WRITING FOR PUBLICATION IN FOUR DISCIPLINES: INSIGHTS INTO TEXT AND CONTEXT

Lisa McGrath
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Abstract

Scholars globally are under increasing pressure to publish in international, highly-ranked, and usually English-language journals. This has created a need for insights into the evolving discourses, genres, and publication practices of disciplinary discourse communities.

This thesis reports an exploration of textual and contextual facets of writing for publication in the academy. More specifically, the overarching aim was to investigate the relationship between discipline, and the rhetorical features, genres, languages and dissemination outlets used by scholars. The thesis comprises four qualitative studies, and employs a variety of methods to explore this relationship across four disciplines: anthropology, history, linguistics and pure mathematics.

The results reveal some connections between epistemological characteristics of the disciplines investigated and scholars’ rhetorical choices. The structure of the research article in pure mathematics is shown to reflect the process of knowledge construction in the discipline, and patterns of self-mentions in anthropology and history articles are attributed to disciplinary methodology. Furthermore, insights into the relationship between discipline, and genre use, language selection, and access to publication outlets are obtained. The results reveal disciplinary differences in terms of scholars’ opportunities to publish in the local language and in English.

Based on my findings, I argue that while discipline is a significant factor in understanding how scholars construct and disseminate their research-based writing, these practices are also subject to local, international and digital developments. As such, the relationship between discipline, genre, language and publication should be understood as dynamic.

Keywords: disciplinary discourse, EAP, ERPP, genre, writing for publication
List of Studies


III. McGrath, L. Open access writing: An investigation into the online drafting and revision of a research article in pure mathematics. (Under review at *English for Specific Purposes*).

IV. McGrath, L. Self-mentions in anthropology and history research articles: Variation between and within disciplines. (Submitted to *Journal of English for Academic Purposes*).
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<tr>
<td>CARS</td>
<td>Create-A-Research-Space</td>
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<td>EAP</td>
<td>English for Academic Purposes</td>
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<tr>
<td>EFL</td>
<td>English as a Foreign Language</td>
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<tr>
<td>ERPP</td>
<td>English for Research and Publication Purposes</td>
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<tr>
<td>ESP</td>
<td>English for Specific Purposes</td>
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<tr>
<td>IMRD</td>
<td>Introduction-Methods-Results-Discussion</td>
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<td>L1</td>
<td>First language</td>
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<td>L2</td>
<td>Second/foreign/additional language</td>
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<td>LSP</td>
<td>Language for Specific Purposes</td>
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<td>NES</td>
<td>Native English Speaker/Speaking</td>
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<td>NNES</td>
<td>Non-native English Speaker/Speaking</td>
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<td>RA</td>
<td>Research Article</td>
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<td>SFL</td>
<td>Systemic Functional linguistics</td>
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1. Introduction

In the second half of the twentieth century, in line with general trends in world language usage, large numbers of scientific journals adopted English for academic publication (e.g. Hamel, 2007; Truchot, 1994). The role of publication in the academy is of course to disseminate the results of scholarship to researchers and to the wider community through outreach channels. However, in increasingly market-driven tertiary education (e.g. Li & Flowerdew, 2009), publication has also become an indicator of institutional quality. Publication rates are visible via global evaluation systems such as Thompson Reuters, and the Times Higher Education and Shanghai rankings. These rankings are used for comparative assessment of universities, and by universities to compete for students on an international playing field.

In the competitive, international job market, publications in highly ranked journals are also imperative for individual scholars in many disciplines (Flowerdew, 2007) as a measure of performance, crucial for maximizing employability and promotion (e.g. Muresan & Perez-Llantada, 2014). Top journals reach an international readership, and are therefore usually English-language (e.g. Flowerdew, 2007). As a result, English-medium academic publication has grown (Flowerdew, 2013), and articles in English-language journals are more likely to be cited (Hamel, 2007). More than 1.1 million peer-reviewed research articles were published in English in 2005, and this number has been increasing by 4 per cent each year (Hyland, 2011). Lillis and Curry (2010) report that more than 95 percent of ISI listed natural science journals and 90 percent of social science journals are published totally or at least partly in English. In short, English-language publication has now achieved almost hegemonic status (Ferguson, 2007; Gentil & Séror, 2014; Hyland, 2013) in many academic contexts.

This emphasis on English-language publication has sparked a growth in courses and scholarship in English for Academic Purposes (EAP) and English for Research and Publication Purposes (ERPP), a younger branch of the EAP movement (Kuteeva & Mauranen, 2014). A comprehensive body of research into the genres, discourses and publication practices of diverse academic disciplinary communities now exists and informs teaching practice globally (e.g. Swales & Feak, 2004). Nonetheless, recent developments in the academic landscape such as the opportunities presented by digital media for collaboration and knowledge dissemination (Kuteeva, forthcoming; Mauranen, 2013) and a growing dissatisfaction with the practices of academic
publishers suggest changes in ways of writing and publishing in the academy. Alternative publication outlets outside of the influence of journal gatekeepers may emerge, and this, combined with the increasing emphasis placed on interdisciplinary research (Trowler, 2014a), invites us to revisit theories of genre, discipline and disciplinary discourse, and even the way research in EAP is conducted.

The present thesis takes up this invitation. The four studies all deal with writing for publication, and in many ways are a response to different questions emerging from my work as an EAP teacher and researcher over the course of my PhD studies. The starting point is the view that disciplinary communities communicate via genres that reflect the research practices and belief systems of the discipline, and that there is a connection between the proclivities of disciplines and the discourse, research outlets and languages available to them for publication. My aim has been to explore these connections across four disciplines: linguistics, history, anthropology and pure mathematics. Descriptions of the disciplines and a justification for their selection are provided in Sections 2 and 3, and in the four articles included in the thesis.

My thesis addresses several research questions. These are presented in Table 1 (p. 14) with links to the overarching aim. While Study II is rooted in the Swedish context, the other three studies take an international perspective, drawing on informants and data from various institutions and countries.

Study I (Kuteeva & McGrath, in press) investigates the structure of pure mathematics research articles (RAs) and argues that the patterns observed reflect to a certain extent the process of knowledge construction in the discipline. Study II (McGrath, 2014) explores the academic and outreach publication practices of scholars in linguistics, history and anthropology with the aim of understanding the interplay between language policy, discipline and language use across different university departments. Study III focuses on method, and the opportunities for data collection that research blogs present for EAP scholars investigating disciplinary discourse. Finally, Study IV investigates author presence in RAs in anthropology and history, and argues that intra-disciplinary as well as interdisciplinary differences need to be explored in EAP investigations.

In the following sections, a background to the articles is provided. The varied foci of the studies necessitate a broad literature review and discussion. Thus, in Sections 1.1 and 1.2, I discuss how the EAP movement has investigated writing for publication from a textual and contextual perspective. In Section 2, a description of the theoretical framework which guides the investigations in the thesis is provided, followed by Section 3 which details the methods used. In the discussion section my conclusions, contribution and possibilities for future research are outlined. In Section 5, I provide a summary of the four studies.
### Overarching aim of the thesis and research questions

Overarching aim: To investigate the connections between discipline, and the genres, research outlets and languages used in writing for publication.

<table>
<thead>
<tr>
<th>Study</th>
<th>Research questions</th>
<th>Link to aim</th>
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<tbody>
<tr>
<td>Study I</td>
<td>What is the rhetorical and organizational structure of the pure mathematics RAs in the study? Is there a consistent structure? What connection can be traced between the structure of RAs and the knowledge-making practices of the pure mathematics academic community?</td>
<td>Disciplinary research practices and schematic structure of RAs</td>
</tr>
<tr>
<td>Study II</td>
<td>Which genres and languages have informants used to disseminate findings in the period 2007-2012? What factors drive this practice? To what extent does policy reflect practice?</td>
<td>Languages, genres and outlets used for publication in three disciplines</td>
</tr>
<tr>
<td>Study III</td>
<td>What aspects of research-based writing are discussed on the Polymath blog? Is there a shift in focus over the course of the blog in terms of what participants discuss? What can be learnt about the disciplinary discourse and writing for publication practices in pure mathematics from the study of the collaborative research blog?</td>
<td>Disciplinary practices surrounding the preparation of an RA for publication</td>
</tr>
<tr>
<td>Study IV</td>
<td>Which author roles are present in the history and anthropology RAs and to what extent? What disciplinary patterns emerge?</td>
<td>Disciplinary patterns of first-person subject pronoun usage</td>
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1.1 ESP approaches to the investigation of writing for publication

English for Academic Purposes (EAP) as a branch of English for Specific Purposes (ESP) has specificity as a central tenet (e.g. Hyland, 2009; Hyland & Hamp-Lyons, 2002). Whereas English as a Foreign Language (EFL) teaching provides general English instruction, EAP is tailored to the specific needs of university students and scholars, and covers a range of genres which have been classified into various sub-domains: educational, research and institutional (Shaw, forthcoming), learner and professional, or academic and outreach (e.g. McGrath, 2014). English for Research and Publication Purposes (ERPP) can be considered as a more specific sub-field of EAP in that the focus is on supporting authors of professional genres intended for publication and exploring the socio-political conditions surrounding publication in English (Flowerdew, 2013).

The EAP movement is characterized by a reciprocal and dynamic relationship between research and teaching; teaching raises research questions, and research informs teaching practice (Johns, Paltridge & Belcher, 2011). Teaching is planned to respond to the specific needs of students, and takes into account the rhetorical, grammatical and lexical features of target genres, as well as the methodology and practices that shape the disciplinary discourse. Given this symbiotic relationship, an important area of research investigates how students gain expertise in the discourse and genres of their discipline (e.g. Negretti & Kuteeva, 2011). While it is difficult to separate the two, my principal focus here is on research into disciplinary discourse and publication practices, rather than teaching and learning. However, many studies designed to uncover elements of disciplinary discourse or attitudes towards writing in English also make pedagogical recommendations based on their findings (e.g. Tang & John, 1999; Tardy, 2004; Tessuto, 2015).

The focus on disciplinary specificity in opposition to a more general description of scientific writing has opened a significant research space in the field. Numerous studies have explored structural patterns (e.g. Lin & Evans, 2012; Posteguillo, 1999; Tessuto, 2015; Yang & Allison, 2004), rhetorical moves (e.g. Samraj, 2008; Tessuto, 2015) and various syntactic and lexicogrammatical features of both learner and professional genres (e.g. Biber & Gray, 2010; Hyland, 2008), challenging preconceptions about academic writing, as well as revealing significant and nuanced generic and disciplinary differences (Hyland, 2006). Particular emphasis has been placed on the research article (RA), which for reasons set out in Section 1, is the most highly valued across many disciplines (e.g. Kuteeva, forthcoming; Swales, 1990).

Move structure (Swales, 1981, 1990) as a tool in genre analysis is central to ESP genre-theory and signalled a shift away from early ESP studies which investigated lexical units and grammatical structures (Johns et al., 2011). Following Swales’ (1990) seminal description of empirical research article
introductions through the CARS (Create-A-Research-Space) model, research into the various sections of RAs in different disciplines has been plentiful (e.g. Ozturk, 2007; Samraj, 2005), particularly in disciplines using an IMRD (Introduction-Methods-Results-Discussion) style organizational structure. Developments in concordance software have also made micro-level genre analyses more viable. For example, numerous studies of various genres have described patterns of personal-pronoun usage (e.g. Harwood, 2005; Hyland, 2001), stance and engagement markers (e.g. Hyland, 2005; McGrath & Kuteeva, 2012), multi-word constructions (e.g. Wood & Appel, 2014) and other rhetorical and linguistic features.

The majority of genre studies draw together a sample of the target genre in a corpus or collection with the aim of identifying discourse conventions. Corpora have been compiled to investigate macro (e.g. Lin & Evans, 2012), and micro (e.g. Hyland, 2005; Hyland & Tse, 2004) levels of discourse. To illustrate different approaches to creating a small corpus for qualitative studies, Shaw (forthcoming) contrasts two investigations of RAs in Mathematics, my own work and Graves et al. (2014). Graves et al. (2014) compiled a corpus of RAs from a range of contemporary, highly ranked journals as the aim was to establish a representative sample. Kuteeva & McGrath (in press), on the other hand, collected five articles from five authors who were also interviewed, enabling a “thicker description” of the genre (Shaw, forthcoming).

While in both quantitative and qualitative studies, text-analytical methods (both manual and computer-assisted) tend to predominate, the types of investigations described above have increasingly drawn on more ethnographically-oriented approaches (e.g. Harwood, 2006a; Hyland, 2005; McGrath & Kuteeva, 2012). Interviews with disciplinary insiders have provided insight into the links between discourse, epistemology and social practices within disciplines and suggested reasons behind variation observed in textual patterns (Hyland, 2005). In particular, Academic Literacies has provided tools such as “talk around text” (Lillis & Curry, 2010, p. 43), which facilitate the investigation of the people, process and challenges involved in writing for publication.

