} _{NISA} is	quite face-threatening to H, particularly because of the expletive 'fucking'. { ¹⁶⁶ }	-	-	↘	-
66i	Although	¹⁶³ { <i>This</i> this	is is	<i>quite a</i> _{FP} {163} a strong word to use and suggests anger,	+	-	↗	-
66ii		the tone of voice	²³³ { <i>is</i> isn't	<i>gentle</i> <i>an angry one</i> {234}} _{NISA}	-	-	-	-
66iii	¹⁶⁴ { <i>Again, to an outsider</i> and {164} ¹⁶⁵ { <i>although</i>	<i>this</i> <i>this</i>	<i>would</i> {165}} _{NISA} ¹⁶⁴ ¹⁶¹ { <i>appear</i> } _{FP} {161} may, again, {166}} _{CP} ¹⁶³ come across as	an awkward and uncomfortable situation ¹⁶⁷ { <i>to outsiders</i> }.	+	-	-	-
66iv	¹⁶⁶ { <i>but knowing the family</i>	it	is again	<i>nothing too serious</i> {167}} _{NISA} ¹⁶⁸ { <i>it is not a serious</i> } _{FP} {168} N isn't serious { ¹⁷⁴ }.	-	-	-	-
67	²³⁴ { ¹⁷¹ { <i>Overall</i> { ¹⁷³ } _{NISA} {235}} _{NISA}	This	is shown through	J's laughter;	-	-	↘	-
68		she	knows	he is joking.	-	-	↗	-
69	However,	H's ²⁰² { <i>slightly</i> {203}} _{CP} frustrated tone of voice	suggests that	she may be slightly annoyed. {202}	+	-	?	-

70	7 th paragraph ²⁰⁵ {Throughout a lot of the conversation in my data,	N	is	the main speaker.	-	-	-	+
71		This	could be described with	a heirachal view;	-	-	↙	-
72i		a view	that notes	N as the head of the family	-	-	↗	-
72ii	and therefore		holds	the floor ²¹⁶ {a-considerable amount{217}} _{INSA} during conversation. } _{DATA} {206}	+	-	?	-
73i	²⁰³ {Overall	there	is	a lack of hedging in my data,	-	-	EC	-
73ii	although	laughter	is often	used for mitigation.	+	-	-	-
73ix	{o} Overall	there	is	noticeable a lack of hedging and mitigation in my data.	-	-	EC	-
73iix		This -I feel;	¹²² {is} _{FP} is due to	the close knit family being comfortable with each other enough ¹²³ {and not do not to {p}} _{FP} have to worry about offending each other {123} {p} with passing oomments in casual everyday conversation. } {124 in 149}				
73iiix	but	laughter	is often used for	mitigation. {204}} _{INSA}	+	-	-	-
74i		²⁰⁴ {My data there	provided were{205}} _{INSA}	good examples of face-threatening acts with positive politeness that supported Brown and Levinson's politeness theory ¹⁷⁰ {, as well as commands that fulfilled Leech's taxt maxim}. _{INSA}	-	-	-	-
74ix	¹⁶⁵ {-however	+	did find{170}} _{CP} {169}					
75	This {171 in 187} shows that	the various approaches to ¹⁷² {politeness and mitigating} _{FP} {172} face ¹⁷³ {and face threatening acts and mitigation} _{CP} ²³⁰ {although but but may} _{INSA} sometimes overlap,	¹⁷⁴ {help to{175}} _{CP} provide	¹⁷³ {e} _{FP} {173} good {174} analysis of face-threatening acts and mitigation.	-	+	-	-
76ix	²⁰⁵ {Throughout a lot of the conversation in	↔	is	the main speaker.				
77ix		This	could be described with	a heirachal view;				
77iix		a view	that notes	N as the head of the family				
77iiix	and therefore		holds	the floor ¹⁸¹ {when{182}} _{FP} {181} a considerable amount during conversation. } _{CP}	+	-	?	-
Total Theme selection (75 T-units)								

Dynamic text: JD2							
Point of departure: THEME *****		***** Development of clause: RHEME			Theme selection		
Theme	Subject Theme	Rheme	N-Rheme	text	Int	Pres	MU
1st paragraph							
1	²⁴⁸ {argue claim {250}} _{NSA} that	early language socialization	²⁵⁶ {certainly ²⁵⁷ {undoubtedly}{287}} _{NSA} ²⁵⁸ {definitely}{289}} _{NSA} certainly{290}} _{CP}	a child's chances of success at school.	+	+	- -
2i	²⁵⁴ {and}	† T {295}} _{NSA} his	is due to	class and cultural differences	-	-	↙ S -
2ii	²³⁰ {meaning ²³⁵ {which {mean when- ³⁰² {mixed}} _{CP} {250-} faced-with different-cultures and-classes ²³⁰ {means might make {291}} _{NSA} meaning{296}} _{NSA}	Children ²⁴² {of from}} _{CP} ²⁴⁵ {different ⁴⁷ {various}{246}} _{CP} certain{348}} _{CP} classes {245-} and-cultures-when mixed- ²⁴⁶ {together with other{247}} _{CP} {classes and-cultures{249}} _{CP} {<→ T20-}} _{NSA} some ²⁵⁷ {minority children{288}} _{NSA} {286}} _{NSA} {251}	²⁹¹ {may may{292}} _{CP} find it difficult to	²³⁶ {adjust ²⁹⁷ {adapt}} _{CP} {297} ²³⁶ {cope{298}} _{CP} adapt when mixed ²³⁵ {with-children-from other-classes-and-different cultures-to-their-own}{299}} _{CP} with other children {300}} _{CP} FP ²⁹¹ {to {252}} _{NSA} {245b} ²³⁵ {when-they start-school-}} _{CP} {294}} _{CP} {293}	+	-	- -
2nd paragraph							
3	¹³⁴ At home,	children	are brought up learning	²²² {the{223}} _{NSA} norms of the culture they live in from their parents or caregivers.	-	-	↓ +
4		There	is ²³⁶ {always}{257}} _{NSA}	an aspect of nature vs. nurture ¹ {in-the-} _{CP} {1};	-	-	EC -
5i		genes	are	¹³ {fundamentally ¹⁶² {fundamentally}} _{NSA} {<→ T8-} important in determining basic intelligence and ²³⁴ {gene's}{255}} _{NSA} character ²³³ {(nature-){256}} _{CP}	-	-	- -
5ii	but	socialization and ⁵² {gene's the{s3}} _{CP} environment ⁵³ {a child is brought up in {s4}} _{CP}	is also	⁵⁰ {vitality{s1}} _{CP} important ² {in-}{2} ⁵⁴ {with-an-emphasis-on-the social-aspect{s5}} _{CP} ⁴³ {in ⁵¹ {determining{s0}} _{CP} shaping ⁵² {the-child's}{s2}} _{CP} a child's mind{s6}} _{CP}	+	-	- -
6		Formal education	is	a subset of socialization; {14}	-	-	- -
7i		school	is	where we learn to write for example- , something ²³⁵ {that{259}} _{CP} we would ²³⁹ {not{260}} _{CP} learn without being taught,	-	-	- -
8ix		²⁵⁷ {writing	isn't	something-that's-innote			
8iix	²⁵⁸ {and}{258}} _{NSA} something	we	would	³ {pick-up-} _{CP} {3} team ⁴ {from-} _{CP} {4} without-being-taught {<→ T8-}			
5c7ii	⁵⁶ {although	this	could be done	²²³ {at-home{224}} _{CP} ²⁵⁸ through home-schooling ²²³ {for-example for-example for example{171}} _{NSA} . {57 <→ T11}}	+	-	↙ S -
8i		Early language socialization	⁵ {moong is}} _{CP} {5}	where we learn the norms about language use,	-	-	- -
8ii	¹⁷² {things such as{173}} _{CP}	how ⁶ {and when it is appropriate {<→ T10}} _{CP}	to say	please and thank you ¹⁷¹ {for example for-example for example}} _{NSA} . {6}	+	-	↙ -
9	²³⁰ {and- } f children receive different types of language socialisation ²⁶⁰ {at home, {261}} _{NSA} for whatever reason,	²⁵³ {they}} _{CP} {253} it	may affect	them when they start school. {254}} _{NSA}	-	-	TE +

3 rd paragraph								
10		There	are	basic agencies of socialization such as family, peer groups, school and, later on, work.	-	-	EC	-
11	According to Bernstein ³⁰³ {(4970-448)} in Montgomery 1995, {304-5} _{IN,CP}	²⁶¹ {the links between these agencies and the agencies themselves these agencies and the links between them	are are	⁷ {arrangements of social} _{FP} {7} {vitality} ²⁷ {important crucial} {58} _{IN,SA} crucial {262} _{IN,SA,CP}	-	-	↺	+
12i	Bernstein also claims that	²⁸ {the {59}} _{IN,SA} social class ²⁹ {we are brought up in {60}} _{CP}	has	the biggest influence on socialization	-	+	-	-
12ii	but states that	this	⁵ {differs is dependent on according to	⁶⁰ {school{j<T13}} _{IN,SA} subject{8} ³ {is} _{CP}	+	-	?	-
13	²¹² {For example, H {213}} _{IN,SA} ¹⁷³ {e found that {174}} _{IN,SA}	⁶⁴ there ¹ {language ¹⁰ {based related} _{FP} subjects}{10}	is have	a significant difference in ⁶⁵ {the children's abilities of children}{64} _{FP} ⁶¹ {in}{61} within {62} language related subjects because ²⁰⁷ {of{308}} _{IN,CP} ⁶³ {very significant difference}{63} _{CP} ⁶⁴ {because}{65}{<T14}} _{IN,CP} ²⁶² {nurture 's has an effect the way you are brought up}{263} _{IN,SA}	-	-	EC	-
14i	⁴¹ {G When we c)compare this with subjects such as maths, {11}	there	is	less difference in pupil's abilities ¹² {-	-	-	EC	+
14ii	⁴¹ {This is} _{CP} {<T12} because	maths	is	based on basic intelligence {12}.	+	-	↺	-
4 th paragraph								
15		Bernstein's speech codes	are	influential in looking at early language socialization.	-	-	-	-
16		⁶⁵ He	defined the codes as	restricted and elaborated.	-	-	↺	-
17		The restricted code	¹⁴ {assumes	^{14b} {the} _{FP} {14b} all speakers ¹³ {have a share d} _{FP} {15} understanding on a topic of conversation } _{IN,CP}	-	-	↺	-
18X		¹⁷ {H{18}} _{CP} {16}	¹⁶ {depends on	¹⁶ {context to bring out meaning and relies on a shared understanding} _{CP} {17}	-	-	-	-
18		The elaborated code however {14}	¹⁵ {is	more explicit. } _{IN,SA}	-	-	-	-
19	Bernstein claimed that while the middle-class were likely to have access to both codes,	¹⁵ {some sections of} _{CP} the working-class	were {19} likely to have	¹²⁶ {explicit}{127} _{IN,CP} access only to the ²⁴ {restricted restricted}{25} _{IN,CP} code'.	-	+	-	+
20		Bernstein	conducted	an experiment using five year old ¹⁷⁴ {LWG lower working-class and MG middle-class}{175} _{IN,SA} children who were given pictures ²⁶² {which they then had to}{266} _{IN,CP} ⁶⁵ {make a story out of create a } _{CP} ²¹³ {story narrative}{<T17}} _{IN,SA} from{66} _{IN,CP}	-	-	↺	-
21i		The ²⁰ {MG middle-class children} _{CP} {21}	were	²²⁴ {more}{225} _{IN,SA} specific with what they were referring to ²⁶ {in their stories,}{67} _{IN,CP}	-	-	↺	-

¹ Gcta moved into N-Rheme by the insertion of G

21ii	²⁰⁶ {whereas while {267}} _{NSA}	the ²¹ {wGM {20} working-class children} _{CP}	were	¹⁷³ {more {176}} _{NSA} ²⁵ {vague vague {<T23}} _{NSA} ; ²² {needing the picture} _{PP} {22} ³¹³ {relying on the pictures for context {315}} _{NSA}	+	-	↗	-
21iii		a listener	would need to see	the pictures for ⁶⁷ {the in ir stories {68}} _{NSA} to make sense.	-	-	-	-
22X	²⁶ {#	they	were-to-tell	the story to someone else {E <T23}} _{CP} {<T21}}				
22	¹⁷⁷ {it could be argued that This could mean that} _{NSA}	working-class children	are at	a disadvantage because of these codes.	-	-	↘	-
23	If a child is told that he/she is ¹⁷⁶ {not not {177}} _{NSA} good at a language ¹²⁷ {of language related subjects, {128}} _{NSA}	the ²³ {y} _{PP} {24} child	may give up	trying to ²²⁵ {do-better improve {226}} _{NSA}	-	-	↘	+
24i	¹⁷⁵ {it could be argued that {<T24:}} _{NSA} ⁴⁶ {seems seems} it is {69}} _{NSA}	a self-fulfilling prophecy	that is	difficult to overcome {24}	-	-	TE	-
24ii	¹⁷³ {meaning that and {268:}} _{NSA}		is	detrimental to {180}} _{CP} working-class children. {179}	-	-	↘ E	-
5 th paragraph								
25		Heath's ³⁶ {(1983)} _{NSA} {5 <T27} ²⁷ {ethnographic {research} study {29}} _{PP} {28} ³⁰ {conducted-a study- {30}} _{PP} {31} on three communities in ³² {the {33}} _{PP} south-eastern United States {26}, ³¹⁶ {levels-of literacy} _{NSA} each with ³³ {completely {34}} _{CP} different language socialization, {32} ³⁴ {27}	has shown that	³⁴ {different ways of being brought up at home can have an affect on how well a child does at school how children are brought up at home can affect on how well a child does in school {<T27}} _{CP}	-	-	-	-
26		The three different communities she looked at	²⁰⁶ {were {227}} _{NSA}	¹⁸⁰ {Maintown, which was a white middle-class community called Maintown {181}} _{NSA} ; ¹⁸¹ {Roadville, which was a white working-class community called Roadville {182}} _{PP} , and ¹⁸² {Trackton, which was a black working-class {41} community called Trackton {183}} _{PP} .	-	-	↘	-
27		Heath ³⁵ {says that parents are} _{CP} {35} looked at	are	literacy events {36} ⁴¹ {within these communities; {42}} _{NSA} . 'occasions in which written language is integral to the nature of participants' ³⁹ {interactions interactions {40}} _{NSA} and their ³⁷ {imperative process and} _{PP} {37} interpretive processes and strategies' ⁴² {(Heath 1983 ³⁰² {in Schieffelin, Ochs and Irvine: 97 {303}} _{NSA}) {<T29}} _{CP} .	-	-	↘	-
28	For children who are yet to start	literacy events, according to Heath,	³⁸ {one are	things like _{CP} {38} things such as cereal boxes, stop signs and	-	-	↗	+

	mainstream education,			most ⁴⁵ { notably notably {<=>125}} _{NSA} , bedtime stories.(39)			
29i		She ⁴⁴ { found-that-in Maintown-the-fanion-of reading	was _{CP} looked at	⁴³ { primarily {44}} _{CP} {43} the functions of reading for each community	-	-	↘ -
29ii	and in what ways	⁶⁹ { they children {70}} _{NSA}	were	encouraged by their parents or caregivers.	+	-	- -
30i	In Roadville,	she [= Heath]	found that	⁴⁵ { parents would encourage children were-encouraged } _{CP} to tell a story,	-	-	↘ +
30ii	but{45}		^{265a} { would ⁷¹ { constantly often {<=>123}} _{CP}	interrupt ed {268b}} _{NSA} ⁷⁰ { by correcting to correct {71}} _{NSA} the child.	+	-	↘ E -
31i	In Trackton,	She	found that	the children had creative skills ²⁶ { in story telling } _{CP}	-	-	↘ +
31ii	but	there	had was ²⁶⁵ { often {270}} _{CP}	little {47}} _{CP} {46} little connection to the real world.	+	-	EC -
32	⁴⁷ { According-to Gemstein	this ¹²³ { This These findings This observation {184}} _{NSA}	would-mean t {48}} _{CP}	the literacy practices learnt by children in the working-class communities{47} ⁴⁵ { did not prepare them well for mainstream literacy practices in school.{49}} _{CP}	-	-	↘ S -
6 th paragraph							
33	⁷² { As well as looking at the differences in class , {73}} _{CP}	research ⁷³ { in-this-area } _{CP}	has also looked at	the differences between {72} collectivist and individualistic ⁷⁴ { countries culture .} _{CP} {74}	+	-	- +
34		Ochs ³⁰⁰ { in Coupland and Jaworski {301}} _{NSA} 1997:430)	looked at	the differences between typical ⁷⁶ { middle-class Anglo -{77}} _{CP} American mothers and traditional caregiving in ⁷⁵ { non-Western , ⁷⁷ { particularly {76}} _{NSA} Samoa } _{CP} families{75}.	-	-	- -
35i		She	focused on	Samoa society	-	-	↘ S -
35ii	and noted that as a young child begins to walk and talk, typically,	an older sibling ⁷⁸ { of the child {<=>127}} _{CP}	will begin to take	more responsibility for the infant. {78}	+	+	↘ E +
36i	As the infant continues to age,	it	⁷⁹ { This contrasts-with } _{CP} {79a} will begin to spend	more time with others of a similar age ⁸⁰ {, often ¹⁸⁴ { what off {185}} _{NSA} , extended family ,	+	-	↘ S +
36ii	⁸¹ { and will } _{CP} {128}{81} ⁸² { where } _{CP}	⁸² { all-the-mothers ²⁷⁰ { several numerous {271}} _{NSA} mothers	would-all-be are likely to be	present . _{CP} {82} present.{83}	+	-	- -
37i		This	contrasts with	^{79b} { the } _{CP} ⁸⁴ { typical {85}} _{NSA} American ⁸⁵ { Western {<=>129}} _{CP} society{79b}	-	-	↘ -
37ii	as ¹²⁸ {, according to Ochs ,{129}} _{NSA}	they	are	typically nuclear set-ups, with a father, mother and children.{80}	+	-	↘ S +
38	Traditionally,	the mother	will care for ²⁰⁷ { and ¹⁹⁶ { attend attend {187}} _{NSA} to {308}} _{NSA}	her own child, establishing a close ²²⁷ { mother-child {228}} _{NSA} bond.	-	+	↘ -
39a	¹⁸⁵ { If-the-child wants-attention for-whatever reason } _{CP} {86} experiences discomfort ,	the mother	will	¹⁸³ { see-to it {186}} _{NSA} ¹⁸⁷ { comfort {188}} _{NSA} } _{CP} {188}			
39b	*	¹⁸⁹ { The-mother	will	comfort-the-child-if-it experiences-discomfort {189}} _{CP}			
39	However,	this	is not	the ¹⁹⁰ { ease same {191}} _{NSA} in Samoan ^{87a} { households society } _{CP} {87a}.	+	-	↘ -
40i		The child	will call out to	the mother,	-	-	- -

40ii	but	the mother	will signal	^{87b} {the}_pp(87b) an older child to ¹⁹¹ {see attend {132}}_NISA to the infant.	+	-	↓	-
41i		⁸⁸ {These This}_pp Samoan way ⁸⁸ {of} {88} of ⁸⁸ {living end}_pp(88) caregiving	is ¹²³ {present present {130}}_NISA in	many different ethnic backgrounds	-	-	↔	-
41ii	and		is ¹³⁰ {present existent {131}}_NISA in	many households across the United States.	-	-	↓ E	-
43i	Ochs notes, that once a child reaches schooling age,	he or she	will be mixed with	other children that have had very different upbringings	-	+	?	+
43ii	²²⁸ {, such as	the two	mentioned	here {229}}_NISA.	+	-	↔ S	-
44	Not only do these children have to ⁹⁰ {understand}_pp(90) of mix with other pupils ⁹¹ {that}_pp(91).	they	¹³² {also-interact-with one ²⁷¹ {end} are {272}}_NISA also {133}}_pp ¹³² {food-with taught {132}}_NISA ¹³³ {by {134}}_pp	⁹² {the adults}_pp(92) teachers that have ⁹³ {had}_pp(93) been socialized differently to them ²²⁹ {serves {230}}_NISA.	-	+	↓ S	+
45		⁹⁴ {These The}_pp(94) children from these ⁹⁷ {different ¹³⁴ {different ethnic}_CP97 collectivist {135}}_NISA backgrounds	may struggle ⁹⁶ {to}_pp ⁹⁵ {cope-with}_pp(95) ¹³⁵ {to interact ing {136}}_CP {96} with	an adult in a way that is very different from how they would do so at home. {97}	-	-	↓	-
46i		This ¹⁹² {finding could in form {193}}_NISA.	may stifle	their abilities	-	-	↓	-
46ii	and		restrict	how well they ²⁷² {get-on perform {273}}_NISA in school.	-	-	↓ E	-
47i		²⁰⁸ {This It {210}}_NISA	could also raise	problems for the teacher,	-	-	↓ S	-
47ii		who	may ⁹⁸ {view not be aware of	⁹⁸ {them-as-a-problem}_CP(98) the different ways ⁹⁹ {of social}_pp(99) pupils may have been ¹⁰⁰ {, and continue to be}_pp socialized at home. {100}	-	-	↔ S	-
7 th paragraph								
48	¹⁰² {While}_CP	Ochs	gives	¹⁰¹ {a}_pp good example {101} of how children from different ethnic backgrounds or ¹⁹³ {different {194}}_NISA cultures may be at a disadvantage at school. {102}	-	-	-	-
49i	¹¹⁰ {However, ¹¹¹ {a} a {111}}_pp although she herself ¹⁰³ {says}_pp {103} states 'what has been observed is not universal, is not a fact'.	¹⁰⁴ {She}_pp(104) ¹⁰⁵ {by observing}_pp(105) it	is still	an assumptive view that ¹¹¹ {she takes};	+	-	↔ S	+
49ii		¹⁰⁶ {one that {112}}_CP all ¹⁰⁶ {middle class}_pp Anglo-American mothers {106}	have	the same ²⁷⁴ {type-of {275}}_NISA relationship with their ¹¹² {children ¹³⁶ {infant {137}}_CP young children {137}}_NISA.	-	-	↔	-
50i	She also assumes that	Americans	tend to live in	¹⁰⁷ {#} ¹⁰⁷ {is-also} ¹⁰⁷ {quite-assumptive}_pp(107)	-	+	↔	-
50ii	¹⁰⁸ {and}_pp(108)	which	is ²⁷³ {of course {274}}_NISA	an over-generalization.	-	-	↔ S	-
51i		This	may be	more ¹⁰⁹ {likely}_pp(109) common in middle-class families	-	-	↔	-
51ii	and	it	is	a ¹³⁴ {good-base ¹³⁴ {comparable strong {231}}_NISA notion {195}}_NISA to contrast with Samoan society. {110}	-	-	↓ S	-
51iii	but	it	¹¹³ {should}_pp(113) is	an oversimplification nonetheless.	+	-	↓	-

52		Echoing the work done by Ochs	is	the comparison between Indian and Anglo students by Susan Phillips ³⁰¹ { in Kiesling and Paulston {302}} _{INSA} ¹¹³ {2004 {CP-134}} _{INSA} .	-	-	-	-	
53i		She	looked at	instances where pupils were 'competing for the floor'	-	-	↙S	-	
53ii	and found that	it	's not	something that exists in Indian classrooms. ²³¹ {which contrast s contrasting {232}} _{INSA} with Anglo pupils	+	-	↙S	-	
53iii		who	feel the need to	compete for the teacher's attention.	-	-	↙S	-	
54		¹¹⁴ { She } _{FP} {114} She	also found	a contrast ¹¹⁶ { in-turn-taking } _{FP} {116} in pupils 'talking out of turn' (2004:292).	-	-	↘	-	
55i	She found that	Anglo students	were more likely to answer before	a teacher had finished asking a question	-	+	↘	-	
55ii	or		¹¹⁷ { give contribute	a-comment-while } _{CP} {117} a comment while the teacher was still talking.	-	-	↘E	-	
56	However,	she	found	little evidence of this in Indian classrooms.	+	-	↘	-	
8th paragraph									
57x		^{304a} { Not only did Phillips	find	evidence showing lack of involvement by Indian students {304b}} _{INSA}					
57i		³⁰⁵ { Phillips He else {306}} _{INSA} found in some cases ²⁵ { that } _{INSA} {196}} _{INSA}	²³² { these pupils {233}} _{INSA} who raised their hands more ¹¹⁵ { often } _{FP} {118} ¹³⁷ { in class {138}} _{INSA}	scored	higher on tests,	-	-	-	+
57ii		¹¹³ { Although } _{FP} {119} ²⁷³ { however although {276}} _{INSA}	this	could be ²¹⁰ { down due {211}} _{INSA} to	other circumstances;	+	-	↙S	-
57iii		¹²⁰ { we cannot } _{FP} {120} ¹²¹ { it is quite assumptive } _{FP} {121} we cannot assume	this	is purely	the reason the students performed ¹²² { better } _{FP} {122} well in tests.	-	+	↘	+
58i		It	could ¹³⁵ { simply be ²⁷⁶ { due to	a-cause-of {277}} _{INSA} ¹³⁶ { the students understanding the work } _{INSA} ¹³⁵ { confidence ¹⁴⁰ { in the work {140}} _{INSA}	-	-	↙S	-	
58ii	²⁷⁷ { or {278}} _{INSA} because	they	have ¹⁴² { grasped understood {142}	the work and {143}} _{INSA} ¹⁴³ { it {140} the work } _{FP} ³⁰⁵ { well {309}} _{INSA} .	+	-	↘	-	
58ix				being	confident enough to raise their hands {139}} _{INSA}				
59	Both Ochs and Phillips give ¹²³ { good } _{FP} {123} evidence to show that	¹²³ { Western, individualistic eastern, collectivist } _{CP} cultures	¹²⁴ { can } _{FP} {124} are at	a {125} disadvantage in the classroom.	-	+	-	-	
60	However,	there	is also	some evidence that means the research done by both contradicts each other.	+	-	EC	-	
61	Phillips found that while Indian students did not participate or contribute as much as Anglo students in ¹⁴⁴ { group-work-or in } _{FP} classroom discussions. {144}	they	were much more likely to participate in	one-to-one discussions ¹⁴⁵ { with the teacher ;} _{FP} {145} with teachers.	-	-	TE	-	

62		¹⁴⁷ {This This ²⁰⁶ {finding(207)} _{INDB}	¹⁴⁶ {contradicts} _{FP} {146} seems contradicts	¹⁴⁷ {unusual, as Ochs} _{CP} {147} what Ochs found in Samoan societies;	-	-	↺	-	
63		¹⁴⁸ { so } _{FP} {148}	children	were not given	the opportunity to establish a one-to-one bond with their ²⁷³ {own(273)} _{INDB} mothers ¹⁵⁶ { ; .	-	-	-	
64	and were {197} _{INDB} nstead	¹⁵⁷ {they	¹⁹⁸ {were} _{CP} encouraged to spend	time with siblings and extended family of a similar age, while being looked after by ¹⁹⁶ { e ¹⁹⁷ {number of(197)} _{INDB} ¹⁴⁹ {maternal figures} _{FP} {149} ²⁷³ {numerous(280)} _{INDB} mothers, again from extended family.	+	-	↺ S	-	
65		^{233, 130} { it This	^{234a} { it would make it {234a} _{INDB}	¹⁹⁹ {rather unusual(199)} _{INDB} for children to be ^{234b} { more (234b)} _{CP} comfortable in one-to-one situations that they are not familiar with ¹⁹³ { it rather unusual (200)} _{CP}	-	-	↺ S	-	
66	However,	this ²⁰⁷ {outcome(208)} _{INDB}	could be ²⁰⁰ { down due (201)} _{INDB} to	different ¹⁹⁰ {societies communities} _{FP} within collectivist {150} cultures.	+	-	↺ S	-	
67	On the other hand,	these two separate studies	could ²⁰² { be giving offer } _{INDB}	good insight into a variety of collectivist cultures.	+	-	-	-	
68i	¹⁵¹ { if } _{FP} {151} ¹⁵² { However } _{FP} {152} Nevertheless,	if {these collectivist} children from different collectivist cultures	were ¹⁵³ { mixed in e } _{FP} {153} to attend	a school ¹⁵⁴ { of mixed } _{FP} {154} containing ^{155a} { both } _{FP} {155a} children from individualistic cultures ^{155b} { in Europe or the US for example } _{INDB}	+	-	-	+	
68ii		they	may well be at	a disadvantage,	-	-	↺	-	
68iii		as	they	would have to {155c}	adjust to feel at ease.	+	-	↺	
69ix	¹⁵⁶ { on } _{FP} {156} ¹⁵⁷ { For hops	they	wouldn't _{CP} {157}						
70i	^{234c} { On the other hand ^{282, 280, 283} { Conversely (284)} _{IN} ²⁸¹ { perhaps (281)} _{INDB} ²³⁵ { perhaps (235)} _{INDB} ²⁸³ { Alternatively (283)} or	they	²⁰⁵ { wouldn't couldn't ²⁸³ { don't (206)} _{INDB} ²⁸⁴ { may not (284)} _{CP} try to	adjust	+	-	↺	-	
71ii		and	would feel	²⁸⁴ { as though they were like (285)} _{INDB} ²³⁵ { outsiders outsiders (236)} _{INDB} ²⁰¹ { limiting their chances of ²⁰² { success achievement success(203)} _{FP} in school (202)} _{INDB}	-	-	↺ E	-	
8 th paragraph									
72	Historically, ¹⁵⁰ { collectivist cultures such as these in the pre-modern period} _{FP} in Japan, {158}	{ educated }	automatically meant	upper class.	-	-	-	+	
73i	²³⁶ { However , e O { can't } _{INDB} ne may assume that	²⁰⁴ {that this	would would (205)} _{INDB} mean	lower classes were illiterate,	-	+	↺	-	
73ii		but	this	¹⁵⁹ { would not } _{FP} {159} was not	the case.	+	-	↺	
74	Through ¹⁶¹ { home schooling self- education (162)} _{CP} ³⁰ ¹⁶⁰ { they self (161)} _{FP} {160} ³ { and making ¹⁶² { good } _{FP} use of (310)} _{INDB}	they	were at	no real disadvantage ¹⁶³ { (Gottlieb 2005:40) } _{INDB}	-	-	-	+	

