

Tense Usage in Academic Writing: A Cross-Disciplinary Study

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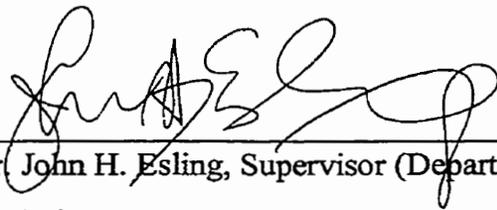
Vi Linh Taylor
B.A., University of Victoria, 1995

A Thesis Submitted in Partial Fulfillment of the
Requirements for the Degree of

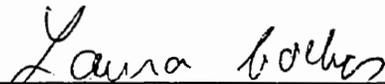
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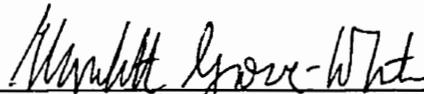
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Abstract

This thesis examines tense usage in academic writing in the humanities. Using a corpus of 18 journal articles in English, history, and philosophy, a quantitative analysis was conducted to establish and compare patterns of use across the disciplines and within each discipline. A contextual analysis then followed to identify factors that affect tense choice. The analysis identified the tense choices associated with the rhetorical functions unique to the journal article genre and analysed these tense-function associations in terms of time and basic meanings as described in general English.

The results reveal consistency in usage within each discipline but systematic variations across the disciplines. These variations are found to be largely due to differences in the specialized content area each discipline deals with. At the same time, a similar range of choices can be found for similar function categories across the three disciplines. The temporal location and basic meaning of each tense choice are shown to be consistent with the general descriptions of tense, and different choices are possible because the writer can choose to present the same situation in different ways, from different perspectives, or from different temporal zones.

The present study has pointed out the relevant aspects of general tense grammar and has shown how they can be used to explain usage specific to academic discourse. A thorough understanding of the full range of possible meanings and uses of the tenses and how they can be applied to rhetorical uses in academic writing will allow the writer the greatest flexibility in the use of tense to express nuances in meanings.

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Chapter 1

Introduction

Within the last three decades, applied linguists and teachers in the areas of English for Specific Purposes and English for Academic Purposes have shown much interest in the investigation of how subject matter and contextual factors affect the choice of grammatical forms in academic discourse. This interest has largely been motivated by the dissatisfaction with traditional grammar or general writing texts, which do not always reflect actual practices in academic discourse. Of the grammatical features examined, the verb tense is among them. Traditional tense grammar, which typically focuses on temporal factors and sentence-level usage, has often been found to be inadequate to explain tense usage in academic writing (Lackstrom, Selinker, & Trimble, 1970, 1973). In order to provide a more realistic and relevant account, a number of studies have tracked the use of tense in authentic academic texts and have proposed alternative explanations.

Lackstrom *et al.* (1970, 1973) have suggested that non-temporal considerations such as subject matter and rhetorical functions influence tense choice in scientific and technical discourse. Other studies have reported correlations between tense choice and the degree of generality intended, the writer's attitude towards the work cited, the structure of citations, information structure and cohesion, etc. (Oster, 1981; Swales; 1990; and Shaw, 1992). Several quantitative analyses have revealed correlation between tense and the major rhetorical divisions of scientific reports (Wingard, 1981; Hanania and Akhtar, 1985; and Biber, Conrad, & Peppen, 1998). Taking a broader approach, Malcolm (1987) incorporates both temporal and non-temporal considerations and argues

that tense use in English for science and technology (EST) follows the same temporal constraints as described in general English, but under certain conditions the authors can choose the time location that best suits their rhetorical purposes. Detailed discussions of these studies are presented in Chapter 2 of this thesis.

So far, most tense usage research in academic discourse has been done on experimental research writing within the domain of the natural sciences. Research of a similar scope that focuses primarily on tense use has not been found in the social sciences and humanities. As the social sciences are quite similar to the natural sciences in overall text structure and communicative categories (Holmes, 1997), in order to understand tense use in as wide a range of situations as possible, the humanities domain was chosen as the focus of the present analysis. The purpose is to contribute to the development of an account of tense use that is applicable to a broad range of academic disciplines and, at the same time, to raise awareness of discipline-specific usage.

The subject areas selected to represent the humanities are English, history, and philosophy. The corpus consists of 18 journal articles, six each from these three disciplines. The study consists of two major components. The first is a quantitative analysis to determine patterns and variations in usage across the disciplines as well as within each discipline. The second is a contextual analysis to identify factors that affect tense choice and explore reasons for the variations.