This section has provided a brief literature review of recent EAP and ERPP research into academic discourse which is relevant to my thesis. A second important branch of the research field pertains to the wider context of writing for publication in English. The next section will provide an overview of the critical reaction to the emphasis placed on English in academic publication and, in particular, the Swedish response.

1.2 The use of English in writing for publication

By the beginning of the 1990s, some scholars began to sound the alarm over the growing global presence of English, most notably with the publication of
Phillipson's (1992) *Linguistic Imperialism*. Warnings were issued against standardization brought about by English hegemony in academic publication, and the erosion of local-language rhetorical practices (e.g. Canagarajah, 2002; Swales, 1997). The concerns that have been raised broadly fall into two camps (Ferguson 2007; Ferguson et al., 2011): the linguistic disadvantage faced by individual non-native speakers of English seeking to compete in an international scholarly dialogue conducted in English (e.g. Olsson & Sheridan, 2012), and the repercussions for the status and usability of local languages and discourses (e.g. Bennett, 2007; Canagarajah, 2002; Linn, 2010).

Some research has shown that the pressure on scholars across disciplines to publish articles in high-impact international (and therefore usually English-language) journals places a disproportionate demand on non-native English speakers (NNES) (e.g. Flowerdew, 2007, 2008; Lillis & Curry, 2010). This demand is potentially even greater on scholars in the humanities, as they engage in ideographic (as opposed to nomothetic) knowledge construction. In this case, discourse has more of a constitutive rather than reporting function (e.g. Shaw, 2008) and a lack of automatic access to a nuanced vocabulary, for example, could affect the quality of knowledge construction.

In terms of studies into linguistic disadvantage and academic publishing, much of the canon targets specific countries, for example, mainland China and Hong Kong (e.g. Flowerdew & Li, 2009; Li & Flowerdew, 2009), Portugal (e.g. Bennett, 2007), Poland (e.g. Duszak & Lewkowicz, 2008), Spain (Ferguson et al., 2011), Germany (Gnutzmann & Rabe, 2014), Mexico (Landa, 2006) and Romania (Bardi, 2015; Muresan & Perez-Llantada, 2014). The issues reported include difficulties with form (e.g. Duszak & Lewkowicz, 2008), the use of alternative or local-language rhetorical patterns which international journal editors may fail to recognize (e.g. Canagarajah, 2002; Curry & Lillis, 2004; Mauranen, 1993), and the increased time investment required to write in an L2 (Flowerdew, 2008).

While NNES do of course expend considerable resources and effort in learning English, the precision and usefulness of the categories ‘native’ and ‘non-native speaker’ are contested (e.g. Rampton, 1990), and are particularly problematic in terms of academic discourse (Bourdieu & Passeron, 1994). Academic writing can pose problems for both L1 and L2 writers (Swales, 2004; Wingate & Tribble, 2012) as a result of “insufficient control of the language, muddy thinking, inexperience with writing in general and with scholarly genres in particular” (Casanave, 2008, p. 266). Indeed, in the Swedish context, some research has suggested that NNES scholars do not necessarily perceive themselves to be disadvantaged and experience some ownership of English academic discourse (Kuteeva & McGrath, 2014), although the belief persists among some that mastering academic written genres entails native-like general English proficiency (Kuteeva, 2014). The English as a Lingua Franca (ELF) paradigm (e.g. Mauranen, 2012) has challenged the
role of nativeness in relation to communicative competence, and contested standardization according to native-speaker norms. However, research in this area to date pertains predominantly to spoken interaction.

There is a danger that an emphasis on linguistic disadvantage risks occluding non-linguistic barriers to publication (Canagarajah, 2002; Ferguson, 2007) such as parochialism (Muresan & Perez-Llantada, 2014) and a lack of access to resources (Bennett, 2014; Canagarajah, 2002; Salager-Meyer, 2008). These factors could be addressed through creative strategies (Canagarajah, 2002), such as partnerships (Salager-Meyer, 2014) and ensuring that scholars globally have access to journals, unhindered by, for example, high subscription charges (Canagarajah, 2002; Salager-Meyer, 2008). Other suggestions include encouraging journal reviewers to use less euphemistic language in referee reports and a standardization of journal citation styles, all of which would also be of benefit to NES. Despite the challenges, in recent years, more articles authored by NNES than NES have been published in international journals (Swales, 2004), and the number of scientific articles published from countries in Latin America (Lillis & Curry, 2010) and China and South Korea (Kuteeva & Mauranen, 2014), for example, has increased considerably in recent years.

I now turn to the connected issue of usability of the local language in academic publication, with a focus on Sweden, although these issues have also been explored in other language contexts; for example, a recent special issue of the Journal of English for Academic Purposes (2014) was dedicated to the topic of academic publishing in multilingual contexts. The discourse of the potential marginalization of local languages and loss of terminology and rhetorical patterns has motivated the production of language policies in the Nordic region (e.g. Björkman, 2014; Hult, 2005). An early document was the Draft Action Programme for the Promotion of the Swedish Language (Swedish Language Council, 1998) which listed the use of English in research as potentially problematic for the status of the Swedish language. This publication was followed by Mål i mun (2002). Here, authors suggested domain loss and diglossia as possible outcomes of the increasing presence of English, but stressed the critical importance of English in the tertiary education sector (Committee on the Swedish Language, 2002). The resulting strategy was ‘parallelspråkighet’ (parallel language use or parallel-lingualism), a vision of language practice which values both Swedish and English, and which was endorsed in the Declaration on a Nordic Language Policy (Nordic Council of Ministers, 2006).

An unambiguous definition of parallel language use remains elusive (e.g. Linn, 2010). Indeed, for Kuteeva and Airey (2014, p. 536) the term is “an unoperationalized political slogan”. While as yet there is little understanding of how the strategy could be implemented or enforced (Kuteeva & Airey, 2014), parallel language use has informed recent university policies in guid-
ing the use of language in teaching, administration and knowledge dissemination (Kuteeva & Airey, 2014).

In the publication domain, it seems that parallel language policy does not seek to overtly steer publication practices. This is perhaps not surprising, as any requirement to publish in Swedish on language-protectionist grounds could impact the current and pervasive ideology of internationalization (as discussed in Section 1, international visibility is achieved through publication in English-language journals). Indeed, the reality seems to be that scholars make their language of publication selection based primarily on communicative need (Preisler, 2009): where a local-language academic or practitioner community exists, publication can occur in local languages (e.g. Petersen & Shaw, 2002). Publication targeting an international audience usually occurs in English. Spolsky (2004, p. 7) argues that “the dynamic forces at work in the everyday activity of language communities are far more powerful than conscious, ideologically motivated policies”. In the context of academic publication, it seems that language selection is decided in part on pragmatic grounds (based on the language that is comprehensible to the target reader). Nonetheless, internationalization, evaluation and marketization of the academy form the backdrop of that selection.

The aim of this section was to provide some insight into aspects of the language-political climate of academic publication in English which are pertinent to my thesis. In the next section, I set out the theoretical framework that guides the studies.
2. Theoretical framework

As set out in Section 1, the articles in my thesis are situated within English for Academic Purposes (EAP) and English for Research and Publication Purposes (ERPP), research areas which fall under the umbrella of English for Specific Purposes (ESP). ESP is a field of applied linguistics, a discipline concerned with the “theoretical and empirical investigation of real-world problems in which language is a central issue” (Brumfit, 1995, p. 27). In the case of EAP and ERPP, the real-world problem is the difficulty students and scholars face when writing academic English, or when seeking to publish in international journals. Thus, EAP and ERPP researchers are concerned with the investigation of English as used by scholars and students within the academy, the pedagogical strategies that can be employed to support students and scholars in their development as users of academic English, the practices surrounding the writing of academic texts, and the wider implications of the growing use of English in academia.

The following assumptions underpin my studies: writing for publication is viewed as a “situated social practice” (e.g. Flowerdew, 2013, p. 307; Hyland, 2013; Lillis & Curry, 2010) undertaken by scholars operating within academic networks. These networks have various rhetorical goals (Swales, 1990), such as disseminating new knowledge, and building and maintaining professional relationships (e.g. Hyland, 2007). The networks achieve these goals via genres, and therefore function as disciplinary “discourse communities” (Swales, 1990, p. 21). Genres transcend disciplinary discourse communities (e.g. Bhatia, 2004; Samraj, 2005) – both mathematicians and applied linguists produce RAs – but variations according to discipline are evident in texts embodying genres (e.g. Gotti, 2009). Variation (and commonality) in textual patterns are visible and open to analysis on the macro and micro levels of text. Textual patterns can be connected to the epistemology (defined here as the ways in which new knowledge is generated and validated), values and social practices of disciplines (e.g. Hyland, 2000; Bhatia, 2004). These patterns become conventionalized and perpetuated in the discourse of the community as they guide authors’ rhetorical and linguistic choices (e.g. Hyland, 2002).

In the following sections, I flesh out some of the theoretical concepts set out above. More specifically, these are discipline, discourse, and genre.
2.1 Discipline

Discipline has been influential in framing investigations in EAP research (Hyland, 2013; Gnutzmann & Rabe, 2014) and has shaped our understanding of how academic discourse communities communicate (Hyland, 2006) both in terms of the genres used and the textual form genres take. Bernstein (1999, p. 159), for example, relates discourse to disciplinary knowledge structures. Becher (1989) links disciplinary characteristics with genre selection in noting that journal articles are preferred in ‘urban’ disciplines such as physics, whereas in ‘rural’ disciplines such as history, books and monographs retain more prestige. The form of the experimental report has been linked to the research practices of disciplinary communities (Bazerman, 1988), and several studies have teased out links between social and cognitive facets of discipline and the use of metadiscursive resources (e.g. Hyland, 2005; Hyland & Tse, 2004; McGrath & Kuteeva, 2012).

Despite the popularity of ‘discipline’, what the term actually denotes and how disciplines can be characterized, classified and grouped is disputed (e.g. Krishnan, 2009; Trowler, 2014a). For example, from an institutional perspective, three of the four disciplines in my study (history, anthropology and linguistics) can be placed within the humanities, whereas pure mathematics would probably sit more comfortably alongside the hard sciences. However, in Bernstein’s (1999) taxonomy of disciplines, pure mathematics is in fact placed closer to the humanities. Like sociology, for example, mathematics is considered to have a horizontal rather than hierarchical knowledge structure as the discipline is expressed via “a set of discrete languages, for particular problems” (Bernstein, 1999, p. 164).

For the purposes of my thesis, and in line with other EAP writing research (e.g. Bondi, 2006), disciplines are understood to be tangible organizations within academia which share “a body of accumulated knowledge” (Krishnan, 2009, p. 9). Disciplines have common interests in terms of object of study, use specific research methodologies and share concepts and theories. Disciplines are ‘tangible’ in that they have some “institutional manifestation” (Krishnan, 2009, p. 9); in other words, real-world academic departments and professional associations are representative of and associated with them.

In his seminal book, Academic tribes and territories, Becher (1989) argued that disciplines can be grouped or classified according to social and cognitive categories. The categories emerged from an empirical study conducted at universities in the UK and US during the 1980s, building on previous research by scholars in the philosophy and sociology of science (e.g. Biglan, 1973; Kolb, 1981). Through the examination of disciplines and interviews with academics, Becher proposed links between the knowledge structures of disciplines and the research practices of scholars. More specifically, Becher argued that the character of the knowledge that is constructed in a discipline
influences other facets of the research and dissemination process, such as whether research is undertaken by large groups or a solitary scholar, the form and channels through which knowledge is disseminated, and to what audiences.

Becher’s study has undergone several revisions (e.g. Becher & Trowler, 2001; Trowler, 2014b); however, the argument that disciplines can be described according to cognitive and social dimensions remains relatively intact. Cognitive dimensions are termed hard/soft, and pure/applied. Social dimensions are urban/rural, and convergent/divergent. Briefly, hard disciplines tend to work with established theories, are cumulative in terms of knowledge construction, and produce generalizable results. Soft disciplines have more fuzzy boundaries, and investigate more “loosely defined” research problems (Trowler, 2014a, p. 18). Pure disciplines are not directly applicable to real-world issues, whereas applied disciplines have links with professional practice outside of the academy. Disciplines categorized as convergent have clear, standardized practices for knowledge verification and quality, whereas divergent disciplines have less agreement in terms of what to study and how. Urban disciplines see multiple scholars working on the same problems and are characterized by “intense interaction” (Trowler, 2014a, p. 19). On the other hand, scholars working in rural disciplines have a lower “people to person-ratio” (Trowler, 2014a, p. 19).