	³¹⁰ {and{311}} _{pp} lending libraries.							
75		¹⁶³ {By-A N}ot going to school {163}	also meant that	¹⁶⁶ {their literacy practices would remain the same.} _{INFORM}	-	-	-	-
76		they	¹⁶⁴ {could} _{pp} {164} ¹⁶⁵ {would not have to} would not have to	¹⁶⁶ acquire-new-language practices{166} _{pp} {166} adapt to different language practices ¹⁶⁷ {that} _{pp} {167} in school. {168}	-	-	☺	-
9 th paragraph								
77	²¹⁴ {It is clear that	d D _{pp} {214}ifferences in class and cultural background	²¹⁵ {are} _{pp} {215} have	a ²⁴¹ {profound profound{242}} _{INFORM} effect on a child's education. {<=> T19}	-	+	-	-
78	The ²³⁷ {various} _{pp} {237} studies on ²³⁸ {several} ²⁴² {different{239}} _{pp} various collectivist ²⁴³ {cultures} ³⁰⁶ {particularly when compared to individualistic cultures.} _{CU} {238} ²³⁹ {give-e show that	²⁶⁴ {these{265}} _{INFORM} children	may be at	a disadvantage when they ²⁴⁰ {go to} _{pp} {240} start mainstream education{241} _{pp} 239 {particularly when compared to individualistic cultures. {307}} _{INFORM}	-	+	-	-
79	²¹⁶ {Many of the studies} _{pp} {216} The studies ²⁴³ {looked-at here} ²⁴⁴ {support the} ²²⁰ {idea claim{221}} _{INFORM} that	a child's ²²¹ {background early language socialisation	may have already paved can affect	the way for his or her future: a child's success at school{222} _{CP} ²⁴⁴ {and later on in life. {<=> T1}} _{CP}	-	+	-	-
80ix	^{304b} {Nevertheless it is still important to remember that	these findings	mean that	²¹⁸ {not{219}} _{INFORM} every child from a certain class of ethnic ²¹⁹ {minority group{220}} _{pp} will perform in a ²¹⁷ {certain particular} _{pp} way {217}.				
80ix	but	findings	do suggest that {218} {305} _{INFORM}					

Dynamic text: JD3							
	Point of departure: THEME *****		***** Development of clause: RHEME			Theme selection	
	Theme	Subject Theme	Rheme	N-Rheme	text	Int.	Prog/M/U
1st paragraph:							
1	I will be arguing that	images	can be	more persuasive than words by looking at ¹¹² {a number of} _{IN,CP} sexual health adverts.	-	-	-
2	⁵ {I will ⁷ {also-be looking look(s)} _{IN,SA} at	how images	can have	more of an emotional ²⁷ {effect affect (28)} _{IN,CP} on the ²⁸ {receiver receiver (29)} _{IN,CP} viewer than text alone(9)} _{IN,CP}	+	-	↓
3	I will ³ {argue also discuss that	how, ⁴ {<T23>} _{IN,CP} through persuasive communication and the ² {notion notion(4)} _{IN,CP} of gaze, women	can ¹ {,and have be en,} _{CP}	sexualized ²³¹ {and shown in a submissive manner} _{IN,CP} in order (1) to convey warning messages about sexually transmitted diseases (<T21:} ^{116a} {and the HIV AIDS virus (116b)} _{IN,CP}	+	-	-
4	I	I	will do so through looking at	²³² {health-campaigns} _{IN,CP} {233}three images from three different countries.	-	-	↓
5i	¹⁶²ⁱ {There	I	is will(22)} _{IN,SA} also discuss	• the) ⁴ {strong ² {message(3)} _{IN,CP} concept(s)} _{IN,SA} of guilt appeals(2)	-	-	↓
5ii	^{116b} {, which	I	will also discuss, {117} _{IN,SA}		-	-	↓
6iX		where ²⁰ {receivers of those who see (21)} _{IN,CP} campaigns about sexual health	are reminded about	the ²² {dangers-of risks they are taking if they are having (22)} _{IN,SA} unsafe sex ¹¹⁵ {through ² {nudity} _{IN,CP} (s) ¹¹⁴ {different-forms-of (115)} _{IN,SA} nudity(116s)} _{IN,CP} .			
5ii		which	can suggest	those who see campaigns about sexual health are reminded about the risks they are taking if they are having unsafe sex ¹¹⁵ { ¹¹⁷ {and-putting-themselves-in-a-dangerous position (118)} _{IN,CP} _{IN,CP}	-	-	↺S
6X	⁵ {I		will look at	how images can ⁶ {be stronger			
6iX	and} _{CP}		have	more(s) of an emotional effect on the receiver than text alone.(7) _{IN,CP}			
2 nd paragraph:							
6		Figure 1	was	a Finnish AIDS council advertisement.	-	-	-
7		It	has marked	a woman's genitals with an internet map marker, ³⁴ {commonly (94)} _{IN,CP} frequently} _{IN,CP} used on Facebook to check in to a place or destination (93).	-	-	↓S
8	²² {By using social media,	³⁵ {it it	uses (95) ³⁷ {gives} _{CP} relates to	a-sense-of relating-to-the whole a large proportion of} _{IN,CP} the population.	-	-	↺S +
9i		Facebook	is	used by ³⁴ {almost-all-age(25)} _{IN,SA} almost all groups ¹¹³ {all over the world (120)} _{IN,SA}	-	-	-
9ii	and ³⁶ {by-using this-as(97)} _{IN,CP} (96)	¹⁰⁰ {there this	is-a suggestion implies(b<T14)} _{IN,CP} {indicates} that	anyone ¹²⁰ {, anywhere (121)} _{IN,SA} ¹⁶⁴ {who is sexually active (165)} _{IN,CP} is susceptible to the disease.	+	-	↺S
10		Figure 2	is ¹²¹ {from (122)} _{IN,SA}	a HIV AIDS awareness advertising campaign.	-	-	-
11		The image of a woman straddling a man	³⁸ {is has been} _{CP}	¹²² {modified (98) adapted (123)} _{IN,SA} to give the man ¹²³ {an (124)} _{IN,CP} extra ten hands ³⁹ {to touch her with} _{IN,CP} , implying that (99) his	-	-	↺

				previous sexual partners are ¹²⁴ {also {125}} _{FP} present in some way.				
12	Finally,	figure 3	is	an NHS sexual health campaign designed as a scratch card.	+	-	-	-
13i		The provocative ¹⁰⁰ { photograph image } _{CP} {100}	attracts	the {receivers viewer's} ¹³⁶ { attention gaze } _{INSE}	-	-	↓ s	-
13ii	and	¹⁰³ {this	{informs implies} {166} _{INSA} that once ¹⁰¹ { she } _{FP} {101} scratched away,	¹⁰² { a } _{FP} {102} more flesh would be revealed. {103}	+	-	↓	-
14	However,	¹⁰⁴ {the name of} _{FP} a sexually {104} transmitted ¹⁰⁵ { infection disease } _{CP}	is {105}	revealed ¹²⁵ { instead {126}} _{INSA} .	+	-	-	-
15i	This image is trying to show the audience that, again,	anyone	can have	a sexually transmitted disease ¹⁰⁶ { without } _{FP} {106}.	-	-	↘	-
15ii	and ¹⁰⁷ { in this case } _{FP} {107} ¹²⁶ {that {127}} _{INSA}	it	is	impossible to ¹⁵⁷ { tell know } _{INSA} who does ¹⁵⁷ { ¹²⁷ { have one {128}} _{FP} INSA ¹⁰⁸ { or does not } _{FP} {108} ¹³¹ { implying practising safe sex is ¹²⁸ { the only way forward ¹³⁷ { extremely important } _{FP} has one solely by looking at their appearance} _{INSA} .				
3 rd paragraph:								
16		There	is	a significant lack of colour in all three images.	-	-	-	-
17i	¹³² { in fact	figure 4 and 2	are	almost completely black and white } _{FP}	-	-	-	-
17ii		Figure 3	is	¹³³ { completely } _{FP} {153} void of colour	-	-	-	-
18i	and	the only hue in figure 1	is	the map marker, drawing even more attention to the area.	+	-	-	-
18ii	¹³⁶ { finally, a A } _{INSA} though	figure 2	is	in colour,	+	-	-	-
18iii		it	is	very dull	-	-	↓ s	+
19	and	{the colours	²²³ { has {is are}	only neutral hues {C=177} very neutral ²³⁵ { in colour } _{INSE} INSE	+	-	↘	-
20		This ²³⁴ { lack of colour } _{CP}	gives	the images {234} a negative impact.	-	-	↘	-
20b	According to van Leeuwen (2011:2),	black	has	connotations of severity and seriousness {235}.	-	+	↘	-
4 th paragraph:								
21i		²⁴¹ Aristotle	first wrote about	persuasion	-	-	-	-
21ii	and		defined	it as 'communication designed to influence listeners' choices' (Lester, 2002:63).	+	-	↓ E	-
22		Persuasion	can be	used to change people's attitudes, ¹⁵⁹ { and make making } _{INSA} them take a different standpoint ²⁰⁰ { on ²³ { genitals ¹²⁸ { topic topic } _{INSA} INSA} INSA. {C=13}	-	-	↘	-
23i	¹⁶⁰ With regards to advertising, and health campaigns, ¹⁰ { such as	the purpose of persuasion	is to gain	awareness, prompt a judgement	+	-	↘	+

	ensuring people are having) _{FP} {10} ²⁰¹ {to ensure people have sex) _{FP} {11} safe sex) _{INSA}							
23ii	and		¹³ {create make	the ²³ {receiver receiver) _{INSA23} viewer} of the message take {come sort of} {14} _{CP13} action. ¹² {in the case) _{CP} {12} {on something} {13}	+	-	↓ E	-
24i		¹⁴ {The use of emotion ¹³ {it Using emotion}{16} _{CP} is common	is to ¹⁶ {use	common} _{CP} {14} emotion ¹⁷ {to}{17} _{FP} try to persuade} _{CP} ¹⁸ {for in persuasion) _{FP} (¹⁹ {Tom) _{FP} {19} {Reichert and ²⁰ {Lombico, {Lombico) _{INSA30} Lang, A. et al} 2003:111)	-	-	-	-
24ii	²⁵ {whether}{15} as it		tends to have	more effect _{INSA} ¹⁷² {on those who see the advert or campaign {173} _{INSA}	+	-	↗	-
25		Jamieson (1985:103)	²⁶ {states) _{FP} {26} believes that	images are purposely crafted in a certain way in order to obtain a particular response from the viewer {or receiver} {27}.	-	-	-	-
26		Visual rhetoric	uses	images to create ¹⁸⁰ {an argument a meaning {or} T23) _{INSA} ¹⁷⁸ {and a) _{FP} {178}	-	-	-	-
26iX		before ²²⁵ Figures 4 and 3	are also	metaphoric,				
26iiX	in that	they	leave	something to be implied or completed by the viewer. {or} T21)				
27i		²²⁸ {All} three ²²⁵ {of the) _{INSA} images I have chosen ²²⁶ {to discuss	are are	all static photographs static images) _{CP}	-	-	-	-
27iX	but	²²⁴ {they all	have	a form of with {225} _{INSA} narrative alongside to help explain ¹⁷³ {and get the message across the intent of the image. {174} _{INSA}				
27ii	and {227} _{INSA}	²²⁷ {228} {All three images	are	a form all examples {228} _{CP} of verbo-pictorial metaphor. {203}	+	-	↓ E	-
28iX		²⁰³ {This	is	particularly important for ⁸² {image figure}{83} _{INSA} ↗				
28iiX		which	is	a verbo-pictorial metaphor				
29X	Here, it is vital that	we	have	come sort of descriptive narrative to explain the ⁸³ {image figure. {84} _{FP}				
30X		it	is	an unusual image that attracts attention because of its ³¹ {strange unusual {or} T23) _{FP} - unhuman features {31} _{INSA201}				
28		This	is where there is	²⁰⁴ {come kind of) _{FP} {204} narrative alongside the image.	-	-	↗	-
29	205{The}FP {205} Although the image may 206{be}FP {206}attract attention from the audience, particularly in figure 2, {for example}	the narrative	is	important ²⁰⁸ {too as w ²⁰⁹ {W {209} _{FP} without the ²⁰⁷ {text language) _{FP} -there would be no metaphorical meaning) _{FP} {207} to be able to understand {208} the intent.	+	-	↗	+
30	Without the {language narrative} ,	there	would be	no metaphorical meaning.	-	-	-	+

5 th paragraph:								
31	According to Forceville ¹⁷⁹ {(1996){180}} _{CP}	visual metaphor	occurs	when one visual element is compared to another {179}.	-	+	-	+
32		¹⁸⁶ {however-f F} figure 1	is comparing	{ checking in } on Facebook to having sexual intercourse, giving the impression that casual sex is {as common as going to ¹⁸¹ {e- place} _{FP} {181} ¹⁸² {your-favourite} _{FP} {182} e restaurant-or-museum-for-example} _{FP} {183} common	-	-	-	-
33iX		¹⁸³ {Figure 3	is	ironic ¹⁸⁸ {also metaphoric} _{NSA}				
33iX	oc	the-viewer	would interpret	the 'come-and-get-it'-sex' _{NSA}				
34X		¹⁹¹ {it	is not	literal}				
33		it	is	intended to shock the viewer.	-	-	↓ s	-
34i		The effect on the audience	is	vitality important	-	-	↓	-
34ii	as	¹⁹³ {they the aim of ¹⁹⁴ {the} _{CP} {194} sexual health adverts	wouldn't' _{FP} {193} is to try to persuade	people to change their behaviour.	+	-	-	-
35	As Hill (2004:31) notes,	³² {the} _{CP} {32} visual representations	are	more vivid than written representations.	-	+	-	-
36	¹¹⁹ {However,	c C} _{NSA} combining the two,	gives	an even ³³ {more-(c→-t2s)} _{FP} {33} stronger sense of vividness.	+	-	↓	-
37X		Hill	also ¹²³ {suggests believes} _{CP}	that {109} ¹¹⁰ {a-photograph images {110}} _{FP} {carries-more-epictomia-force-than-a ¹¹² {verbal-description {113}} _{NSA} {110}	-	+	-	-
37		Hill	also believes	that emotion has a great effect on how a ¹⁷³ { ¹⁷⁴ {receiver} _{NSA} viewer} _{FP} interprets a message {130}.				
38a		He	states	that 'the more vivid the information, the more likely it is that the information will prompt an emotional response from the {receiver viewer}.	-	-	↓ s	-
38b		Vivid information	also seems to be	more persuasive than non-vivid information.' {112} (p31).				
39X	¹⁷⁷ {As-previous-ly mentioned	figure-2	is	an-example-of-verbo-pictorial-metaphor {c→-t2s} _{NSA}				
6 th paragraph:								
39		Guilt appeals	have been used in	{two-out-of ¹³⁰ {four three {131} _{NSA} of-my images-images figures} 1 and 2. {34}	-	-	-	-
40		Guilt appeal	is the idea that	we all have moral codes that may affect our behaviour.	-	-	↓	-
41		it	may make us feel	guilty about our past behaviour or have an effect on something we may be thinking of doing.	-	-	↓ s	-
42	Mongeau and Stiff (2002:159) believe that	guilt appeals	are used to 'provide	the audience members with a means of making up for their past behaviour by changing their attitudes and behaviours' (p.159).	-	+	↓	-
43iX		{This-is-what-image 4-and-2	aim-to	achieve,				
43iiX		they	stress	the-importance-of-safe-sex.} {40}				
43iiiX		{figure-4-and-2	¹³² {have may be {133}} _{CP}	on				
43		⁸⁶ {images Figures{87}} _{NSA} 1 and 2	both have	³⁴ {similar a message s} _{NSA} that reminds the ³⁵ {viewer {receiver} _{FPNSA} viewer} that {35} ³⁶ {each their} _{FP} sexual partners ³⁶ {they} have ³⁷ {-has-also-got {36} a-history-and-there-is-no	-	-	-	-

				way-of-telling-how-e _{FP} (37) also got a history of sexual partners, ⁴⁰ {reminding-them-the-importance-of-safe-sex- urging them to change their behaviour, by ¹³³ {using-e- <u>condom</u> (C>T44) practising safe sex {if-not-doing-so-already}}(134)} _{NSA} .					
44X		Guilt appeal	³⁹ {is	<u>used</u> ³⁸ { <u>here</u> } _{FP} (38) <u>to</u> (C>T42)} _{CP39} (39)					
44i		⁴² {LaTour (1990) ²⁴⁴ {in (C>T45X)} _{NSA} <u>Messeris (1994:48)}</u> _{NSA}	looked at	sexual appearances	-	-	-	-	
44ii	and		noted that	⁴¹ {it-is-often-occurred-that-men-respond-more-to-nudity-than-women} _{FP} (41) some female <u>viewers</u> viewers) felt uncomfortable by female nudity.	-	-	↓ E	-	
45		This finding	could be linked to	guilt appeal;	-	-	↗	-	
46i		⁴² {female nudity	could remind ing} _{NSA}	women of their past behaviour ¹³⁴ {and who they have allowed to see them in the nude. (135)} _{NSA}	-	-	↗	-	
47i		There	is	⁴³ {often} _{FP} a {43} stigma, ²¹⁵ {particularly on women that is (220)} _{NS} associated with the number of sexual partners ²²⁰ {one has} _{CP} .	-	-	-	-	
47iiX		¹³⁵ {in ¹³⁷ {today's (138)} _{NSA} <u>society</u> (135)} _{NSA} { ⁴⁴ {that it ¹³⁸ {often still (139)} _{FP} implied}(46)	⁴⁴ {that it ²¹⁵ {that	<u>is</u> is (220)} _{NS}	more-acceptable-for-a-man-to-have-numerous-sexual-partners-than-it-is-for-women _{FP} (44) associated-with-the-number-of-sexual-partners.	-	-	↗ S	-
47ix		{This	is	¹³⁹ {implied done (140)} _{NSA} through terms used to describe each sex ¹⁴⁰ {that-lead-this-lifestyle (141)} _{CP} .					
47iiX	For example	a man	is	a 'stud' or a 'lad'					
47iiiX	if	he	has	sexual intercourse with a lot of different women.					
47ivX	but if	a woman	does	¹³⁶ { <u>so</u> } _{FP} the same.					
47vX		she	is often labelled	a 'dog' or a 'whore' (137)					
48ix		{This	is	⁴⁶ {shown demonstrated} _{CP} in my ⁴⁷ {images figures(88)} _{NSA} . ¹⁴¹ {particularly-figure-2} _{NSA}					
49ix	{Even though	¹⁴² {The women in this image ¹⁴⁴ {the ¹⁴³ {numerous} _{FP} (143) men (it is the man	<u>is being</u> <u>has</u> <u>shown to have</u> <u>had</u>	<u>cherished for</u> _{FP} (142) <u>a lot of hands</u> _{FP} (144) <u>sexual intercourse with</u> ¹⁴⁵ { <u>so</u> } _{FP} (145) <u>numerous people</u> .					
49iix		<u>the focus</u>	<u>is still</u>	<u>on the women</u> .					
49iiix	suggesting	she	is	in the wrong (146)					
48iix		¹⁴⁶ {All of my images they all (C>T33)} _{CP}	feature	women, who are (46) ⁴⁷ {almost} _{FP} (47) in their underwear} (39)					
48iiix	and		are	⁴⁸ {, overall} _{FP} (48) shown in a submissive manner to men.					
7 th paragraph:									
48i		Goffman (1979) ³² {in <u>Messeris (1997:40)}</u> _{NSA}	looked at	how women were portrayed in advertisements,	-	-	-	-	
48ii	and found that	they	were	shown to ⁴⁵ {often} _{CP} be (49) in childlike poses,	+	-	↗ S	-	
48iii	which	he	interpreted as	¹⁴⁷ { ⁵¹ {supporting} _{FP} (148)} _{NSA} ³⁰ {the stereotypical notion that women is	+	-	↓ S	-	

				submission-to-men {50}} _{pp} are {51} submissive to men. {52}				
49	Furthermore	he	found that	women were often in a recumbent position, on a bed or ²³⁹ {on the} _{N15} floor, ²³ {which} _{pp} {53} ²⁰ {such as in{<-T33}} _{pp} ⁶⁵ {images figures{89}} _{N2A} 1 and 3 {show this} {54}, ¹³¹ {implying passivity {132}} _{N2A} .	+	-	↓ S	-
50i		Camera angle	is	{an important factor} here, as in ⁶⁵ {images figures{90}} _{N2A} 1 and 3,	-	-	-	-
50ii		the camera	is looking down on to	the women, suggesting subservience, ⁶⁵ {factor-to-discourse supporting Goffman's argument. {<-T30}} _{N2A} .	-	-	↓	-
51		We	often ⁶⁴ {think of associate} _{CP}	a high camera angle {64} with power;	-	-	-	-
52		it	is	⁶⁵ {something} _{pp} {65} a technique often used to express {power authority} or dominance.	-	-	↺	-
52ix			⁶⁶ {as supports {67}} _{CP} {66}					
53	There is a suggestion that	the 'looking down'	is	by men ²³⁹ {in-society {147} because of their stereotypically dominant role} _{N1A} .	-	+	↺	-
54i		This	is supported by	Mulvey (1973)	-	-	↺	-
54ii		who	looked at	the gaze in {the} cinema {tic film}	-	-	↺ S	-
54iii	and		found that the {look looking} is	the male's active role.	+	-	↓ E	-
55		⁶³ {he Goffman {<-T30}} _{N2B} {(1979)}	also found that	women were often smiling {in-euphoria-and} turning away and in euphoria, features that all describe ⁶⁴ {image figure{85}} _{N2A} 1.	-	-	-	-
56i	It is worth noting that in all three images,	the models' eyes	cannot be	seen	-	+	-	+
56ii		which	shows	lack of involvement.	-	-	↺	-
57i		It	gives	a sense of distance	-	-	↺	-
57ii	and		allows	²⁵ {the women in the images to be looked at without} _{pp} {55} the {receiver viewer} to partake in voyeurism;	+	-	↓ E	-
58		³⁷ {they are{58}} _{pp} {57} ²⁵ {the viewer	is	able ²⁵ {as-it-were-{60}} _{pp} {59} _{N2A} to look at the women in the images without being seen, ⁶⁰ {giving them more power over the women pictured} _{CP} .	-	-	↺	-
59		This, again,	⁶¹ {refers-to} _{pp} {61} leads back to	the stereotypical notion that women are submissive to men. {<-T33}	-	-	↺	-
60		We	cannot ⁶² {of course {69}} _{N2B} assume that	only men would see such adverts.	-	-	-	-
61	⁶³ {but {68} However,} _{N2A} ⁷⁰ {as-a dominant} _{pp} {70}	Goffman (1979)	found that	while these ads were actually directed at men, they also attracted women, ⁷³ {in-the-sense-that	+	-	-	-
62i		the The{74}} _{N2B} women being photographed	would ⁷¹ {be} _{pp} {71} treat the camera like	a man watching her,	-	-	-	-
62ii	so	female {receiver viewers}	would ⁷⁵ {think believe {<-T37}} _{CP} that is	how they ⁷² {themselves ⁷⁴ {look look{75}} _{N2A} towards to {73}} _{pp} men. {72}	+	-	-	-

8 th paragraph:								
63i		All of the women in my images	are	slim	-	-	-	-
63ii	and		would be considered	attractive in today's ¹⁴⁰ {Western (150)} _{NS} society.	+	-	↓ E	-
64	However,	the idea of what the ideal female body should look like	has changed	over the years.	+	-	-	-
65		Laneyrie-Dagen (2004:152)	believes this is due to	what men ⁶² {rate-as-attractive-in-women} _{SP} (62) find attractive in the female body ²⁴⁰ {women only feel ²¹⁴ {- in-that} they are {only} attractive if men think they are} _{NS} .	-	-	-	-
66iX	Again,	this	leads to	the idea that women are submissive to men				
66iiX	and, there is a suggestion that	women	are only available for	men to look at {63} ¹⁴⁰ {and-enjoy {149}} _{NSA}				
67X		This	is	supported by {Lacan (in) Mirzeoff (2003:284), who claims that ⁷⁷ {women ⁷⁶ {were} _{SP} (76) are the female place is just to be look ed {> ns}} _{CS} at} {77}				
66i	¹⁵⁰ {As-previously mentioned} _{SP} {150}	These images	would be used in	Western society without a second thought,	-	-	-	-
66ii	as	nudity and sex appeal	is often used in	advertising to sell products.	+	-	-	-
67	However, in {Asia and} the Middle East,	it	would be much less common to see	women's bodies ²⁴² {being-used-in-advertising used-in-this-way} _{NS} (Toland Frith and Mueller, 2003:240).{> TV}	+	-	-	+
68i		Casual sex	²¹⁶ {is} _{SP} {216} tends to be	more of a Western ²³⁰ {idea phenomenon} _{NSP}	-	-	-	-
68ii	therefore,	such health campaigns	may not be needed in	places such as the Middle East {and-Asia-}	+	-	-	-
9 th paragraph:								
69i		⁷⁸ {Leventhal and Cameron (1987) (in) ⁷⁹ {Shovitt and Brook (1994:224)} _{NS} {78}	looked at	persuasion and health attitudes	-	-	-	-
69ii	and		focused	a lot of their efforts on AIDS.	+	-	↓ E	-
70i		They	looked at	the two goals of health persuasion	-	-	↓ S	-
70ii		which	were	prevention of disease and compliance with treatment.	-	-	↗ S	-
71	In the ³⁰ {images figures(91)} _{NSA} I have selected, ⁷³ {notably ²¹ {figures {92}} _{SP} 1 and 3} _{CR}	prevention	is {79}	the focus.	-	-	↓	+
72i		They	believe that	'the goal is to prompt action' {(p.221)}.{> TV}	-	-	↘	-
72ii	⁸⁰ {in this case,		⁸¹ {ensure} _{NSB} {81} persuade	the {receiver viewer} to ensure they are having safe sex.	+	-	?	-
73i		⁸² {Images Figures {> TV}} _{NSA} 1 and 2	are focused on	HIV.	-	-	-	-
73ii		which	can lead to	AIDS, {80}	-	-	↗ S	-
73iii	while	⁸³ {image figure(86)} _{NSA} 3	is focused more on	other sexually transmitted diseases.	+	-	-	-
74		²⁴⁷ {Leventhal and Cameron} _{NS}	also found that	mass media was ²⁴⁶ {successful at informing those who did not know about the health problem or were not aware that they were at risk} _{NS} {(p.238)}.	-	-	-	-

75i		Images like these	draw	attention because of their unusual or surprising techniques,	-	-	-	-
75ii	and ²⁴⁵ {most importantly}		attract	attention of those unaware that their behaviour is dangerous.	+	+	↓ E	-
10 th paragraph:								
76		The three images I selected	were all from	sexual health campaigns from three different countries; {the UK, the US, and Finland Finland, the US and the UK} .	-	-	-	-
77	However,	¹⁵² {all they all	had used	similar ¹⁵⁴ {ideas techniques(155)} _{FP} {154} to persuade the viewer that safe sex is vitally important.	+	-	↓ S	-
78X		²⁴⁵ {They	also found {246} _{FE}	that mass media was effective at teaching individuals who are either unaware of the existence of a specific health problem and/or unaware of their personal risk for health threat.				
79X		¹⁵⁶ {With {159}} _{FP} ¹⁵⁶ {campaigns} _{FP} {156} images ¹⁵⁷ {as-graphic-as these-and-as shocking} _{FP} {157} like these, drawing attention because of their unusual or surprising techniques {158}	{images like these draw ¹⁵⁸ {ing} _{CP}	attention because of their unusual or surprising techniques and importantly so, ¹⁶¹ {as ¹⁶⁰ {pointed-out} _{FP} {160} mentioned-by} _{FP} {161} and as indicated by Leventhal and Cameron, to attract attention of those unaware that their behaviour is dangerous.				
80X		Vividness and the use of emotion to get a response	have shown to be	very effective, as has guilt appeal.	-	-	-	-
79i		¹⁷⁶ {Voyeuristic {177}} _{FE} gaze ¹⁶² {and} _{FP} {162} at the female body	has also helped to ¹⁶³ {show} _{FP} {163} explain	why the female body is used in this way,	-	-	-	-
79ii	as	it	helps to attract	attention from both men and women.	+	-	↓ S	-
Total Theme selection (79 T-units)								