Various research techniques and procedures developed in the EST studies were adapted to establish a framework for the present analysis. In addition, insights and findings from recent literature on academic writing were incorporated to identify features that are unique to academic texts. Two basic assumptions guided the present analysis:

1. Academic writing is an interactive social process involving the writer, the reader, and other members of the discourse community (Sinclair, 1988; Swales, 1990; Tadros, 1993; Giltrow, 1995; Hyland, 1999a, 1999b).
2. Both temporal and non-temporal factors play a role in the choice of tense, and the same basic meanings that govern tense choice in general English are applicable to genre-specific academic discourse (Malcolm, 1987).

The first assumption is essential to the identification of text components and rhetorical functions salient to academic texts and the second to the explanations of variations in tense choice. Discussions related to the corpus and research design are provided in Chapter 3.

The quantitative analysis is presented in Chapter 4. Frequency distributions of the finite verb forms are calculated and compared at three levels: (1) overall distribution in the entire corpus, (2) across the three disciplines, and (3) across the texts within each discipline. The comparisons show the relative frequency of each of the finite verb forms in the humanities corpus and provide useful insights into general tendencies as well as discipline-specific variations in tense use across the disciplines and within the disciplines.

The contextual study is presented in Chapter 5. The analysis first identifies rhetorical functions in the corpus and notes the tense choices associated with these functions. Next, it examines the tense-function associations and explores plausible explanations for the various tense choices. The insights gained from the analysis are then applied to the discussions of tense use in units of discourse beyond the single clause level. Cross-disciplinary and intra-disciplinary variations reported in Chapter 4 are examined in light of the findings. Finally, exceptional cases of tense use are discussed.

The results from this study, in conjunction with previous findings from the natural sciences, add to the understanding of how content and context affect the choice of

grammatical forms and lead to a broader picture of tense use in academic discourse.

From a practical point of view, the results of this study can contribute to the development of teaching and reference materials to help novice writers gain proficiency in tense use in academic writing. For research purposes, the schema of analysis developed in this study can be extended to the investigation of other grammatical features, other genres, and other subject areas. Further discussions of pedagogical and research implications are presented in Chapter 6.

Chapter 2

Tense Usage Research in English for Science and Technology

This chapter reviews some of the tense studies in English for Science and Technology (EST). Most of these studies can be placed in the rhetorical-grammatical approach introduced by Lackstrom *et al.* (1970, 1973). Rhetorical-grammatical analysis has been defined as the “the process of determining how certain grammatical features correlate with certain rhetorical features, as well as attempting to determine which controls which” (Bley-Vroman and Selinker, 1984:4). Sections 2.1 and 2.2 look at definitions of rhetoric and related terms and discuss research procedures common to this approach. Section 2.3 reviews contextual studies that are concerned with establishing correspondences between tense and rhetorical function and identifying the influencing factors in tense choice in EST discourse. Section 2.4 looks at quantitative studies on the distributions of tense in EST texts. Finally, Section 2.5 provides a summary of research and findings in EST.

It should be noted that most of the studies reviewed below use ‘tense’ as a cover term to refer to both tense and aspect. For ease of reference, the same practice is adopted in the following discussions and throughout this thesis.

2.1 Definitions of Rhetoric and Rhetorical Functions

According to Lackstrom *et al.* (1970), rhetoric involves judgement concerning the organization of information and clarity of expression, as illustrated by the following definition:

[In technical writing] rhetoric manifests itself in the techniques of organization and style that the writer employs. The organizational

techniques are methods of solving various writing problems so that unity, coherence, and emphasis are maintained throughout the communication. These methods are used first to arrange the whole composition into related parts and then to arrange the parts for a total effect of clarity and forcefulness.... Style is the application of rhetorical principles to the smallest element of the composition – the sentence. It is the writer’s manner of selecting words and combining them into the sentences that constitute the paragraphs. The paragraphs in turn are organized according to some technique or combination of techniques to make up the entire composition.

(Marder 1960:5-6, cited in Lackstrom *et al.*, 1970:103)

Lackstrom *et al.* warn that the term rhetoric used here is not to be confused with the meaning of rhetoric as “the art of influencing the thought and conduct of an audience” (104).

In a later paper, Lackstrom *et al.* (1973) further define the rhetorical choices that appear to have important syntactic consequences. They construct a rhetorical-grammatical process chart, which consists of a hierarchy of levels organized in descending order:

- Level A: The purpose of the total discourse, e.g., presenting information, detailing an experiment, presenting a proposal, etc.
- Level B: The general rhetorical functions used to develop the purposes of Level A, e.g., reporting past research, discussing theory, stating purpose, describing apparatus, etc.
- Level C: The specific rhetorical devices employed to develop the functions of level B, e.g., definition, classification, explanation, description, argument, etc.
- Level D: The relational rhetorical principles that provide cohesion within and between the units of Level C, e.g., time or space order, comparison and contrast, analogy, causality, etc.