In Becher’s terms, pure mathematics would be classed as a hard, pure discipline, as the aim is to achieve simplicity and generality in a result (Becher & Trowler, 2001); however, unlike other hard sciences, mathematical research does not tend to interpret data, and results are usually limited to “a binary true or false” (McGrath & Kuteeva, 2012, p. 162) and evidenced by proof. From a social-category perspective, mathematics is considered convergent, as there is strong agreement on modes of discourse and definitions of key concepts. The discipline is also predominantly rural, as researchers do not, for example, compete in a “fight to the finish” (Becher, 1989, p. 157) for publication. Finally, there is a wide choice of problems to research.

History can be considered a soft, pure discipline (although Becher points out that economic history, for example, sits at the harder end of soft). The discipline is “reiterative, holistic, concerned with particulars”, has “a qualitative bias” and “[t]here is no sense of superseded knowledge” (Neuman, Parry, & Becher, 2002, p. 406). History is also classed as convergent as historians share “common assumptions and styles of thought” (Becher, 1989, p. 156). This, however, appears to downplay the different theoretical leanings of history that allow for, for example, a Marxist or feminist interpretation of sources. History is considered rural, for much the same reason as pure mathematics can be classed as such.

Becher’s study does not categorize linguistics and anthropology; nonetheless, anthropology could be considered soft and rural. As with other disciplines, assigning a pure or applied category can be very problematic (Becher
& Trowler, 2001) as some research in the discipline would seem to have significant real-world relevance, potential application, and connections to professional practice. For example, an anthropological study of the consequences of dam construction would presumably be relevant to professionals working in certain NGOs. Linguistics, like modern languages in Becher’s study, can perhaps best be viewed as a “cluster of related disciplines” (Becher, 1989, p. 157), some of which seem to display characteristics of hard sciences. For example, scholars researching syntax and phonetics employ specialist and standardized modes of discourse, have a cumulative structure and a quantitative emphasis. Sociolinguistics or philological traditions on the other hand are more easily classified as soft.

As this brief description has hinted, while the categories are analytically useful, problems arise when they are scrutinized from a real-world perspective (Trowler, 2014b). Criticisms have been levelled regarding the taxonomy’s coherence, and the essentialist and uniform description of disciplinary practices that fails to sufficiently take into account that boundaries are fluid (Becher & Trowler, 2001, Trowler, 2014b) and that scholars are individuals. The increasing emphasis on interdisciplinary research raises further questions for the applicability of the taxonomy.

In order to begin to address these issues, Trowler (2014b, p. 1725) proposes “moderate essentialism” as a more useful way of conceptualizing discipline. Drawing on Wittgenstein’s (1953) ‘family resemblance’, he argues that varying characteristics exist within a particular discipline, but none of them are defining or necessary. Phenomena like families share clusters of features which make them recognizable, even though each instantiation may not share all the features. History is used to illustrate further: “[A]cademic historians […] may display very different characteristics in different universities, though there are still some common features between them which render them recognizable as historians” (Trowler, 2014b, p. 1723).

Nonetheless, despite the ‘toning down’ of defining and necessary characteristics, Trowler (2014, p. 1723) retains the generative (albeit declining) power of disciplines in his description. In other words, specific characteristics of a discipline have the power to influence surrounding practices (to a greater or lesser extent), which in the context of discourse, genre and publication practices, is a key assumption of my thesis.

2.2 Disciplinary discourse

As stated in the previous section, my thesis assumes that there are groupings called disciplines that are distinct from one another and, to a certain extent, can be classified (e.g. Becher, 1989; Bernstein, 1999). Furthermore, disciplines are considered generative, in that their characteristics can influence associated areas such as discourse and research practices (Becher, 1989).
Discourse is an integral part of academic work, in that it is through interaction, often via written discourse (Hyland, 2013), that new knowledge is constructed, validated, and disseminated. While definitions of discourse abound (e.g. Jaworski & Coupland, 2006), I use the term to refer to language use in social contexts (Bhatia, 2004). For a definition of academic discourse, I borrow Hyland’s (2011, p. 171) “ways of thinking and using language that exist in the academy”.

Academic discourse is not a “monolithic entity” (e.g. Gotti, 2009, p. 10; Hyland, 2013). In the context of the previous discussion on disciplines, this is not surprising. While some features such as referencing appear to be universal, individual writers within the academy operate as members of disciplinary groupings, and the discourse produced shapes and is shaped by the practices, beliefs and purposes of those particular groups (Hyland, 2013). Discipline-specific discourse emerges as “writers speak to colleagues in recognizable discursive spaces in recognizably acceptable ways, shaping their actions to the presumed understandings and needs of their readers” (Hyland, 2013, p. xi).

The differences in the discourse produced by disciplines are not limited to, for example, specific terminology related to subject matter (Hyland 2013; Hyland & Bondi, 2006). Disciplinary discourse incorporates the idea that writing not only embodies the knowledge, beliefs and social practices of disciplinary communities, but is also constitutive of them (Hyland, 2011). Thus, a reference to the discourse of mathematics pertains to the language used by mathematicians, and the relationships and social practices that are constructed through discourse and that are manifest in the texts produced by the community.

2.3 ESP genre theory

Genre theory has been highly influential in understanding how disciplinary discourse is used in academic settings (Bhatia, 2004). The aim of this section is to set out how genre theory is understood and applied in my thesis.

Within applied linguistics, genre is primarily associated with three traditions (Hyon, 1996). These are English for Specific Purposes (ESP) (Swales, 1990), Systemic Functional linguistics (SFL) (e.g. Martin, 2006) and New Rhetoric (e.g. Miller, 1984). The differences among the approaches seem to lie in emphasis: while New Rhetoric leans towards the “contextual circumstances” of genre production (Charles, 2013, p. 141), SFL and ESP orient more towards text. However, the current prevailing view is that the three schools have “considerable crossover” (Johns et al., 2006, p. 235; Tardy, 2011), resulting in general agreement that genre resides “among the textual, social, and political dimensions of writing” (Johns et al., 2006, p. 239).
Both SFL and ESP genre theories agree that formal and structural elements of a genre are dependent on the social context of its use, and that the genre features of a text enable us to relate that text to others like it (Hyland, 2003). Thus, both ESP and SFL theories of genre emphasize a connection between linguistic features and the context of production. Within SFL, this connection is rooted in Halliday’s (1994) functional grammar, whereas ESP genre theory is predominantly associated with Swales’ (1990) description, summarized by Flowerdew (2011, p. 140) as follows: “Genres are staged, structured, communicative events, motivated by various communicative purposes, and performed by members of specific discourse communities”.

A communicative event is an occurrence in which language plays an integral part, and comprises the discourse and the participants in the discourse. A set of communicative events is categorized as a genre if the communicative events all share a communicative purpose. Therefore, communicative purpose enables genres to be understood as actions, as a genre is used in the pursuance of a communicative goal by a discourse community (Swales, 1990).

Genres, therefore, are not texts but rather a “class of communicative events” (Swales, 1990, p. 58). Texts “draw on” or “perform” genres (Shaw, forthcoming), which means that some texts produced are prototypical of the genre, while others will diverge from typical textual or rhetorical patterns (e.g. Paltridge, 1997; Shaw, forthcoming; Swales, 1990). Paltridge (1997) provides a clear example: RAs published in the journal Science can be written as letters to the editor, and may not qualify as members of the RA genre if certain criteria were classed as defining or necessary. Nonetheless, the texts are recognized by users as instantiations of the RA genre. Thus, as with Trowler’s (2014b) characterization of discipline, Wittgenstein’s (1953) family resemblance has relevance for ESP genre theory (e.g. Paltridge, 1997; Swales, 1990, 2004).

Identifying communicative purpose enables distinctions between, for example, parody and genuine instances of a genre (Swales, 1990). However, texts which ostensibly have the same broad communicative purpose can be sorted into seemingly disparate genre categories: magazine adverts, university brochures and CVs all have a promotional communicative purpose (Askehave, 1999). Furthermore, genres can have multiple overt or occluded purposes (e.g. Swales, 1990; Askehave & Swales, 2001), an RA being a case in point. Therefore, in the genre analyses in the current thesis, communicative purpose is not considered a primary genre determinant, but rather an “outcome of the analysis” (Askehave & Swales, 2001, p. 26).

The second key concept in Swalesian genre theory is discourse community. The term is defined as follows (Swales, 1990, p. 26): “A discourse community has a broadly agreed set of common goals, mechanisms of communication among its members; mechanisms to provide information and feedback; uses genres; has acquired some specific lexis; and has a threshold level...
of membership with a suitable degree of relevant content knowledge and discoursal expertise.”

In terms of writing for international publication, acceptance into an academic discourse community is not contingent on native language, but rather the ability to take part in a given communicative event. Membership of the community is accorded based on “an acceptance by members of that community of a scientist as a member” (Wood, 2001, p. 81, cited in Swales, 2004). The publication of an RA in a peer-reviewed journal provides evidence for this acceptance (Swales, 2004). Therefore, in the present thesis, an author/informant’s native language is not considered to be a factor in the analysis.

The term discourse community references “speech community” (Hymes, 1974, p. 51), used to describe groups in a particular area that share typical linguistic patterns in their spoken discourse. However, discourse community emphasizes the importance of writing rather than speaking in academic contexts (Swales, 1990). Furthermore, as discussed in the previous paragraph, gaining access to an academic discourse community is not an organic process; membership of a discourse community is controlled by gatekeepers, and is contingent on the demonstration of certain knowledge, skills and discourse. This is not the case for a speech community (Swales, 1990).

The emphasis on a discourse community’s shared goals ties in clearly with descriptions of discipline. However, there is a shift in emphasis between discipline or disciplinary community and disciplinary discourse community. While the term discourse community incorporates the social practices of the group, the analytical emphasis is on the rhetorical and linguistic elements of discourse, and the writer and audience. Disciplinary community on the other hand privileges epistemological, cognitive, and organizational facets. Therefore, my use of the term disciplinary discourse community incorporates social, epistemological and communicative dimensions, and describes the producers/readers/users of genres used within specific academic disciplines.

Like Becher’s (1989) description of discipline, Swales’ original characterization of discourse community has been criticized as essentialist and “deterministic” (Hyland, 2003, p. 23). A more specific charge is that by using terms such as ‘expert’ in the definition, the characterization fails to recognize that less expert members of a community may nonetheless take part in a communicative event (Devitt, 2008). Study III in my thesis provides an illustration. The article reveals the potential diversification of audience brought about by new, digital channels of knowledge dissemination such as open-access publication and academic blogging. This shift may call for a rethinking of discourse community (e.g. Mauranen, 2013), which will have repercussions for the ESP view of genre.

This section has set out the theoretical approach which frames the studies. In the following section, I turn to the methodological approach.
3. Methodology

The aim of this section is to provide some insight into the methodological decisions that were made in the planning of the four studies in the thesis. The approach taken to data collection and analysis used in all four studies is described in the research articles. Thus, my aim here is to provide additional detail, a rationale for my choices and a discussion of some of the strengths and weaknesses of the design.

My thesis falls under the category of qualitative research. According to Creswell’s (2009) list based on a survey of the literature, qualitative enquiry can be characterized as follows: the study is situated in a natural rather than experimental setting; data from multiple sources are collected; data analysis is inductive; participants’ meanings are emphasized; the research design is emergent; the study is investigated through a theoretical lens; and an interpretative and holistic account is produced. As will become clear in subsequent sections, while I consider my studies to be qualitative, the methodological approach does not follow all the points of this description.

3.1 Ethical considerations

In line with the university and the Swedish Research Council’s (2011) guidelines for ethical practice in research, written informed consent was obtained from all studies with identifiable participants (see Appendices A and B). The aims of each research project were explained verbally and in writing, and a description of how data would be used was included. Participants were given the opportunity to ask questions, and were informed that they could withdraw from the study at any time. The utmost effort to maintain anonymity was assured, but with the caveat that extracts from published work used as data in the studies could potentially lead to the identification of participants.
3.2 Methods and procedures

3.2.1 Study I

The aim of Study I was to provide a description of the macro structure of pure mathematics RAs, and to explore possible links between this structure and the knowledge-making practices of the discipline. A further aim was to produce a schematic model of the argument structure of RAs that could be used in writing for publication courses.

Pure mathematics was selected for the following reasons: first, there have been very few investigations into the disciplinary discourse of mathematics (McGrath & Kuteeva, 2012), and therefore a gap in the literature was evident. In addition, pure mathematics is unusual in terms of research practices, and therefore constitutes a useful discipline for exploring links between those practices and discourse conventions.

The following assumptions informed my research design: following ESP genre theory (see Section 2.3), genres are used by discourse communities to realize their communicative purposes. The purpose provides the rationale for the genre, and the rationale drives textual convention. The conventions evolve, but are nonetheless stable enough for the discourse community to recognize a genre as such (Swales, 1990). Therefore, in order to describe the RA fully, engagement with examples of the genre and knowledge of the working practices of the discourse community were deemed useful.