Dynamic text: BB								
Point of departure: THEME →→→→→			←←←←← Development of clause: RHEME				Theme selection	
Theme	Subject Theme	Rheme	N-Rheme		text	Int.	Proc.	M/U
1st paragraph:								
1	The Anglo-Saxon Chronicle	is	one of the most notable Old English texts.		-	-	-	-
2i	It	was	commissioned by King Alfred the Great in around 890AD,		-	-	↓ S	-
2ii	and	was	a history of Britain ¹ {at the time and from {1} starting from 1AD and dating up to the year 1154AD.}cp {<→10}		+	-	↓ E	-
3i	Different versions of the Chronicle	were held	at different locations		-	-	↗	-
3ii	and	recorded	more specific local events.		+	-	↓ E	-
4i	The four surviving manuscripts	are	the Parker Chronicle or ³ {the}cp Winche{9}ster Chronicle, the Worcester Chronicle, the Peterborough Chronicle (also known as the Laud Chronicle) and the Canterbury Epitome, which is another version of the Laud.{<→10}		-	-	↗	-
5i	The Chronicle	is	one of the ²² {few}cp {22} limited sources of Old English that actually remains ⁶¹ {-}cp {in-total {62}}cp the surviving Old English writings total ⁶³ {just}cp three and a half {63}}cp million words (Hogg and Denison, 2006:35) -}		-	-	↘	-
5ii	and therefore	is	a valued ²³ {course}cp {23} resource when ²⁴ {looking-at}cp {24} investigating ²⁵ {the}cp {25} lexis, orthography, grammar, and different dialects that were {<→10} ²⁴ {used at the time.}cp		+	-	↓ E	-
2nd paragraph								
6x	⁵ {Alfred the Great	is known for	³ {striving-to promot ing e}cp ² {booming and}cp {2} ⁴ {a strong sense of national identity}cp {4} }cp		-	-	-	-
6	{4} Alfred the Great	is known for	promoting religion and learning, and for having the personal goal of creating a strong ²² {sense-of}cp national identity for his people. {5}		-	-	-	-
7i	⁶ {As}cp part of this process {6}.	Alfred	commissioned	the translations of texts such as Bede's Ecclesiastical History of the English Nation from Latin into the ⁷ {English}cp vernacular {7}	-	-	↓	+
7ii	and	[= Alfred]	translated	other texts such as Boethius' Consolation of Philosophy, as well as ⁸ {commissioning}cp {8} initiating the Chronicle (Crystal, 2004 {-55 – pos764-766}). {<→10}	+	-	↓ E	-
8	Prior to ¹⁰ {the}cp {10} this,	¹¹ {the literary tradition in}cp {11} the ¹² {vast}cp majority of texts produced {12}	were in	Latin.	-	-	-	+
9i	¹³ {and}cp {13}	These Old English texts	marked	the beginning of the English literary tradition; {<→10}	-	-	↓ S	-
9ii	⁶⁴ {Alfred "King Alfred	was	was	⁶⁴ {the}cp {64} the founder of English prose" (Baugh, 1957:81).{<→10}	-	-	-	-
10	As Bragg	said,	"These Chronicles had been written in the language of the people; there was nothing like them anywhere in mainland Europe" (2003 {42} {-42}).		-	-	-	-
11i	⁴² {As Since}cp {42}	Alfred	ruled	from Wessex {+ -} the then most powerful kingdom in Britain {+ -}	+	-	-	-
11ii	this	gave	prestige to the texts he ordered,		-	-	↗	-

11iii	²⁰ {and ¹⁹ {thus {19} ²⁰ ergo}	the West Saxon dialect	also became	prestigious.	+	-	?	-
12i		This	led to	scribes using or at least incorporating many features of the West Saxon dialect in their writings,	-	-	↙ S	-
12ii	and so	it	²¹ {become} {21} developed into	the Old English written standard (Gramley, 2012).	+	-	↙ S	-
13ix		²⁴ {These changes to written tradition	are	apparent when examining contemporary texts,				
13ix	where	the Chronicle's influences	can be	identified {↔ 19}				
3 rd paragraph: Thesis 1								
13	Despite the prominence of the West Saxon dialect,	Alfred	also employed	scribes from other regions such as Mercia to assist with the literary works he sponsored.	-	+	-	+
14i		³⁰ {These} {50} The influence of the dialect of these scribes	is	apparent in the Chronicle in such features as the ³¹ {a} vowel {51} "a."}	-	-	↙	-
14ii		which	is sometimes written as	the Mercian "a" as opposed to the West Saxon "ea" as in "alle" and "ealle," or "salde" and "sealde" (Crystal, 2004:39).	-	-	↙ S	-
15	As the Anglo-Saxon Chronicle is extensive in terms of the amount of scribes who made contributions, the time ⁵² {period} over which it was written, the locations it was written in, and in the sheer amount of text ⁵³ {text} {53} available,	the text	can be analysed extensively to show	which words and linguistic features ⁵⁴ {words} {54} belong to which dialects, or which may just be errors.	-	-	-	+
16		This knowledge of dialects	can ⁵⁵ {show} {55} illustrate	how ⁵⁶ {different scribes moved about the country and} {56} different varieties ⁵⁸ {developed or} {58} gained prestige ⁵⁹ {and} {59} ⁵⁷ {how} {57} {when examining which features prevailed}.	-	-	↙	-
4 th paragraph:								
17i		The Chronicle	was	of particular importance	-	-	-	-
17ii	as for about a century after the initiation of the Anglo-Saxon Chronicle,	there	was	little further work produced in the vernacular (Loyn, 1962:283).	+	-	-	+
18i		This	means that	⁷⁵ {this} {75} the Chronicle is the most significant text during that period of literary ⁷⁷ {inactivity} - in ⁷⁶ {the} {76} terms of the {77} English language -	-	-	↙ S	-
18ii	and so	[= the chronicle]	is	⁷⁸ {the} {78} valuable evidence of how the language may have changed and developed over this hundred-year period. {79}	+	-	↙ E	-

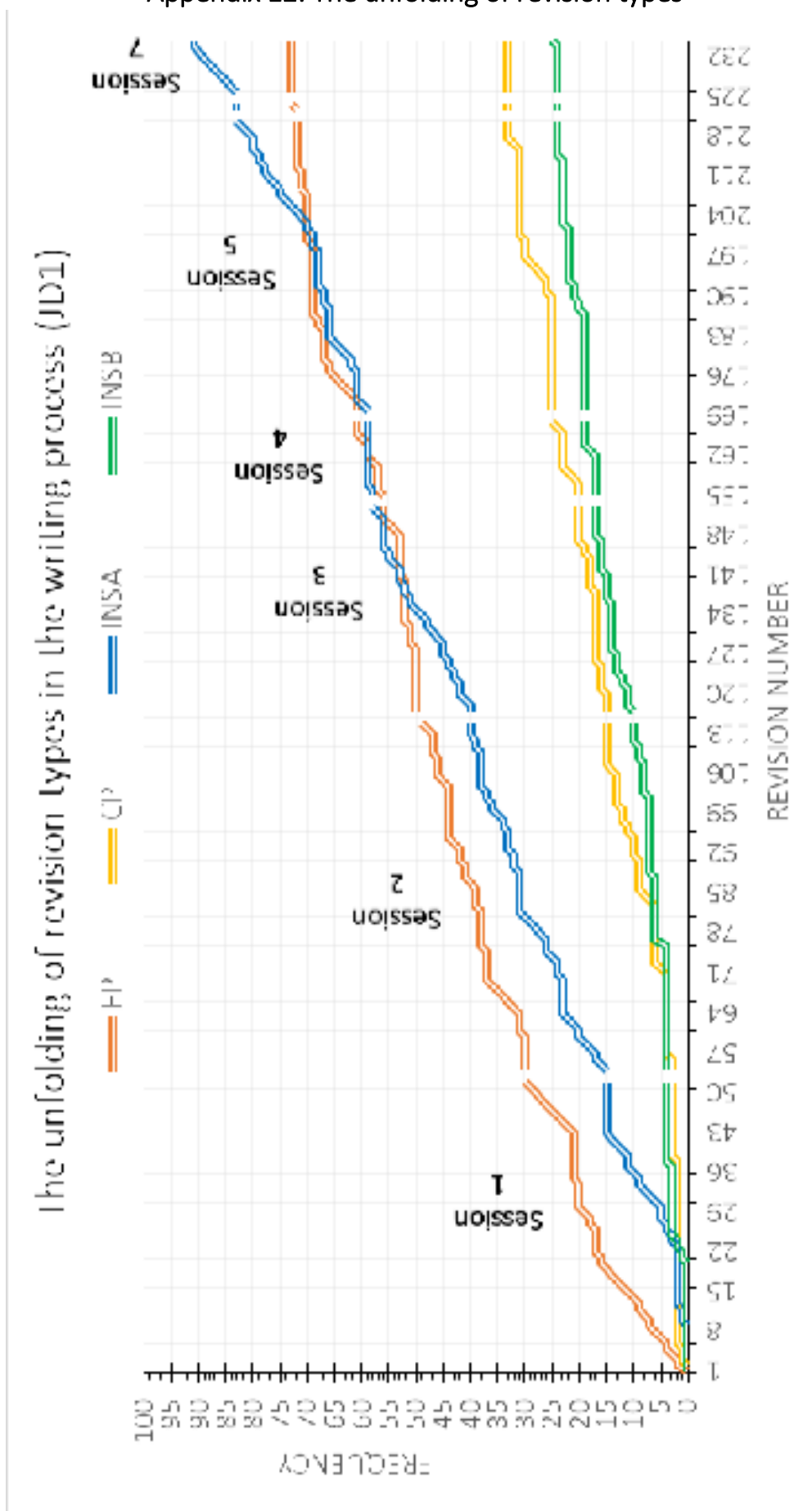
5th paragraph									
19	In addition to prose,	the Chronicle	also includes, at times,	poetry.		+	-	↓	-
20i		The "Battle of Brunanburh," ²⁷ {which} _{FP} ²⁶ {is} _{FP} {26} appears under the year 937 {27} ³⁰ {(Williams, 1975), {← T20}} _{INSA}	is	one such poem ⁷⁴ { , and the best known,		-	-	-	-
20ii	although	each version of the Chronicle	contains	several poems. {← T17}} _{INSA}		+	-	-	-
21i		The inclusion of poetry in this record of the language	exemplify ³⁰ {e} _{FP} {28} s	²⁹ {the{30}} _{FP} Old English poetic tradition, {29}		-	-	↘	-
21ii	⁷⁹ {and	the vernacular poems	"heightened	the Anglo-Saxons' sense of nationhood" and their "heroic past", _{INSA} ⁸¹ {(Frantzen and Niles, 1997:6).} _{INSA}		+	-	↘	-
21iii		which	⁸⁰ {een} _{FP} {80} strengthened	the importance of the language		-	-	↘	-
21iv	and	[= vernacular poems]	helped {81} ensure	the continued use of ⁸² {vernacular} _{FP} {82} English ⁸³ {at times} _{FP} {83} during times it was greatly threatened, such as during the Norman Conquest.		+	-	↘ E	-
22i	When compared with other poems such as "Pearl,"	the ³¹ {development of the style} progression of the structure and style of the poem	⁸⁰ {een} _{FP} {31} can be	clearly seen,		-	-	?	+
22ii	and	the features of the Old English tradition	[= are]	highlighted.		+	-	?	-
23		The following extract of the ³³ {poem} "Battle of Brunanburh" {34} _{FP}	displays	³² {the} _{FP} key Old English poetry features of caesuras, alliteration, and no rhyming: {33}		-	-	-	-
6th paragraph (Extract from ASC manuscript inserted above)									
24i		The Peterborough Chronicle	is	particularly significant ³⁴ {in} _{FP} {14}		-	-	-	-
24ii	as	it	shows	very clear and important developments of the language.		+	-	↓ S	-
25i	¹⁵ {At the time} _{FP} {15}	The Chronicle	contains	entries consistently up until 1121,		-	-	↓	-
25ii		which	means	it continues after the Norman Conquest in 1066, an event that greatly influenced the language use in Britain.		-	-	↘ S	-
26i	Additionally, in the year 1154,	the Chronicle	was	updated to that point,		+	-	↘	+
26ii	and	the language use in this ¹⁶ {entry} _{FP} {16} section	is	dramatically different from the previous entries, identifying it as an example ¹⁷ {of Middle} _{FP} {17} not of Old English but of ¹⁸ {West Saxon} _{FP} {18} Middle English;		+	-	-	-
27i		it	is, in fact,	the earliest written example of East Midland Middle English,		-	-	↓ S	-
27ii		which	appears to be	the dialect that Modern Standard English developed from (Crystal, 2004:117).		-	-	↘ S	-
28		{The entries after 1121	were all written by	the same scribe, entered on six different occasions, plus the final continuation in 1154.}		-	-	-	-
29		The differences between the Old English 1121 entries and the Middle English 1154 entries	can be seen in	the vocabulary, spelling and grammar used.		-	-	-	-

30i	For example,	"the"	changed	from "se" to "þe."	+	-	-	-
30ii	and	the word order and syntax	are	much more "modern" than ⁶⁰ { it-was-in } _{EP} {60} they were in Old English (Crystal, 2004:118-119).	+	-	-	-
7th paragraph (Extract from ASC manuscript inserted above)								
31		Several differences	can clearly be identified between	these two extracts, including the "se" to "þe" change.	-	-	-	-
32		There	are	many differences in orthography, such as "gear" becomes "gære", "kyng" becomes "king" (evolved from the earlier "cying").	-	-	-	-
33i		The First Continuation	also retains	some inflections ("ðes Caseres") and more Germanic word order than the Final Continuation.	-	-	-	-
33ii	although	both	contain	many differences from pre-Conquest Old English:	+	-	?	
34	for example,	earlier entries	start with	"Ælfred cyning," not "king Steþne" (Burnley, 1992:76).	+	-	↘	-
8th paragraph								
35i	Although	³⁵ { the } _{EP} the Norman invasion and consequent transition into Modern English	is } _{EP} {35}	a specific example of where the Chronicle can illustrate changes in English,	+	-	-	+
35ii		it	is not	the only example of where changes in ³⁶ { vocabulary, semantics, grammar } _{EP} {36} the language can be seen - and, moreover, approximately dated.	-	-	↘	-
36i	As	the Chronicle	is	a historical record	+	-	-	-
36ii	and	approximate dates	are known for	the entries,	+	-	-	-
36iii		this	can show	us in greater deal when ³⁷ { and perhaps } _{EP} {37} change occurred.	-	-	↘	-
37	In instances such as the Norman Conquest,	the Chronicle	also records	why these changes came about.	-	-	-	+
38	An example of	where change can be seen	is	³⁸ { that the } _{EP} {38} in the fact that the Chronicle uses ³⁹ { the -{40}} _{EP} terms ⁴⁰ {for} _{EP} Welsh and Britons synonymously {39} ⁴¹ {(Reno, 2000)} _{EP} .	+	-	↘	-
39i		The term British	comes from	the word "Brythonic."	-	-	-	-
39ii		which	was used to describe	the Celtic people living in Wales, Cornwall and Breton,	-	-	↘	-
39iii	so while	the Welsh	were	British,	+	-	↘	-
39iv		not all of the British	were	Welsh.	-	-	↘	-
40i	This shows us that by the time the Anglo-Saxon Chronicle was written,	the meanings of the words	had	changed.	+	-	↘	+
40ii	or at least	the clear distinction between the two	had	disappeared. {41}	+	+	-	-
9th paragraph:								
41	⁴³ { Just as after the Norman invasion } _{EP} {43} ⁴⁴ { Just as In the same way that} _{CE}	French words	permeated	the language ⁴⁴ {and} _{EP} {44}, so did words from other languages ⁴⁵ {in with} _{EP} which {45}h the people of England had contact with. {46}	-	-	-	+
42i	Just as	"abbod" ⁴⁷ {(abbot) and "Sancti" {47} (saint)} _{CE}	appear in	the Chronicle,	+	-	-	-

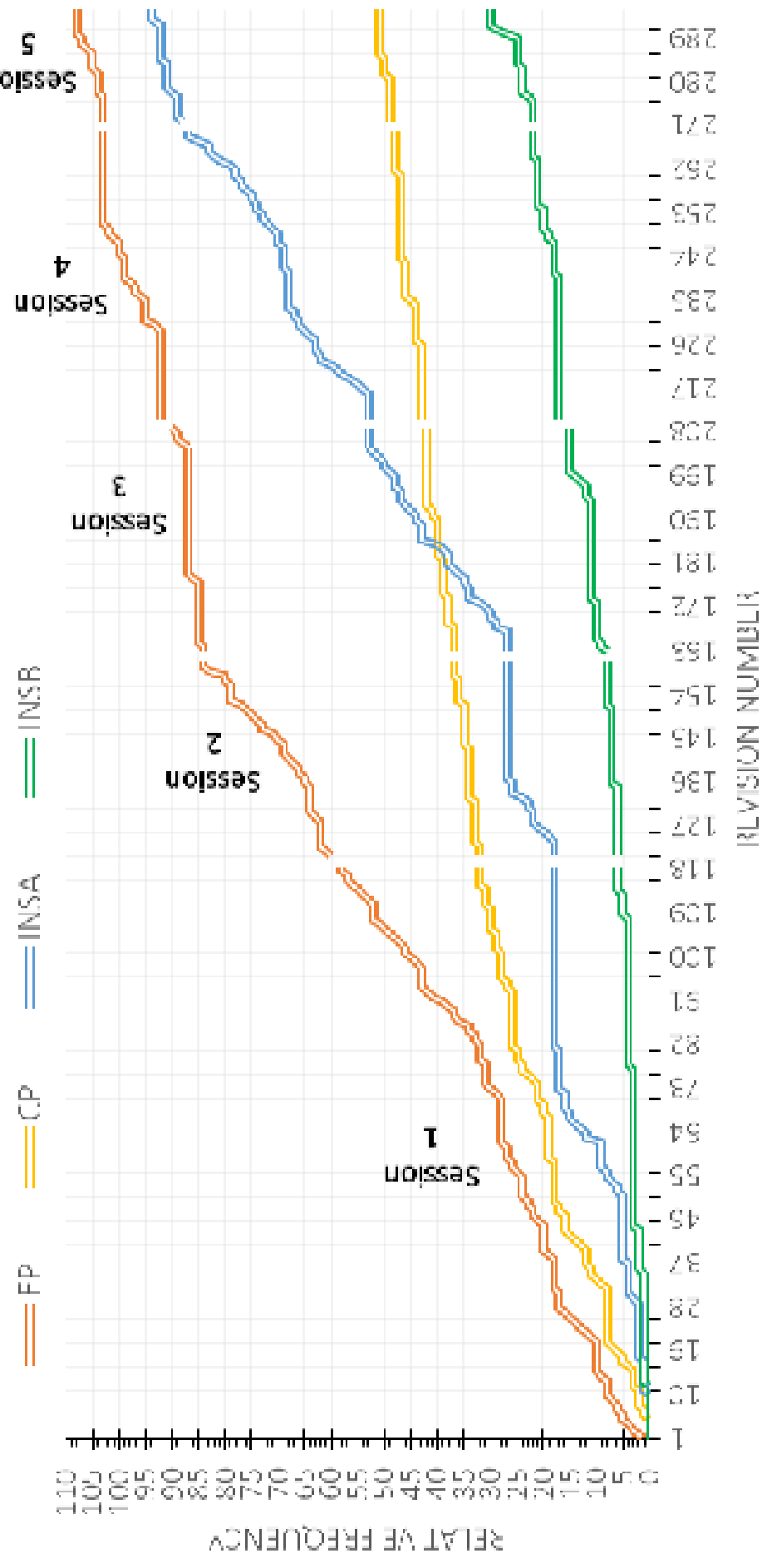
42ii	in ⁶⁸ {the} _{pp} {48} just the introduction	there	is	"mila" (miles) and "T" (and).	-	-	-	+
42iii		which	⁶⁹ {come from} _{pp} {49} are loaned	from Latin.	-	-	↺ S	-
43i		That	means that	as far back as 890, Latin words were being incorporated into the language.	-	-	?	-
43ii	although	⁶⁶ {the} _{pp} majority of them at this time	seem to be	proper nouns.	+	-	↺	-
44		The Anglo-Saxon Chronicle	also contains	a few of the scarce examples of Norse loan words (Crystal, ⁶³ {2004:70}. {↔ 120v} _{pp} {↔ 120})	-	-	-	-
45		The recording of place names in the Chronicle	can illustrate	the nationality or the language of the settlers in certain areas.	-	-	-	-
46i	Where Scandinavian place names are recorded, for example, it is clear that	⁷¹ {this} _{pp} {71} these places	are	where the Norse settled after invading.	-	+	↵	+
46ii	and	this	can show	where the Norse loan words first entered the language.	+	-	↺ S	-
46iii	and therefore	the spread and incorporation of them into the general lexicon and not just the local dialect	can be	tracked.	+	-	↵	-
47i		⁷² {-which} _{pp} {72} This	can show	just which words prevailed, and perhaps why.	-	-	↵	-
47ii	as	there	are	relatively few words of Norse origins in ⁷³ {the} _{pp} {73} Modern English.	+	-	?	-
10th paragraph								
48	In addition to French loan words from after the time of the Norman conquest,	there	are also	French words found from earlier years, such as "castel", "cancelere" and "serfice" (castle, chancellor, and service) (Kastovsky, 2006).	+	-		+
49		This	⁶⁵ {is} _{pp} {65} shows that	the two nations did have contact before the invasion.	+	-	↺ S	-
50i	In fact,	the King of Wessex in 1043	was	Edward the Confessor,	-	+	?	-
50ii		who	spoke	French due to spending a lot of time in Normandy.	-	-	↺ S	-
51i		The influence of French rulers	can be seen in	the Chronicle,	-	-	↵	-
51ii	as before Edward's reign	there	are	only thirteen instances of the word "abbod" (or similar variations).	+	-	-	+
51iii	whereas after 1043	there	can be found	⁶⁶ {45} _{pp} {66} forty-five (Jebson, 2006). {↔ 146}	+	-	-	+
52i		This version of the Chronicle (Manuscript E, Laud)	goes up to	the year 1154, little over a hundred years after the beginning of Edward's reign,	-	-	-	-
52ii	whereas	it	starts	- after the introduction and one entry for 60BC - with the year 1AD,	+	-	↵ S	-
52iii		which	means that	the { frequent-term frequency of the term} "abbod" went from about once every eighty years before French rulers, to once every two years, showing that ⁶⁷ {the} _{pp} {67} foreign rulers	-	-	?	-

				had a significant influence on ⁶⁸ {the-English} _{pp} (68) Old English,				
52iv	and that with these rulers, {69}	English	developed to incorporate	⁷⁰ {a-let} _{pp} (70) many French terms,	+	-	-	+
52v	so much so that	Modern English	is believed to attribute	around 40% of its lexicon to French.	+	-	?	-
11th paragraph								
53		The Anglo-Saxon Chronicle	has not survived for	so many centuries to become insignificant.	-	-	-	-
54		It [= the ASC]	can still show	so much about [what the English language was, how and why it changed and developed], and [where it came from].	-	-	↓ s	-
55		It [= the ASC]	remains	a highly important text due to [the amount that can be learned from it of history, culture, and [a language barely recognisable as our own]].	-	-	↓	-
56	as	it [= the ASC]	recorded	[over two and a half centuries of the journey the nation and the language took].	+	-	↓	-
Total Theme selection (# T-units)								

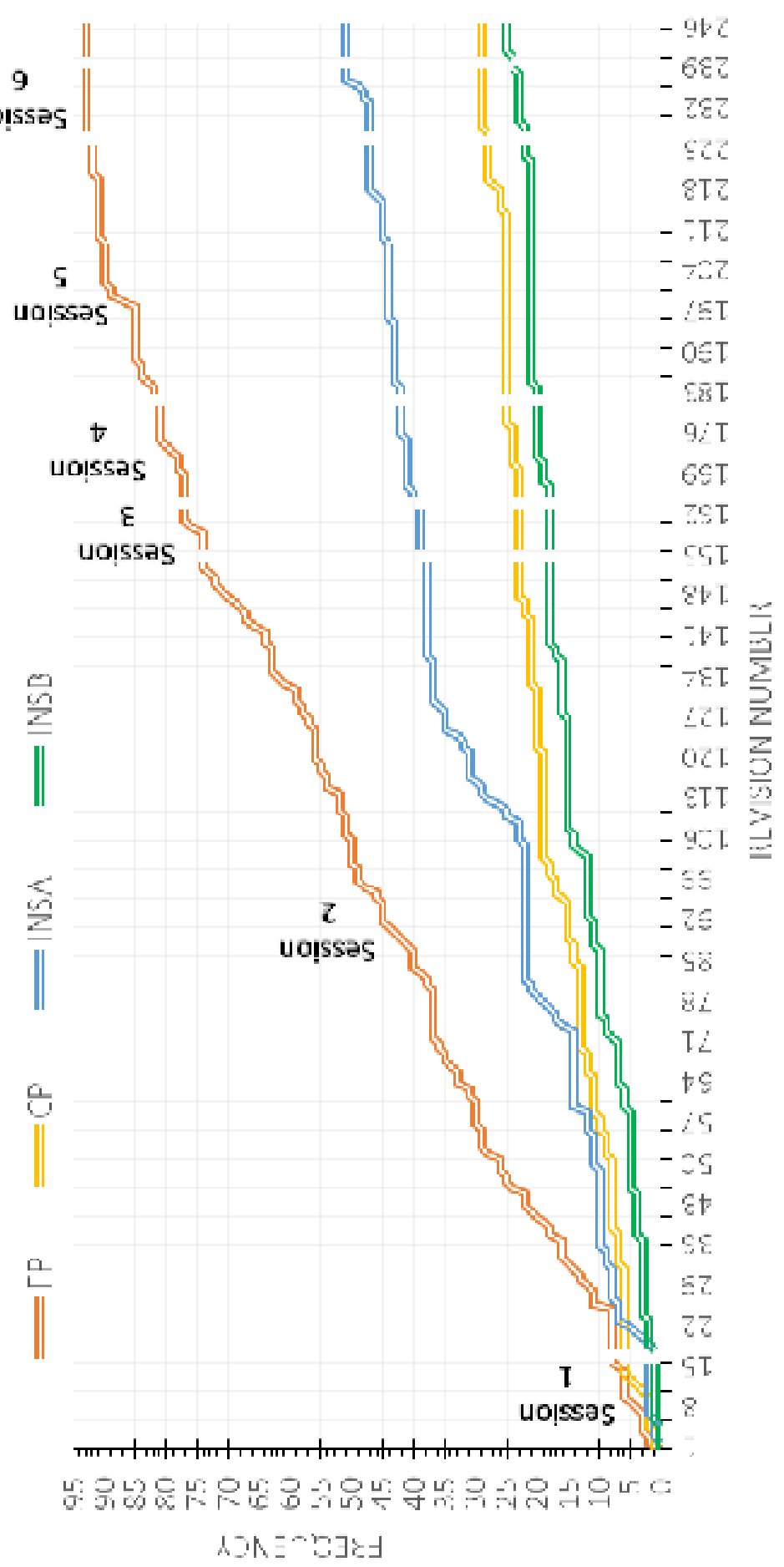
Appendix 12: The unfolding of revision types