The authors propose that a choice at any level determines the choices available at the next lower level. They argue that different grammatical choices may be restricted to a particular level and that tense choices are made mostly at Level B, which represents the

rhetorical functions that make up the total discourse. In some studies, rhetorical functions are also referred to as communicative functions or communicative purposes (e.g., Hanania & Akhtar, 1985; Biber *et al.* 1998).

2.2 Research Methods

Bley-Vroman and Selinker (1984) propose the following five-step ‘optimal research strategy’ for rhetorical-grammatical studies in the academic genres:

1. Observe practical learning/teaching problems and dissatisfaction with current tools
2. Perform a ‘quick and dirty’ analysis to determine appropriate texts and units to be studied
3. State explicit initial assumptions to guide the analysis
4. Select highly-valued texts as samples
5. Consult subject-specialist informants.

Swales (1990) notes that while there seems to be general agreement regarding the first three steps, the application of the last two can be problematic. Highly-valued texts may be atypical, particularly if they are written by “powerful luminaries who are consequently able to ride rough-shod over many of the accepted linguistic and rhetorical conventions in their given field” (128). While subject specialist informants can be helpful in the tasks of text selection and interpretation, the consulting process can be time consuming and input from the different informants may be inconsistent or narrow in scope. Perhaps due to these potential drawbacks, the studies reviewed in this chapter show no indication that they adhere to the last two steps of the proposed model.

In addition to the common strategy discussed above, studies in the rhetorical-grammatical tradition are also similar in the types of samples and procedures used for

analysis. The samples used in these studies are authentic texts, mostly selected from published research writing in EST, though each study may take on a different subject area (e.g., physics vs. chemistry), a different writing genre (e.g., thesis vs. journal article), or a different section of a text (e.g., introduction vs. discussion).

As for research procedures, typically the finite verbs in the selected texts are grouped by tense, and the relationships between these tense groups and rhetorical functions are examined. The procedures diverge here for two broad types of studies: contextual and quantitative. In contextual studies, detailed analyses of texts are done to determine the reasons for the tense-rhetorical correlations. In quantitative studies, the focus is more on frequency counts to establish general tendencies of tense occurrence. The count may be done manually (e.g., Hanania and Akhtar, 1985) or electronically using computer-assisted corpus-based techniques (e.g., Biber *et al.*, 1998).

It should be noted that contextual and quantitative studies often overlap in some way. Contextual studies often make reference to patterns of use and, conversely, quantitative studies often remark on the reasons for the variations in tense use. Nonetheless, they differ in their primary focus and will be looked at separately in the following two sections.

2.3 Contextual Studies: Identifying Influencing Factors

As mentioned earlier, contextual studies aim at establishing correspondences between tense and rhetorical function and identifying the influencing factors in tense choice in EST. From these studies, a number of factors have been found to play a role in the choice of tense. Some of these are discussed in the following subsections.

2.3.1 Organizational Factors

Lackstrom *et al.* (1970, 1973) consider the organization of the paragraph to be a crucial factor in tense choice. Each paragraph consists of a core, which is a generalization in relation to the specificity of the supporting facts contained within the paragraph. The facts supporting a core idea have been found to alternate between the simple past, simple present, or the present perfect. The authors suggest that the choice of one tense over another is determined by the “degree of generality” the writer wishes to claim for the information:

- The past tense is used to claim no generality
- The present perfect conveys generalization without committing to the future
- The present tense is used for the highest degree of generality, i.e. universal truth about the world.

However, rhetorical, or organizational, considerations may place a constraint on the degree of generality expressed at various points in the paragraph and thus restrict the choice of tense (Lackstrom *et al.*, 1970). The authors observe that in technical texts, the preferred progression in a paragraph is from more to less general statements, and the use of tense has been found to reflect this progression, e.g., a sentence in the present perfect followed by a series of statements in the past.

In a later study, Shaw (1992) also emphasizes the role of organizational factors in the choice of tense. Shaw examines reporting verbs in six introductory chapters of Ph.D. theses in agricultural biology and biochemistry and finds correlations between tense, voice, and sentence types. Sentences with the names of researchers included as part of the sentence structure are usually past active; sentences without the names of researchers

are usually present perfect passive. (More discussion of sentence types follows in Section 2.3.3.)

Shaw accounts for these correlations in terms of information structure and thematization, i.e. how new topics and subtopics are indicated by the choice of appropriate sentence-themes or how the continuation of the same topic is signalled in a typical paragraph. He outlines the sequence of interactions that leads to the choice of tense. From considerations of information structure and cohesion, a particular noun is chosen as subject/theme. The choice of a particular noun as subject/theme (definite personal versus indefinite impersonal) dictates the choice of active or passive, which in turn determines the choice of tense (e.g., past for active and perfect for passive).