Building on an approach proposed by Harwood (2006b), and adapted by McGrath and Kuteeva (2012), interviews with five members of the pure mathematics academic community were combined with textual analysis of their RAs. I will begin by describing the textual analysis.

The RA is considered to be a relatively stable genre in terms of structure due to practicalities of journal space, standardization to facilitate information retrieval (Shaw, forthcoming) and gatekeeper preferences (Tardy, 2004). Therefore, a relatively modest number of RAs was judged to be adequate for obtaining an emergent description of the generic structure. While Hill et al.’s (1982) well-known description of the hour-glass shape was based on the analysis of just one article, between 20 and 25 RAs were considered practicable. This number is also in line with the number of articles used in comparable analyses of other academic genres from different disciplines (e.g. Soler-Monreal, Carbonell-Olivares, & Gil-Salom, 2011).

My aim was to recruit members of the pure mathematics academic community with a range of professional experience (from post-doctoral researcher to professor). Membership was defined for the purposes of the study as currently research-active with at least five publications. During the recruitment process, I exploited my existing connections with the pure mathematics disciplinary community. Thus, the sampling procedure can be described as a
blend of typical sampling (all the informants were active researchers in pure mathematics) and stratified convenience sampling (Dörnyei, 2007). While convenience sampling has been described as less optimal than purposive sampling procedures, the strategy does have the advantage of resulting in cooperative and “willing participants” (Dörnyei, 2007, p. 129). The recruitment process resulted in two postdoctoral researchers, two professors, and an honorary senior research fellow. All the informants were native speakers of English by coincidence; nonetheless, an assumption for the study was that the informants’ first language (L1) was not significant, as writers adhere to the disciplinary norms set by journal gatekeepers which transcend national language borders (see Section 2.3).

Each of the five informants nominated five self-authored RAs which they considered to be representative of their work. Of the 25 RAs, three were excluded from the analysis: two (from the same author) contained a significant amount of computer-generated experimental data and very little logical mathematical argument as proof. The topic also seemed to situate the RAs on the cusp of computer science. As my focus was theoretical articles in pure mathematics, I decided to exclude both. The third excluded article was predominantly a review article, but contained a short section with new results.

The textual analysis was carried out in two stages. I began by looking at section headings. The headings of two articles were classified according to Yang and Allison’s (2003, p. 369) categories, following a discussion with an expert informant (Informant B) regarding the content and function of each section. This was important, as I assumed that section titles such as ‘Introduction’ may not necessarily announce a section with the same rhetorical function as IMRD introductions or contain prototypical moves (e.g. Swales, 1990).

The next stage was to explore the argument structure in terms of moves within sections, again in collaboration with the expert informant. Moves were allocated primarily based on function rather than linguistic criteria. Stages within sections which fulfilled similar rhetorical functions were grouped so that working definitions for each move could be established. Where possible, terminology from the CARS model (Swales, 1990) was employed to describe the rhetorical stages. Following this collaborative analysis with the informant, the same procedure was carried out independently on the remaining articles.

After mapping the organization in terms of headings, sections and moves, the next stage was to conceptualize the structures and patterns observed along the lines of Hill et al.’s (1982) hour-glass representation of an IMRD article. Again working with the expert informant and the two articles analysed collaboratively, an outline of the shape of the RAs was sketched to provide a model. The applicability of this model was then tested by revisiting the remaining 20 articles in the collection.
The final stage was to consider a rationale for the shape. Given that IMRD articles reflect, for example, experimental research designs, I used interview data to gain insight into the research practices of pure mathematicians. The data had been collected previously during an investigation of stance and engagement markers in RAs in the discipline with the same five informants (McGrath & Kuteeva, 2012). Three of the interviews were carried out in person. The remaining two were conducted via a combination of Google chat and email. The drawbacks of digital interviewing have been discussed in the literature (e.g. Kvale & Brinkman, 2009); for example, establishing a rapport with the informant can be challenging, and the lack of paralinguistic cues could affect the interpretation. However, in my assessment, the data collection mode was not detrimental to the study as I had met the informants on previous occasions, and the question topics are not easily construed as sensitive. The questions (see Appendix C) were designed around themes which covered epistemology, research practices, the nature of the discourse community (the themes of particular relevance to Study I) and stance and engagement markers (of relevance to McGrath & Kuteeva, 2012).

A semi-structured interview format was selected. This format provides sufficient structure to the discussion to enable comparisons across informants, but also offers the possibility of probing unanticipated lines of enquiry that may emerge (Dörnyei, 2007). Thus, in line with semi-structured interview procedure, the interviews were not limited to the questions drafted, and questions were not necessarily put to the participants in a pre-set order. Follow-up, probing and interpreting questions (Kvale & Brinkman, 2009) were also posed. The spoken interviews were recorded and transcribed verbatim.

Since the study was not primarily interview-based, the interview data were not formally coded. Instead, comments that gave insight into the themes of relevance to the investigation (epistemology, research practices and discourse community) were extracted and considered in light of the textual analysis (e.g. Hyland, 2005; McGrath & Kuteeva, 2012). The interpretation of the data was guided by the higher education literature that deals with disciplinary cultures, and in particular, Becher (1989) and Becher and Trowler (2001). In other words, disciplines are generative and affect surrounding practices, and that these practices are embodied in genres (Hyland, 2000).

A follow-up meeting took place with Informant B in order to obtain feedback on the results of the textual analysis and further clarification on the connection between the rhetorical and organizational structure of RAs and pure mathematics disciplinary practices. This interview was not recorded, but extensive notes were taken. Informant B also read the article prior to journal submission and was invited to make comments in order to gain an insider’s perspective on the findings. However, the comments were approached critically; Swales (1990, p. 129) observes that “without specialist informants, genre analysts are in danger of not knowing what they don’t know”. On the other hand, “over-reliance on specialist informants may invite
the opposite danger of analysts believing all that they hear.” With this in mind, I view the two data sets as complementary.

3.2.2 Study II
The aim of Study II was to explore how multilingual scholars employed at a university with a parallel language policy participate in academic and outreach publication. In terms of the research design, several possibilities presented themselves. A large-scale survey investigating language use at the institution had already been carried out (Bolton & Kuteeva, 2012); however, that study did not provide an in-depth perspective of scholars’ experiences of publishing. Interview studies probing language attitudes in the Swedish university context have also been published (e.g. Olsson & Sheridan, 2012). While these studies give voice to scholars’ concerns, they do not provide evidence of actual language use. I therefore opted for a case-study approach, which would enable me to explore the complexity (Stake, 2008) of how policy and practice interact.

My case comprises scholars at three academic departments in the humanities at a major Swedish university which has drafted a parallel language policy (see Section 1.2). Multiple descriptions of case studies appear in the literature. For example, Yin (2009, p. 2) describes an investigation of “a contemporary phenomenon (the case) in its real-world context, especially when the boundaries between phenomenon and context may not be clearly evident”. Stake (2008, p. 119) observes that a case study is “not a methodological choice, but a choice of what is to be studied” and Creswell (2007, p. 73) describes research that “involves the study of an issue explored through one or more cases within a bounded system”. Following Stake (2008, p. 123), I consider my study to be an “instrumental” case study, defined as the study of a case which “represents some unique or not-yet-understood feature which might explain […] the relevance of the case to our general understanding of a wider domain” (Dörnyei, 2007, pp. 152-153). My intention was to provide insight into the interplay between language use, publication and parallel language policy within a particular institution, but also to shed light on how academics make choices regarding language use when writing for publication.

In line with these descriptions of case study methodology, data were drawn from a variety of sources using different collection methods (e.g. Yin, 2009). These are interviews with 15 scholars in history, social anthropology and general linguistics who are active in research and publication (five per department), a database trawl, a questionnaire, and finally a reading of policy documents.

A pragmatic approach was taken to deciding how many informants were needed; a sample of 15 was deemed adequate to provide manageable and sufficiently rich data to answer my research questions. This number is also in
line with other comparable studies (e.g. Li & Flowerdew, 2009). Recruitment criteria were based on employment at the chosen institution and engagement in research and publication activities. For this study, engagement in research and publication was defined as having at least one academic or outreach publication in the years 2007-2012. Where possible, informants with different levels of professional experience and language background were recruited so as to gain insight into variation and commonalities in experience within and across the departments. In order to guarantee anonymity, I do not provide specific details pertaining to the academic rank, native language, and sub-discipline of informants.

The first stage in the project was to gain an understanding of the implications of parallel language policy within the context of publication. Three pertinent policy documents were obtained. These are The Declaration on a Nordic Language Policy (2006), The Swedish Language Act (2009), and the case-study institution’s language policy (2011). In all three documents, sections which referred to publication or knowledge dissemination (outside of teaching) were extracted. In the article, this process was described as a “manifest content analysis” (McGrath, 2014, p. 7); however, as a coding frame was not employed, a ‘systematic reading’ of the documents is a more accurate description.

In order to validate my reading of the policy documents, the extracts were shared and discussed at a research workshop with several colleagues, who found nothing controversial in my interpretation of the material. The official translation was used for two of the documents (The Nordic Language Policy and The Swedish Language Act). No official translation was available for the university policy document at the time of the investigation. Therefore, once I had extracted all reference to publication and knowledge dissemination, I translated the data into English. The translations were discussed with an experienced translator working at a Swedish university.

The next stage involved an investigation of the publication records of informants. In theory, all staff publications are listed on DiVA, an archive used by Scandinavian universities, which lists full-text theses, dissertations, RAs and so forth. All the informants’ written publications listed on the database in the set time period (2007-2012) were recorded. Texts are tagged in DiVA by authors according to type of publication, and this tagging was used as a guide for categorizing the entries. This method of data collection is not optimal as omissions are highly possible; therefore, I cross-referenced with personal webpages (where omissions are of course equally possible).

A short questionnaire (Appendix D) was also used to collate information about publications which may not be listed on DiVA, such as blog posts and articles in the popular press. This data collection method made visible not only outreach publications, but also academic genres which might not be listed on the database, such as abstracts written in the local language to accompany an English language publication, or conference abstracts. This part
of the methodology is crucial as the production of these genres constitutes evidence of language use.

The questionnaire was administered in person. As described above, the 15 informants were asked to answer questions pertaining to written academic and outreach genres produced between 2007 and 2012, and the language(s) used. Publications were classified as either outreach or academic based on the author’s target audience (e.g. written texts targeting a non-academic audience and text books for students were classed as outreach, whereas texts aimed at a professional scholarly audience were classed as academic). However, I acknowledge that the lines between the two domains are fuzzy, particularly in the case of textbooks.

In addition to publication history, the questionnaire contained factual questions concerning demographic characteristics such as native language, and active years in Swedish academia. Behavioural questions were limited to languages used in professional life and journals read/targeted for publication. Attitudinal questions were avoided as research suggests that informants typically engage superficially with questionnaire questions (Dörnyei, 2007) and interviews were scheduled. The question pertaining to languages used in professional life was also addressed as part of the interviews.

Once a complete list of publications was established, informants were asked via email (post interviews) to evaluate the accuracy of the results. Two informants did not respond; while checking was straightforward for the more junior informants with very limited publications, the task was considerably more time-consuming for prolific scholars, which may account for why the most prolific informant did not give feedback.

As a final stage of data collection, interviews were carried out with the informants. Qualitative interviews were an important data source for the study, and therefore a brief discussion of my role as a researcher is apposite here. The importance of the researcher’s role was raised in the 2011 special issue of *Applied Linguistics*, which called for a theorization of the qualitative interview in applied linguistics research, and advocated more attention to reflexivity and a critical awareness of the role of the researcher in the interview process. First, my identity as an EAP teacher and NES should be acknowledged as a factor in the interaction of the interview, particularly as informants were asked about their use of English, my L1. This may have resulted in “social desirability bias” (Dörnyei, 2007, p. 55) which manifests itself as participants trying to “meet social expectations and over-report desirable attitudes and behaviours”. In this case, a desirable attitude may be construed as a positive reaction to the use of English in publication. In addition, the interviews were conducted in my L1 and the informants’ second or additional language (L2), which creates a power imbalance. Nonetheless, other hierarchies were in play; for example, the majority of informants were senior to me in terms of professional status, and in terms of imposition, my role as interviewer constitutes a lower rank.
In drafting the interview questions (Appendix B), my aim was to probe the factors which might drive language practices in the context of publication, such as social characteristics of the discourse community, cognitive aspects of the discipline (e.g. Becher, 1989), institutional policy, and proficiency in English, Swedish and other languages. This approach was inspired by Grin’s (2003) observation that “capacity, opportunity and desire” are necessary for language use to occur. My identity in the research process was also taken into account here. For example, I avoided asking direct questions about informants’ perceptions of their English-language proficiency.