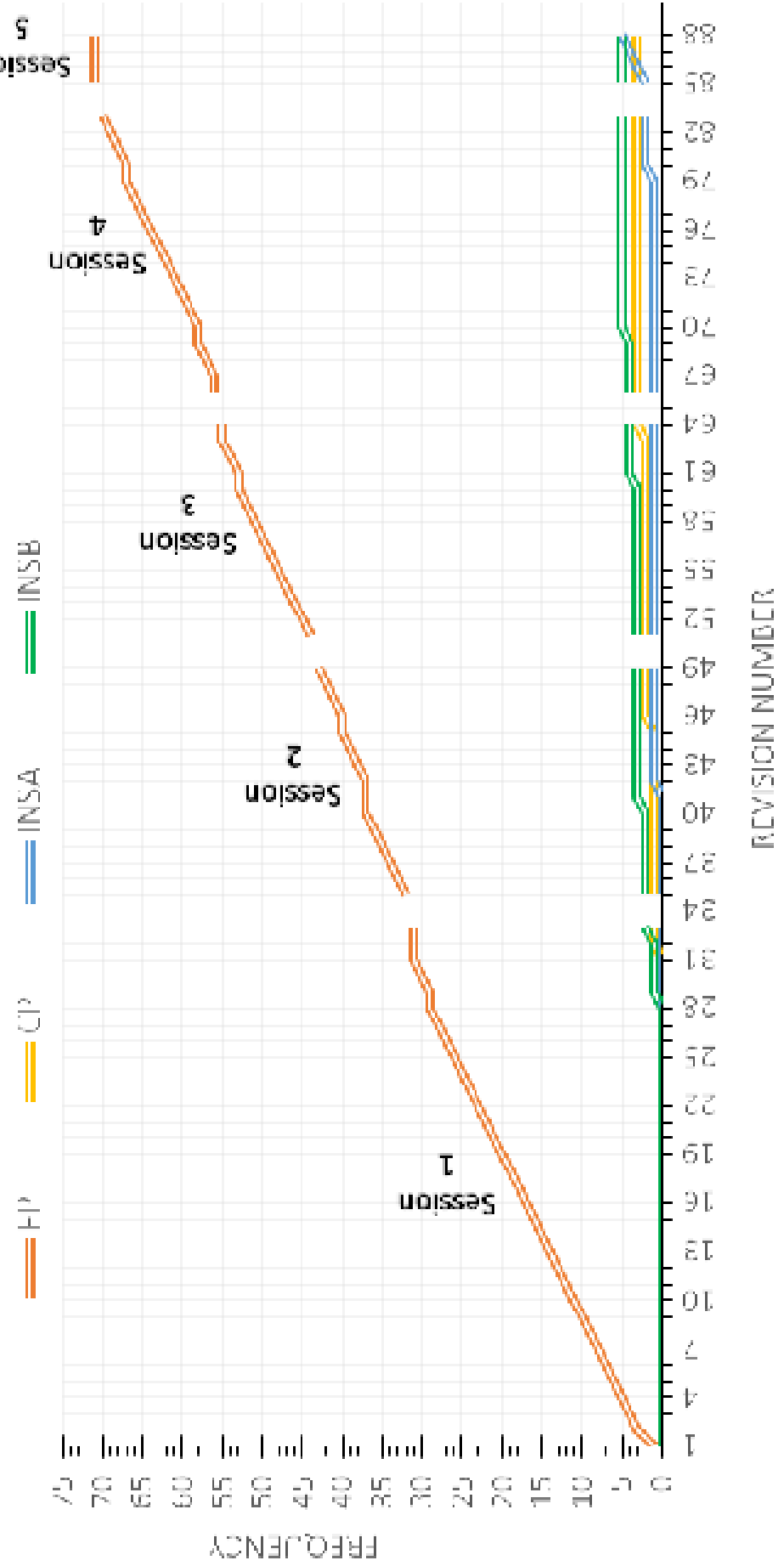
The unfolding of revision types in the writing process (JD2)



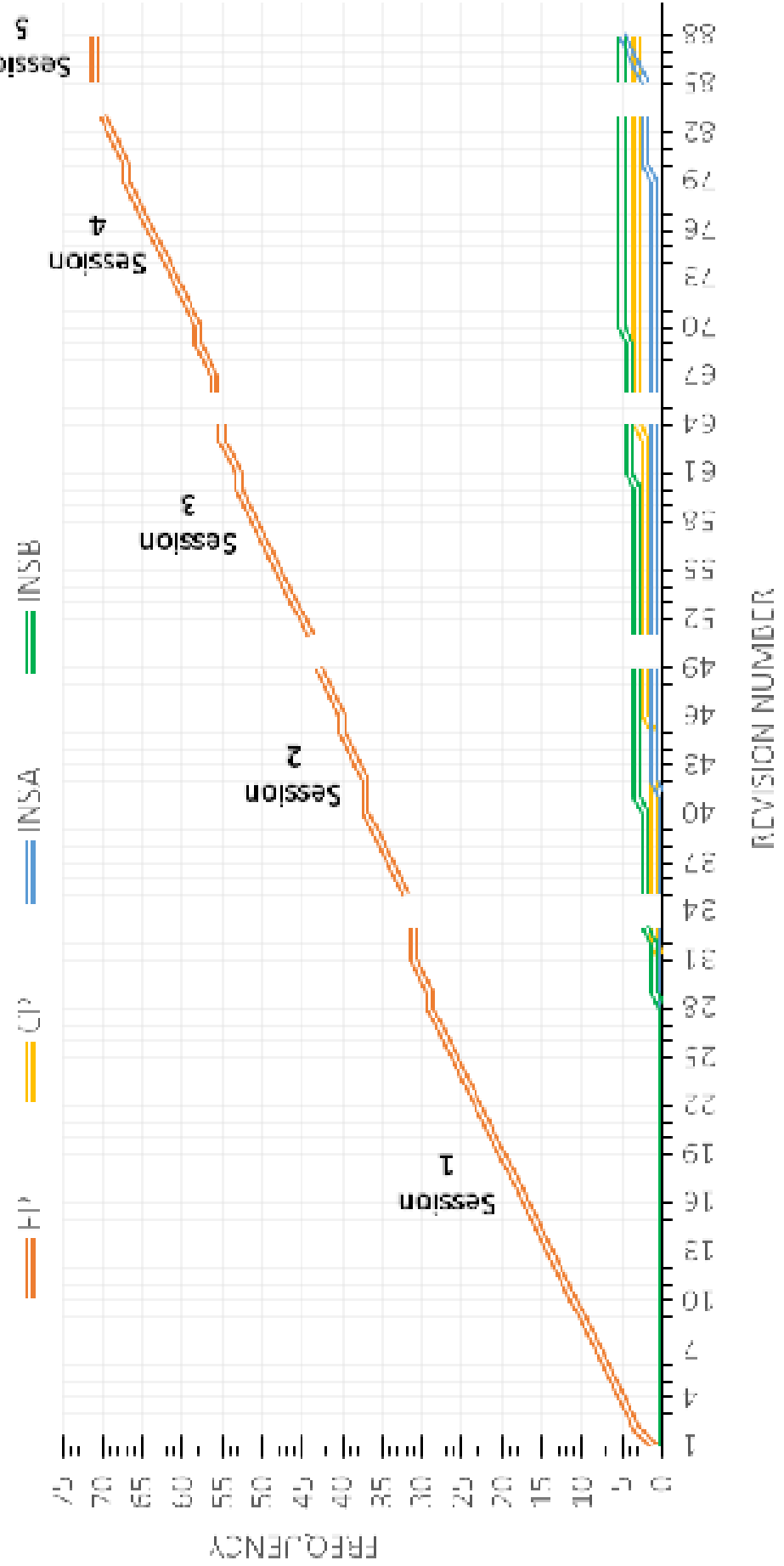
The unfolding of revision types in the writing process (JD3)



The unfolding of revision types in the writing process (BB)



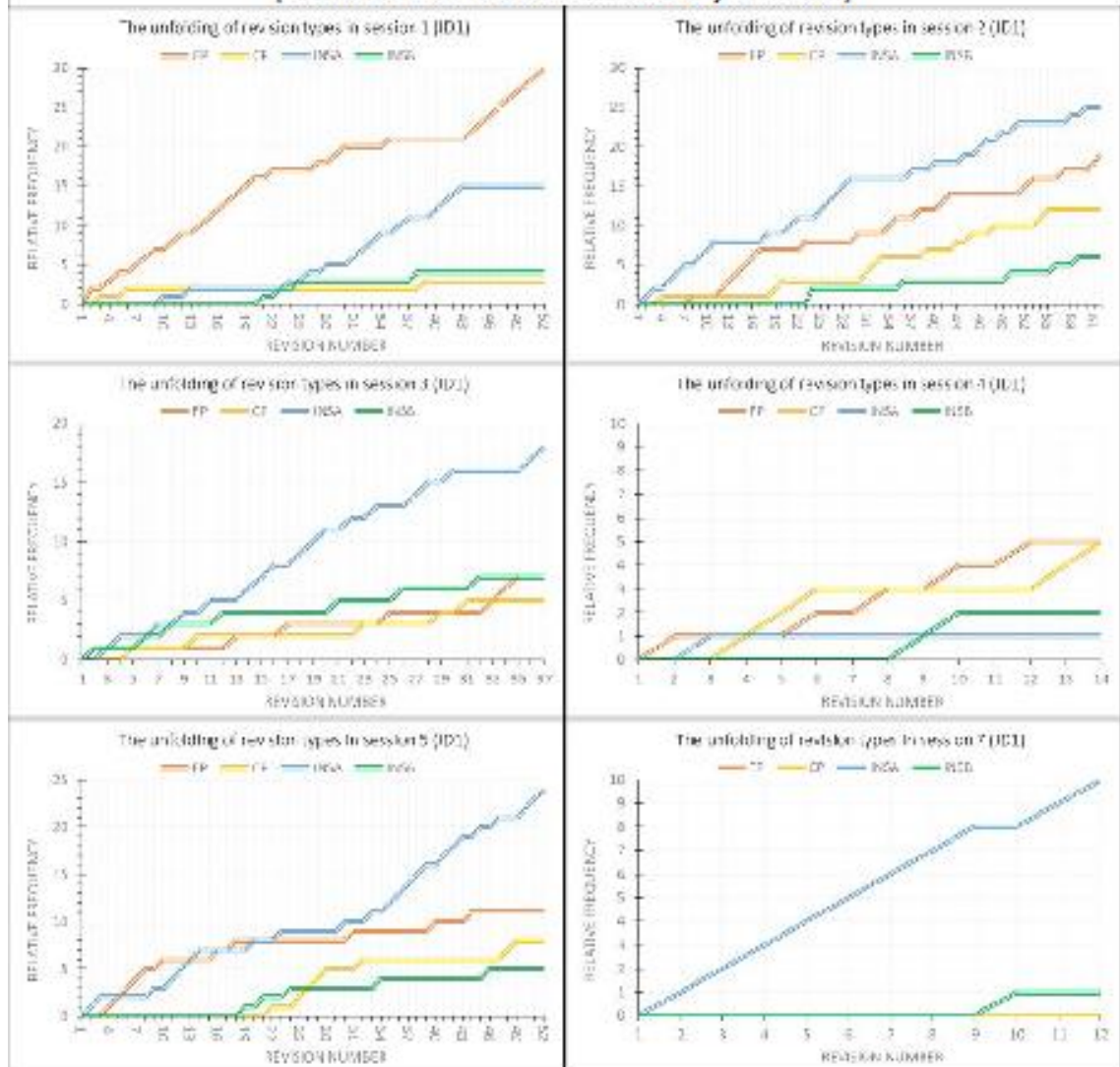
The unfolding of revision types in the writing process (BB)



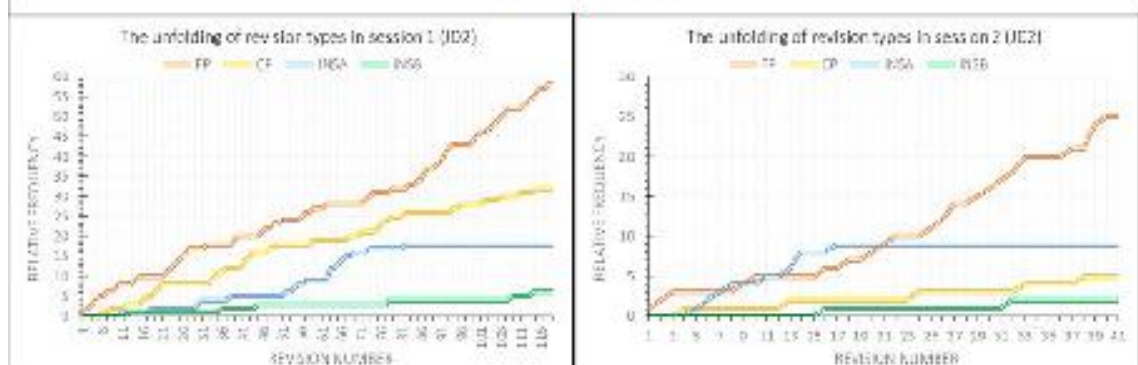
The unfolding of revision types in each session

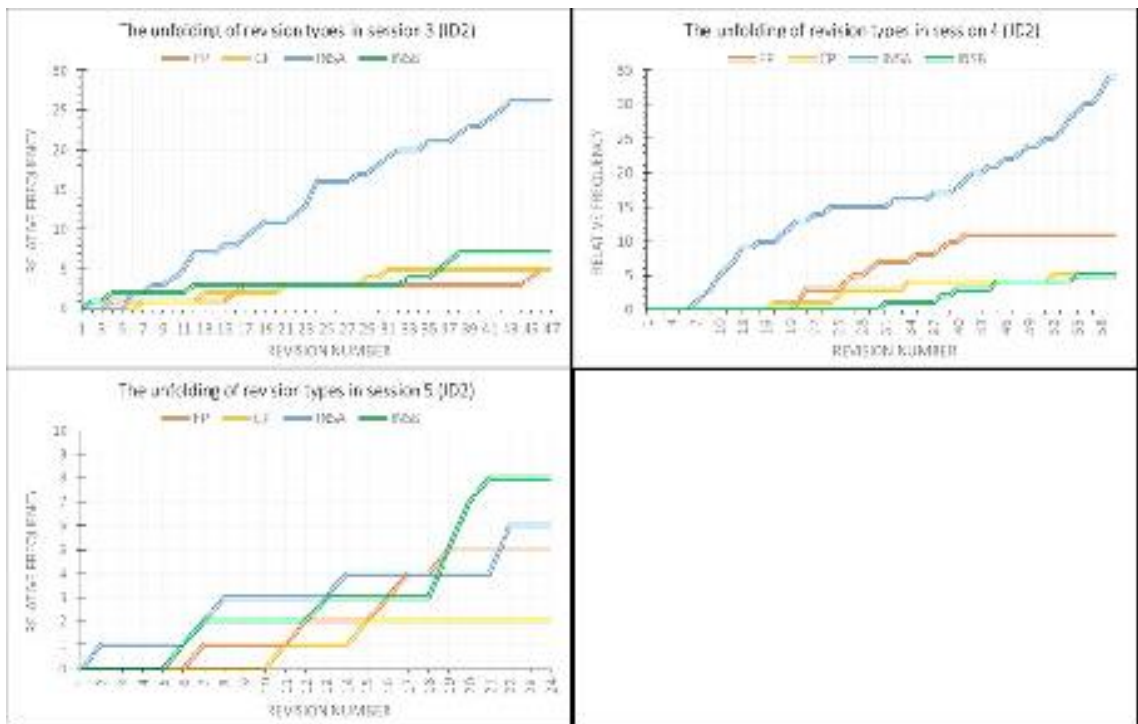
JD1 sessions 1 - 7

(*Session 6 is omitted because it had only 2 revisions)

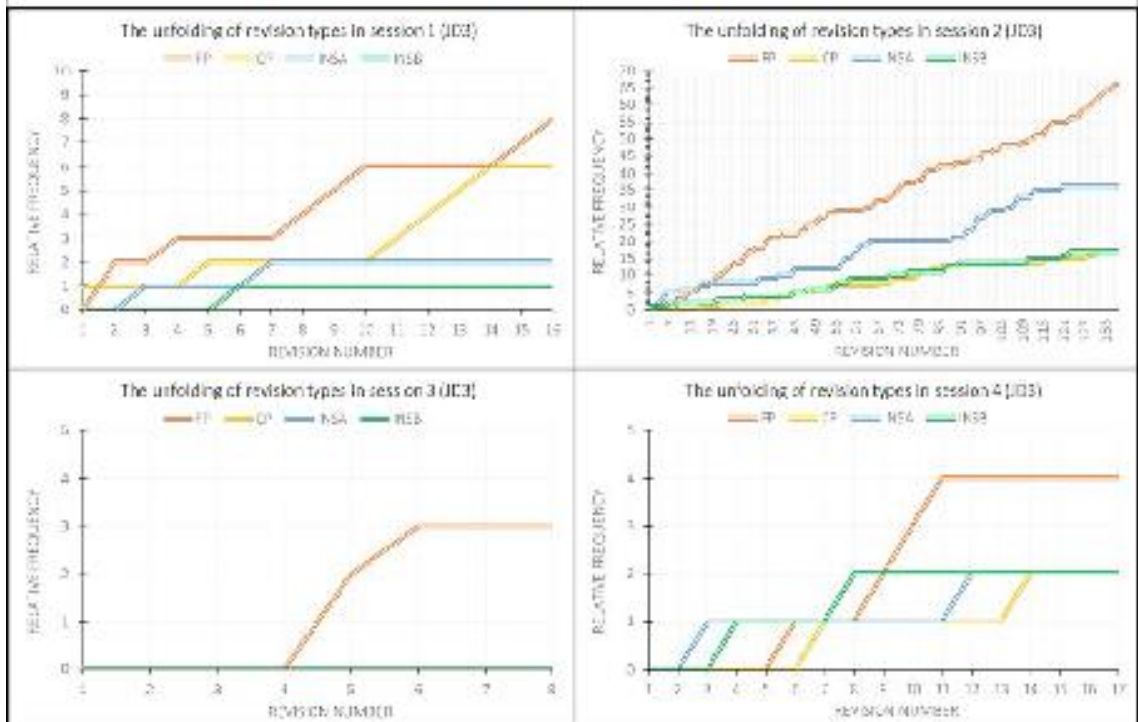


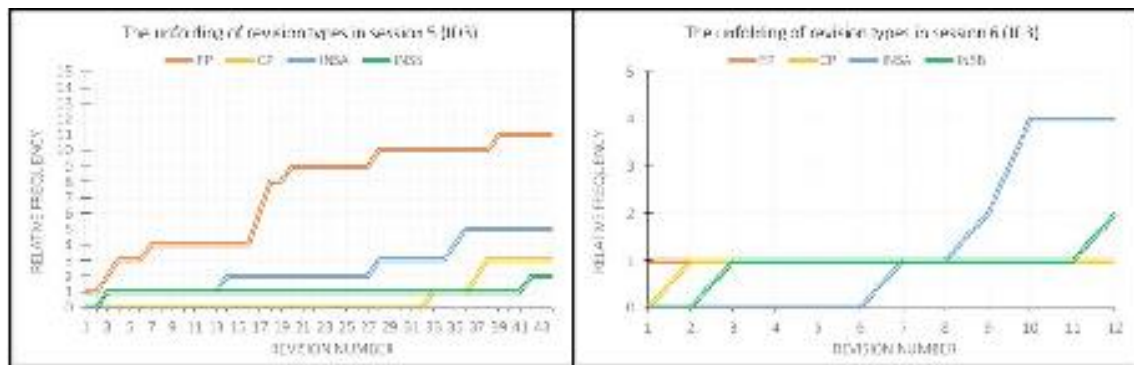
JD2 sessions 1 - 5





JD3 sessions 1 - 6
*(*Session 7 is omitted because it had only 2 revisions)*





Appendix 13: List of Subject Theme revisions

List of Subject Themes and their revisions in JD1

T-unit	Content of Subject Theme	Thematic progression
1	Research	
2i	there	Existential clause
2ii	I	
2iii	they	↗
3	I	↘
4i	Brown and Levinson	↗
4ii	their names [=Brown and Levinson]	↓S
5	I	↘
6i	I	↓
6ii	they	↗
6iii	[=they]	↓E
6iv	{which}	↗
7i	The participants	
7ii	³⁰ {participants	↓
8i	the father ⁶⁰ {in the family(61)} _{100%}	
8ii	the mother	↗
8ii	the daughter	↗
9	Brown and Levinson's politeness theory ⁶¹ {(1987)(62)} _{100%}	-
10i	They	↓S
10ii	it {10} _{100%}	↗S
11	They	↘
12i	Positive {politeness} face	↗
12ii	negative {politeness} face	↗
13	⁶⁴ { Brown and Levinson	↘
	↑	
	↑	
14	I	-
15i	{c} N	-
15ii	it	↗
16i	J	↗
16ii	she	↓S
16iii	[=she]	↓E
16iv	she	↗
17	N	-
18	N ⁷¹ {when he	↓S
19	J's degree	↓
20i	he	↓S
20ii	which	↗
22i	J's ⁷¹ {want to be} _{100%} {71} need to be admired	-
22ii	she	↓S
22iii	when she does {64 in T33i}	
23i	N	?
23ii	he	↗S
24i	she	↓S
24ii	[=she]	↓E
25	⁷⁷ {this	↗
26i	↑ T(39) _{100%} hey all	-
26ii	this type of mockery	-
26b	H	
27i	N ⁴⁰ {,although doesn't say much,(41 in T30iii)} _{100%}	-
28X	³⁴ {his	
27ii	²⁴⁰ {which	↗S
28i	this _{100%} {248} _{100%}	↗

28ii	it	-
29i	H, ²¹⁹ { although (220)} _{NSA}	-
29ii	{r} {it	?
30i	she	↙
30ii	[=she]	↓E
30iii	it	↗S
31ix	she	↓S
31iix	[=she]	↓E
32ix	they all	↙
32iix	this type of monkey	-
31i	this interaction	↙
31ii	the tone of voice of all three	-
31iii	²⁴¹ {it it	-
31iv	[=it]	↓E
<hr/>		
32x	⁴⁴ {(a) Brown and Levinson	?
32ix	+	
32iix	↓	↓
32i	{h} Another example of a face-threatening act with positive politeness	-
32ii	N	-
32iii	[= N]	↓E
33i	⁷³ { This A(74)} _{NSA} ⁷⁵ {n order or(76)} _{CP} command	?
33ii	N	↙
34	⁷⁵ { بِسْمِ U(80)} _{NSA} sing a pet name, {instead of her ⁸⁵ {actual(94)} _{NSA} name, ⁸¹ {or simply ⁸⁴ {just (95)} _{CP} saying 'please',(82)} _{NSA}	↗
35i	It(221)} _{NSA}	↓S
35ii	Brown and Levinson	-
36i	there	EC
36ii	⁴⁷ { they } _{CP} (47) all family members	-
37i	the parent	-
37ii	there	↓
37iii	he ⁸⁸ /she ²²¹ {being the parent(222)} _{NSA} ¹¹⁶ {and ↓ being the child, regardless of age(117)} _{NSA}	↓
38x	she	
39x	N	
38	²²² { This This } power relationships	↙
39	she	TE
<hr/>		
40i	{j} Holmes and Stubbe ⁸⁵ {↗ (2003)	-
40ii	this	E
41i	a manager and ²⁴³ {its(244)} _{NSA} workforce ⁸⁵ {relationship} _{CP}	↙
41ii	¹⁵² { they both } their research	-
42	there	↙
43	¹⁰⁶ {Examples of (107)} _{NSA} ways to do this ²²⁵ { ¹¹⁰ {in-my-date- <> T46}} _{NSA} (230)} _{NSA}	↗
44	there	EC
45ix	²²² { This	
45iix	a manager	?
45i	A manager	
45ii	there	EC
46	generic forms such as 'mate', 'buddy', 'pal'	-
47	these in-group markers, when used to address children,	-
48x	²⁴⁴ { which	
<hr/>		
48	¹¹⁰ {Brown and Levinson	-
49i	¹¹¹ { Leech's politeness principle } _{CP} (111) ¹⁴⁴ { ¹¹³ { ¹⁴² { Goffman (143)} _{NSA142} He (145)} _{NSA144} (118)} _{NSA117} (120)} _{NSA118}	↗
49ii	there	EC
50x	¹⁵³ { ¹¹³ { The avoidance process as ¹¹³ {it the name(114)} _{CP} suggests,	
50i	face-work	-
50ii	¹²⁴ {it	↓S
51	This	-

52	she [= H]	↗
53i	this	↓
53ix	¹²⁷ { she she	
53ii	she	
53iv	it	
54	Brown and Levinson	-
55X	Geoffrey Leech	
55i	¹⁹¹ {He(s< T57) Leech (192)} _{NSA}	↗
55ii	that	↗S
56i	Leech's maxims	↓
56ii	[=Leech's maxims]	↓E
57X	Leech's politeness maxims	
57	N's command	-
58X	{He	
58	He	↓S
59	this	↗
60i	The frustration	↗
60ii	which	↗S
61i	There	EC
61ii	¹³⁵ {all} _{CP} ²⁰⁰ {the} _{CP,NS} {158} their{201}} _{NSA} responses	↗
62i	There	EC
62ii	H	-
63i	the family	-
63ii	[= the family]	↓E
64i	N	-
64ii	[= N]	↓E
65	Line 87	↗
66i	¹⁶³ {This this	↗S
66ii	the tone of voice	-
66iii	this this	-
66ivX	↓	
66iv	the family	-
67	This	↗
68	she	↗S
69	H's ²⁰² { lightly {203}} _{CP} frustrated tone of voice	?
70	N	-
71	This	↗
72i	a view	↗
73i	there	EC
73ii	laughter	-
73ix	here	EC
73ixX	This, I feel,	
73ixx	laughter	-
74i	²⁰⁴ {My data here	-
74X	↓	
75	the various approaches to ¹⁷² {politeness-and-mitigating} _{CP} {172} face ¹⁷³ {and-face-threatening-acts-and-mitigation} _{CP} ²³⁵ {although but but may} _{NSA} sometimes overlap.	-
76X	↓	
77ix	This	
77ixX	e-view	

List of Subject Themes and their revisions in JD2

T-unit	Content of Subject Theme	Thematic progression
	Thesis statement	
1	early language socialization	-
2i	† T (295) _{ns} his	↗S
2ii	Children ^{243a} {of from} _{co} ²⁴⁵ {different ²⁴⁷ {various(246)} _{re} ²⁴⁸ {certain(248)} _{co} classes (245a) and-cultures, when-mixed ²⁴⁶ {together with-other(247)} _{co} ²⁴⁹ {classes-and-cultures(249)} _{co} {↔ T2ix} _{ns} some ²⁵⁷ {minority children(288)} _{ns} (286) _{ns} (251)	-
	Introduction	
3	children	↓
4	There	EC
5i	genes	-
5ii	socialization and ⁵² {genes the(53)} _{re} environment ⁵³ {a child is brought up in (54)} _{co}	-
6	Formal education	-
7i	school	-
8iX	257 Writing	
8iiX	we	
7 ii	this	↗S
8i	Early language socialization	-
8ii	how ⁶ {and when it is appropriate {↔ T10}} _{re}	↗
9	253 {boys} _{co} (253) it	TE
	Bemstein's beliefs	
10	There	EC
11	261 {the links between these agencies and the agencies themselves these agencies and the links between them}	↗
12i	⁵⁸ {the (59)} _{ns} social class ⁵⁹ {we are brought up in (60)} _{co}	-
12ii	this	?
13	⁶¹ there ¹⁰ {language ¹⁰ {based related} _{co} subjects}{10}	EC
14i	there	EC
14ii	maths	↘
	Bemstein's codes	
15	Bemstein's speech codes	-
16	⁶² He [= Bemstein]	↗
17	The restricted code	↗
48X	17 {#(18)} _{co} (16)	
18	The elaborated code however {14}	-
19	¹⁹ {some sections of} _{re} the working-class	-
20	Bemstein	↓
21i	The ²⁰ {MC middle-class children} _{co} (21)	↗
21ii	the ²¹ {wCM (20) working-class children} _{co}	↗
21iii	a listener	-
22X	they	
22	working-class children	↘
23	the ²³ {y} _{co} (24) child	↗
24i	a self-fulfilling prophecy	TE
24ii	[= a self-fulfilling prophecy]	↓E
	Heath's findings	
25	Heath's ²⁵ {(1983)} _{ns} {g↔ T27} ²⁷ {ethnographic ²⁸ {research} _{sp} study (29)} _{sp} (28) ³⁰ {conducted-a study (30)} _{sp} (31) _{sp} on three communities in ³² {the(33)} _{sp} south-eastern United States(26), ^{31b} {levels-of literacy} _{ns} each with ³³ {completely(34)} _{re} different language socialization.(32) ³³ {27}	-
26	The three different communities she looked at	↓
27	Heath ³⁵ {says that parents}	↘
28	literacy events, according to Heath,	↗
29i	She ⁴⁴ {found that in Maintown the function of reading}	↘
29ii	⁴⁵ {they children(70)} _{ns}	-
30i	she [= Heath]	↘

¹ Gets moved into N-Rheme by the insertion of (j)