2.3.2 Evaluative use

A few studies have associated the choice of tense with the writer's assessment or attitude towards the nature of the claim being made about the work cited. Lackstrom *et al.* (1973:133) propose the following explanations for the choice between past and present perfect tenses in the reporting of past literature: the past is used when the past research is not related directly in terms of importance to the present work; the present perfect is used when the past research is related directly in terms of importance to the present work.

Following Lackstrom *et al.*, Oster (1981) examines the reporting of past literature in two chemical engineering technical articles. She proposes that the past is used to claim nongenerality or to refer to nonsupportive quantitative results of past literature, the present perfect is used to indicate that there will be continued discussion of the same

information later in the paper and to claim generality, and the present to refer to quantitative results that are supportive of the present work (77).

The general conclusion here is that the writer's attitude towards the work cited, i.e. the degree of generality the writer wishes to claim, or the relevance/proximity of the cited work to the present work, play a role in tense choice.

2.3.3 The Structure of References

Swales (1981, 1990) proposes an account that matches tense with structural features of reported speech. Reported statements come in various forms, e.g., direct quote, indirect speech, paraphrase, summary, and generalization (Giltrow, 1995; Hyland, 1999a). In EST research literature, the common terms used to refer to these various forms are 'integral' and 'non-integral' structures. In integral citations, the name of the researcher is included in the sentences, and in non-integral ones, the name of the researcher appears in parentheses or is referred to by a superscript number. These two categories can be further divided into reporting or non-reporting. The former involves the use of a 'reporting' verb (e.g., *show*, *establish*, *claim*), while the latter does not (Swales, 1990:148-150). Swales notes that integral reporting sentences (IR) are mostly past, non-integral reporting sentences (NR) are mostly perfect, and non-integral non-reporting sentences (NN) are mostly present (or modal), as he illustrates with these examples:

- IR-Past: Brie (1988) showed that . . .
- NR-Perfect: It has been shown that . . . (Brie, 1988)
- NN-Present (or modal): The moon may be made of cheese (Brie, 1988).

However, Swales warns that this tense-structure correlation only exhibits general tendencies and variations do occur. In a follow up of Swales's (1981) study by Ee

(1982), the past in IR citations are not found to be more than the present (37% for the former and 39% for the latter). This variation may be due to the fact that Swales's findings are based on only the introductions to journal articles while Een's results are based on the entire article. When the introductions were examined separately, the past in IR citations was found to increase to 50% in introduction sections and decrease to 29% in non-introduction sections. Een hypothesizes that the variations between the introduction and non-introduction sections may be due to the difference in the role references to past research play in the introduction and discussion sections. The author suggests that introductions typically include a systematic survey of past research in chronological order to document the evolution of the research problem and therefore may be focused more on the time of past activities. On the other hand, the discussion section typically focuses on the author's own argument and the emphasis is on what is being argued at the present moment. The variability discussed here serves as a reminder for the need to be cautious when making generalizations regarding tense-structure correlations. Based on Een's data and hypothesis, it seems that communicative functions associated with the major divisions of the text, rather than reference structure, determine the choice of tense.

2.3.4 Incorporating Temporal and Rhetorical Factors

Malcolm (1987) argues for a broader approach in which temporal meanings are considered along with rhetorical factors. She looks at the interactions between temporal meanings and rhetorical factors in tense choice in 20 articles from the *Journal of Pediatrics*. The framework for analysis consists of a three-level hierarchy: situational, rhetorical, and temporal. At the highest level are the components of the situation in which the writing occurs. The situational components restrict the kinds of rhetorical

functions a writer can express. Rhetorical functions refer to the “predominating illocutionary force expressed by each clause” (32). The tense in each clause of the articles is correlated with the rhetorical functions expressed by that clause. These tense choices are then tested to see whether they could be accounted for by temporal meanings and basic uses of the tenses, as outlined by Celce-Murcia & Larsen-Freeman (1983), Comrie (1985), Bull (1963), and Lyons (1977).

In Malcolm’s sample, the following correlations were found:

- 74% of generalizations (citations without researcher agents) were in the present tense
- 61% of references to specific experiments (indicated by a researcher agent and a footnote to only one study) were in the past tense
- 72% of references to areas of inquiry (indicated by a researcher agent and a footnote to more than one study) were in the present perfect tense.

Nonetheless, there are cases where clauses containing a researcher agent were found either in the present, the past, or the present perfect; references to ongoing research were found either in the present or the present perfect; the results of a particular experiment were found either in the past or the present. To account for these cases, Malcolm proposes a distinction between obligatory constraints and strategic choices in tense usage. Obligatory constraints operate whenever the temporal location of a situation is fixed, as demonstrated by the following examples (38):

Here we *summarize* our procedures and findings . . .

In 1970, Carey *introduced* a technique for assessing the temperamental characteristics of young infants.