In addition to the questions listed in Appendix E, and inspired by Lillis and Curry’s (2010) procedures for collecting data, I drew a diagram of the process of producing and publishing the RA that would result from the study (see Appendix F for a representation of the elicitation tool used). I described the iterative stages of reading, research and writing, the participants involved at each stage, the relationship between participants (senior or junior) and the languages employed. I then invited informants to repeat the process using a completed, recent publication of their own. The aim was to elicit whether multilingual practices were evident, even if the outcome (the final publication) appeared in English. A pilot interview was carried out on a colleague at the Department of English, Stockholm University, to test the elicitation tool. The entire interviews were transcribed and meaning coding was employed (Kvale & Brinkman, 2009) to establish categories in the data.

Analysis of the interview data followed the process outlined in Dörnyei (2007). At the first stage, a systematic analysis of the transcripts allowed me to identify the sections that were relevant to the research questions: participants’ descriptions of practices and what motivated these practices. This initial analysis also enabled me to derive a general schema of potentially relevant themes for both categories (informants’ practices and motivations). Then, the entire dataset was inductively coded within this initial framework, and the coded interview data was grouped into themes. Table 3 provides an example:

<table>
<thead>
<tr>
<th>Extract from text</th>
<th>Code</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. But I write about (topic 2) too, and all those are in Swedish, so that’s topic based and audience based.</td>
<td>Language use determined by topic – Swedish</td>
<td>Agency</td>
</tr>
<tr>
<td>2. I can see that for other people it may seem more natural to do so because their topics and their audiences are more specifically Swedish or Scandinavian</td>
<td>Language use determined by topic – English</td>
<td></td>
</tr>
</tbody>
</table>
3.2.3 Study III

The aim of Study III was to explore whether data drawn from a collaborative research blog could contribute to our understanding of writing for publication in pure mathematics. Full details of the selected blog (*Polymath*) are given in the article.

In the planning stages, the project was not conceived of as a case study. This was deliberate as I wanted to limit the analysis to the data provided by blog entries. Prototypically, case studies are said to draw on multiple data sources (e.g. Creswell, 2009) in order to achieve a ‘thick description’ of the phenomenon under investigation (for example, the research design of Study II), and therefore, this approach did not seem appropriate. However, journal reviewers took the opposing view, and clearly understood the project as a case study due to the uniqueness of the object under investigation. Therefore, in the article the study is described as a predominantly descriptive, intrinsic case study (Dörnyei, 2007) in that I focus on the “particularity” (Stake, 2008, p. 121) of a single collaborative research blog, but with a view to contributing to the ESP community’s understanding of writing for publication and the research article genre. The blog is the primary data source used; however, results and insights from previous studies into the discourse of pure mathematics are drawn on extensively in the interpretation of the findings.

An important and early methodological consideration in this study was ethics-based, namely whether permission was needed from the blog participants and if so, how this permission could be obtained (e.g. Barton & Lee, 2013). I began by considering whether the online environment of the blog should be considered public or private, both in terms of access and content (Bolander & Locher, 2014). This was important, as texts may be “public in the sense that they are within the public space and can be read by a large and anonymous audience, while at the same time discussing topics which we think of as ‘private’ and using language which is associated with informal and private conversations” (Landert & Jucker, 2011, p. 1423, cited in Bolander & Locher, 2014). I viewed the online environment as public on both counts as the blog is open-access and the discussion topic is pure mathematics knowledge and article construction.

In addition, it was necessary to consider whether examples of the mathematical argumentation posted on the website could be used to illustrate the argument in my article, as this could potentially pre-empt the publication of the mathematical result. Again this was resolved, as the results of the mathematics study were visible on the blog, and therefore already in the public domain. In addition, it is common practice for mathematicians to circulate preprints (p.c. Informant B); therefore, results are often available to the community prior to peer-review and publication.

Another consideration was anonymity for the blog participants (Barton & Lee, 2013). In some ways, ‘participants’ in this study were agents in decid-
ing how much they would reveal about themselves; some used pseudonyms, while others used initials or their actual names. Nonetheless, I opted to exclude this information from my study.

A final stage in the decision process was to look at how consent issues were dealt with in other research into blogs (e.g. Mauranen, 2013). In these cases, authors also refrained from requesting consent. Therefore my decision in terms of obtaining consent was a considered process, and was noted in the resulting article (Barton & Lee, 2013).

As reported in the article, the approach to the analysis was as follows. First I read through all the comments across the five blog threads that were selected for analysis. Each comment in the first thread was then transferred to a spreadsheet and coded descriptively. Examples of the coding process are shown in Table 1 in Study III. This process provided a template (Crabtree & Miller, 1999) for coding the subsequent threads. A template can only be used if there is “sufficient background information on the topic to be able to define template categories” or following a “preliminary scanning of the data” (Dörnyei, 2007, p. 253). In my case, both apply; previous investigations into the RA in pure mathematics on the macro and micro level (Graves et al., 2013; Kuteeva & McGrath, in press; McGrath & Kuteeva, 2012) informed the coding, and as already mentioned, I read the first of the five blog threads in order to construct codes. Following template-coding procedure, coding adjustment was possible throughout the analysis, and I kept research memos to ensure that the applicability of the coding was consistent.

As a reliability measure, an expert informant who had collaborated in previous studies (Informant B) was recruited. Following an explanation of the categories, the informant was asked to code 5% of the blog comments, and was invited to read and comment on the article prior to submission.

3.2.4 Study IV

The fourth and final study in the compilation investigates first-person pronoun usage in anthropology and history RAs. From a research perspective, there have been very few investigations by applied linguists into the discourse of anthropology, and relatively few in history. Furthermore, while many studies have contrasted hard and soft disciplines, I have begun to be interested in differences between closely related disciplines. Returning to Becher’s (1989) taxonomy discussed in the theoretical framework section, both history and anthropology can be characterized as soft, and predominantly pure; however, I would argue that both have potential application and practitioner audiences depending perhaps on object of study. On the other hand, anthropology can be considered divergent, as the discipline is “more identified with the act of practising it rather than the existence of a unifying paradigm or research agenda” (Krishnan, 2009, p.20). History is considered more convergent due to an epistemologically unified core.
My experiences of teaching an EAP course for anthropologists preparing to write master’s dissertations also gave me interesting insights into the discipline. The course was designed around genre-based pedagogy, and therefore seminar tasks included an analysis of samples of RAs and dissertations in the discipline. The variation among the RAs analysed by the group was striking. An additional motivation came from a student who commented that “you are not supposed to use ‘I’ in academic writing”. While this view is relatively widespread among novice academic writers, it was unexpected in this disciplinary context given the research methods used in anthropology.

A corpus study was chosen so that practices in terms of personal pronoun usage on the individual and potentially disciplinary level could be observed (e.g. Hyland, 2009). In compiling the corpus, I opted to ask informants for journal suggestions, rather than selecting highly ranked journals according to international rankings. Informants recommended journals that they target for publication and/or regularly read. The aim was to access a range of articles and not just the top tier of academic publication. Three journals per discipline and six articles per journal were collected. As set out in Study I, the relatively limited number of articles here allowed for a more in-depth analysis, and the number is in line with comparable published studies (e.g. Sheldon, 2009). While a large-scale quantitative study would have provided insight into wider trends of language use, this type of study would not enable me to explore the RAs in detail.

In the case of anthropology, three English-language journals gained the most nominations, and were selected. In history, two of the three most nominated journals contained primarily Swedish rather than English-language articles. This was not surprising, as history as a discipline in Sweden retains a local-language academic audience as well as an international (English-language) audience (see Study II, McGrath, 2014). Therefore, the subsequent two most nominated journals were chosen. As no consensus was reached for the third, I opted to use the nominated journal with the widest scope in terms of subject matter. The journal titles are listed in the article.

The criteria for article selection were as follows: RAs had to report new research, be written in English by a single author (as the focus of the study was ‘I’), and be published in a regular rather than special issue. The six most recent articles at the time of data collection which adhered to the criteria were selected. Sampling criteria did not take into account native language or academic rank; as in Study I, an assumption for the project was that the informants’ L1 is less significant than discipline (Fløttum et al., 2006; Hyland, 2009) in influencing authors’ rhetorical choices. However, I acknowledge that this is perhaps more controversial when it comes to micro and rhetorical features, rather than structural.

As set out in the article, the analysis proceeded as follows: the first stage was to read through all the articles and identify all instances of ‘I’ that referred to the author. Next, the roles adopted by authors were investigated.
using Starfield and Ravelli’s (2006) model. A detailed account of the model and a justification for the selection is provided in Section 3 of the article.

To expedite the analysis, sections of the text containing the search items were extracted from the articles with 30-word surrounding co-text using AntConc (Anthony, 2011). Each instance of ‘I’ which referred to the author was then coded. In coding the extracts, the following were used: co-text and main verb co-occurring with the first-person pronoun. In some cases, position in the overall text was also helpful, and so I returned to the full articles rather than extracts. When all the instances that could be accounted for by the model had been coded, I returned to problematic cases.

Instances were problematic either because they could be placed in more than one category, or they did not adhere to the definitions provided by Starfield and Ravelli (2006). The former cases were solved by introducing the following coding protocols: tense and modal verbs were disregarded so that the main lexical verb acted as indicator of category. In addition, where two possible interpretations were still possible, I generally erred on the side of the more authoritative (Starfield & Ravelli, 2006) category. To solve the latter, a new category was introduced. As set out in the article, these were cases where the author narrated events in the field, but made no explicit reference to critical reflection. As part of the definition of the category, it was noted that the pronoun often appears in this role in conjunction with an “activity verb” or “communication verb” (Biber et al., 1999).

### 3.3 Concluding remarks

Returning to the characterization of qualitative research set out at the start of this section, the approach taken in my studies deviates slightly from Creswell’s (2009) criteria. While none of the studies was conducted in an experimental setting and multiple sources of data were collected in Studies I and II, Studies III and IV were limited to one primary data source. Data analysis in Study II was indeed inductive; however, Studies I, III and IV employed some deductive analysis; for example, Study I drew on Yang and Allison’s (2003) categories and the CARS model (Swales, 1990), and in Study III a template (Crabtree & Miller, 1999) for coding was employed. The analysis in Study IV applied Starfield and Ravelli’s (2006) categories, but definitions were tweaked based on a ‘bottom-up’ analysis, and a new category was arrived at inductively. Studies I, III and IV were analysed through the interpretive lens of ESP genre theory, although Study III was more method-orientated in subject matter. On the other hand, Study II with its focus on policy and language practices can perhaps best be described as problem-driven rather than theory-driven.

Finally, Creswell (2009) observes that qualitative analysis results in a holistic and interpretive account. The four studies presented here certainly con-
stitute an interpretive account, although I would argue that interpretation is also a property of quantitative research. Equally, if an account is not holistic, then the alternative is partial, which, given the complexities of the social world, is perhaps all that can ever realistically be achieved. Nonetheless, from a research perspective, if ‘holistic’ pertains to an account that reveals complexity and multiple perspectives, then I would argue that the studies in my thesis adhere to the criterion.

This section has provided a general overview of the methodological approach and procedures followed in the four studies. In the following section, my principal findings and contribution to the field are discussed. Any pedagogical recommendations that can be made based on my results are presented, and future avenues of research are proposed.
4. Discussion and conclusion

The aim of my thesis was to explore the relationship between discipline, and the genres, languages and publication outlets used by scholars. As stated in Section 1, my thesis does not seek to answer one overarching research question. Instead, several questions which all link to the theme of writing for publication were posed, answered and discussed in the articles that comprise the compilation.

I began the thesis by setting out the somewhat essentialist position that “disciplinary communities communicate via genres that reflect the research practices and belief systems of the discipline, and that there is a connection between the proclivities of disciplines and the discourse, research outlets and languages available to them for publication” (p. 13). The evidence in my thesis supports this position, but with some caveats. In the following sections, I discuss my findings in relation to this position, as well as the contribution, implications and limitations of my studies.

Section 4.1 sets out the thesis’ contribution to ESP genre research, with particular reference to Studies I, III and IV. Section 4.2 focuses on my contribution to research into scholars’ publication practices, with particular reference to Study II. Section 4.3 highlights the pedagogical implications arising from my findings. In the final sections, the limitations of my studies and future avenues of research are discussed. A summary of all the findings is located Section 5.

4.1 Contribution to ESP genre research

To my knowledge, Study I constitutes the first ESP description of the argument structure of theoretical RAs in pure mathematics. Prior to McGrath & Kuteeva (2012), very little attention had been paid to the discipline in ESP genre investigations. This neglect may have been due to a perception that RAs in the discipline are too idiosyncratic to be included in cross-disciplinary studies (McGrath & Kuteeva, 2012) due to the highly “standardized code” (Hyland, 2005, p. 189) employed in argument construction. Alternatively, there may have been a presumption that the discourse of mathematics is very similar to other hard or theoretical disciplines (McGrath & Kuteeva, 2012). In fact, the results of Study I provide empirical evidence that RAs in pure mathematics employ a dual argument structure that differs
significantly from the IMRD structure more familiar to hard and social scientists.