30ii	[=parents]	↗E
31i	She	↘
31ii	there	EC
32	this ¹⁸³ { This These findings This observation {184}} _{INDA}	↗S
	Ochs' & Phillip's findings	
33	research ⁷³ { in this area } _{CP}	-
34	Ochs ²⁰⁰ {in Coupland and Jaworski{301}} _{INDA} 1997:430	-
35i	She [= Ochs]	↓S
35ii	an older sibling ⁷⁰ {of the child (<- T37i)} _{CP}	↓E
36i	⁷³ { This it	↗S
36ii	⁸² { all the mothers - ²⁷⁰ { several numerous {271}}} _{INDA} mothers	-
37i	This	↘
37ii	they	↗S
38	the mother	↘
38X	the mother	
38bX	¹⁸³ { The mother	
39	this	↘
40i	The child	-
40ii	the mother	↓
41i	⁸⁸ { These This} _{CP} Samoan way ⁸⁸ { it } {88} of ⁸⁹ { living and } _{CP} {89} caregiving	↘
41ii	[= This Samoan way of caregiving]	↓E
43i	he or she	?
43ii	the two	↗S
44	they	↓S
45	⁹⁴ { These The} _{CP} {94} children from these ⁹⁷ { different ¹³⁴ { different ethnic } _{CPST} collectivist {135}} _{INDA} backgrounds	↓
46i	This ¹⁹³ { finding could in turn } _{INDA} {193}	↓
46ii	[= this]	↓E
47i	²⁰⁵ { This It{210}} _{INDA}	↓S
47ii	who	↗S
	critique of literature?	
48	Ochs	-
49i	¹⁰⁴ { She } _{CP} {104} ¹⁰⁵ { by observing } _{CP} {105} it	↗S
49ii	one that{112} _{CP} all ¹⁰⁶ { middle class } _{CP} Anglo-American mothers{106}	↘
50X	¹⁰⁷ { it	
50i	Americans	↘
50ii	which	S
51i	This	↘
51ii	it	↓S
51iii	it	↓
52	Echoing the work done by Ochs	-
53i	She	↗S
53ii	it	↗S
53iii	who	↗S
54	¹¹⁴ { She } _{CP} {114} She	↘
55i	Anglo students	↘
55ii	[= Anglo students]	↓E
56	she	↘
57X	²⁰⁴ { Not only did Phillip	
57i	²³² { these pupils{233}} _{INDA} who raised their hands more ¹¹⁸ { often } _{CP} {118} ¹³⁷ { in class } _{INDA} {138}	-
57ii	this	↗S
57iii	this	↓
58i	it	↗S
58ii	they	↘
58iii	they [=the students]	
59	¹²⁵ { Western, individualistic eastern, collectivist } _{CP} cultures	-
60	there	EC
61	they	TE
62	¹⁴⁷ { This This ²⁰⁶ { finding } _{INDA} {207}} _{INDA}	↘
63	children	-

64	¹⁵⁷ {they	↓s
65	²³³ { # This	↗s
66	this ²⁰⁷ {outcome(208)} _{NSA}	↗s
67	these two separate studies	-
68i	if (these collectivist) children from different {collectivist} cultures	-
68ii	they	↓
68iii	they	↓
69ix	they	
70i	they	↓
71ii	[=they]	↓E
	class & education in Japan	
72	{ educated }	-
73i	²⁰⁴ {that this	↗
73ii	this	↓
74	¹⁶⁰ {they self(161)} _{ce} (160) they	-
75	¹⁶³ { they Not going to school (163)	-
76	they	↗
	Summary	
77	d {D} _{ce} (214)ifferences in class and cultural background	-
78	²⁶⁴ { those (265)} _{NSA} children	-
79	a child's ²²¹ { background early language socialisation	-
80ix	those findings	
80ixx	findings	

List of Subject Themes and their revisions in JD3

T-unit	Content of Subject Theme	Thematic progression
	Thesis	
1	images	-
2	how images	↓
3	how, {d↔T23i} _{NSA} through persuasive communication and the ² { action notion(4)} _{NSA} of gaze, women	
4	I	↓
5i	⁹⁶²⁶ {There I	↓
5ii	I	↓
5iiiX	where ²⁰{receivers-of those who see (21)}_{NSA} campaigns about sexual health	
5ii	which	↗s
6X	I	
	Description of images	
6	Figure 1	-
7	It	↓s
8	²⁵ {# it	↗s
9i	Facebook	-
9ii	¹⁰³ { there this	↗s
10	Figure 2	-
11	The image of a woman straddling a man	↗
12	figure 3	-
13i	The provocative ¹⁰⁰ { photograph image} _{ce} (100)	↓s
13ii	¹⁶³ {this	↓
14	¹⁰⁴ {the name of} _{ce} a sexually (104) transmitted ¹⁰⁰ { infection disease} _{ce}	-
15	anyone	↗
	Description of colors used	
16	There	-
17i	figure 4 and 3 Figure 3	-
18i	the only hue in figure 1	-
18ii	figure 2	-
18iii	it	↓s
19	{the colours	↗
20	This ²³⁴ { lack of colour } _{ce}	↗

20b	black	↵
	Theme – persuasion	
21i	¹⁹ Aristotle	-
21ii	[= Aristotle]	↵E
22	Persuasion	↵
23i	the purpose of persuasion	↵
23ii	[= the purpose of persuasion]	↵E
24i	¹⁴ {The use of emotion ¹⁵ {It Using emotion(16)} _{CP} is common	-
24ii	it	↵
25	Jamieson (1985:103)	-
26	Visual rhetoric	-
26iX	^{before 225} Figure 4 and 2	
26iiX	they	
27i	²²⁵ {All} three ²²⁵ {of the} _{NSA} images I have chosen ²²⁵ {to discuss}	-
27iX	²²⁴ they all	
27ii	²²⁷ {All three images [=all three images]}	↵E
28iX	²⁰³ This	
28iiX	which	
29X	we	
30X	#	
28	This	↵
29	the narrative	↵
30	there	-
	power of images	
31	visual metaphor	-
32	¹⁸⁶ {however} Figure 1	-
33iX	¹⁸³ Figure 3	
33iX	the viewer	
34X	¹⁹¹ {it	
33	it	↵S
34i	The effect on the audience	↵
34ii	¹⁹³ {they} the aim of ¹⁹⁴ {the} _{CP} (194) sexual health adverts	-
35	³² {the} _{CP} (32) visual representations	-
36	c ¹⁹² {combining the two,	↵
37X	Hill	-
37	Hill	
38	He	↵S
39X	figure 2	
	Guilt appeals	
39	Guilt appeals	-
40	Guilt appeal	↵
41	it	↵S
42	guilt appeals	↵
43iX	{This is what image 1 and 2	
43iiX	they	
43iiiX	{figure 1 and 2}	
43	⁸⁶ {images Figures(87)} _{NSA} 1 and 2	-
44X	Guilt appeal	
44i	⁴⁵ {LaTour (1990) ²⁰⁴ {in {T48iX}} _{NSA} Messaris (1994:48)}	-
44ii	[= La Tour]	↵E
45	This finding	↵
46i	⁴² {female nudity	↵
47i	There	-
47iiX	⁴¹ {that it} ²¹⁵ {that	↵S
47iX	{This	
47iiX	e-man	
47iiiX	he	
47ivX	e-woman	
47vX	she	
48iX	{This	

49iX	¹⁴² {The women in this image ¹⁴⁴ {the ¹⁴³ {numerous}} _{pp} (143) men (it is the man	
49iix	the focus	
49iiix	she	
48iix	¹⁴⁶ {All of my images they all (<=> T53)} _{pp}	
	Power in images	
48i	Goffman (1979) ³² {in Maccaris (1997:40)} _{pp}	-
48ii	they	↗S
48iii	he [=Goffman]	↘S
49	he	↓S
50i	Camera angle	-
50ii	the camera	↓
51	We	-
52	it	↗
52iix	ä	
53	the 'looking down'	↗
54i	This	↗
54ii	who [= Mulvey]	↗S
54iii	[=Mulvey]	↓E
55	⁶³ {he Goffman (<=> T50)} _{pp} {(1979)}	-
56i	the models' eyes	-
56ii	which	↗
57i	It	↗
57ii	[=it]	↓E
58	⁵⁷ {they are (58)} _{pp} (57) ⁵⁸ {the viewer	↗
59	This, again,	↗
60	We	-
61	Goffman (1979)	-
62i	the The (74)} _{pp} women being photographed	-
62ii	female (receivers viewers)	-
	Sex in images	
63i	All of the women in my images	-
63ii	[= All of the women in my images]	↓E
64	the idea of what the ideal female body should look like	-
65	Laneyrie-Dagen (2004:152)	-
66iX	this	
66iix	women	
67X	This	
66i	These images	-
66ii	nudity and sex appeal	-
67	it	-
68i	Casual sex	-
68ii	such health campaigns	-
	?	
69i	⁷² {Leventhal and Cameron (1987) (in) Shovitt and Brook (1994-224) (78)	-
69ii	[= Leventhal and Cameron]	↓E
70i	They [= Leventhal and Cameron]	↓S
70ii	which	↗S
71	prevention	↗
72i	They [= Leventhal and Cameron]	↘
73i	⁸² {images Figures (<=> T6)} _{pp} 1 and 2	-
73ii	which	↗S
73iii	⁸² {image figure(86)} _{pp} 3	-
74	²⁴⁷ {Leventhal and Cameron} _{pp}	-
75i	Images like these	-
75ii	[= Images like these]	↓E
	Conclusion	
76	The three images I selected	-
77	¹⁵⁵ {all they all	↓S
78	²⁴⁵ {They	
79X	{images like these	

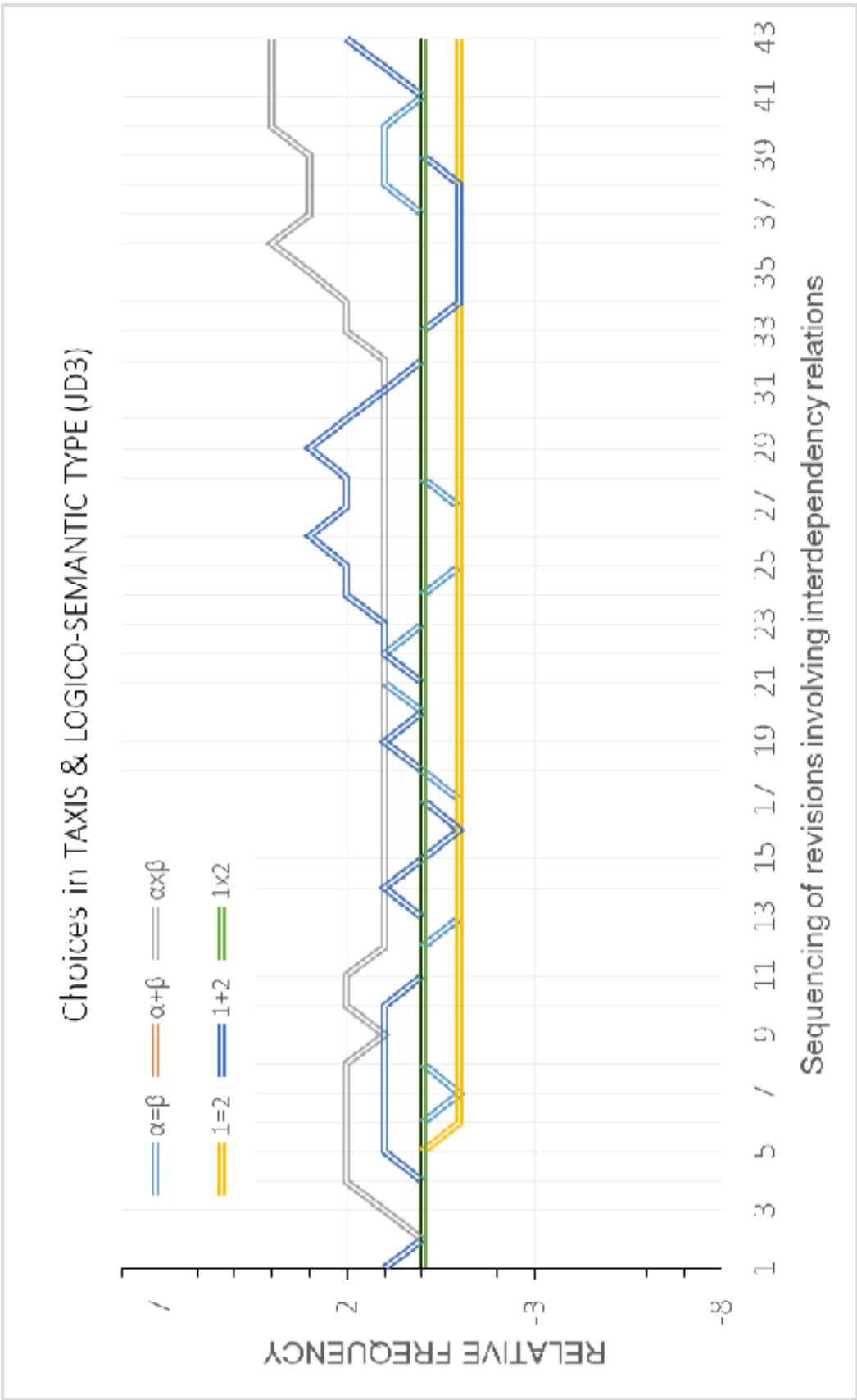
80X	Vividness and the use of emotion to get a response	-
79i	¹⁷⁶ {Voyeuristic {177}} _{pp} gaze ¹⁶² {and} _{pp} {162} at the female body	-
79ii	it	↓S

Appendix #: List of Subject Themes and their revisions in BB

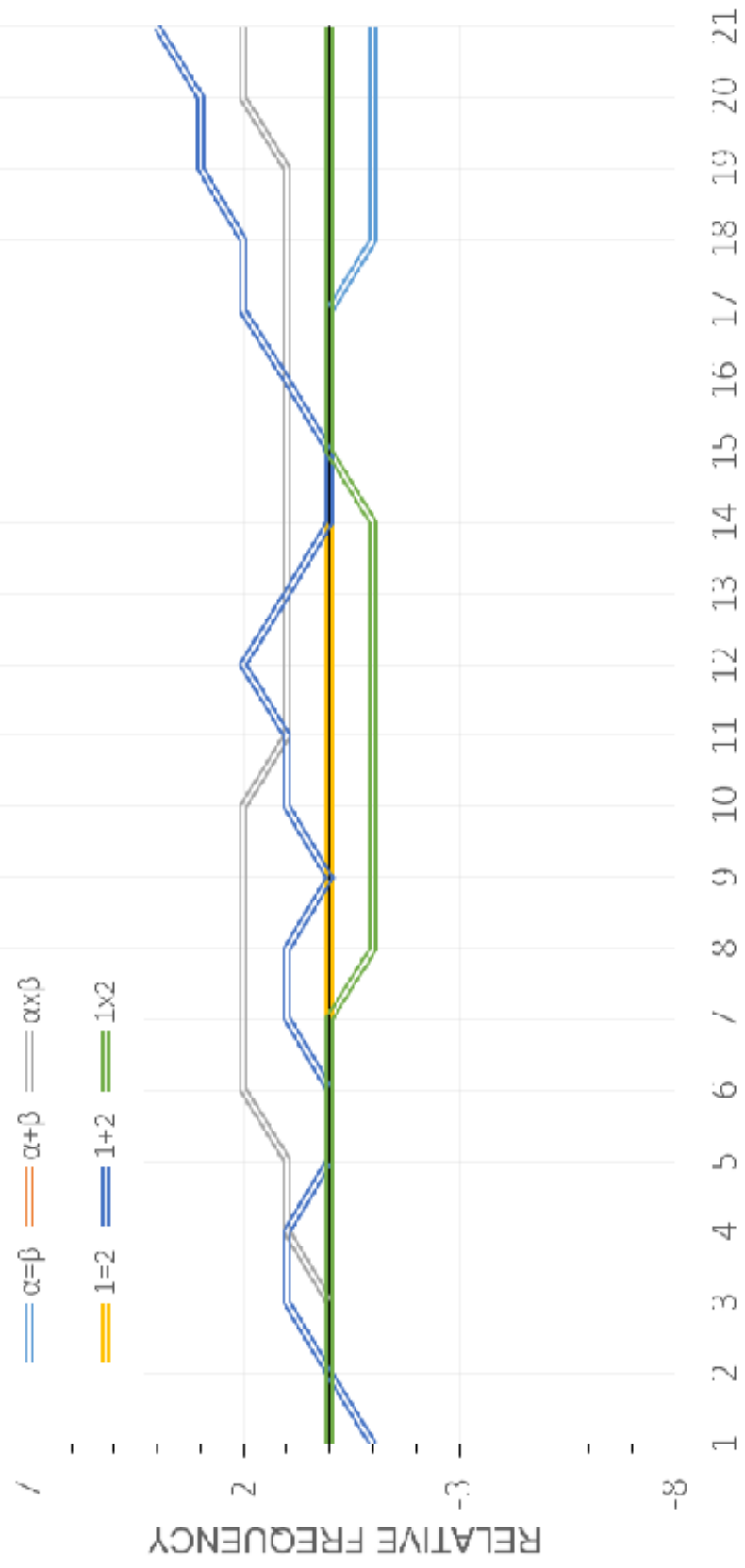
T-unit	Content of Subject Theme	Thematic progression
	Description	
1	The Anglo-Saxon Chronicle	-
2i	it [=The Anglo-Saxon Chronicle]	↓S
2ii	[= The Anglo-Saxon Chronicle]	↓E
3i	Different versions of the Chronicle	↗
3ii	[= Different versions of the Chronicle]	↓E
4i	The four surviving manuscripts	↗
5i	The Chronicle	↘
5ii	[= The Chronicle]	↓E
	Description	
6x	² {Alfred the Great	
6	{4} Alfred the Great	-
7i	Alfred	↓
7ii	[= Alfred]	↓E
8	¹¹ {the literary tradition in} _{pp} {11} the ¹² {vast} _{pp} majority of texts produced {12}	-
9i	These Old English texts	↓S
9ii	⁶⁴ {Alfred *King Alfred	
10	As Bragg	-
11i	Alfred	-
11ii	this	↗
11iii	the West Saxon dialect	?
12i	This	↗S
12ii	it	↗S
13ix	²⁴ {These changes to written tradition	
13ix	the Chronicle's influences	
13	Alfred	-
14i	²⁰ {These} _{pp} {50} The influence of the dialect of these scribes	↗
14ii	which	↗S
15	the text	-
16	This knowledge of dialects	↗
17i	The Chronicle	-
17ii	there	-
18i	This	↗S
18ii	[= the chronicle]	↓E
19	the Chronicle	↓
20i	The "Battle of Brunanburh," ²⁷ {which} _{pp} ²⁶ {is} _{pp} {26} appears under the year 937 {27} ³⁰ {(Williams, 1975). {↔-T22}} _{pp}	-
20ii	each version of the Chronicle	-
21i	The inclusion of poetry in this record of the language	↗
21ii	the vernacular poems	↗
21iii	which	↗
21iv	[= vernacular poems]	↘E
22i	the ³¹ {development of the style progression of the structure and style of the poem	?
22ii	the features of the Old English tradition	?
23	The following extract of the ³³ {poem "Battle of Brunanburh"} _{pp} {34} _{pp}	-
	Extract inserted above	
24i	The Peterborough Chronicle	-
24ii	it [=The Peterborough Chronicle]	↓S
25i	The Chronicle	↓
25ii	which	↗S

26i	the Chronicle	↗
26ii	the language use in this ¹⁶ { entry } _{pp} {16} section	-
27i	it [=this section]	↗S
27ii	which	↗S
28	{The entries after 1121	-
29	The differences between the Old English 1121 entries and the Middle English 1154 entries	-
30i	"the"	-
30ii	the word order and syntax	-
	Extract inserted above	
31	Several differences	-
32	There	-
33i	The First Continuation	-
33ii	both	?
34	earlier entries	↗
35i	³⁵ { the } the Norman invasion and consequent transition into Modern English	-
35ii	it	↓S
36i	the Chronicle	-
36ii	approximate dates	-
36iii	this	↗
37	the Chronicle	-
38	where change can be seen	↗
39i	The term British	-
39ii	which	↗S
39iii	the Welsh	↗
39iv	not all of the British	↗
40i	the meanings of the words	↗
40ii	the clear distinction between the two	-
	9 th paragraph:	
41	French words	-
42i	"abbod" 47{(abbot) and "Sancti" {47} (saint)} _{pp}	-
42ii	there	-
42iii	which	↗S
43i	That	?
43ii	³⁶ {the} _{pp} majority of them at this time	↗
44	The Anglo-Saxon Chronicle	-
45	The recording of place names in the Chronicle	-
46i	⁷¹ { the } _{pp} {71} these places	↓
46ii	this	↗S
46iii	the spread and incorporation of them into the general lexicon and not just the local dialect	↗
47i	⁷² {-which} _{pp} {72} This	↗
47ii	there	?
48	there	
49	This	↗S
50i	the King of Wessex in 1043	?
50ii	who	↗S
51i	The influence of French rulers	↗
51ii	there	-
51iii	there	-
52i	This version of the Chronicle (Manuscript E, Laud)	-
52ii	it	↓S
52iii	which	?
52iv	English	-
52v	Modern English	?
	Conclusion	
53	The Anglo-Saxon Chronicle	-
54	It [= the ASC]	↓S
55	It [= the ASC]	↓
56	it [= the ASC]	↓

Appendix 14: The unfolding of interdependency relations



Choices in TAXIS & LOGICO-SEMANTIC TYPE (BB)



Sequencing of revisions involving interdependency relations

Appendix 15: List of revisions involving Qualifiers

Revisions involving Qualifiers in JD1		
Rev.	Content	Systemic Choice
1	a lot of research into the	-[Qualifier (\prep. Phrase): Circumstance: enhancing: (metaphorical) place: location]
2	those who have had a strong influence	-[Qualifier: (\embedding: DEFINING RELATIVE CLAUSE): Elaborating: apposition: expository]
7	things to discuss on the television	-[Qualifier (\prep. Phrase): projecting: circumstance: matter]; i.e. semantically equivalent to 'with reference to' (p.314)
14	the character 'Manuel'	+ [Qualifier (\parenthetical label): elaborating: apposition: expository]
14i	himself by to himself	+ [Qualifier (\prep. Phrase): circumstance: projection: angle: viewpoint]
19	for 'man' , often used for emphasis.	+ [Qualifier (\prep. Phrase): elaborating: circumstance: role: guise]
25	reduce the severity of them by looking at...	+ [Qualifier (\embedded non-finite clause): enhancing: circumstance: manner: means]
26	naturally occurring data that	-[Qualifier (\embedding: DEFINING RELATIVE CLAUSE): elaboration: apposition: expository]
34	His use of the	-[Qualifier (\prep. phrase): circumstance: projection: matter]
39	a close relationship with each other	+ [Qualifier (\prep. Phrase): extending: circumstance: accompaniment: comitative]
59	their right to withdraw from my study.	+ [Qualifier (\prep. Phrase): enhancing: circumstance: location: place]
60	the father in the family	+ [Qualifier (\prep. Phrase): enhancing: circumstance: location: place] (incongruent realization)
83	have a good understanding of each other	+ [Qualifier (\prep. phrase): projecting: circumstance: matter]
95	a close bond between the two	+ [Qualifier (\prep. Phrase): circumstance: enhancing: location: place]
109	looked at strategies to deal with	+ [Qualifier (\prep. phrase): circumstance: projection: matter]
114	is avoiding threats that are likely to damage one's face	-[Qualifier (\embedding: DEFINING RELATIVE CLAUSE): elaboration: apposition: expository]
134	would be seeking hope [*that] her father would	+ [Qualifier (\embedding: DEFINING RELATIVE CLAUSE): elaboration: apposition: expository]
135	would be seeking hope [that] her father would	-[Qualifier (\embedding: DEFINING RELATIVE CLAUSE): elaboration: apposition: expository]
143	their theory on Goffman's work	+ [Qualifier (\prep. phrase): circumstance: enhancing: manner: means]
181	holds the floor when	-[Qualifier (\prep. Phrase): circumstance: enhancing: extent: duration]
183	useful to look at relationships that...	-[Qualifier (\embedding: DEFINING RELATIVE CLAUSE): elaboration: apposition: expository]
208	how it affects our daily interactions with family and friends	+ [Qualifier (\prep. Phrase): circumstance: extending: accompaniment: comitative]
209	how it has an affect on our daily interactions with family and friends	+ [Qualifier (\prep. phrase): circumstance: projection: matter]
215	discussing something that was on	-[Qualifier (\embedding: NON-DEFINING RELATIVE CLAUSE): enhancement: cause: purpose]
231	makes a joke about how she will eat...	-[Qualifier (\prep. phrase): circumstance: projection: matter]

Revisions involving Qualifiers in JD2		
Rev.	Content	Systemic Choice
1	nature vs nurture in the	-[Qualifier (\prep. phrase): Circumstance: Enhancing: Location: place]
4	would learn from	-[Qualifier (\prep.): Circumstance: projecting: Angle: source]
16	depends on context to bring out meaning	-[Qualifier (\prep. phrase): enhancing: cause: purpose]
34	has shown that different ways of being brought up	+ [Qualifier (\prep. phrase): Circumstance: projection: matter]
41	looked at literacy events within these communities;	+ [Qualifier (\prep. phrase): Circumstance: Enhancing: Location: place]
49	is vitally important with an emphasis on the social aspect in determining	+ [Qualifier (\prep. phrase): Circumstance: projection: matter]
53	the environment [*that] a child is brought up in	+ [Qualifier (\embedding: DEFINING RELATIVE CLAUSE): Elaborating: Apposition: Expository]
59	the social class [*that] we are brought up in	+ [Qualifier (\embedding: DEFINING RELATIVE CLAUSE: elaborating: Apposition: expository)]
66	more specific with what they were referring to in their stories	+ [Qualifier (\prep. Phrase): Circumstance: enhancing: location: place]
70	interrupt by overreacting the child.	- [Qualifier (\prep. Phrase): Circumstance: enhancing: manner: means]
70	interrupt to correct the child.	+ [Qualifier (\prep. Phrase): Circumstance: enhancing: cause: reason]
73	research in this area	- [Qualifier (\prep. phrase): Circumstance: enhance: location: place]
78	an older sibling of the child	+ [Qualifier (\prep. phrase): Circumstance: projecting: matter]
80	spend more time with others of a similar age , often that of extended family	+ [Qualifier (\prep. phrase): circumstance: extending: accompaniment: comitative]
83	often that of extended family where several mothers are likely to be present.	+ [Qualifier (\embedding: DEFINING RELATIVE CLAUSE): Circumstance: enhancing: spatio-temporal: place]
91	Not only do these children have to mix with other pupils that	- [Qualifier (\embedding: DEFINING RELATIVE CLAUSE): elaborating: apposition: expository]
99	may not be aware of the different ways of social	- [Qualifier (\prep. phrase): Circumstance: projecting: matter]
116	a contrast in turn-taking	- [Qualifier (\prep. phrase): Circumstance: projecting: matter]
137	pupils who raised their hands more in class	+ [Qualifier (\prep. Phrase): Circumstance: enhancing: location: place]
139	could simply be due to confidence in the work	+ [Qualifier (\prep. Phrase): Circumstance: projecting: matter]
140	could simply be due to confidence in the work	- [Qualifier (\prep. Phrase): Circumstance: projecting: matter]
154	were to attend a school of mixed	- [Qualifier (\prep. phrase): Circumstance: projecting: matter]
167	adapt to different language practices that	- [Qualifier (\embedding: DEFINING RELATIVE CLAUSE): elaborating: apposition: expository]
180	Maintown, which was white middle-class	- [Qualifier (\embedding: DEFINING RELATIVE CLAUSE): elaborating: apposition: expository]
181	Readville, which was white working-class	- [Qualifier (\embedding: DEFINING RELATIVE CLAUSE): elaborating: apposition: expository]
182	Freeton, which was black working-class	- [Qualifier (\embedding: DEFINING RELATIVE CLAUSE): elaborating: apposition: expository]

221	may have already paved the way for his or her future	-[Qualifier (\prep. phrase): circumstance: enhancing: cause: behalf]
244	a child's success at school and later on in life.	+ [Qualifier (\Adverbial phrase): Circumstance: enhancing: location: time]
245a	Children of different	-[Qualifier (\prep. Phrase): Circumstance: elaborating: role: guise]
245a	Children from different	+ [Qualifier (\prep. Phrase): Circumstance: enhancing: location: place]
246	Children from various classes and cultures, when mixed with other classes and cultures	+ [Qualifier (\prep. phrase): Circumstance: extending: accompaniment: comitative]
250a	children from certain classes and cultures.	-[Qualifier (\prep. phrase): Circumstance: enhancing: location place]
262	nurture's effect , on the way you are brought up.	-[Qualifier (\prep. phrase): circumstance: projecting: matter]
265	children who were given pictures to create a narrative from	+ [Qualifier (\prep. Phrase): Circumstance: enhancing: cause: purpose]
295	class and cultural differences which means...	-[Qualifier (\embedding: DEFINING RELATIVE CLAUSE): elaboration: intensive relational process]
299	with children from other classes	-[Qualifier (\prep. phrase): Circumstance: enhancing: location place]