Conversely, when the situation referred to has several viable time locations, strategic choices come into play, allowing the authors to choose the time location that best suits

their rhetorical purposes. Malcolm suggests that in the following two examples, the first is “a description of current practice” and the second “deals with an area of inquiry explored by many researchers” (39):

Prematurely born babies *are* sometimes *given* special stimulation in the hope of preventing some of the developmental disabilities frequently associated with prematurity.

Prematurely born babies *have* sometimes *been given* special stimulation in the hope of preventing some of the developmental disabilities frequently associated with prematurity.

In summary, the contextual studies above have helped identify some of the influencing factors in tense choice. These factors include organizational factors, degree of generality, the writer’s attitude and valuations toward the work cited, the relevance of the data to the present work, and the structure of references. However, it should be noted that tense should not be taken as the only linguistic feature employed to realize these functions. Research has identified other features such as article use and lexical choice as having similar rhetorical effects (Lackstrom *et al.* 1970, 1973; Thompson & Ye, 1991). Also, as shown in Malcolm’s (1987) study, temporal rules governing tense choice are not irrelevant and must be incorporated to provide a more adequate account of tense grammar in EST discourse.

2.4 Quantitative Studies: Establishing Tense Profiles

A number of studies have used the quantitative approach to look at the variations of tense use across the major sections of research articles. Research articles in experimental science tend to follow a standard four- or five-part organization: introduction, (review), methods, results, and discussion. These sections serve distinct

rhetorical functions, and several studies have looked at how the shifts in function across the sections affect the distributions of linguistic forms.

Heslot (1982) examines the use of tense and voice across the four sections of 16 articles from the journal *Phytopathology*. Systematic differences are found in the distributions of these forms, as shown in Table 2.1.

Table 2.1 Distribution of Tense and Voice per Section in *Phytopathology* (modified after Heslot, 1982:87)

	Introduction %	Methods %	Results %	Discussion %
Present	49	4	6	49
Past	35	94	94	39
Other forms	16	2	0	12
Active	67	17	72	84
Passive	33	83	28	16

Table 2.1 shows that active voice exceeds passive in all sections except methods. The introduction and discussion sections show a slight preference for the present. The methods and results sections are mostly past; however, the former has a high frequency of passive and the latter, active. The category ‘Other forms’ includes modals and some “very rare” occurrences of progressives or imperatives (85). Few or none of these forms occur in methods and results.

In another study, Hanania and Akhtar (1985) compare the profile of the finite verbs across the five rhetorical sections of 20 Master’s theses in biology, chemistry, and physics with respect to voice, tense, aspect, and modality. Similar to the findings of Heslot, the active verbs have a higher frequency than passives in all sections except

methods. However, the distributions of the tenses are somewhat different. Table 2.2 shows the distribution of the finite verbs by verb group and rhetorical division.

Table 2.2 Distribution of Tense and Voice per Section in Biology, Chemistry, and Physics (modified after Hanania & Akhtar, 1985:52)

	Introduction %	Review %	Methods %	Results %	Discussion %
Present	69	48	29	51	55
Past	14	35	66	38	26
Perf/Prog	6	8	2	4	4
Modals	11	9	3	7	15
Active	64	64	30	60	67
Passive	36	36	70	40	33

Unlike Heslot's sample, where the past is drastically higher in both results and methods, only the methods section has a high frequency of the past in this sample; the present is predominant in all other sections. Perfect and progressive aspects are used infrequently. Modals occur most frequently in discussion and least in methods. A cross-disciplinary comparison shows physics differs from biology and chemistry in that there is no predominance of passive verbs in methods in physics.

In a more recent study, Biber *et al.* (1998) use computer assisted corpus-based methods to track the use of tense and voice across the sections of 19 medical articles. Similar to the previous two studies, the present tense occurs most frequently in discussions and introductions; the past tense and the passives predominate in methods. For the results section, this sample shows yet a different distribution than the last two: the past exceeds the present, but not as drastically as found by Heslot.

To recapitulate, the following general tendencies are shown in EST discourse:

- Active exceeds passive except in methods
- The past predominates in methods
- The present preponderates in introductions and discussions
- The distributions in results are most varied, differing from study to study
- Perfect and progressive forms are used infrequently.

The variations in distribution found in these studies have been attributed to communicative purposes associated with the various rhetorical division or subject matter differences. For example, the high frequency of present tense in introductions and discussions is said to reflect the emphasis on the current state of knowledge and the present implications of research findings; the past in methods reflects the functions of reporting procedures used and experiments performed (Biber *et al.*, 1998). The lower frequency of passives in the methods sections of physics in Hanania & Akhtar (1985) may be due to the more theoretical nature of research in physics, as opposed to the experimental work done in biology and chemistry. The authors point out that in their sample the methods section in physics focused mostly on discussions of mathematical models and applications and made little reference to practical work.

2.5 Summary

A summary of some of the previous EST research and findings is provided in Table 2.3.