Both Studies I and III suggested that the structure of the RA in pure mathematics can be connected to how researchers in the field construct knowledge, in much the same way that the IMRD structure reflects an idealized version of the experimental research process. In Study 1, the overall shape of the genre was common to all the RAs investigated, and to a certain extent reflected the knowledge-making practices of the discipline. Variation was observed in the use of section headings and placement of content, a finding supported by other studies (e.g. Graves et al., 2013, 2014). This variation is attributed to (one of) the communicative purpose(s) of the RA, namely to escort the reader through the stages of a complex, logical argument while providing contextualization for the result.

Variation was also a theme that emerged from the results of Study IV, which investigated patterns of first-person pronoun usage in history and anthropology RAs. The study contributes to ESP genre research in two ways. First, the study explored RAs from two relatively under-investigated disciplines. While research into the discourse of history is less scarce than in mathematics – Bondi (2009, 2013), for example, has investigated narrative structure – there have been few studies investigating micro-level features of RAs in the discipline. As far as anthropology is concerned, writing in the discipline has been explored chiefly from the perspective of subject scholars (e.g. Geertz, 1988) rather than EAP specialists.

The broad disciplinary differences observed in the history and anthropology RAs lend support to the view that writers from different disciplines employ rhetorical resources differently, as arguments are framed in ways that are recognized by the disciplinary discourse community (e.g. Hyland, 2005). More specifically, the findings link micro-level features to disciplinary practices: very high numbers of first-person pronouns were found in the majority of anthropology RAs, which can be attributed to disciplinary methodology. Anthropologists construct knowledge through reporting their own lived experience and observations in the field, unlike historians, who reconstruct events through the interpretation of material sources.

However, considerable intra-disciplinary variation was also observed, which brings into question the homogeneity of disciplinary genres on the micro-level of text. Instead, the study posits sub-disciplinary epistemologies (e.g. Harwood, 2006b) and interdisciplinarity as possible reasons behind the variation. In light of this variation, Study IV raises questions as to whether the use of ‘I’ is “critical to meaning and credibility” (Hyland, 2002, p. 1093) across disciplines and indeed whether descriptions of prototypical usage of this feature can be identified in the two disciplines investigated. While ESP genre theory accounts for variation by acknowledging that some texts are more prototypical of a genre than others (Paltridge, 1997; Swales 1990), in disciplines where less discoursal “rigidity” (Gnutzmann & Rabe, 2014, p. 1093)
24) is tolerated, more deviation from textual norms and conventions are to be expected, if indeed they can be established in the first place. In these disciplines, a focus on a “network of relations” (Fishelov, 1991, p. 130) among features, rather than a description of prototypical usage of one particular feature, may prove more meaningful.

4.2 Contribution to ERPP research into publication practices

Study II in the thesis provides evidence for a link between discipline, research practices and the genres used for publication. In particular, the case study sheds light on the academic and outreach publication practices of a group of scholars at a Swedish university in terms of language use. Therefore, this study adds to a number of case studies exploring this topic in different socio-political and sociolinguistic contexts (e.g. Gentil & Séror, 2014; Gnutzmann & Rabe, 2014; Muresan & Pérez-Llantada, 2014).

When placed alongside these other case studies, my findings reveal a mix of similarities and differences. For example, like Muresan and Pérez-Llantada (2014), my study suggested that language use is determined by topic and audience. Informants in linguistics predominantly targeted an international academic audience, but viewed publication in the local language to be appropriate for locally-relevant objects of study. In addition, informants from anthropology cited the ideal of making findings available to the culture or community under investigation as a motivation for language use, which would entail Swedish if the research object were a Swedish-speaking community.

However, while discipline was found to be influential in determining language use up to a point, homogeneity should not be overstated. It is useful here to return to Trowler (2014b, p. 1723) as cited in Section 2.1. Using the example of historians to illustrate his point, Trowler observes that “academic historians […] may display very different characteristics in different universities, though there are still some common features between them which render them recognizable as historians”. In my study, while anthropologists reported a strong orientation towards an English-language academic discourse community, scholars in history (also a rural discipline according to Becher (1989), but with a tradition of local objects of study) reported access to a local-language academic discourse community and a prestigious local-language publication outlet. This finding contrasts with Gnutzmann and Rabe’s (2014) results in their investigation into historians’ publishing practices in Germany. In their study, a paucity of German-language journals was reported by informants in a specific sub-disciplinary branch of history with a particularly international orientation. Nonetheless, informants from both
studies observed the need for historical research to transcend national boundaries. Thus, in terms of publication, some influences can be seen as “derived from disciplinary roots” (Trowler, Saunders & Bamber, 2014, p. 242), while more locally situated influences also have purchase.

The perception that local-language academic publication is viable if the knowledge disseminated is relevant to a local-language audience entails an uneven playing field for the different disciplinary communities investigated in the study. While the historians in my study have access to a local-language academic publication outlet, options are more limited in anthropology and linguistics. This perhaps explains why informants in these disciplines viewed Swedish as viable predominantly for practitioner-oriented texts and outreach (communication with the wider community, outside of the disciplines of academia), or academic publication dealing with a specific locally-situated topic. However, a nationally-relevant topic may or may not be within the research interests or expertise of individual scholars.

It would therefore seem unreasonable to follow Linn’s (2010) ‘stick not carrot’ approach to ensuring Norwegian use in academia. Linn suggests that “[r]esponsible language use must be ranked alongside responsible research conduct of other sorts, and there must be penalties for failure to pursue it”. In view of the disciplinary differences suggested by my study and others (e.g. Gnutzmann & Rabe, 2014; Kuteeva & Airey, 2014; Petersen & Shaw, 2002), and the significant emphasis placed on English-language publication as a performance indicator, this seems to me to be unhelpful. I argue instead that since scholars base language selection on the needs of the target audience, a local reward system that gives greater credit for outreach publication may prove productive as a way of promoting knowledge dissemination in the local language, rather than an emphasis on local-language academic publication across the board.

However, the situation is complex. The rather reductive Swedish for outreach/English for academic publication divide may appear intuitive, but the dichotomy assumes a local rather than global outreach audience. In international, neo-liberal higher education, economic gain from research output comes into play, and thus government, business and industry are important stakeholders in research funding and outcomes (Manathunga & Brew, 2014). Just as projects within the academy can bring together institutions and academics from around the globe, ‘real-world’ problems can imply transnational collaboration between agencies, organizations and academics (Manathunga & Brew, 2014). In such a scenario, English may prove again the more pragmatic choice, despite the ‘outreach’ element.
4.3 Contribution to EAP research methodology

As described in Section 1.1, the majority of genre research in EAP has focused on the product of research-based writing, and very often, published RAs. Prototypically, researchers compile a corpus of the target genre and then carry out a textual analysis either manually or aided by corpus tools. In addition, some studies conduct interviews with disciplinary insiders in order to obtain additional insight into the contextual factors surrounding the production and textual form of genres (e.g. Hyland, 2005; Harwood, 2006a; Neiderhiser, Kelley, Kennedy, Swales, & Vergaro, 2014). Study I in my thesis is somewhat innovative in that the informants interviewed were also the authors of the articles in the corpus. Furthermore, one informant was closely involved in some stages of data analysis. This cooperation not only facilitated deeper insight into the genre investigated, but also created the opportunity for extended discussions about the discoursal patterns observed, and the knowledge-making practices of the discipline.

While this methodology proved successful, it should be acknowledged that informants are difficult to recruit, and as Swales (1990) points out, the use of disciplinary experts is not without its pitfalls. It is therefore perhaps not surprising that few genre studies in EAP have gained extended, behind-the-scenes access to scholars engaging in research and writing for publication. Research in Academic Literacies (e.g. Lillis & Curry, 2010) has perhaps been more successful in providing an emic perspective on the practices surrounding text production. This is in part due to the ethnographic approaches used to obtain insight into the contextual factors that impact the acquisition and development of literacies, which is somewhat privileged over textual analysis in the Academic Literacies tradition.

Study III contributes to EAP methodology by demonstrating that writing for publication can be explored via the digital affordances of web-blogs. New technologies have undoubtedly impacted writing in the academy (Barton & Lee, 2013; Mauranen, 2013) in that new genres (Kuteeva, forthcoming) and alternative publication outlets have emerged. However, thus far EAP studies into the possibilities of new technologies have tended to focus on pedagogical applications (e.g. Kuteeva, 2011), online discourse (e.g. Luzón, 2012; 2013; Myers, 2010), and the ramifications for ESP genre theory (e.g. Mauranen, 2013). Study III to my knowledge is the first EAP study to engage with a research blog as a way of exploring the writing practices of scholars. The results of the analysis of the discussions posted on the blog threads provided support for previous findings pertaining to the discourse of pure mathematics obtained via genre analysis (e.g. Graves et al., 2013; Kuteeva & McGrath, in press; McGrath & Kuteeva, 2012), and also yielded new insights into decisions scholars take when writing for publication. I argue, therefore, that research blogs (if they are used by scholarly communities and can be located) potentially provide a new data source for EAP prac-
titioners and researchers. The real-time and open-access qualities of the blog enable the EAP researcher to engage in a form of virtual non-participant observation of the writing process. This approach combined or triangulated with more traditional textual data and data-collection methods could contribute to a richer understanding of writing for publication in the disciplines.

4.4 Significance for EAP provision and pedagogy

As stated in the Section 1, one of the goals of EAP research is to inform pedagogy (Johns et al., 2011). Therefore, the purpose of this section is to set out any pedagogical implications of my findings.

Studies I and III in my thesis demonstrate that the construction of a pure mathematics RA is “neither simple, nor short, nor particularly natural” (Swales, 1990, p. 121). It is hoped that the findings will alert EAP specialists to the specific needs of mathematicians writing for publication, and inform syllabus and course design. The need for greater awareness was highlighted during an informal discussion at the 2014 LSP Symposium at Stockholm University. A delegate observed that at her institution, mathematicians tended to be taught the IMRD structure alongside physicists and engineers. However, following my conference presentation based on the results of Studies I and III, she acknowledged that more tailored instruction would be beneficial. The results of the studies have also been incorporated into EAP writing for publication materials at Stockholm University. For example, the ‘shape’ of the pure mathematics RA shown in Study I (Figure 1, Kuteeva & McGrath, in press) has proven useful for demonstrating different disciplinary argument structures.

The focus of Study II was primarily scholars’ academic and outreach publication practices. Nonetheless, the findings also have some relevance for EAP pedagogy and provision. On the whole, results suggested that in linguistics and anthropology, English was the established and dominant language in the sphere of academic publication. Conversely, in history, informants perceived a more recent and on-going shift towards writing RAs in English, despite the existence of a local-language academic community. While any generalizations or assumptions about the applicability of case-study results in other contexts need to be treated with caution, a general shift in emphasis in the discipline towards English-language RAs and away from local-language RAs and monographs would perhaps not be surprising given the continuing prominence of the genre in global university evaluation systems described in Section 1. This scenario may entail an increased demand for EAP support for scholars and students in the discipline.

Finally, Study IV has a more general contribution to make to EAP pedagogy in that the findings underscore the importance of avoiding prescription, challenging preconceptions, and raising students’ awareness of the range of
rhetorical options available to them when engaging in research-based writing.

4.5 Limitations and future research

In the previous section, the contributions and implications of my thesis were outlined. In this section, I will discuss some limitations of the studies and possibilities for future research. For the purposes of this section, I group the studies according to research design: Studies I and IV (genre analyses) and Studies II and III (case studies).

In Study I, a small corpus was compiled to describe the rhetorical structure of pure mathematics theoretical RAs. In addition, extended interviews with each author were carried out in order to explore links between facets of the discipline and the RA genre. In the future, a large-scale quantitative study could be carried out to test the emergent shape on a greater number of articles in order to assess whether the shape can be generalized. Further studies into theoretical articles produced in other disciplines are also needed in order to increase our understanding of the genre.

Study IV drew on a wider range of authors (36 in total) as the RAs compiled for the textual analysis were sourced from informant-nominated journals. Interviews probing reasons behind rhetorical features of the RAs were not feasible, as I did not have access to authors. Consequently, a rationale for discourse patterns observed could only be conjectured. A follow-up study combining textual analysis and interviews with expert informants (e.g. Harwood, 2006b; Hyland, 2005; McGrath & Kuteeva, 2012) would complement the findings of Study IV and provide further insights. In particular, a case-study approach that takes into account biographical details such as academic rank and authors’ sub-disciplinary and/or interdisciplinary interests could prove particularly informative.

Studies II and III employed a case-study design. As such, in Study II, the findings pertain to the particular group of scholars operating within the particular context and time, and the results of Study III pertain to the particular iteration of the Polymath blog analysed. Therefore, any claim that the findings extend beyond those particular contexts is problematic. Nonetheless, case-study findings can be generalized by considering similarities between the context of the case and other contexts (Larsson, 2008). For an illustration, see Section 4.2.