Revisions involving Qualifiers in JD3		
Rev.	Content	Systemic Choice
12	create action in the case	-[Qualifier (\prep. phrase): circumstance: enhancement: contingency: condition]
12	create action on something	+ [Qualifier (\prep. phrase): circumstance: projection: matter]
13	the receiver of the message	+ [Qualifier (\prep. Phrase): circumstance: projection: matter]
14	The use of emotion	-[Qualifier (\prep. Phrase): circumstance: projection: matter]
16	use emotion to try to persuade	+ [Qualifier (\prep. phrase): circumstance: enhancing: cause: reason]
17	use emotion to try to persuade	-[Qualifier (\prep. Phrase): circumstance: cause: reason]
18	use emotion for	-[Qualifier (\prep): circumstance: enhancing: cause: reason]
18	use emotion in persuasion	+ [Qualifier (\prep. Phrase): circumstance: enhancing: location: place]
20	those who see campaigns about...	+ [Qualifier (\embedding: DEFINING RELATIVE CLAUSE): elaboration: apposition: expository]
40	urging them to change their behaviour, by using a condom	+ [Qualifier (\prep. Phrase): enhancing: manner: means]
50	the stereotypical notion that women's submission to men	+ [Qualifier (\embedding: DEFINING RELATIVE CLAUSE): elaborating: apposition: expository]
50	the stereotypical notion that women's submission to men	-[Qualifier (\prep. phrase): projection: angle: viewpoint]
99	an extra ten hands to touch her with	+ [Qualifier (\prep. Phrase): Circumstance: enhancing: cause: purpose]
106	a sexually transmitted disease without	-[Qualifier (\prep. phrase): extending: accompaniment: comitative]
115	unsafe sex through nudity	-[Qualifier (\prep. Phrase): enhancing: manner: means]
128	the only way forward	-[Qualifier (\adverb): enhancing: location: place]

140	each sex that lead this lifestyle	+ [Qualifier (\embedding: DEFINING RELATIVE CLAUSE): elaboration: apposition: exposition]
164	anyone anywhere who is sexually active	+ [Qualifier (\embedding: DEFINING RELATIVE CLAUSE): elaborating: apposition: expository]
170	Her position in the image	+ [Qualifier (\prep. Phrase): circumstance: enhancing: location: place]
172	more effect on those who see the advert or campaign	+ [Qualifier (\prep. Phrase): circumstance: projecting: matter]
173	the message across	- [Qualifier (\adverb): circumstance: enhancing: location: place]
173	the intent of the image.	+ [Qualifier (\prep. phrase): circumstance: projection: matter]
214	only attractive if men think they are	+ [Qualifier (\embedded 'if' clause): enhancing: causal-conditional: condition: concessive]
219	a stigma, particularly on women	+ [Qualifier (\prep. phrase): circumstance: projection: matter]
219	a stigma, particularly on women that is associated with	+ [Qualifier (\embedding: DEFINING RELATIVE CLAUSE): elaboration: apposition: expository]
231	sexualized and shown in a submissive manner	+ [Qualifier (\prep. phrase): circumstance: enhancing: manner: quality]
234	This lack of colour	+ [Qualifier (\prep. phrase): circumstance: projection: matter]
235	very neutral in colour	- [Qualifier (\prep. phrase): circumstance: projection: matter]
239	men in society	- [Qualifier (\prep. phrase): circumstance: enhancing: location: place]
246	successful at informing those	+ [Qualifier (\prep. phrase): circumstance: projection: matter]
246	those who did not know about	+ [Qualifier (\embedding: DEFINING RELATIVE CLAUSE): elaborating: apposition: expository]

Revisions involving Qualifiers in BB		
Rev.	Content	Systemic Choice
1	a history of Britain at the time and from	- [Qualifier (\prep. Phrase): circumstance: enhancing: location: time]
1	a history of Britain starting from 1AD...	+ [Qualifier (\embedding: DEFINING RELATIVE CLAUSE): enhancing: spatio-temporal: time]
11	the literary tradition in the majority of texts	- [Qualifier (\prep. phrase): circumstance: enhancing: location]
14	particularly significant in	- [Qualifier (\prep.): Circumstance: Location: time/place]
27	The "Battle of Brunanburh" which appears...	+ [Qualifier (\embedding: Wh- RELATIVE CLAUSE): elaboration: apposition: expository]
35	consequent transition into Modern English	+ [Qualifier (\prep. phrase): circumstance: enhancing: location: (metaphorical) place]
40	the terms for Welsh and Britons	+ [Qualifier (\prep. phrase): circumstance: projecting: matter]
45	words from other languages in which the people of England had contact with.	- [Qualifier (\prep.): circumstance: enhancing: location: time/place]
45	words from other languages with which the people of England had contact with.	+ [Qualifier (\prep.): circumstance: extending: accompaniment: comitative]
47	"abbod" (abbot) and "Sancti" (saint)	+ [Qualifier (\parenthetical label): elaborating: apposition: expository]
83	English at times	- [Qualifier (\prep. Phrase): circumstance: location: time]
83	English during times it was greatly threatened	+ [Qualifier (\embedding: DEFINING RELATIVE CLAUSE): enhancing: location: time]

Appendix 16: List of interpersonal additions in each dataset

Interpersonal additions in JD1 (not including changes in CONNOTATION)

Rev	T-unit	Content	Description	Loc.	Type	Rank	Function	System
21i	14	I found good examples of...	Adds 'good' to an 'Extended Numerative' (IFG, pp.394-5), which is a ~ASSESSMENT: +[Attitudinal Epithet (\Adj)], adding a value of judgement to the NGrp in focus (New)	NR	INSA	NGrp (+)	Interpers. (+)	Assessment (+)
22	3	and the highly influential Penelope Brown and Stephen Levinson.	Pre-modifies two head nouns via 'the' = ~DETERMINATION: +[Deictic (\definite article): Specific], 'highly' = ~COMMENT: +[comment Adjunct (\adverb): Intensity: Degree: high], + 'influential' = ~ASSESSMENT: +[Attitudinal Epithet (\adjective)] (p.376)	NR	INSB	NGrp (+) NGrp (+) AdvGrp (+)	Textual (+) Interpers. (+) Interpers. (+)	Determination (+) Assessment (+) Comment (+)
53	39x	J would be able to easier easily and	Deletes 'easier' = ~ASSESSMENT: - [attitudinal Epithet as head (\adjective)], adds 'easily' = ~COMMENT: +[comment Adjunct (\adverb)] and 'and' = ~TAXIS: +[conjunctive Adjunct (\conjunction): extending: addition: positive]	NR	FP	NGrp (-) AdvGrp (+) Clause nexus (+)	Interpers. (-) Interpers. (+) Logical (+)	Assessment (-) Comment Taxis (+)
54	39x	it would be more difficult	more' = ~MODIFICATION: +[Numerative (\adverb): quantitative: indefinite], 'difficult' = ~ASSESSMENT: +[attitudinal Epithet as head (\adjective)] (p.376)	NR	FP	NGrp (+) NGrp (+)	Exper. (+) Interpers. (+)	Numeration (+) Assessment (+)
56	1iiX	particularly among conversations between family and friends	Adds 'particularly' = ~COMMENT: +[comment Adjunct (\adverb): propositional: on whole: assertive] and 'among...' = minor TRANSITIVITY: +[Circumstance (\prep. Phrase): extending: accompaniment: comitative]	NR	INS	AdvGrp (+) Phrase (+)	Interpers. (+) Exper. (+)	Comment (+) minor Trans. (+)
81	34	or simply just saying 'please',	Adds 'or' = ~TAXIS (parataxis): +[extending (\conjunction): variation: alternative], 'simply' = ~minor MOOD: +[mood Adjunct (\adverb): intensity: counter-expectancy: limiting], 'just' = ~COMMENT: +[comment Adjunct (\adverb): counter-expectancy: limiting], 'saying' = ~EVENT TYPE: +[Verbal process (\verb)]	S	INSA	Clause nexus (+) phrase (+) AdvGrp (+) VGrp (+)	Logical (+) Interpers. (+) Interpers. (+) Exper. (+)	Taxis (+) minor Mood Comment Event type (+)
94	34	or simply just saying please	Adds exacting adverb: 'just' = ~minor MOOD: +[mood Adjunct (\adverb): counter-expectancy: limiting]	S	FP	Phrase (+)	Interpers. (+)	minor Mood
130	53iiX	However or it could be that	Adds 'However' = ~CONJUNCTION: +[conjunctive Adjunct (\adverb): extension: addition: adversative], deletes 'or' = ~TAXIS (parataxis): - [extension (\conjunction): variation: alternative], and adds Interpers. projection	T	INSB	AdvGrp (+) Clause nexus (-) Phrase (+)	Textual (+) Logical (-) Interpers. (+)	Conjunction (+) Taxis (-) Minor mood
162	65	Line 87 really is quite face-threatening	Adds 'really' = ~MODALITY +[mood Adjunct (\adverb): intensity: counter-expectancy: exceeding]	R	INS	VGrp (+)	Interpers. (+)	Modality (+)
165	66iii	although this may, again, come across as	Adds 'although' = ~TAXIS (hypotaxis): +[C. Adj. (\conjunction): Causal-conditional: Specific: Concessive], 'this' = ~REFERENCE +[Demonstrative	I	OP	Clause nexus (+) NGrp (+) VGrp (+)	Logical (+) Textual (+) Interpers. (+)	Taxis (+) Substitution Modality (+)

			(\pronoun): specific: near], 'may' = ~MODALITY: +[modality (\modal operator): probability, subjective, low, positive], 'again' = ~CONJUNCTION: +[C. Adj. (\conjunction): Addition: Positive]			AdvGrp (+)	Textual (+)	Conjunction (+)
18 5	45ix	because purely down to	'because' and 'down to' = +[enhancement: causal-conditional: cause: reason], hence = ~CONNOTATION. Adds 'purely' = ~MODALITY: +[mood Adjunct (\adverb): intensity: degree: total]	R	E.P.	word (~) AdvGrp (+)	Interpers. (+) Interpers. (+)	Connotation Comment
23 5	75	although but but may	Deletes 'although' and 'but' = ~TAXIS (hypotaxis): -[enhancement (\conjunction): causal-conditional: specific: concessive], adds 'may' = ~MODALITY: +[Modality (\modal operator): modalization: probability, objective, implicit, low, positive]	S	INSA	Clause nexus (-) VGrp (+)	Logical (-) Interpers. (+)	Taxis (-) Modality (+)

Interpersonal additions in JD2 (not including changes in CONNOTATION)

Rev	T-unit	Content	Description	LOC	Type	Rank	Function	System
7	11	are arrangements of social important	Deletes 'arrangements of' = ~MODIFICATION: -[Extended Numerative (\noun... of): measure: aggregate], and social = ~MODIFICATION: -[Classifier (\noun)]; adds 'important' = ~ASSESSMENT: +[attitudinal Epithet as head (\adjective)]	NR	E.P.	NGrp (-) NGrp (-) NGrp (+)	Exper. (-) Exper. (-) Interpers. (+)	Numeration (-) Thing type (-) Assessment (+)
18	18	The elaborated code is more explicit	Adds 'is' = ~EVENT TYPE: +[Relational process (\verb): intensive: assigned: by expansion: elaborating, quality, phased] (p.281), 'more' = ~MODIFICATION: +[Numerative (\adverb): quantitative: indefinite], 'explicit' = +[attitudinal Epithet as head (\adjective): projection: evidentiality: idea] (pp.374-6)	RNR	INSA	VGrp (+) NGrp (+) NGrp (+)	Exper. (+) Exper. (+) Interpers. (+)	Event type (+) Numeration (+) Assessment (+)
33	25	with completely different...	Adds 'completely' = ~ASSESSMENT: +[Interpersonal Epithet (\adverb): intensity: degree: total]	S	O	NGrp (+)	Interpers. (+)	Assessment (+)
43	29i	the function of reading was primarily	Deletes 'primarily' = ~COMMENT: - [Comment Adjunct (\adv): propositional: on whole: assertive: sure]	NR	E.P.	AdvGrp (+)	Interpers. (+)	Comment (+)
50	5ii	is also vitally important	Adds 'vitally' = ~COMMENT: +[comment Adjunct (\Adv): propositional: on whole: qualificative: significance]	NR	E.P.	AdvGrp (+)	Interpers. (+)	Comment (+)
57	11	are important crucial	Deletes circumstantial Attribute, 'important' = +[Attribute (\adj. grp)], replaces with 'crucial', which has a higher intensity	NR	INSA	NGrp (+)	Interpers. (+)	Assessment (+)
16 2	74	making good use of lending libraries	Adds 'good' = ~ASSESSMENT: +[Attitudinal Epithet (\adjective)]	T	E.P.	NGrp (+)	Interpers. (+)	Assessment (+)

169	5i	genes are fundamentally important	Adds 'fundamentally' = ~COMMENT: +[comment Adjunct (\adv): propositional: on whole: assertive: natural]	NR	INS	AdvGrp (+)	Interpers. (+)	Comment (+)
179	24ii	meaning that is detrimental to	Deletes 'meaning' = ~TAXIS (hypotaxis): -[enhancement (\non-finite): causal-conditional: cause: result], adds 'that is' = ~TAXIS (parataxis): +[elaboration (\relative clause): apposition: expository], 'detrimental' = ~ASSESSMENT: +[Attribute (\adj.): proposition: judgement] (p.541), and 'to' = ~MINOR TRANSITIVITY: +[Circ. (\prep. phrase): Angle: viewpoint]	i	CO	Clause nexus (-) Clause nexus (+) NGrp (+) Phrase (+)	Logical (-) Logical (+) Interpers. (+) Exper. (+)	Taxis (-) Taxis (+) Assessment (+) minor Trans. (+)
204	73i	would that wouldn't	Adds 'that' = structural cataphora (\conjunction) and 'n't' = ~POLARITY: +[Polarity (\not): on modality]	SR	INSA	VGrp (+)	Interpers. (+)	Polarity (+)
218	80ix	mean that not every child...	Adds 'not' = ~POLARITY: +[Polarity (\adverb 'not'): on proposition]	NR	INSB	VGrp (+)	Interpers. (+)	Polarity (+)
233	65	This would make it	Adds 'this' = ~REFERENCE: +[Demonstrative reference (\pronoun): specific: near], 'would' = ~MODALITY: +[modality (\modal operator): probability, subjective, median, positive]	i	INSA	NGrp (+) VGrp (+)	Textual (+) Interpers. (+)	Reference (+) Modality (+)
259	7i	we would not learn	Adds 'not' = ~POLARITY: +[Polarity (\adverb 'not'): on proposition]	NR	FP	VGrp (+)	Interpers. (+)	Polarity (+)
269	31ii	there was often little connection...	Adds 'often' = ~MOOD: +[mood Adjunct (\adv): modality: usuality: median]	α	CO	Clause (+)	Interpers. (+)	Mood (+)
283	70i	they don't may not try to adjust	Deletes 'don't' = ~POLARITY: +[Polarity (\not): on modality], adds 'may' = ~MODALITY: +[modality (\modal operator): probability, subjective, low, positive]	α	CO	VGrp (+)	Interpers. (+)	Modality (+)
285	2ix	which might make some minority	Adds 'might' = ~MODALITY: +[modality (\modal operator): probability, subjective, low, positive], and 'make' = ~EVENT TYPE: +[Relational process (\verb): intensive: identifying: assignment: neutral], 'some' = ~DETERMINATION: +[Deictic (\determiner): non-specific: partial: selective], 'minority' = ~THING TYPE: +[Thing ((noun))]	T	INS	VGrp (+) VGrp (+) NGrp (+) NGrp (+)	Interpers. (+) Exper. (+) Textual (+) Exper. (+)	Modality (+) Event type (+) Determination (+) Thing type (+)

Interpersonal additions in JD3 (not including changes in CONNOTATION)

Rev	T-unit	Content	Description	Loc.	Type	Rank	Function	System
21	5i	There is I will	Deletes 'There is' = ~TRANSITIVITY: -[existential clause], adds 'I' = ~PERSON: -[speaker (\pronoun): singular] and 'will' = ~MODALITY: +[Modality Type (modal operator):	SR	INSB	Clause (-) NGrp (+) VGrp (+)	Exper. (-) Interpers. (+) Interpers. (+)	Transitivity (-) Person (+) Modality (+)

			Probability, positive, median, subjective]					
42	46i	female nudity could remind ing	Adds 'female' = ~MODIFICATION: +[Classifier (\noun)], 'nudity' = ~THING TYPE: +[Thing (\noun)], and 'could' = ~MODALITY: +[modality (\modal operator): probability, subjective, low, positive]. Deletes '-ing' = ~TENSE: -[Present]	SR	INSA	NGrp (+) NGrp (+) VGrp (+) VGrp (-)	Exper. (+) Exper. (+) Interpers. (+) Logical (-)	Classification (+) Thing type (+) Modality (+) Tense (-)
43	47i	There is often a stigma	Adds 'often' = ~MODALITY: +[mood Adjunct (\adv): modality: usuality: median]	NR	EP	VGrp (+)	Interpers. (+)	Modality (+)
49	48ii	they were shown to often be in childlike poses	Adds 'often' = ~MODALITY: +[mood Adjunct (\adv): modality: usuality: median]	NR	EP	VGrp (+)	Interpers. (+)	Modality (+)
58	58	the viewer is able as it were	Adds 'the' = ~DETERMINATION: +[Deictic (\definite article): Specific: demonstrative, determinative: non-selective], 'is' = ~EVENT TYPE: +[Relational process (\copula verb): intensive], 'able' = ~ASSESSMENT: -[attitudinal Epithet as head (\adjective)], and 'as it were' = ~CONJUNCTION: +[enhancement (\phrase): causal- conditional: cause: result]	SR	INSA	NGrp (+) VGrp (+) NGrp (+) AdvGrp (+)	Textual (+) Exper. (+) Interpers. (+) Textual (+)	Determination (+) Event type (+) Assessment (+) Conjunction (+)
68	60	cannot of course assume	Adds 'of course' = ~COMMENT: +[comment Adj (\phrase): propositional: on whole: assertive: natural]	R	INSB	AdvGrp (+)	Interpers. (+)	Comment (+)
93	7	commonly used on Facebook	Adds 'commonly' = ~ MODALITY: +[mood Adjunct (\adverb): usuality: median]	NR	EP	VGrp (+)	Interpers. (+)	Modality (+)
12	15	implying practising safe sex is extremely important	Adds 'extremely' = ~ASSESSMENT: +[Interpersonal Epithet ((adverb))] and 'important', as head = ~ASSESSMENT: +[Attribute (\adjective)]	NR	EP	NGrp (+) NGrp (+)	Interpers. (+) Interpers. (+)	Assessment (+) Assessment (+)
13	43iii 2 X	Figures 1 and 2 have-on may be	Deletes 'have' = ~EVENT TYPE: - [Relational process (\verb tr.): possessive, attributive: possession as process], and 'an' = ~DETERMINATION: -[Deictic (\indefinite article): Non-specific: determinative: non-selective: partial]. Adds 'may' = ~MODALITY: +[modality (\modal operator): probability, subjective, low, positive] and 'be' = 'be' = ~EVENT TYPE: +[Relational process (\verb): intensive, attributive]	RNR	CP	VGrp (-) NGrp (-) VGrp (+) VGrp (+)	Exper. (-) Textual (-) Interpers. (+) Exper. (+)	Event type (-) Determination (-) Modality (+) Event type (+)
15	15	it is impossible to tell who does solely by looking at their appearance	Adds 'solely' = ~MODALITY: +[mood Adjunct (\adverb): intensity: counter-expectancy: limiting] and 'by...' = ~MINOR TRANSITIVITY: +[Circumstance (\prep. Phrase): enhancing : manner: means]	NR	INSB	VGrp (+) Phrase (+)	Interpers. (+) Exper. (+)	Modality (+) minor Transitivity (+)
21	65	- in that they are only	Adds 'in that' = ~TAXIS (parataxis): +[elaboration (\prep. Phrase):	N	IN	Clause nexus (+)	Logical (+)	Taxis (+)

		attractive if men think they are	apposition: exemplificatory] and 'they are...' = ~TRANSITIVITY: +[Relational clause: intensive, attributive], 'only' = ~MODALITY: +[mood Adjunct (\adverb): intensity: counterexpectancy: limiting] and 'if...': =~MODIFICATION: +[Qualifier (\embedded 'if clause): enhancing: causal-conditional: condition: concessive]			Clause (+) VGrp (+)	Exper. (+) Interpers. (+)	Transitivity (+) Modality (+)
219	47i	a stigma, particularly on women that is associated with	Adds 'particularly' = ~COMMENT: +[comment Adjunct (\adverb): propositional: on whole: assertive], 'on women' = ~MODIFICATION: +[Qualifier (\prep. Phrase): circumstance: projection: matter], and 'that is...' = ~MODIFICATION: +[Qualifier (\emb. Def. clause): circumstance: elaboration: apposition: expository]	NR	INS	AdvGrp (+) NGrp (+) NGrp (+)	Interpers. (+) Exper. (+) Exper. (+)	Comment (+) Qualification (+) Qualification (+)
229	47vX	She is often labelled a 'whore'	Adds 'often' = ~MODALITY: +[mood Adjunct (\adverb): modality: usuality: median].	R	INSA	VGrp (+)	Interpers. (+)	Modality (+)
240	65	women only feel they are attractive	Adds 'women' = ~THING TYPE: +[Thing (noun)], 'only' = 'only' = ~MODALITY: +[mood Adjunct (\adverb): intensity: counterexpectancy: limiting], and 'feel' = ~EVENT TYPE: +[Mental process (\verb): perceptive].	NR	INSA	NGrp (+) VGrp (+) Clause nexus (-)	Exper. (+) Interpers. (+) Logical (-)	Thing type (+) Modality (+) Taxis (-)
248	75ii	and most importantly	Adds 'most importantly' = ~COMMENT: +[comment Adjunct (\adverbial group): propositional: on whole: assertive: sure]	R	INSA	AdvGrp (+)	Interpers. (+)	Comment (+)

Interpersonal additions in BB (not including changes in CONNOTATION)

Rev	T-unit	Content	Description	LOC.	TYPE	Rank	Function	System
17	26ii	of Middle- not of Old English but of West Saxon	The main difference in this revision is the inclusion of 'not of Old English but of', where 'not' = ~POLARITY: +[Polarity (\not): on proposition], 'Old' = ~MODIFICATION: +[Classifier (\adj)], 'English' = ~THING TYPE: +[Thing (\proper noun)], and 'but of' = ~TAXIS (parataxis): +[extension (\conjunction): addition: adversative]	NR	EP	VGrp (+) NGrp (+) NGrp (+) Group nexus (+)	Interpers. (+) Exper. (+) Exper. (+) Logical (+)	Polarity Classification (+) Thing type (+) Taxis (+)
48	42ii	in the just the introduction	Adds 'just' ('the' is retyped immediately after this word, so I haven't coded it) = ~COMMENT: +[comment Adjunct (\adverb): counterexpectancy: limiting]	T	EP	AdvGrp (+)	Interpers. (+)	Comment
63	5i	total just three and a half	Adds 'just' = ~COMMENT: +[comment Adjunct (\adverb): counterexpectancy: limiting]	NR	EP	AdvGrp (+)	Interpers. (+)	Comment

Bibliography

- Abdel Latif, M. M. (2008). A State-of-the-Art Review of The Real-Time Computer-Aided Study of the Writing Process. *IJES - International Journal of English Studies*, 8(1), 29-50.
- Achugar, M., & Colombi, M. C. (2008). Systemic Functional Linguistic explorations into the longitudinal study of advanced capacities. In L. Ortega & H. Byrnes (Eds.), *The longitudinal study of advanced L2 capacities* (pp. 36-57). Oxon: Routledge.
- Adam, J.-M. (2001). En finir avec les types de textes. In M. Ballabriga (Ed.), *Analyse des discours. Types et genres: Communication et interprétation* (pp. 25-43). Toulouse, France: EUS.
- Adams, A. M., Simmons, F., Willis, C., & Pawling, R. (2010). Undergraduate students' ability to revise text effectively: relationships with topic knowledge and working memory. *Journal of Research in Reading*, 33(1), 54-76.
- Alamargot, D., & Chanquoy, L. (2001). *Through the Models of Writing: With Commentaries by Ronald T. Kellogg & John R. Hayes* (Vol. 9). Dordrecht: Kluwer Academic Publishers.
- Alamargot, D., & Fayol, M. (2009). Modelling the development of written composition. In R. Beard, D. Myhill, J. Rilet, & M. Nystrand (Eds.), *The SAGE handbook of writing development* (pp. 23-47). London: Sage.
- Allen, G. (2000). *Intertextuality*. New York, NY: Routledge.
- Andrews, R. (2010). *Argumentation in Higher Education: Improving practice through theory and research*. New York, NY: Routledge.
- Arts, A., Maes, A., Noordman, L., & Jansen, C. (2011). Overspecification facilitates object identification. *Journal of Pragmatics*, 43(1), 361-374.
- Aull, L. L., & Lancaster, Z. (2014). Linguistic markers of stance in early and advanced academic writing: A corpus-based comparison. *Written Communication*, 31(2), 151-183.
- Baaijen, V. M., Galbraith, D., & de Glopper, K. (2014). Effects of writing beliefs and planning on writing performance. *Learning and Instruction*, 33, 81-91.
- Baddeley, A. D. (2003). Working memory and language: an overview. *Journal of Communication Disorders*, 36, 189-208.
- Bakhtin, M. M. (1981). *The Dialogic Imagination: Four Essays* (C. Emerson & M. Holquist, Trans.). Texas: University of Texas Press.
- Bawarshi, A. S., & Reiff, M. J. (2010). *Genre: An introduction to history, theory, research, and pedagogy*. West Lafayette, IN: Parlor Press.
- Bazerman, C. (1994). Systems of genres and the enactment of social intentions. In A. Freedman & P. Medway (Eds.), *Genre and the new rhetoric* (pp. 67-86). Bristol, PA: Taylor & Francis.
- Bazerman, C. (1997). The life of genre, the life in the classroom. In W. Bishop & H. Ostram (Eds.), *Genre and writing: Issues, arguments, alternatives* (pp. 19-26). Portsmouth, NH: Boynton/Cook.
- Bazerman, C. (2004). Intertextualities: Volosinov, Bakhtin, literary theory, and literacy studies. In A. F. Ball & S. W. Freedman (Eds.), *Bakhtinian perspectives on language, literacy, and learning* (pp. 53-65). Cambridge: Cambridge University Press.
- Bazerman, C. (2008). *Handbook of research on writing: History, society, school, individual, text*. Mahwah, NJ: Lawrence Erlbaum.
- Bazerman, C. (2013). *A rhetoric of literate action: Literate action volume 1*. Anderson, South Carolina: Parlor Press.
- Beauvais, C., Olive, T., & Passerault, J.-M. (2011). Why are some texts good and others not? Relationship between text quality and management of the writing processes. *Journal of Educational Psychology*, 103(2), 415-428.
- Beauvais, L., Favart, M., Passerault, J.-M., & Beauvais, C. (2014). Temporal Management of the Writing Process Effects of Genre and Organizing Constraints in Grades 5, 7, and 9. *Written Communication*, 31(3), 251-279.
- Beers, S. F., & Nagy, W. E. (2009). Syntactic complexity as a predictor of adolescent writing quality: Which measures? Which genre? *Reading and Writing*, 22(2), 185-200.