Table 2.3 Summary of EST Research and Findings

	Research in EST	Corpus of analysis	Summary of findings
Contextual studies	Lackstrom <i>et al.</i> (1970, 1973)	Unspecified science and engineering texts	Influencing factors in tense choice: <ul style="list-style-type: none"> • Organizational factors • Degree of generality • Information structure and cohesion • Writer's valuation of the work cited • Relevance or proximity to the present work • The structure of citations • Obligatory temporal constraints and optional rhetorical choices • Subject matter
	Oster (1981)	2 articles in chemical engineering	
	Een (1982)	9 articles in geotechnical engineering	
	Malcolm (1987)	20 articles in pediatrics	
	Swales (1981, 1990)	16 biological and medical articles	
	Shaw (1992)	6 introductions of Ph.D. theses in agricultural biology & biochemistry	
Quantitative studies	Wingard (1981)	5 medical articles and one medical manual	General tendencies and variations: <ul style="list-style-type: none"> • Active exceeds passive except in the methods section • Past predominates in methods • Present predominates in introductions and discussions • Distributions in the results section most varied, with the present or past as the dominant tense • Perfect and progressive occur infrequently • Modals occur most frequently in discussion and least in methods
	Heslot (1982)	16 research articles in phytopathology	
	Hanania & Akhtar (1985)	20 MS theses in biology (6), chemistry (7), & physics (7)	
	Biber <i>et al.</i> (1998)	19 medical research articles	

In relation to the enormous size of the research genre, what has been examined to date in EST represents only a small proportion of the whole. The time-consuming nature of text analysis makes it difficult to take on a large sample size or to cover a wide range of academic disciplines in any single study. However, the combined efforts of many researchers over the years have led to a fuller understanding of tense use in scientific and

technical writing. Drawing on the various research techniques developed in EST, the present study seeks to extend this understanding through the analysis of a corpus of humanities texts. First, a quantitative study was conducted to determine whether these texts display any meaningful patterns and variations in usage. A contextual study then followed to analyse usage in the texts. The corpus and methodology for these two components of the study are discussed in detail in the next chapter.

Chapter 3

Methodology

In this chapter, Section 3.1 provides a description of the corpus and discusses the selection criteria for the corpus. Section 3.2 then presents the framework and procedures for the quantitative and contextual components of the study. Definitions of relevant terms are included in this section.

3.1 Corpus

Similar to the studies in EST, the present research uses authentic texts as samples. The genre investigated is the research article, as it is considered to be the key genre and the main channel of scholarly communication in many academic discourse communities (Swales, 1990; Holmes, 1997). Three humanities disciplines representing different subject areas, English, history, and philosophy, were included in the study to allow for the examination of how differences in subject matter affect tense choice.

The corpus consists of 18 journal articles, six each from the three disciplines, which is comparable to what seems to be a common corpus size in EST research. To minimize editorial idiosyncrasies, each article was selected from a different journal.

For easy reference, the articles are coded as follows (see Appendix A for full bibliographical information):

English:

E1: (Barnes, 1998, *Studies in the Literary Imagination*)

E2: (Birch, 1999, *The Review of English Studies*)

E3: (Dobozzy, 1998, *Canadian Literature*)

E4: (Gammel, 1999, *English Studies in Canada*)

E5: (Happe, 1999, *Studies in English Literature*)

E6: (Hunter, 1998, *Essays on Canadian Writing*)

History:

H1: (Attiya, 1999, *Journal of Medieval History*)

H2: (Dickinson & Sharpe, 1999, *Historical Research*)

H3: (Gordon, 1999, *The Canadian Historical Review*)

H4: (Husband, 1998, *The Journal of Modern History*)

H5: (Scott & Rooth, 1999, *The Historical Journal*)

H6: (Stevens, 1999, *The Historian*)

Philosophy:

P1: (Blanchette, 1999, *Canadian Journal of Philosophy*)

P2: (Kovach & Fitzpatrick, 1999, *Australasian Journal of Philosophy*)

P3: (Schaeffer, 1999, *The Review of Metaphysics*)

P4: (Shaw, 1999, *The Philosophical Quarterly*)

P5: (Williams, 1999, *The Journal of Philosophy*)

P6: (Wolfsdorf, 1999, *Ancient Philosophy*)

The selection of the articles was based on several criteria. The first was length. Attempts were made to select articles of a manageable length to accommodate the time consuming nature of the analysis, and the majority of the articles in the resulting selection are under twenty pages. The second criterion was diversity of topics. The articles were selected to cover a wide range of topics so as to reduce the chance that similarity in usage within the same discipline might have been due to similarity in topics. Finally, the time

of publication was also a consideration. As writing styles and practices can change over time, all articles were selected from journals published within a two-year period, from 1998 to 1999.