As discussed in Section 3.2.2, in Study II data on the informants’ native language, academic rank and research interests were excluded from the article. While biographical information could have provided additional insights, it was judged that inclusion of this data would compromise informant anonymity and therefore the ethical standards expected of researchers. In addition, this data was not necessary to answer the research questions posed in
the investigation. Future studies may choose to focus purely on a database trawl, as this would enable an investigation of correlations between native language, seniority, sub-discipline, and language of publication without compromising informants. A longitudinal study tracking academics’ practices over an extended period could also uncover shifting patterns of language use in publication.

Turning now to Study III, the chief limitation (but also point of interest) is the idiosyncrasy of the Polymath blog. While participation in academic blogging is on the increase (Lillis & Curry, 2010; Mauranen, 2013), it is as yet unclear as to whether other academic communities are engaging in collaborative online research and article construction. Thus, future research may wish to explore the extent of this practice.

Clearly, the digital medium of the article constructed and the blog participants involved do not reflect the usual context of RA production. Indeed, the blog facilitated the construction of the RA by a diverse and in many ways disconnected group, some of whom claimed non-membership of the scholarly mathematics community. This scenario does not sit comfortably with Swales’ (1990, p. 26) definition of a discourse community. While Swales’ description has been critiqued in the past (e.g. Canagarajah, 2002; Devitt, 2008; Mauranen, 1993; Swales, 1998), a revisit which takes into account emerging online communities engaging in knowledge construction and dissemination (e.g. Mauranen, 2013) may be timely.

4.6 Conclusion

As with other practices within the academy, writing for publication is subject to local, international and digital developments, as well as disciplinary factors. As such, the relationship between discipline, genre and publication practices should be understood as dynamic. In a recent return to Becher’s (1989) seminal “tribes and territories” metaphor, Trowler (2014b) argues that the nature and role of discipline in the practices associated with higher education need to be revisited, as “a focus on discipline as the main or key way of understanding academic work and organization is in tension with the constantly changing and dynamic disciplinary and interdisciplinary areas of the contemporary university” (Manathunga & Brew, 2014, p. 45). This shift must be taken into account in future EAP research given the prominence of ‘discipline’ in the theoretical frameworks that inform investigations (i.e. disciplinary discourse).

Interdisciplinarity is gaining ground, and this too has implications for EAP. Given that interdisciplinary research involves the integration of two or more disciplines’ ways of thinking, methods, and/or theoretical frameworks (Trowler, 2014a), new discourses (Duszak & Lewkowicz, 2008) and genres may emerge. In the theoretical framework section of my thesis, I state that
“disciplinary discourse incorporates the idea that writing not only embodies the knowledge, beliefs and social practices of disciplinary communities, but is also constitutive of them” (p. 23). The key question is, what then will (or does) interdisciplinary discourse look like?
5. Summary of the studies

This section provides a short summary of the aims, methods, key findings and contribution of each of the articles included in the compilation. In the case of co-authorship (Study I) my contribution to the study is also described. Detailed method descriptions, results and discussion can be found in the actual articles, which are located at the end of the thesis. Overall conclusions and implications that can be drawn from the body of work that the thesis represents are located in Section 4.


This study was co-authored with my supervisor, Professor Maria Kuteeva, who proposed the theoretical and methodological frameworks, wrote the introduction, and revised the manuscript prior to submission. I created the research design, recruited informants, and collected and analysed the data. I wrote the methods and results sections of the article, and co-authored the discussion and conclusion sections. I took a leading role in addressing issues raised by reviewers and in adapting the article for the final publication.

The aim of the study was to investigate the structure of theoretical RAs in pure mathematics and to propose a rationale for any genre patterns observed. Results were derived from the textual analysis of 22 pure mathematics research articles and interviews with their authors.

The findings showed that the pure mathematics articles in the study do not follow an IMRD structure as often used in the hard and social sciences. In fact, the analysis revealed significant variation among the articles in terms of the major section headings and content. Nonetheless, a rationale for the genre was established; the shape reflects the logical argumentation that the genre reports and the dual argumentation – mathematical and meta-mathematical – which runs throughout the text. Interview data indicate that the structural patterns of the theoretical pure mathematics RA can be viewed as a reflection of the research practices and epistemology of the discipline. The overall shape of the article reflects the idealized research process, while the less
standardized organization and content of sections gives the writer the freedom to structure the text in a way that is most appropriate for guiding the reader through the complexities of the results.

In terms of significance, the article is the first attempt to document the structure of theoretical research articles in the discipline and is one of the first within EAP to explore the discourse of pure mathematics. The results provide insight into the disciplinary practices of pure mathematicians, and how these practices shape the discourse produced by the disciplinary community.

The article also offers guidance for teachers of EAP who may have pure mathematicians in their writing classes. While instinctively mathematicians may be placed alongside hard scientists, the study shows that they in fact have different needs.


The aim of Study II was to explore the extent to which parallel language policy is reflected in scholars’ writing for publication practices. I adopted a case-study approach to explore 15 scholars’ experiences of outreach and academic publication in the departments of history, linguistics and anthropology at a major Swedish university.

My results indicate that most of the scholars in the study adopt a pragmatic approach to language selection when writing for publication; where an appropriate local-language audience exists (often practitioner-oriented), scholars publish in the local language. Publications intended for a wider, international academic audience are written in English. Nevertheless, some differences along disciplinary lines were observed; for example, history retains a coherent local academic community which facilitates publication in Swedish, whereas in anthropology, local-language publication tends to be practitioner-oriented or outreach.

My results provide insight into the potential difficulties of implementing a parallel language policy. I argue that in order for policy to be more reflective of practice, a more nuanced approach which takes account of disciplinary differences is needed. In addition, I recommend that if publication in the local language is to be promoted, the profile of outreach and practitioner-oriented publication should be raised.
5.3 Study III McGrath, L. Open access writing: An exploration of the construction of a research article via a blog (under review at *English for Specific Purposes*)

Study III investigates the online co-authorship of a pure mathematics RA, negotiated via an open-access academic blog. The data for the study consist of five blog posts and 659 comments posted in the process of preparing an RA manuscript for publication in an international journal. My aim was to explore what insight could be gained into the writing practices of the discipline that would not be apparent using text analytical and interview methods.

Each post was read and tagged according to rhetorical and non-rhetorical categories that emerged from the analysis. These were mathematical argument, meta-mathematical argument, expositional structure, propositional development, formal, and operational.

My results showed that the writing process of the article was not linear, as participants on the blog engaged with all the facets of article construction concurrently. Insight was gained into how decisions pertaining to genre and dissemination outlets were made, and how the genre is adjusted to cater for a more diverse discourse community.

The main contribution of the study lies in the method: I argue that academic research blogs have the potential to provide a useful data source in the study of disciplinary discourse. The real-time and open-access qualities of the blog enable the EAP researcher to engage in a form of virtual non-participant observation of the writing process. This approach, when combined with more traditional data and data-collection methods, could contribute to a richer understanding of writing for publication in the disciplines.

5.4 Study IV McGrath, L. Self-mentions in anthropology and history research articles: Variation between and within disciplines (submitted to *Journal of English for Academic Purposes*)

The overarching aim of this study was to investigate self-mentions via the use of the first-person subject pronoun in history and anthropology. The study explored both the frequency of pronoun-usage as well as the author roles that are communicated via the use of ‘I’.

A total of 36 published RAs were complied, 18 from history and 18 from anthropology. Journal selection was guided by recommendations from disciplinary informants. Using Antconc (Anthony, 2011) each instance of first-person pronoun was extracted and categorized according to Starfield and Ravelli’s (2006) taxonomy of author roles.
The findings revealed that all the categories in Starfield and Ravelli’s (2006) taxonomy were present in the data. However, the analysis necessitated the creation of a new category (termed ‘narrative I’) in order to account for instances of ‘I’ which described biographical experiences during fieldwork, and which did not convey explicit reflexivity. Furthermore, while the results showed that, on the whole, first-person pronouns were used more frequently in anthropology than history, significant intra-disciplinary variation was observed both in terms of frequency of usage and roles adopted.

Based on the findings, I argue that the emphasis on interdisciplinary variation in EAP research may occlude individuality and variation, particularly in disciplines where language is used to construct rather than report new knowledge. I therefore recommend more research that focuses on intra-disciplinary rather than interdisciplinary variation, so that students can be made aware of the range of rhetorical choices open to them when writing.
Skrivande för publicering inom fyra akademiska discipliner: insikter om text och sammanhang

1. Bakgrund till studierna och frågeställningarna

Trycket på forskare att publicera i internationella engelskspråkiga tidskrifter med stor genomslagskraft har ökat, vilket har lett till en ökning av kurser och forskning om akademisk engelska samt engelska i forsknings- och publiceringssyfte. Denna forskning har beskrivit de diskurser och genrer som används inom olika akademiska discipliner (t.ex. Swales, 1990), undersökt eventuella nackdelar för dem som inte har engelska som sitt modersmål (t.ex. Flowerdew, 2013), samt undersökt möjliga konsekvenser av engelskans hegemoni inom den akademiska världen för de lokala språkens status (t.ex. Canagarajah, 2002).

Denna avhandling fokuserar på detta ämnesområde. Utgångspunkten är ställningstagandet att man inom olika akademiska discipliner kommunicerar via genrer som återspeglar disciplinens forskningspraktiker, ideologier och föreställningar, samt att det finns ett samband mellan disciplinernas preferenser och de diskurser, kanaler och språk de har möjlighet att publicera i. Jag undersöker dessa samband inom fyra discipliner: lingvistik, historia, antropologi och ren matematik.

Tabell 1 Övergripande mål med avhandlingen samt frågeställningar

<table>
<thead>
<tr>
<th>Studie</th>
<th>Frågeställningar</th>
<th>Koppling till målet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studie I</td>
<td>Hur ser den retoriska och organisatoriska strukturen ut i forskningsartiklarna om ren matematik? Finns det en konsekvent struktur? Vilka samband går det att utröna mellan forskningsartiklarnas struktur och de kunskapsproducerande praktikerna inom ämnet ren matematik?</td>
<td>Forskningspraktiker inom disciplinen och forskningsartiklarnas schematiska struktur</td>
</tr>
<tr>
<td>Studie IV</td>
<td>Vilka författarroller är förutbestämda i de historiska och antropologiska forskningsartiklarna, och i vilken utsträckning? Vilka disciplinarä mönster framkommmer?</td>
<td>Disciplinarä mönster gällande användningsgraden av pronomen i första person subjektsform</td>
</tr>
</tbody>
</table>

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2. Sammanfattningen av studierna


Syftet med denna studie var att undersöka strukturen i teoretiska forskningsartiklar i ämnet ren matematik och att söka förklara logiken bakom eventuella funna mönster. Resultaten härrörde från texanalyser av 22 forskningsartiklar i ämnet ren matematik samt från intervjuer med artikelförfattarna.


Artikeln är det första försöket att dokumentera argumentationsstrukturen i teoretiska forskningsartiklar inom denna disciplin, och är en av de första artiklarna inom akademisk engelska att undersöka den disciplinära ämnesdiskursen inom ren matematik. Resultaten ger inblick i de forskningspraktiker som används inom ren matematik samt hur dessa praktiker formar den disciplinära ämnesdiskursen.

Artikeln ger också vägledning till skrivlärare som kan ha rena matematiker på sina kurser. Det är lätt att placera matematiker tillsammans med naturvetare, men denna studie visar att de faktiskt har andra behov.


Syftet med Studie II var att undersöka i vilken utsträckning policyn om parallellspråkighet återspeglas i forskarnas skrivande för publicering. Genom fallstudier undersökte jag 15 forskares erfarenheter av akademisk och icke-
Mina resultat visar att de flesta av forskarna i studien har en pragmatisk inställning till valet av språk när de skriver för publicering; när det finns en lämplig publik som talar det lokala språket (ofta med inriktning på verksamma inom disciplinen) publicerar forskarna på detta språk. Publikationer avsedda för en bredare internationell akademisk publik skrivs på engelska. Vissa skillnader mellan ämnena observerades dock. Exempelvis finns det inom historia en sammanhåll mil akademisk gemenskap som underlättar publicering på svenska, medan publikationer på det lokala språket inom antropologi tenderar att vara icke-akademiska eller riktade till verksamma inom disciplinen.

Resultaten ger inblick i de potentiella svårigheterna med att införa parallellspråkighet som policy. Jag argumenterar för att ett mer nyanserat förhållningssätt som tar hänsyn till skillnaderna mellan olika ämnen behövs för att se till att språkpolicy bättre återspeglar rådande praxis. Därutöver rekommenderar jag, om publicering på det det lokala språket ska främjas, att profilen höjs för icke-akademisk publicering och publicering som riktar sig till verksamma inom disciplinen.