- Bereiter, C., & Scardamalia, M. (1987). *The psychology of written composition*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Berman, R. A., & Verhoeven, L. (2002). Cross-linguistic perspectives on the development of text-production abilities: Speech and writing. *Written Language & Literacy*, 5(1), 1-43.
- Berninger, V. W., & Swanson, H. L. (1994). Modifying Hayes and Flower's model of skilled writing to explain beginning and developing writing. In E. C. Butterfield (Ed.), *Advances in cognition and educational practice, Vol 2: Children's writing: Toward a process theory of the development of skilled writing* (Vol. 2, pp. 57-81). Greenwich, CN: JAI Press.
- Bernstein, B. (1999). Vertical and horizontal discourse: An essay. *British Journal of Sociology of Education*, 20(2), 157-173.
- Berry, M. (1995). Thematic options and success in writing. In M. Ghadessy (Ed.), *Thematic Development in English Texts* (pp. 55-84). London: Pinter.
- Berry, M. (2013). Contentful and Contentlight Subject Themes in Informal Spoken English and Formal Written English. In G. O'Grady, T. Bartlett, & L. Fontaine (Eds.), *Choice in Language: Applications in text analysis*. London: Equinox.
- Bhatia, V. K. (1993). *Analysing genre: Language use in professional settings*. London: Pearson.
- Bhatia, V. K. (2004). *Worlds of written discourse: A genre-based view*. London: Continuum.
- Biber, D. (1988). *Variation across speech and writing*. Cambridge: Cambridge University Press.
- Biber, D. (2006). *University language: A corpus-based study of spoken and written registers* (Vol. 23). Amsterdam: John Benjamins.
- Biber, D., & Conrad, S. (2009). *Register, Genre, and Style*. Cambridge: Cambridge University Press.
- Biber, D., Gray, B., & Poonpon, K. (2011). Should we use characteristics of conversation to measure grammatical complexity in L2 writing development? *Tesol Quarterly*, 45(1), 5-35.
- Biber, D., Johansson, S., Leech, G., Conrad, S., & Finegan, E. (1999). *Longman grammar of spoken and written English*. Harlow: Pearson Education.
- Bourdieu, P. (1984). *Distinction: A social critique of the judgement of taste* (R. Nice, Trans.). Cambridge, Massachusetts: Harvard University Press.
- Bowen, T., & Whithaus, C. (Eds.). (2013). *Multimodal literacies and emerging genres*. Pittsburgh, PA: University of Pittsburgh Pre.
- Breetvelt, I., Van den Bergh, H., & Rijlaarsdam, G. (1994). Relations between writing processes and text quality: When and how? *Cognition and Instruction*, 12(2), 103-123.
- Breetvelt, I., van den Bergh, H., & Rijlaarsdam, G. (1996). Rereading and generating and their relation to text quality. An application of multilevel analysis on writing process data. In G. Rijlaarsdam, H. van den Bergh, & M. Couzijn (Eds.), *Theories, models and methodology in writing research* (Vol. 2, pp. 10-20). Amsterdam: Amsterdam University Press.
- Bronckart, J.-P. (2006). *Atividade de linguagem, discurso e desenvolvimento humano*. Campinas, São Paulo: Mercado de letras.
- Byrnes, H. (2009). Emergent L2 German writing ability in a curricular context: A longitudinal study of grammatical metaphor. *Linguistics and Education*, 20(1), 50-66.
- Byrnes, H. (2013). Positioning writing as meaning-making in writing research: An introduction. *Journal of Second Language Writing*, 22, 95-106.
- Cameron, D. (2012). Epilogue. In K. Hyland & C. Sancho Guinda (Eds.), *Stance and voice in written academic genres* (pp. 249-256). New York, NY: Palgrave Macmillan.
- Campbell, J., Smith, D., & Brooker, R. (1998). From conception to performance: How undergraduate students conceptualise and construct essays. *Higher Education*, 36(4), 449-469.
- Chafe, W., & Nichols, J. (1986). *Evidentiality: The linguistic coding of epistemology*. Norwood, NJ: Ablex Publishing Corporation.
- Chang, P., & Schleppegrell, M. (2011). Taking an effective authorial stance in academic writing: Making the linguistic resources explicit for L2 writers in the social sciences. *Journal of English for Academic Purposes*, 10(3), 140-151.
- Chen, Y.-H., & Baker, P. (2010). Lexical Bundles in L1 and L2 Academic Writing. *Language Learning & Technology*, 14(2), 30-49.

- Chenoweth, N. A., & Hayes, J. R. (2001). Fluency in Writing: Generating Text in L1 and L2. *Written communication*, 18(1), 80-98.
- Christie, F. (2010). The ontogenesis of writing in childhood and adolescence. In D. Wyse, R. Andrews, & J. Hoffman (Eds.), *The Routledge International Handbook of English, Language, and Literacy Teaching* (pp. 146-158). Oxon: Routledge.
- Christie, F. (2012a). Developing and implementing genre-based pedagogy: a systemic functional linguistic perspective. *Caminhos em Linguística Aplicada*, 4(1), 1-21.
- Christie, F. (2012b). *Language education throughout the school years: A functional perspective*. Malden, MA: Wiley-Blackwell.
- Christie, F., & Derewianka, B. (2008). *School discourse: Learning to write across the years of schooling*. London: Continuum.
- Chuy, M., Scardamalia, M., & Bereiter, C. (2011). Development of ideational writing through knowledge building: Theoretical and empirical bases. In E. Grigorenko, M. E. & D. Preiss (Eds.), *Handbook of writing: A mosaic of perspectives and views* (pp. 175-190). New York, NY: Psychology Press.
- Clark, A. (2008). *Supersizing the Mind: Embodiment, Action, and Cognitive Extension: Embodiment, Action, and Cognitive Extension*. Oxford: Oxford University Press.
- Clark, H. H., & Wilkes-Gibbs, D. (1986). Referring as a collaborative process. *Cognition*, 22, 1-39.
- Coffin, C. (2006). *Historical discourse: The language of time, cause and evaluation*. London: Continuum.
- Coffin, C., Curry, M. J., Goodman, S., Hewings, A., Lillis, T., & Swann, J. (2003). *Teaching academic writing: A toolkit for higher education*. London: Routledge.
- Coffin, C., & Donohue, J. P. (2012). Academic Literacies and systemic functional linguistics: How do they relate? *Journal of English for Academic Purposes*, 11(1), 64-75. doi:10.1016/j.jeap.2011.11.004
- Coirier, P., Andriessen, J., & Chanquoy, L. (1999). From planning to translating: The specificity of argumentative writing. In P. Coirier & J. Andriessen (Eds.), *Foundations of argumentative text processing* (pp. 1-28). Amsterdam: Amsterdam University Press.
- Conklin, K., & Schmitt, N. (2008). Formulaic sequences: Are they processed more quickly than nonformulaic language by native and nonnative speakers? *Applied Linguistics*, 29(1), 72-89.
- Connelly, V., Gee, D., & Walsh, E. (2007). A comparison of keyboarded and handwritten compositions and the relationship with transcription speed. *British Journal of Educational Psychology*, 77(2), 479-492.
- Cortes, V. (2004). Lexical bundles in published and student disciplinary writing: Examples from history and biology. *English for Specific Purposes*, 23(4), 397-423.
- Coulthard, M. (2008). By their words shall ye know them: on linguistic identity. In C. Caldas-Coulthard & R. Iedema (Eds.), *Identity trouble: critical discourse and contested identities* (pp. 143-155). Basingstoke: Palgrave Macmillan.
- Coxhead, A., & Byrd, P. (2007). Preparing writing teachers to teach the vocabulary and grammar of academic prose. *Journal of Second Language Writing*, 16(3), 129-147.
- Crossley, S. A., Weston, J. L., Sullivan, S. T. M., & McNamara, D. S. (2011). The development of writing proficiency as a function of grade level: A linguistic analysis. *Written Communication*, 28(3), 282-311.
- Daneman, M., & Stainton, M. (1993). The generation effect in reading and proofreading. *Reading and writing*, 5(3), 297-313.
- Danes, F. (1974). Functional sentence perspective and the organization of the text. In F. Danes (Ed.), *Papers on functional sentence perspective* (pp. 106-128). Prague: Academic Press.
- de Larios, J. R., Manchón, R. M., & Murphy, L. (2006). Generating text in native and foreign language writing: A temporal analysis of problemsolving formulation processes. *The Modern Language Journal*, 90(1), 100-114.
- de Larios, J. R., Manchón, R. M., Murphy, L., & Marín, J. (2008). The foreign language writer's strategic behaviour in the allocation of time to writing processes. *Journal of Second Language Writing*, 17(1), 30-47.

- de Larios, J. R., Marin, J., & Murphy, L. (2001). A temporal analysis of formulation processes in L1 and L2 writing. *Language Learning*, 51(3), 497-538.
- de Larios, J. R., Murphy, L., & Marin, J. (2002). A critical examination of L2 writing process research. In S. E. Ransdell & M. L. Barbier (Eds.), *New directions for research in L2 writing* (Vol. 11, pp. 11-47). Dordrecht: Kluwer Academic Publishing.
- Deane, P., Odendahl, N., Quinlan, T., Fowles, M., Welsh, C., & Bivens-Tatum, J. (2008). *Cognitive models of writing: Writing proficiency as a complex integrated skill*. Princeton, NJ: ETS.
- Devitt, A. J. (2004). *Writing genres*. Carbondale, IL: SIU Press.
- Devitt, A. J. (2007). Transferability and Genres. In C. J. Keller & C. R. Weisser (Eds.), *The locations of composition* (pp. 215-227). Albany, NY: State University of New York Press.
- Devrim, D. Y. (2015). Grammatical metaphor: What do we mean? What exactly are we researching? *Functional Linguistics*, 2(1), 1-15. doi:10.1186/s40554-015-0016-7
- Domingo, M., Jewitt, C., & Kress, G. (2015). Multimodal social semiotics: Writing in online contexts. In K. Pahl & J. Rowsell (Eds.), *The Routledge handbook of literacy studies* (pp. 251-266). London: Routledge.
- Dressen-Hammouda, D. (2008). From novice to disciplinary expert: Disciplinary identity and genre mastery. *English for Specific Purposes*, 27(2), 233-252.
- Elbow, P. (1994). Introduction. In P. Elbow (Ed.), *Landmark essays on voice in writing* (pp. xi-xvii). Mahwah, NJ: Lawrence Erlbaum.
- Elbow, P. (2012). *Vernacular Eloquence: What Speech Can Bring to Writing*. Oxford: Oxford University Press.
- Ellis, R., & Yuan, F. (2004). The effects of planning on fluency, complexity, and accuracy in second language narrative writing. *Studies in second Language acquisition*, 26(1), 59-84.
- Ellis, R., & Yuan, F. (2005). The effects of careful within-task planning on oral and written task performance. In N. Spada & J. Hulstijn (Eds.), *Planning and task performance in a second language* (Vol. 11, pp. 167-192). Amsterdam: John Benjamins.
- Enkvist, N. E. (1987). Text Strategies: Single, Dual, Multiple. In R. Steele & T. Threadgold (Eds.), *Language Topics: Essays in Honour of Michael Halliday* (Vol. II, pp. 203-211). Amsterdam: Benjamins.
- Fairclough, N. (2003). *Analysing discourse: Textual analysis for social research*. London: Routledge.
- Fairclough, N., Jessop, B., & Sayer, A. (2003). Critical realism and semiosis. In J. Joseph & J. M. Roberts (Eds.), *Realism discourse and deconstruction* (pp. 23-43). London: Routledge.
- Fang, Z., Schleppegrell, M. J., & Cox, B. E. (2006). Understanding the language demands of schooling: Nouns in academic registers. *Journal of literacy research*, 38(3), 247-273.
- Fawcett, R. P. (2003). *The Many Types of 'Theme' in English: Their semantic systems and their functional syntax*. Paper presented at the Research Papers in the Humanities. <http://www.cardiff.ac.uk/chri/researchpapers/humanities/papers1-10/4Fawcett.pdf>
- Fitzgerald, J. (1987). Research on revision in writing. *Review of educational research*, 57(4), 481-506.
- Flower, L., & Hayes, J. R. (1981). The pregnant pause: An inquiry into the nature of planning. *Research in the Teaching of English*, 15(3), 229-243.
- Flower, L., Hayes, J. R., Carey, L., Schriver, K., & Stratman, J. (1986). Detection, diagnosis, and the strategies of revision. *College composition and Communication*, 37(1), 16-55.
- Fontaine, L. (2012). *Analysing English Grammar: A Systemic Functional Introduction*. London: Cambridge University Press.
- Freedman, A. (1993). Show and tell? The role of explicit teaching in the learning of new genres. *Research in the Teaching of English*, 27(3), 222-251.
- Fries, P. H. (1992). The structuring of information in written English text. *Language Sciences*, 14(4), 461-488.
- Fries, P. H. (1995). Patterns of Information in Initial Position in English. In P. H. Fries & M. Gregory (Eds.), *Discourse in Society: Systemic Functional Perspectives* (pp. 47-66). Norwood, New Jersey: Ablex Publishing Corporation.

- Fries, P. H. (2002). The flow of information in a written text. In P. H. Fries, M. Cummings, D. Lockwood, & W. Spruiell (Eds.), *Relations and Functions Within and Around Language* (pp. 117-155). London: Continuum.
- Galbraith, D. (1999). Writing as a knowledge-constituting process. In M. Torrance & D. Galbraith (Eds.), *Knowing what to write: Conceptual processes in text production* (Vol. 4, pp. 137-157). Amsterdam: Amsterdam University Press.
- Galbraith, D. (2009a). Writing about what we know: Generating ideas in writing. In R. Beard, D. Myhill, J. Rilet, & M. Nystrand (Eds.), *The SAGE handbook of writing development* (pp. 48-64). London: Sage.
- Galbraith, D. (2009b). Writing as discovery. In V. Conelly, A. L. Barnett, J. E. Dockrell, & A. Tolmie (Eds.), *Teaching and learning writing* (Vol. British Journal of Educational Psychology, Monograph Series II, pp. 5-26). Leicester, UK: British Psychological Society.
- Galbraith, D., & Torrance, M. (2004). Revision in the context of different drafting strategies. In L. Allal, L. Chanquoy, & P. Largy (Eds.), *Revision: Cognitive and instructional processes* (pp. 63-85). Dordrecht: Kluwer Academic Publishers.
- Gardner, S., & Nesi, H. (2013). A Classification of Genre Families in University Student Writing. *Applied linguistics*, 34(1), 25-52.
- Geertz, C. (1973). *The interpretation of cultures: Selected essays* (Vol. 5019). New York: Basic books.
- Gleick, J. (1993). *Genius: The Life and Science of Richard Feynman*. New York, NY: Vintage.
- Goffman, E. (1981). *Forms of Talk*. Pennsylvania: University of Pennsylvania Press.
- Gray, B., & Biber, D. (2012). Current conceptions of stance. In K. Hyland & C. Sancho Guinda (Eds.), *Stance and voice in written academic genres* (pp. 15-33). New York, NY: Palgrave Macmillan.
- Gries, S., & Stefanowitsch, A. (2010). Cluster analysis and the identification of collexeme classes. In s. Rice & J. Newman (Eds.), *Empirical and experimental methods in cognitive/functional research* (pp. 73-90). Stanford, CA: CSLI.
- Groom, N. (2000). Attribution and averral revisited: Three perspectives on manifest intertextuality in academic writing. In P. Thompson (Ed.), *Patterns and perspectives: Insights into EAP writing practice* (pp. 15-26). Reading: CALS, University of Reading.
- Haas, C. (1996). *Writing Technology: Studies on the materiality of Literacy*. New York: Lawrence Erlbaum Associates, Inc.
- Haas, C., & Hayes, J. R. (1986). What did I just say? Reading problems in writing with the machine. *Research in the teaching of English*, 20(1), 22-35.
- Hacker, D. J., Plumb, C., Butterfield, E. C., Quathamer, D., & Heineken, E. (1994). Text revision: Detection and correction of errors. *Journal of Educational Psychology*, 86(1), 65-78.
- Halliday, M. A. K. (1967). Notes on transitivity and theme in English: Part 2. *Journal of linguistics*, 3(02), 199-244.
- Halliday, M. A. K. (1975). *Learning how to mean: Explorations in the development of language*. London: Edward Arnold.
- Halliday, M. A. K. (1978). *Language as Social Semiotic: The Social Interpretation of Language and Meaning*. London: Arnold.
- Halliday, M. A. K. (1979). Modes of Meaning and Modes of Expression: Types of Grammatical Structure, and their Determination by Different Semantic Functions. In D. J. Allerton, E. Carney, & D. Holdcroft (Eds.), *Function and Context in Linguistic Analysis: essays offered to William Haas* (pp. 57-79). London: CUP.
- Halliday, M. A. K. (1985). *Spoken and written language*. Waurin Ponds, Victoria: Deakin University Press.
- Halliday, M. A. K. (1993). Towards a language-based theory of learning. *Linguistics and education*, 5(2), 93-116.
- Halliday, M. A. K. (1994). *An Introduction to Functional Grammar*. London: Edward Arnold.
- Halliday, M. A. K. (1998). Things and relations. In J. R. Martin & R. Veel (Eds.), *Reading Science: Critical and Functional Perspectives on Discourses of Science* (pp. 185-235). London and New York: Routledge.

- Halliday, M. A. K. (2005). On matter and meaning: the two realms of human experience. *Linguistics and the Human Sciences*, 1(1), 59-82.
- Halliday, M. A. K. (2005 [1995]). Computing meanings: Some reflections on past experiences and present prospects. In J. J. Webster (Ed.), *Computational and quantitative studies. Volume 6 in the collected works of M.A.K. Halliday* (Vol. 6, pp. 239-267). New York, NY: Continuum.
- Halliday, M. A. K. (2009). Methods—techniques—problems. In M. A. K. Halliday & J. J. Webster (Eds.), *Continuum companion to Systemic Functional Linguistics* (pp. 59-86). London: Continuum Publishers.
- Halliday, M. A. K. (2011). On text, discourse, information and meaning. In J. J. Webster (Ed.), *Halliday in the 21st Century* (Vol. 11, pp. 55-71). London: Bloomsbury.
- Halliday, M. A. K., & Hasan, R. (1976). *Cohesion in English* (Vol. 9). London: Longman.
- Halliday, M. A. K., & Martin, J. R. (1993). *Writing science: Literacy and discursive power* (Vol. 8). London: The Farmer Press.
- Halliday, M. A. K., & Matthiessen, C. M. I. M. (1999). *Construing experience through meaning: a language-based approach to cognition*. London: Continuum.
- Halliday, M. A. K., & Matthiessen, C. M. I. M. (2013). *An Introduction to Functional Grammar* (4th edition ed.). London: Routledge.
- Halliday, M. A. K., & Webster, J. J. (2014). *Text Linguistics: The how and why of Meaning*. Sheffield: Equinox.
- Hasan, R. (1978). Text in the systemic-functional model. In W. Dressler (Ed.), *Current trends in text linguistics* (pp. 228-246). Berlin & New York: Walton de Gruyter.
- Hasan, R. (1995). The Conception of Context in Text. In P. H. Fries & M. Gregory (Eds.), *Discourse in society: Systemic functional perspectives: Meaning and choice in language: Studies for Michael Halliday* (Vol. 50, pp. 183-283). Westport, CT: Ablex.
- Hayes, J. R. (1996). A new framework for understanding cognition and affect in writing. In C. M. Levy & S. Ransdell (Eds.), *The science of writing: Theories, methods, individual differences, and applications* (pp. 1-28). Mahwah, NJ: Lawrence Erlbaum Associates.
- Hayes, J. R. (2004). What triggers revision? In L. Allal, L. Chanquoy, & P. Largy (Eds.), *Revision: Cognitive and Instructional Processes* (pp. 9-20). Dordrecht: Kluwer Academic Publishers.
- Hayes, J. R. (2011). *Reevaluating knowledge-telling: Modelling early writing development*. Paper presented at the Writing research across borders II, George Mason University, Fairfax, VA.
- Hayes, J. R. (2012). Modeling and remodeling writing. *Written Communication*, 29(3), 369-388.
- Hayes, J. R., & Flower, L. (1980). Identifying the organization of writing processes. In L. Gregg & E. R. Steinberg (Eds.), *Cognitive processes in writing* (pp. 3-30). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Hayes, J. R., & Gradwohl Nash, J. (1996). On the nature of planning in writing. In C. M. Levy & S. Ransdell (Eds.), *The science of writing: Theories, methods, individual differences, and applications* (pp. 29-55). Mahwah, NJ: Lawrence Erlbaum Associates.
- Henry, A., & Roseberry, R. L. (1997). An investigation of the functions, strategies and linguistic features of the introductions and conclusions of essays. *System*, 25(4), 479-495.
- Hewings, A. (2004). Developing discipline-specific writing: an analysis of undergraduate geography essays. In L. Ravelli & R. Ellis (Eds.), *Analysing academic writing: Contextualised frameworks* (pp. 131-152). London: Continuum.
- Hewings, M., & Hewings, A. (2002). "It is interesting to note that...": a comparative study of anticipatory 'it' in student and published writing. *English for Specific Purposes*, 21(4), 367-383.
- Hidi, S., & Boscolo, P. (Eds.). (2007). *Writing and motivation* (Vol. 19). Amsterdam: Elsevier.
- Hinkel, E. (2002). *Second language writers' text: Linguistic and rhetorical features*. Mahwah, NJ: Lawrence Erlbaum.
- Hood, S. (2004). *Appraising research: Taking a stance in academic writing*. (PhD), University of Technology, Sydney, unpublished.

- Hood, S. (2009). Texturing interpersonal meanings in academic argument: Pulses and prosodies of value. In G. Forey & G. Thompsons (Eds.), *Text type and texture*. (pp. 216-233). London & Oakville: Equinox.
- Hood, S. (2010). *Appraising Research: Evaluation in Academic Writing*. Basingstoke: Palgrave Macmillan.
- Hood, S. (2012). Voice and Stance as APPRAISAL: Persuading and Positioning in Research Writing across Intellectual Fields. In K. Hyland & C. Sancho Guinda (Eds.), *Stance and voice in written academic genres* (pp. 51-68). New York, NY: Palgrave Macmillan.
- Hunston, S. (2013). Systemic functional linguistics, corpus linguistics, and the ideology of science. *Text & Talk*, 33(4-5), 617-640.
- Hunston, S., & Thompson, G. (Eds.). (1999). *Evaluation in text: Authorial stance and the construction of discourse*. Oxford: Oxford University Press.
- Hyland, K. (2002). Genre: Language, context, and literacy. *Annual review of applied linguistics*, 22, 113-135.
- Hyland, K. (2005a). *Metadiscourse: Exploring interaction in writing*. London: Continuum.
- Hyland, K. (2005b). Stance and engagement: A model of interaction in academic discourse. *Discourse studies*, 7(2), 173-192.
- Hyland, K. (2006). *English for academic purposes: An advanced resource book*. London: Routledge.
- Hyland, K. (2007). Applying a gloss: Exemplifying and reformulating in academic discourse. *Applied Linguistics*, 28(2), 266-285.
- Hyland, K. (2008a). Academic clusters: text patterning in published and postgraduate writing. *International Journal of Applied Linguistics*, 18(1), 41-62.
- Hyland, K. (2008b). As can be seen: Lexical bundles and disciplinary variation. *English for Specific Purposes*, 27(1), 4-21.
- Hyland, K. (2008c). Disciplinary voices: Interactions in research writing. *English text construction*, 1(1), 5-22.
- Hyland, K. (2009). *Academic discourse: English in a global context*. London: Continuum.
- Hyland, K. (2011). Learning to write: Issues in theory, research and pedagogy. In R. M. Manchón (Ed.), *Learning-to-write and Writing-to-learn in an additional Language* (Vol. 31, pp. 17-37). Amsterdam: John Benjamins.
- Hyland, K. (2012a). Bundles in academic discourse. *Annual Review of Applied Linguistics*, 32, 150-169.
- Hyland, K. (2012b). Undergraduate understandings: Stance and voice in final year reports. In K. Hyland & C. Sancho Guinda (Eds.), *Stance and voice in written academic genres* (pp. 134-150). New York, NY: Palgrave Macmillan.
- Hyland, K. (2013). Writing in the university: education, knowledge and reputation. *Language Teaching*, 46(01), 53-70.
- Hyon, S. (1996). Genre in three traditions: Implications for ESL. *Tesol Quarterly*, 30(4), 693-722.
- Ivanic, R. (1998). *Writing and identity: The discursive construction of identity in academic writing*. Amsterdam: John Benjamins.
- Johns, A. M. (2011). The future of genre in L2 writing: Fundamental, but contested, instructional decisions. *Journal of Second Language Writing*, 20(1), 56-68.
- Jones, S., & Tetroe, J. (1987). Composing in a second language. In A. Matsuhashi (Ed.), *Writing in real time: Modelling production processes* (pp. 34-57). Norwood, NJ: Ablex Publishing Corporation.
- Kellogg, R. T. (1994). *The psychology of writing*. New York: Oxford University Press.
- Kellogg, R. T. (1996). A model of working memory in writing. In C. M. Levy & S. Ransdell (Eds.), *The science of writing: Theories, methods, individual differences, and applications* (pp. 57-71). Mahwah, NJ: Lawrence Erlbaum Associates.
- Kellogg, R. T. (2001). Long-term working memory in text production. *Memory & cognition*, 29(1), 43-52.
- Kellogg, R. T. (2008). Training writing skills: A cognitive developmental perspective. *Journal of writing research*, 1(1), 1-26.

- Khalifa, H., & Weir, C. J. (2009). *Examining Reading: Research and practice in assessing second language reading* (Vol. 29). Cambridge: Cambridge University Press.
- Kieft, M., Rijlaarsdam, G., & Van den Bergh, H. (2008). An aptitude–treatment interaction approach to writing-to-learn. *Learning and Instruction, 18*(4), 379-390.
- Klein, P. D., & Unsworth, L. (2014). The logogenesis of writing to learn: A systemic functional perspective. *Linguistics and Education, 26*, 1-17.
- Kollberg, P. (1998). *S-notation—a computer based method for studying and representing text composition*. Licentiate thesis, Stockholm, Sweden: Department of Numerical Analysis and Computing, Royal Institute of Technology (KTH).
- Kopple, W. J. V. (2002). From the dynamic style to the synoptic style in spectroscopic articles in the Physical Review: Beginnings and 1980. *Written Communication, 19*(2), 227-264.
- Kress, G. (2003). *Literacy in the New Media Age*. London: Routledge.
- Kristeva, J. (1980). *Desire in language: A semiotic approach to literature and art*. New York, NY: Columbia University Press.
- Lancaster, Z. (2014). Exploring valued patterns of stance in upper-level student writing in the disciplines. *Written Communication, 31*(1), 27-57.
- Langer, J. A. (2011). *Envisioning knowledge: Building literacy in the academic disciplines*. New York, NY: Teachers College Press.
- Larson, M., Britt, M. A., & Larson, A. A. (2004). Disfluencies in comprehending argumentative texts. *Reading Psychology, 25*(3), 205-224.
- Lea, R. A., & Street, B. (1998). Student writing in higher education: an academic literacies approach. *Studies in Higher Education, 23*(2), 157-172.
- Lee, D. Y. (2001). Genres, registers, text types, domains and styles: Clarifying the concepts and navigating a path through the BNC jungle. *Language Learning and Technology, 5*(3), 37-72.
- Lee, D. Y., & Chen, S. X. (2009). Making a bigger deal of the smaller words: Function words and other key items in research writing by Chinese learners. *Journal of Second Language Writing, 18*(3), 149-165.
- Leedham, M. (2011). *A corpus-driven study of features of Chinese students' undergraduate writing in UK*. The Open University, unpublished.
- Leijten, M., Engelborghs, S., Van der Musselle, S., Van Horenbeeck, E., Mariën, P., & Van Waes, L. (2014). *Cognitive writing process characteristics in Alzheimer's disease*. Paper presented at the Conference on Writing Research, Amsterdam.
- Leijten, M., Macken, L., Hoste, V., Van Horenbeeck, E., & Van Waes, L. (2012). *From Character to Word Level: Enabling the Linguistic Analyses of Inputlog Process Data*. Paper presented at the Proceedings of the Second Workshop on Computational Linguistics and Writing (Avignon, CLW 2012), Avignon, France.
- Leijten, M., & Van Waes, L. (2006). Inputlog: New Perspectives on the Logging of On-Line Writing Processes in a Windows Environment. In K. P. H. Sullivan & E. Lindgren (Eds.), *Computer Keystroke Logging and Writing* (pp. 73-94). London: Elsevier.
- Leijten, M., & Van Waes, L. (2013). Keystroke Logging in Writing Research Using Inputlog to Analyze and Visualize Writing Processes. *Written Communication, 30*(3), 358-392.
- Leijten, M., Van Waes, L., Schriver, K., & Hayes, J. R. (2014). Writing in the workplace: Constructing documents using multiple digital sources. *Journal of Writing Research, 5*(3), 285-337.
- Lemke, J. (1998). Multiplying meaning. In J. R. Martin & R. Veel (Eds.), *Reading science: Critical and functional perspectives on discourses of science* (pp. 87-113). London: Routledge.
- Lemke, J. (1999). *Typology, topology, topography: genre semantics*. University of Michigan. MS.
- Lemke, J. L. (1999). *Typology, topology, topography: genre semantics*. University of Michigan. MS.