To make sure that the journals and articles were representative of the fields, a professor from each discipline was consulted in the selection process. First, a list of journals for each discipline was compiled from library searches. The area professors were asked to review and to add to the lists additional journals that could be considered to be 'flagships' of the disciplines. Articles were then selected from the lists and a further consultation was made to verify that the articles were typical in terms of general approaches and disciplinary issues.

3.2 Methodology

The study examines finite verb forms in both main clauses and subordinate clauses in the main text of the articles. Excluded from analysis are captions, tables, maps, abstracts, direct quotations, footnotes, and endnotes.

The main focus of the analyses is on tense and aspect. However, the finite verb forms include verbs that are inflected for tense as well as those realized as modals. As a preliminary count showed that the modals occurred in relatively large number in the corpus, and as modality has been shown to have important functions in academic texts (Giltrow, 1995), the modals were included as one of the categories for analysis. However, the extent of the discussion of modals was limited to their functions as a group. Detailed study on the distributions and the meanings and uses of each individual modal form would have required much time and attention and are left for future research. Also

due to time constraints, the active and passive voices associated with the verb forms were not analysed in this study.

The procedures for the two components of the study are discussed below.

3.2.1 Quantitative Analysis

For this part of the study, the finite verbs were classified strictly by form with no regard to function and meaning. The forms of the English tense-aspect system, or the twelve “tenses” as commonly referred to in general English are shown in Table 3.1.

Table 3.1 The English Tense-Aspect System (adapted from Celce-Murcia and Larsen-Freeman, 1999:110)

	Aspect			
	Simple ϕ	Perfect have + -en	Progressive be + -ing	Perfect progressive have + -en be + -ing
Present	<i>write/writes</i>	<i>has/ have written</i>	<i>am/is/are writing</i>	<i>has/have been writing</i>
Past	<i>wrote</i>	<i>had written</i>	<i>was/were writing</i>	<i>had been writing</i>
Future	<i>will write</i>	<i>will have written</i>	<i>will be writing</i>	<i>will have been writing</i>

The tenses are shown as combinations of tense and aspect. While tense locates a situation in time relative to a reference point, aspect deals with the internal temporal constituency of the situation (Comrie, 1976:5). More details on the meanings of these tense-aspect combinations are presented in Section 3.2.2. As noted earlier in Chapter 2, the present study uses ‘tense’ as an overriding term to refer to the tense-aspect combinations.

The “future tense” is usually not considered to be a tense in English in a form-orientated account of tense, since there is no future inflection of the finite verb stems in

English (Celce-Murcia & Larsen-Freeman, 1999). However, for practical use, there are a number of ways to express future time. One common future expression, usually referred to as the simple future, is the periphrastic form *will* followed by the base form of the main verb, as listed in Table 3.1 above.

The modals considered in this study are *can*, *could*, *may*, *might*, *will*, *would*, *shall*, *should*, *ought*, and *must*. The modal form *can* can be used to express either temporal meanings or modality. For example, *will* or *shall* can express volition or can be used as an auxiliary verb to express future time. Similarly, *could*, *should*, *would*, and *might* can express possibility or can be the past tense form of *can*, *shall*, *will*, and *may*. As this part of the study focused strictly on form, all instances of the modal forms, whether expressing time or modality, were included in the modal category. The future tenses formed by *will* or *shall* are dealt with later in the contextual study.

The categories for the count thus include the simple present, simple past, present perfect, past perfect, present progressive, past progressive, present perfect progressive, past perfect progressive, and modals.

The tasks of identifying and counting the finite verb forms were done manually rather than electronically because it was more time efficient in this case. As the articles were selected from printed journals, to do an electronic analysis would have required a considerable amount of time to scan the texts into machine-readable form, tag the corpus for parts of speech, and write a program sophisticated enough to differentiate all the tenses. Furthermore, as the contextual part of the study required detailed reading of the texts, the time spent going through the texts manually was fruitful in the long run.

After classifying and counting, frequencies were calculated and comparisons were made at three different levels to determine general tendencies and variations:

- Overall distribution of verb forms in the entire corpus: To calculate overall frequency, the total number of occurrences of each form was divided by the total number of finite verbs found in the corpus.
- Cross-disciplinary comparison: For each discipline, the frequencies were obtained by dividing the total occurrences of each form in the discipline by the total number of finite verbs in that discipline.
- Intra-disciplinary comparison: For comparison within each discipline, the frequencies of the verb forms for each text were determined by dividing the number of occurrences of each form in a text by the total number of finite verbs in that text.