2.3 Studie III McGrath, L. Open access writing: An exploration of the construction of a research article via a blog. (undergår granskning för English for Specific Purposes)

Studie III undersöker det internetbaserade samförfattandet av en forskningsartikel i rematematik via en akademisk open access-blogg. Underlaget för studien består av fem blogginlägg och 659 kommentarer som ingått i förberedelsen av ett manuskript för publicering i en internationell tidskrift. Syftet var att ta reda på vilka insikter som kunde nås om skrivpraktiker inom disciplinen som inte skulle framkomma genom textanalys eller intervjuer.

Varje inlägg lästes och märktes enligt retoriska och icke-retoriska kategorier som framkom i analysen. Dessa kategorier inbegrep förändringar i det matematiska argumentet, förändringar i det meta-matematiska argumentet, förändringar i forskningsartikels struktur, framställningen av nya matematiska resultat, formaliaproblem, och diskussioner om hanteringen av samarbete på bloggen samt publicering. Resultaten visade att skrivprocessen för artikeln inte var linjär, då bloggens deltagare arbetade med samtliga aspekter av artikelns uppbyggnad samtidigt. De gav även inblick i hur beslut fattades gällande genre och spridningskanaler, samt hur genren anpassades för att tillgodose en större mångfald inom disciplinen.
Studiens främsta bidrag ligger i metoden: jag hävdar att akademiska forskningsbloggar har potential att utgöra en användbar datakälla för studiet av disciplinära ämnesdiskurser. Bloggens realtids- och open access-egenskaper möjliggör för forskaren i akademisk engelska att ägna sig åt en form av virtuell icke-deltagande observation av skrivprocessen. Detta tillvägagångssätt i kombination med mer traditionella data och datainsamlingsmetoder skulle kunna bidra till en större förståelse av skrivande för publicering inom disciplinerna.

2.4 Studie IV McGrath, L. First-person subject pronouns in anthropology and history research articles: Variation between and within disciplines. (inlämnad till Journal of English for Academic Purposes)

Det övergripande syftet med denna studie var att undersöka användandet av pronomen i första person subjektsform inom historia och antropologi. Studien undersökte användningsgraden av detta pronomen samt vilka författarroller som kommunikeras genom användandet av ”jag”.


Resultaten visade att samtliga kategorier i Starfield och Ravellis klassificering återfanns i materialet. Analysen krävde dock att en ny kategori skapades för att inkludera sådana förekomster av ”jag” som beskrev biografiska erfarenheter under fältarbete och inte förmedlade explicit reflexivitet (betecknat det ”berättande jaget”). Dessutom visade resultaten att pronomen i första person överlag användes oftare inom antropologi än historia; betydande inomvetenskapliga variationer observerades vad gällde såväl användningsgrad som antagna roller.

Med utgång från dessa resultat hävdar jag att betoning på tvärvetenskaplig variation inom akademisk engelska kan stå i vägen för individualitet och variation, särskilt inom discipliner där språket används för att skapa snarare än rapportera kunskap. Därför rekommenderar jag mer forskning med fokus på inomvetenskaplig istället för tvärvetenskaplig variation, så att studenter kan göras medvetna om alla de retoriska val som är möjliga i deras skrivande.
3. Slutsats

Förhållandet mellan disciplin, genre och publiceringspraktiker bör förstås som dynamiskt. Uppmaningar gällande en omvärdering av akademiska disciplinernas natur och deras inflytande över de praktiker som förknippas med högre utbildning (t.ex. Trowler, 2014) måste beaktas i framtida forskning inom akademisk engelska med tanke på disciplinernas framträdande roll inom de teoretiska ramar som ligger till grund för undersökningar (dvs. disciplinarämnediskurs).

Acknowledgements

I would like to thank my supervisors, Maria Kuteeva and Anna Mauranen, and the journal editors and anonymous reviewers of the articles in my thesis. I am also grateful to Ken Hyland for his feedback on Study III, and Andrew Linn for comments on an early version of the ‘kappa’. My thanks also go to my mock discussants, John Airey and Claus Gnutzmann, Patrik Ekström Mežek and David Minugh for assistance with translation and technology, and Nils-Lennart Johannesson for proof-reading.

The following people have supported me in ways that are too diverse and numerous to list: Richard Miles, Lily Evans, Ronny Dahlin, Raffaella Negretti, Anja Nyström, Jessica Berggren, Špela Mežek, Miguel García-Yeste, and Philip Shaw. Thank you.
Appendix A: Consent form, Study I

The consent form below was used initially for my Master’s dissertation research. Further to completion of the study (McGrath & Kuteeva, 2012), the interview data collected and corpus compiled were also used for analysis in Study I (Kuteeva & McGrath, in press). Each of the informants was contacted by email or in person in order to gain consent for use of the data in the follow-up study.

**Information sheet and consent**

I am carrying out a study as the basis of my Master’s dissertation researching the use of metadiscourse in published research articles in pure mathematics. The aim of the project is to identify distinctive patterns of language use that derive from the epistemological nature of the discipline. It is hoped that the results will serve to inform English for academic purposes professionals in their construction of academic writing courses for postgraduate mathematics students.

The study will involve assembling and analysing a corpus consisting of published research articles followed by in-depth interviews with authors which will take place via skype or in person in February.

If you would be willing to participate in the study, I would be most grateful if you could send me links to five recently published articles that you have authored and sign the document below.

Name________________________________________

Signature_______________________________ Date _______________

**Researcher**
Lisa McGrath  
Master’s student  
Centre for Academic English  
Department of English  
Stockholm University  
[lisa.mcgrath@english.su.se](mailto:lisa.mcgrath@english.su.se)  
+46 (0)8 16 36 17

**Supervisor**
Docent Maria Kuteeva  
Centre for Academic English  
Department of English  
Stockholm University  
[maria.kuteeva@english.su.se](mailto:maria.kuteeva@english.su.se)  
+46 (0)8 16 35 93
Appendix B: Consent form, Study II

Information sheet
This information sheet is for potential informants for my PhD research into the writing practices of linguistics/history/anthropology/medical science scholars in Sweden. This document provides information about how and when interviews will be carried out; how examples of your writing will be collected; and how the data will be stored and used if you agree to take part in the study.

Aim of the research project
The overarching aim of the project is to explore how new outlets for research dissemination such as blogs and web fora are impacting the discourses of disciplinary communities in academia in Sweden, and to explore the language choices scholars make when writing for publication.

Interviews
I would like to conduct two interviews with you. The first interview (early Spring Term 2013) will cover some general questions about your academic background and experience, the languages you use in your role as an academic, and your reading and writing practices and attitudes. In a follow up interview (Spring Term 2014), I would like to explore with you your experiences of different genres used in your discipline, and some of the reasons behind the writing and language choices you make. The interviews will be conducted in English, recorded, transcribed and stored electronically.

Examples of writing
I would also like to collect samples of the writing you produce and read as part of your scholarly activity. For example, this could include research articles, popularizations, and contributions to online fora and blogs.

How the data will be used
The material collected will be used for research purposes. This means that extracts from the transcribed interviews may be included in articles. In addition, extracts from writing samples you provide may also be used. While the utmost effort will be made to protect your anonymity, I cannot guarantee that you will not be identified as a participant in the study if extracts of the writing you provide are already published and in the public domain.
If you are willing to participate in the study, please read and sign the consent form on the next page.

**Consent form**

By signing this consent form, you are declaring that you are willing to participate in the research project described to you in the information sheet.

Please tick each statement if you agree:

1) I have read and understood the information sheet.
2) I have been given the opportunity to ask questions about the study.
3) I have had my questions answered satisfactorily.
4) I understand that I can withdraw my participation at any point without having to give an explanation.
5) I agree to extracts from my writing being reproduced in scholarly publications and presentations.
6) I agree to comments from the interviews being reproduced in scholarly publications and presentations.

I (the informant) agree to these conditions:

Name_________________________________

Signature____________________________ Date _______________

Thank you very much for agreeing to participate in the study. Please feel free to contact me if you have any further questions.

**Researcher**
Lisa McGrath  
PhD student  
Centre for Academic English  
Department of English  
Stockholm University  
[lisa.mcgrath@english.su.se](mailto:lisa.mcgrath@english.su.se)  
+46 (0)8 16 36 17

**Supervisor**
Docent Maria Kuteeva  
Centre for Academic English  
Department of English  
Stockholm University  
[maria.kuteeva@english.su.se](mailto:maria.kuteeva@english.su.se)  
+46 (0)8 16 35 93
Appendix C: Interview guide, Study I

Following Kvale and Brinkman (2008, p. 132) both the project’s thematic research questions and the interview questions are provided. While all the questions elicited relevant data for Study I, the questions which refer to stance and engagement markers (Hyland, 2005) were designed more specifically to answer research questions posed in McGrath and Kuteeva (2012).

**Research question:** How is new knowledge produced in pure mathematics? Are mathematical phenomena discovered or created? To what extent are your results dependent on previous research? Is knowledge construction cumulative? How do you obtain results?

**Research question:** What reasons are there for the patterns of stance and engagement markers found in the corpus? What resources do you have available to you to persuade the reader to accept your proposition? What degree of conviction do you think is appropriate in your discourse community? How is this reflected in your writing? In the corpus, processes are “straightforward”, results are “clear”, patterns are “easy to see” and lemmas “easily proved”. Results can be “dramatic”, “surprising”, or “remarkable”. Can you talk about the effect this language has on you as a reader? As a writer, where do you choose to include these kinds of affective evaluations? Why? Appeals to shared knowledge in the corpus include “well-known” methods, “standard examples” and items that are “of course” trivial. Why do you choose to include these items and to whom are they directed?

**Research question:** What are the effects on the reader of the use of stance and engagement markers? As a reader, do you ever find the use of these terms controversial? As a reader, do you ever disagree with the writer’s evaluation? If yes, how does this influence your readiness to accept the proposition?
**Research question:** How are the sections that set out the proofs constructed?  
Who are “we”?  
In proofs in particular, the use of the indicative rather than the imperative appears random. Is this the case?  
Are there occasions when one or the other is preferable? Why?  
Would you describe proofs and definitions as standardized code or do you have room here to influence the reader through your rhetorical choices?  
Is use of the imperative rather than “we” one of those choices?  
Asides generally allow the writer to step away from the work of unravelling the proposition so that they can comment on what has been said or give an extraneous anecdote. If this is a feature of your writing, what is your aim?  
Are there any reasons why you might choose to avoid this?

**Research question:** To what extent is the authors’ writing standardized?  
Is personal style more acceptable (tolerated?) among more established members of the discourse community?  
To what extent does the peer review process influence your writing?  
Are any of the features we have talked about employed particularly with the referee rather than general readership in mind?  
Are there any other strategies that we haven’t talked about today that are designed particularly to convey your stance or engage the reader that you have read or used yourself?
Appendix D: Questionnaire, Study II

Questionnaire
1) Native language(s):
2) Languages you use for professional purposes:
3) Discipline and sub-discipline (if appropriate):
4) Active years in academia:
5) Active years in Swedish academia:
6) Please provide the names of four journals you regularly read/publish in/target for publication:
7) Please provide the names of any new media sites you use in connection with your professional life, such as blogs and online forums:
8) Please tick if you have produced any of the following in the last 7 years:

<table>
<thead>
<tr>
<th>Category</th>
<th>English</th>
<th>Swedish</th>
<th>Other Languages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book (monograph)</td>
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<tr>
<td>Book chapter</td>
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<td>Journal article</td>
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<td>Abstract</td>
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<td>New media site contribution</td>
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<tr>
<td>Other (please specify)</td>
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<td></td>
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</tbody>
</table>
Appendix E: Interview guide, Study II

Following Kvale and Brinkman (2008, p. 132) both the project’s thematic research questions and the interview questions are provided.

**Research question:** Which languages do informants use in their professional life and for what purposes?
Has the balance of how much you write in Swedish/English/your native language shifted over your academic career?
Roughly speaking what percentage of your citations is in English/Swedish/other languages?
Do you read other languages for your research?

**Research question:** What is the significance of the informant’s networks in determining language use?
To what extent do you feel you belong to an international community of researchers?
Who are the people in your academic network?
Can you say something about the space between theory and practice in your research?
Are they local or transnational?
Are you a senior or junior partner?
How do you communicate with each other (genres, modes, languages)?

**Research question:** Do other factors dictate language choice, or are informants autonomous?
Do you have autonomy in the language choices you make when it comes to publication?
What governs your choices?
Does the genre make a difference?
Which genres are most prestigious in your community?

**Research question:** How does the informant perceive their language proficiency?
In terms of writing up research, how does writing in English/Swedish/native language feel?
**Research question:** How is ‘parallel language use’ understood by the informant?

The university advocates a parallel language policy. What do you understand by this term?

When is it ‘appropriate’ to use English/Swedish/other languages?
Appendix F: Elicitation tool, Study II
References


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