- Levy, C. M., & Ransdell, S. E. (1996). Writing signatures. In C. M. Levy & S. E. Ransdell (Eds.), *The science of writing: Theories, methods, individual differences, and applications* (pp. 149-162). Mahwah, NJ: Lawrence Erlbaum.
- Liardét, C. L. (2013). An exploration of Chinese EFL learner's deployment of grammatical metaphor: Learning to make academically valued meanings. *Journal of Second Language Writing, 22*, 161-178.
- Lillis, T. M. (2001). *Student writing: Access, regulation, desire*. London: Routledge.
- Lindgren, E., Leijten, M., & Van Waes, L. (2011). Adapting to the reader during writing. *Written Language & Literacy, 14*(2), 188-223.
- Lindgren, E., & Sullivan, K. P. H. (2002). *The LS Graph: A methodology for visualizing writing revision*. *Language Learning, 52*(3), pp.565-595.
- Lindgren, E., & Sullivan, K. P. H. (2006). Analysing Online Revision. In K. P. H. Sullivan & E. Lindgren (Eds.), *Studies in writing, computer keystroke-logging and writing: methods and applications* (pp. 157-188).
- Loudermilk, B. C. (2007). Occluded academic genres: An analysis of the MBA thought essay. *Journal of English for Academic Purposes, 6*(3), 190-205.
- Lu, X. (2011). A Corpus-Based Evaluation of Syntactic Complexity Measures as Indices of College-Level ESL Writers' Language Development. *Tesol Quarterly, 45*(1), 36-62.
- Lukin, A., Moore, A., Herke, M., Wegener, R., & Wu, C. (2011). Halliday's model of register revisited and explored. *Linguistics and Human Science, 4*(2), 187-213.
- MacArthur, C. A. (2013). Best practices in teaching evaluation and revision. In S. Graham, C. A. MacArthur, & F. Fitzgerald (Eds.), *Best practices in writing instruction* (Second ed., pp. 215-237). New York, NY: Guilford Press.
- MacArthur, C. A., Graham, S., & Fitzgerald, J. (2006). *Handbook of writing research*. New York, NY: The Guilford Press.
- Manchón, R. M. (Ed.) (2009). *Writing in foreign language contexts: Learning, teaching, and research* (Vol. 43). Bristol: Multilingual Matters.
- Manchón, R. M. (Ed.) (2012). *L2 writing development: Multiple perspectives* (Vol. 6). Berlin: Walter de Gruyter.
- Manchón, R. M., & de Larios, J. R. (2007). On the temporal nature of planning in L1 and L2 composing. *Language learning, 57*(4), 549-593.
- Mann, W. C., & Thompson, S. A. (1988). Rhetorical Structure Theory: Toward a functional theory of text organization. *Text, 8*(3), 243-281.
- Martin, J. R. (1991). Nominalization in science and humanities: distilling knowledge and scaffolding text. In E. Ventola (Ed.), *Functional and systemic linguistics: approaches and uses* (Vol. 55, pp. 307-338). Berlin & New York: Mouton De Gruyter.
- Martin, J. R. (1992). *English Text: System and Structure*. Philadelphia and Amsterdam: John Benjamins.
- Martin, J. R. (1995). More than what the message is about: English theme. In M. Ghadessy (Ed.), *Thematic Development in English Texts* (pp. 223-258). London: Pinter.
- Martin, J. R. (1996). Types of structure: deconstructing notions of constituency in clause and text. In E. H. Hovy & D. R. Scott (Eds.), *Computational and conversational discourse: Burning issues - an interdisciplinary account* (Vol. 151, pp. 39-66). Berlin: Springer.
- Martin, J. R. (1997). Analysing genre: functional parameters. In F. Christie & J. R. Martin (Eds.), *Genres and Institutions: Social Processes in the Workplace and School* (pp. 3-39). London: Pinter.
- Martin, J. R. (2007). Construing knowledge: A functional linguistic perspective. In F. Christie & J. R. Martin (Eds.), *Language, knowledge and pedagogy: Functional linguistic and sociological perspectives* (pp. 34-64). London: Continuum.
- Martin, J. R. (2009). Genre and language learning: A social semiotic perspective. *Linguistics and Education, 20*(1), 10-21.

- Martin, J. R. (2011). Bridging troubled waters: Interdisciplinarity and what makes it stick. In F. Christie & K. Maton (Eds.), *Disciplinarity: Functional linguistic and sociological perspectives* (pp. 35-61). London: Continuum.
- Martin, J. R. (2013). Embedded Literacy: Knowledge as Meaning. *Linguistics and Education*, 24(1), 23-37.
- Martin, J. R., & Rose, D. (2007). *Working with discourse: Meaning beyond the clause* (2nd ed.). London: Continuum.
- Martin, J. R., & Rose, D. (2008). *Genre relations: Mapping culture*. London: Equinox.
- Martin, J. R., & White, P. R. (2005). *The language of evaluation: Appraisal in English*. London: Palgrave Macmillan.
- Martin, J. R., Wignell, P., Eggins, S., & Rothery, J. (1986). *Secret English: Jargon and bullshit in a secondary school*. Paper presented at the Plenary address, Language in Education Conference, Sydney, Australia.
- Martín-Úriz, A., & Murcia-Bielsa, S. (2008). *Reports in Spanish writing: generic features and text quality*. Paper presented at the Proceedings of ISFC 35: Voices Around the World, Sydney.
- Maton, K. (2013a). *Knowledge & knowers*. London: Routledge.
- Maton, K. (2013b). Making semantic waves: A key to cumulative knowledge-building. *Linguistics and Education*, 24(1), 8-22.
- Matsuda, P. K. (2001). Voice in Japanese written discourse: Implications for second language writing. *Journal of Second language writing*, 10(1-2), 35-53.
- Matsuda, P. K., & Jeffery, J. V. (2012). Voice in Student Essays. In K. Hyland & C. Sancho Guinda (Eds.), *Stance and voice in written academic genres* (pp. 151-165). New York, NY: Palgrave Macmillan.
- Matsuda, P. K., & Tardy, C. M. (2007). Voice in academic writing: The rhetorical construction of author identity in blind manuscript review. *English for Specific Purposes*, 26(2), 235-249.
- Matthiessen, C. M. I. M. (1995a). *Lexicogrammatical Cartography: English Systems*. Tokyo: International Language Science Publishers.
- Matthiessen, C. M. I. M. (1995b). THEME as an enabling resource in ideational 'knowledge' construction. In M. Ghadessy (Ed.), *Thematic Development in English Texts* (pp. 20-54). London and New York: Pinter.
- Matthiessen, C. M. I. M. (2006). Frequency profiles of some basic grammatical systems: An interim report. In G. Thompson & S. Hunston (Eds.), *System and corpus: Exploring connections* (pp. 103-142). London: Equinox.
- Matthiessen, C. M. I. M. (2009). Meaning in the making: Meaning potential emerging from acts of meaning. *Language Learning*, 59(s1), 206-229.
- Matthiessen, C. M. I. M. (2015). Register in the round: registerial cartography. *Functional Linguistics*, 2(9), 1-48.
- McCabe, A., & Gallagher, C. (2008). The role of the Nominal group in undergraduate academic writing. In C. Jones & E. Ventola (Eds.), *From language to multimodality: new developments in the study of ideational meaning* (pp. 189-208). London: Equinox.
- McCutchen, D. (1986). Domain knowledge and linguistic knowledge in the development of writing ability. *Journal of Memory and Language*, 25(4), 431-444.
- McCutchen, D. (2000). Knowledge, processing, and working memory: Implications for a theory of writing. *Educational psychologist*, 35(1), 13-23.
- McCutchen, D. (2011). From novice to expert: Implications of language skills and writing-relevant knowledge for memory during the development of writing skill. *Journal of Writing Research*, 3(1), 51-68.
- McCutchen, D., Francis, M., & Kerr, S. (1997). Revising for meaning: Effects of knowledge and strategy. *Journal of educational psychology*, 89(4), 667-676.
- McNamara, D. S. (2013). The epistemic stance between the author and reader: A driving force in the cohesion of text and writing. *Discourse Studies*, 15(5), 579-595.
- McNamara, D. S., Crossley, S. A., & McCarthy, P. M. (2010). Linguistic features of writing quality. *Written Communication*, 27(1), 57-86.

- McNamara, D. S., Kintsch, E., Songer, N. B., & Kintsch, W. (1996). Are good texts always better? Interactions of text coherence, background knowledge, and levels of understanding in learning from text. *Cognition and instruction*, 14(1), 1-43.
- Meuffels, B., & Van den Bergh, H. (2005). De ene tekst is de andere niet. The language-as-a-fixed-effect fallacy revisited: Methodologische implicaties [One texts is not the same as the another, language as-a-fixed-effect fallacy revisited: Methodological implications]. *Tijdschrift voor Taalbeheersing*, 27(2), 106-125.
- Midgette, E., Haria, P., & MacArthur, C. A. (2008). The effects of content and audience awareness goals for revision on the persuasive essays of fifth-and eighth-grade students. *Reading and Writing*, 21(1-2), 131-151.
- Miller, C. R. (1984). Genre as social action. *Quarterly journal of speech*, 70(2), 151-167.
- Mills, K. A. (2016). *Literacy theories for the digital age: Social, critical, multimodal, spatial, material and sensory lenses* (Vol. 45). Bristol, UK: Multilingual Matters.
- Mitchell, S., & Andrews, R. (1994). Learning to operate successfully in advanced level history. In A. Freedman & P. Medway (Eds.), *Learning and teaching genre* (pp. 81-104). Portsmouth, NH: Boynton/Cook.
- Moore, N. (2012). *Modelling the Flow of Discourse in a Corpus of Written Academic English*. Paper presented at the Proceedings of Corpus Linguistics 2011 - "Discourse and Corpus Linguistics", Birmingham, UK. <http://www.birmingham.ac.uk/documents/college-artslaw/corpus/conference-archives/2011/Paper-11.pdf>
- Morton, J. (2009). Genre and disciplinary competence: A case study of contextualisation in an academic speech genre. *English for Specific Purposes*, 28(4), 217-229.
- Myhill, D. (2012). The ordeal of deliberate choice: Metalinguistic development in secondary writers. In V. W. Berninger (Ed.), *Past, present, and future contributions of cognitive writing research to cognitive psychology* (pp. 247-273). New York, NY: Psychology Press.
- Neale, A. (TBP). *Process types and Participant roles in the English clause*. London: Equinox.
- Negretti, R. (2012). Metacognition in student academic writing: A longitudinal study of metacognitive awareness and its relation to task perception, self-regulation, and evaluation of performance. *Written Communication*, 29(2), 142-179.
- Nesi, H., & Gardner, S. (2012). *Genres across the disciplines: Student writing in higher education*. Cambridge: Cambridge University Press.
- North, S. (2005a). Different values, different skills? A comparison of essay writing by students from arts and science backgrounds. *Studies in Higher Education*, 30(5), 517-533.
- North, S. (2005b). Disciplinary variation in the use of theme in undergraduate essays. *Applied Linguistics*, 26(3), 431-452.
- Nwogu, K., & Bloor, T. (1991). Thematic Progression in Professional and Popular Medical Texts. In E. Ventola (Ed.), *Functional and Systemic Linguistics: Approaches and Uses* (pp. 369-384). Berlin: Mouton De Gruyter.
- O'Donnell, M. (1999). Context in dynamic modelling. In M. Ghadessy (Ed.), *Text and context in Functional Linguistics* (pp. 63-99). Holland: Benjamins.
- O'Donnell, M. (2013). A dynamic view of choice in writing: composition as text evolution. In L. Fontaine, T. Bartlett, G. O'Grady (Eds.), *Systemic Functional Linguistics: Exploring Choice* (pp.247-266). Cambridge: CUP.
- Oblinger, D. G., & Oblinger, J. L. (2005). Is it age or IT: First steps toward understanding the net generation. In D. G. Oblinger, J. L. Oblinger, & J. K. Lippincott (Eds.), *Educating the Net Generation* (Vol. 2, pp. 2.1-2.20). Brockport, NC: EDUCAUSE.
- Ochs, E., & Schieffelin, B. (1989). Language has a heart. *Text*, 9(1), 7-25.
- Olive, T. (2012). Working memory in writing. In V. W. Berninger (Ed.), *Past, present, and future contributions of cognitive writing research to cognitive psychology* (pp. 485-503). New York, NY: Psychology Press.
- Olive, T., Favart, M., Beauvais, C., & Beauvais, L. (2009). Children's cognitive effort and fluency in writing: Effects of genre and of handwriting automatisation. *Learning and Instruction*, 19(4), 299-308.

- Olive, T., & Passerault, J.-M. (2012). The visuospatial dimension of writing. *Written Communication, 29*(3), 326-344.
- Paltridge, B. (1997). *Genre, frames and writing in research settings* (Vol. 45). Amsterdam: John Benjamins Publishing.
- Paltridge, B. (2004). Academic writing. *Language teaching, 37*(2), 87-105.
- Paltridge, B. (2006). *Discourse Analysis: An introduction*. London: Continuum.
- Parkinson, J., & Musgrave, J. (2014). Development of noun phrase complexity in the writing of English for Academic Purposes students. *Journal of English for Academic Purposes, 14*, 48-59.
- Piolat, A., Roussey, J.-Y., Olive, T., & Amada, M. (2004). Processing time and cognitive effort in revision: Effects of error type and of working memory capacity. In L. Allal, L. Chanquoy, & P. Largy (Eds.), *Revision: Cognitive and instructional processes* (pp. 21-38). Dordrecht: Kluwer Academic Publishers.
- Ponterotto, J. G. (2006). Brief note on the origins, evolution, and meaning of the qualitative research concept "thick description". *The Qualitative Report, 11*(3), 538-549.
- Prior, P. (1998). *Writing/disciplinarity: a sociohistoric account of literate activity in the academy*. Mahwah, NJ: Lawrence Erlbaum.
- Prior, P. (2006). A sociocultural theory of writing. In C. A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 54-66). New York, NY: The Guildford Press.
- Prior, P. (2009). From speech genres to mediated multimodal genre systems: Bakhtin, Voloshinov, and the question of writing. In C. Bazerman, A. Bonini, & D. Figueiredo (Eds.), *Genre in a changing world* (pp. 17-34). West Lafayette, IN: Parlor Press.
- Pritchard, R. J., & Honeycutt, R. L. (2006). The process approach to writing instruction: Examining its effectiveness. In C. A. MacArthur, S. Graham, & I. Fitzgerald (Eds.), *Handbook of writing research* (pp. 275-290). New York: The Guildford Press.
- Pérez-Llantada, C. (2014). Formulaic language in L1 and L2 expert academic writing: Convergent and divergent usage. *Journal of English for Academic Purposes, 14*, 84-94.
- Ravelli, L. J. (1995). A dynamic perspective: implications for metafunctional interaction and an understanding of Theme. In R. Hasan & P. H. Fries (Eds.), *On Subject and Theme* (pp. 187-234). Amsterdam and Philadelphia: John Benjamins.
- Ravelli, L. J. (2004). Signalling the organization of written texts: hyper-Themes in management and history essays. In L. J. Ravelli & R. A. Ellis (Eds.), *Analysing academic writing: Contextualized frameworks* (pp. 131-152). London: Continuum.
- Reid, T. B. W. (1956). Linguistics, Structuralism and philology. *Archivum linguisticum, 8*, 28-37.
- Reilly, J. S., Baruch, E., Jisa, H., & Berman, R. A. (2002). Propositional attitudes in written and spoken language. *Written Language & Literacy, 5*(2), 183-218.
- Richardson, L. (2000). Writing: A method of inquiry. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed., pp. 923-948). Thousand Oaks, CA: Sage.
- Rijlaarsdam, G., Couzijn, M., & Van den Bergh, H. (2004). The study of revision as a writing process and as a learning-to-write process. In L. Allal, L. Chanquoy, & P. Largy (Eds.), *Revision: Cognitive and Instructional Processes* (pp. 189-207). Dordrecht: Kluwer Academic Publishers.
- Rijlaarsdam, G., & Van den Bergh, H. (1996). An agenda for research into an interactive compensatory model of writing. Many questions, some answers. In C. M. Levy & S. Ransdell (Eds.), *The science of writing: Theories, methods, individual differences, and applications*. (pp. 107-126). Hillsdale, NJ: Lawrence Erlbaum.
- Rijlaarsdam, G., & Van den Bergh, H. (2006). Writing process theory: a functional dynamic approach. In C. A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *The handbook of writing research* (pp. 41-53). New York: Guilford Press.
- Rijlaarsdam, G., & Van den Bergh, H. (2012). Writing research: Where to go to? In V. W. Berninger (Ed.), *Past, present, and future contributions of cognitive writing research to cognitive psychology* (pp. 579-590). New York, NY: Psychology Press.
- Rose, D. (2006). Reading genre: a new wave of analysis. *Linguistics and the Human Sciences, 2*(2), 185-204.

- Roth, W.-M. (2004). Perceptual gestalts in workplace communication. *Journal of Pragmatics*, 36(6), 1037-1069.
- Saussure, F. d. (1916). *Course in General Linguistics* (G. Duckworth, Trans.). London: Open Court Publishing.
- Scardamalia, M., & Bereiter, C. (2006). Knowledge building: Theory, pedagogy, and technology. In K. Sawyer (Ed.), *Cambridge handbook of the learning sciences* (pp. 97-118). Cambridge: Cambridge University Press.
- Schleppegrell, M. J. (2004a). Technical writing in a second language: the role of grammatical metaphor. In L. J. Ravelli & R. A. Ellis (Eds.), *Analysing academic writing: Contextualized frameworks* (pp. 172 - 189). London: Continuum.
- Schleppegrell, M. J. (2004b). *The language of schooling: A functional linguistics perspective*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Schleppegrell, M. J. (2006). The challenges of academic language in school subjects. In I. Lindberg & K. Sandwall (Eds.), *Språket och kunskapen* (pp. 47-69). Goteberg: Göteborgs universitet institutet för svenska som andraspråk.
- Schoonen, R. (2005). Generalizability of writing scores: An application of structural equation modeling. *Language Testing*, 22(1), 1-30.
- Schoonen, R., Gelderen, A. v., Gloppe, K. d., Hulstijn, J., Simis, A., Snellings, P., & Stevenson, M. (2003). First language and second language writing: The role of linguistic knowledge, speed of processing, and metacognitive knowledge. *Language learning*, 53(1), 165-202.
- Schryer, C. F., & Spoel, P. (2005). Genre theory, health-care discourse, and professional identity formation. *Journal of Business and Technical Communication*, 19(3), 249-278.
- Scott, M., & Turner, J. (2009). Reconceptualising student writing. In A. Carter, T. Lillis, & S. Parkin (Eds.), *Why Writing Matters: Issues of Access and Identity in Writing Research and Pedagogy* (Vol. 12, pp. 151-162). Amsterdam: John Benjamins.
- Simon-Vandenberg, A. M. (2003). Lexical metaphor and interpersonal meaning. In A. M. Simon-Vandenberg, M. Taverniers, & L. Ravelli (Eds.), *Grammatical metaphor: views from systemic functional linguistics* (Vol. 236, pp. 223-255). Amsterdam: John Benjamins.
- Simon-Vandenberg, A. M., Taverniers, M., & Ravelli, L. (Eds.). (2003). *Grammatical Metaphor: Views from systemic functional linguistics* (Vol. 236). Amsterdam & Philadelphia: John Benjamins.
- Simpson-Vlach, R., & Ellis, N. C. (2010). An academic formulas list: New methods in phraseology research. *Applied Linguistics*, 31(4), 487-512.
- Smagorinsky, P. (2006). *Research on composition: Multiple perspectives on two decades of change*. New York: Teachers College Press.
- Smagorinsky, P., Daigle, E. A., O'Donnell-Allen, C., & Bynum, S. (2010). Bullshit in academic writing: A protocol analysis of a high school senior's process of interpreting Much Ado About Nothing. *Research in the Teaching of English*, 44(4), 368-405.
- Smart, P. R. (2012). The Web-Extended Mind. *Metaphilosophy*, 43(4), 446-463.
- Smith, C. S. (2003). *Modes of discourse: The local structure of texts*. Cambridge: Cambridge University Press.
- Soliday, M. (2005). Mapping classroom genres in a Science in Society course. In A. Herrington & C. Moran (Eds.), *Genre across the curriculum* (pp. 65-82). Logan: Utah State University Press.
- Sommers, N. (1980). Revision strategies of student writers and experienced adult writers. *College composition and communication*, 31(4), 378-388.
- Spivey, N. N., & King, J. R. (1989). Readers as writers composing from sources. *Reading Research Quarterly*, 24(1), 7-26.
- Stapleton, P. (2010). Writing in an electronic age: A case study of L2 composing processes. *Journal of English for Academic Purposes*, 9(4), 295-307.
- Stapleton, P. (2012). Shifting cognitive processes while composing in an electronic environment: A study of L2 graduate writing. *Applied Linguistic Review*, 3(1), 151-171.

- Stevenson, M. (2005). *Reading and writing in a foreign language: A comparison of conceptual and linguistic processes in Dutch and English*. (PhD), University of Amsterdam.
- Stevenson, M., Schoonen, R., & de Glopper, K. (2006). Revising in two languages: A multi-dimensional comparison of online writing revisions in L1 and FL. *Journal of Second Language Writing, 15*(3), 201-233. doi:http://dx.doi.org/10.1016/j.jslw.2006.06.002
- Stubbs, M. (2007). An example of frequent English phraseology: distributions, structures and functions. *Language and Computers, 62*(1), 89-105.
- Sullivan, K. P. H., & Lindgren, E. (Eds.). (2006). *Computer Key-stroke Logging and Writing: Methods And Applications*. Oxford: Elsevier.
- Sullivan, K. P. H., & Lindgren, E. (Eds.). (2006). *Computer keystroke logging and writing: methods and applications*. Oxford: Elsevier.
- Swain, E. (2007). Constructing an effective 'voice' in academic discussion writing: an appraisal theory perspective. In A. McCabe, M. O'Donnell, & R. Whittaker (Eds.), *Advances in language and education* (pp. 166-184). London: Continuum.
- Swales, J. (1990). *Genre analysis: English in academic and research settings*. Cambridge: Cambridge University Press.
- Swales, J. (2009). Worlds of Genre—Metaphors of Genre. In C. Bazerman, A. Bonini, & D. Figueiredo (Eds.), *Genre in a changing world* (pp. 3-16). West Lafayette, IN: Parlor Press.
- Swartz, J. (2010). Recycled writing: Assembling actor networks from reusable content. *Journal of Business and Technical Communication, 24*(2), 127-163.
- Tachino, T. (2012). Theorizing uptake and knowledge mobilization: A case for Intermediary Genre. *Written Communication, 29*(4), 455-476.
- Tang, R. (2009). A dialogic account of authority in academic writing. In M. Charles, D. Pecorari, & S. Hunston (Eds.), *Academic writing: At the interface of corpus and discourse* (pp. 170-190). London: Continuum.
- Tardy, C. M. (2005). "It's like a story": Rhetorical knowledge development in advanced academic literacy. *Journal of English for Academic purposes, 4*(4), 325-338.
- Tardy, C. M. (2006). Researching first and second language genre learning: A comparative review and a look ahead. *Journal of Second Language Writing, 15*(2), 79-101.
- Tardy, C. M. (2009). *Building genre knowledge*. West Lafayette, IN: Parlor Press.
- Teddle, C., & Tashakkori, A. (2012). Common "Core" Characteristics of Mixed Methods Research A Review of Critical Issues and Call for Greater Convergence. *American Behavioral Scientist, 56*(6), 774-788.
- Thompson, G. (2004). *Introducing Functional Grammar* (2nd ed.). London: Hodder Education.
- Thompson, G. (2009). Grammatical metaphor and success in academic writing. In S. Hunton & D. Oakey (Eds.), *Introducing Applied Linguistics: Concepts and skills* (pp. 27-35). London: Routledge.
- Thompson, P. (2012). Achieving a voice of authority in PhD theses. In K. Hyland & C. Sancho Guinda (Eds.), *Stance and voice in written academic genres* (pp. 119-133). New York, NY: Palgrave Macmillan.
- Tillema, M., Van den Bergh, H., Rijlaarsdam, G., & Sanders, T. (2011). Relating self reports of writing behaviour and online task execution using a temporal model. *Metacognition and Learning, 6*(3), 229-253.
- Torrance, M., Alamargot, D., Castello, M., Ganier, F., Kruse, O., Mangen, A., . . . Van Waes, L. (Eds.). (2012). *Learning to Write Effectively: Current Trends in European Research*. Bingley: Emerald Group.
- Torrance, M., & Galbraith, D. (2006). The processing demands of writing. In C. A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 67-80). New York: The Guildford Press.
- Torrance, M., Thomas, G. V., & Robinson, E. J. (1994). The writing strategies of graduate research students in the social sciences. *Higher Education, 27*(3), 379-392.
- Torrance, M., Thomas, G. V., & Robinson, E. J. (2000). Individual differences in undergraduate essay-writing strategies: A longitudinal study. *Higher Education, 39*(2), 181-200.

- Tracy, S. J. (2013). *Qualitative research methods: Collecting evidence, crafting analysis, communicating impact*. Oxford: John Wiley & Sons.
- Tribble, C. (2009). Writing academic English—a survey review of current published resources. *ELT journal*, 63(4), 400-417.
- Trupe, A. (2002). Academic literacy in a wired world: Redefining genres for college writing courses. Retrieved from <http://english.ttu.edu/kairos/7.2/binder.html?sectionone/trupe/WiredWorld.htm>
- Uccelli, P., Dobbs, C. L., & Scott, J. (2013). Mastering Academic Language Organization and Stance in the Persuasive Writing of High School Students. *Written Communication*, 30(1), 36-62.
- Ure, J. (1971). Lexical density and register differentiation. In G. Perren & J. L. M. Trim (Eds.), *Applications of linguistics* (pp. 443-452). London: CUP.
- Ure, J., & Ellis, J. (1977). Register in descriptive linguistics and linguistic sociology. In O. U. Villegas (Ed.), *Issues in sociolinguistics (Contributions to the sociology of language)* (pp. 197-243). The Hague: Mouton.
- Van den Bergh, H., & Rijlaarsdam, G. (2001). Changes in cognitive activities during the writing process and relationships with text quality. In G. Rijlaarsdam, H. Van den Bergh, & M. Couzijn (Eds.), *Theories, models and methodology in writing research* (Vol. 2, pp. 10-20). Amsterdam: Amsterdam University Press.
- Van den Bergh, H., & Rijlaarsdam, G. (2007). The dynamics of idea generation during writing: An online study. In M. Torrance, L. Van Waes, & D. Galbraith (Eds.), *Writing and cognition: research and applications* (Vol. 20, pp. 125-150). Amsterdam: Elsevier.
- Van Dijk, T. A. (2008). *Discourse and context: A sociocognitive approach*. Cambridge: Cambridge University Press.
- Van Waes, L., Leijten, M., Wengelin, A., & Lindgren, E. (2012). Logging tools to study digital writing processes. In V. W. Berninger (Ed.), *Past, present, and future contributions of cognitive writing research to cognitive psychology* (pp. 507-536). New York, NY: Psychology Press.
- Van Waes, L., & Schellens, P. J. (2003). Writing profiles: The effect of the writing mode on pausing and revision patterns of experienced writers. *Journal of pragmatics*, 35(6), 829-853.
- Van Weijen, D. (2009). *Writing processes, text quality, and task effects; Empirical studies in first and second language writing*. (Ph.D), Universiteit Utrecht, Utrecht.
- Ventola, E. (1987). *The structure of social interaction: A systemic approach to the semiotics of service encounters*. London: Pinter.
- Ventola, E. (1996). Packing and Unpacking of Information in Academic Texts. In E. Ventola & A. Mauranen (Eds.), *Academic Writing: Intercultural and Textual Issues* (pp. 153-194). Amsterdam and Philadelphia: John Benjamins.
- Vygotsky, L. S. (2012). *Thought and language* (E. Hanfmann, G. Vakar, & A. Kozulin, Trans. E. Hanfmann, G. Vakar, & A. Kozulin Eds. Revised and Expanded ed.). Cambridge, MA: MIT Press.
- Wallace, D. L., Hayes, J. R., Hatch, J. A., Miller, W., Moser, G., & Silk, C. M. (1996). Better revision in eight minutes? Prompting first-year college writers to revise globally. *Journal of Educational Psychology*, 88(4), 682-688.
- Wardle, E. (2004). 'Is this what yours sounds like?': The relationship of peer response to genre knowledge and authority. In B. Huot, B. Stroble, & C. Bazerman (Eds.), *Multiple literacies for the 21st Century* (pp. 93-114). Cresskill, NJ: Hampton.
- Wengelin, A. (2007). The word-level focus in text production by adults with reading and writing difficulties. *Studies in writing*, 20, 68-82.
- Whittaker, R., Llinares, A., & McCabe, A. (2011). Written discourse development in CLIL at secondary school. *Language Teaching Research*, 15(3), 343-362.
- Wignell, P. (2007). Vertical and horizontal discourse and the social sciences. In F. Christie & J. R. Martin (Eds.), *Language, knowledge and pedagogy: functional linguistic and sociological perspectives* (pp. 184-204). London: Continuum.

- Wingate, U. (2012). 'Argument!' helping students understand what essay writing is about. *Journal of English for Academic Purposes*, 11(2), 145-154.
- Woodward-Kron, R. (2002). Critical analysis versus description? Examining the relationship in successful student writing. *Journal of English for academic purposes*, 1(2), 121-143.
- Woodward-Kron, R. (2004). 'Discourse communities' and 'writing apprenticeship': An investigation of these concepts in undergraduate Education students' writing. *Journal of English for Academic Purposes*, 3(2), 139-161.
- Wray, A. (2002). *Formulaic language and the lexicon*. Cambridge: Cambridge University Press.
- Yang, X. (2010). *Modelling text as process: A dynamic approach to EFL classroom discourse*. London: Continuum.