3.2.2 Contextual Analysis

While the quantitative analysis focuses on the distribution of forms, the contextual analysis centers on the functions and meanings expressed by the tenses. It should be made clear from the outset that the scope of the analysis is limited to the linguistic behavior of the finite verb forms in the context of academic writing. No judgement on the presentation of arguments or writing styles of the individual writers will be made. Any comments on these matters are strictly related to how they affect the use of tense. Similarly, comments on disciplinary variations in writing practices and conventions are limited to the effect they have on tense choice as observed in the corpus. Furthermore, the study makes no value judgement on the effectiveness or 'correctness' of any particular choices – it only describes what actually occurs in the corpus and offers

interpretations based on criteria described below. Finally, not all cases of tense use in the corpus are covered in the analysis. In order to examine the entire article rather than a small section of the article (e.g., introduction or conclusion), it was necessary to have a classification scheme with a small set of broad categories that captured the essence of an academic text without being encumbered by too much detail. With these in mind, the procedures and framework for analysis are presented below.

Before commencing the analysis of tense use, the text components and rhetorical functions common to the research article genre were identified. To differentiate text components, Sinclair's (1988) assumption that writing is an interactive process was adopted. Sinclair uses a method of description derived from the analysis of spoken discourse to describe written text. He reasons:

No matter that it is commonly performed in isolation; the competent writer is sensitive to his readers in a similar way to a competent conversationalist. In fact it can be claimed that a writer must be even more able to work interactively than a speaker, because the writer has to imagine the reader's behavior, while the speaker is face to face with it. Also a writer has to allow for a considerable range of readership. (15)

Sinclair introduces the notions of text averral and attribution as elements in the organization of interaction in the written text. Tadros (1993) adapts these notions to the analysis of academic texts. According to Tadros, an academic written text is made up of various voices grouped into the broad categories of averral and attribution:

- *Averral*: The voice of the person writing the text, through which the writer communicates with the readers.
- *Attribution*: The voices attributed to others, through which the writer positions the present work in relation to the larger academic discourse community.

The notions of text averral and attribution capture the characteristic of the research paper as “a rhetorically sophisticated artifact that displays a careful balance of factual information and social interaction” (Hyland, 1999b:341) and were thus adopted here as the criteria for the classification of text components.

The two components serve various rhetorical functions. The present analysis borrows Malcolm’s (1987) classification scheme and groups these functions into two broad categories, ‘*deictic*’ and ‘*referential*’, with some modifications to the membership under each category. The modified definitions are presented below:

- *Deictic*: Directives or pointers through which the writer guides the reader through the text, revealing the structure of discourse or offering commentary and evaluations.
- *Referential*: References to primary or secondary sources. A primary source is first-hand information that serves to support an argument. A secondary source is previous research on the same or a related topic that serves to “contextualize a research article within the continuum of debate in a particular field of knowledge” as well as to justify the pursuit of the current research (Jacoby, 1987:33). Note that a common term used to refer to references to other sources is reported speech.

While Malcolm’s referential category includes references to the writer’s own specific experiments, for the present study it was necessary to modify the definition to reflect the non-experimental nature of the humanities corpus. In non-experiment reports, the major source of supporting evidence comes not from writer-constructed scientific experiments but from primary sources already in existence. For example, in English, the writer refers to the literary works, letters, and diaries of the authors under study to

support an interpretation. In philosophy, the writer refers to the works of philosophers, doctrines, theories, or principles to argue for or against a concept or opinion. In history, the writer relies on surviving records created by eyewitnesses or participants of the events during the period under investigation to support generalizations and interpretations (Furay & Salevouris, 1988:138). In the present corpus, these records include government archives, court documents, correspondences, conversations, minutes, a radio address, parliamentary debates, memoranda, and so on.

An outline of the text components and rhetorical functions is provided in Table 3.2.

Table 3.2 Text Components and Rhetorical Functions in the Humanities Articles

Text Components	Rhetorical functions	
	Broad categories	Specific functions
Averral: the writer's voice	Deictic: to guide the reader through the text, focus attention, or make sure the text is interpreted in the intended way	Statement of purpose Outlining argument Recapitulation Commentary and Evaluation
Attribution: the voices of other authors	Referential: to provide support and give credentials to arguments, or to position the writer in relation to others in the academic discourse community	References to previous research References to primary sources

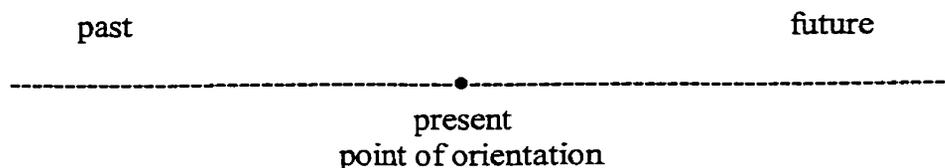
To begin the analysis, the rhetorical functions listed in the table and their associated tense choices were identified from the corpus. Next, the tense and rhetorical associations were examined in terms of time and meanings and plausible explanations for

each choice were explored. For the examinations of tense and time relationships, the following definitions were adapted from various sources.

Tense and Time

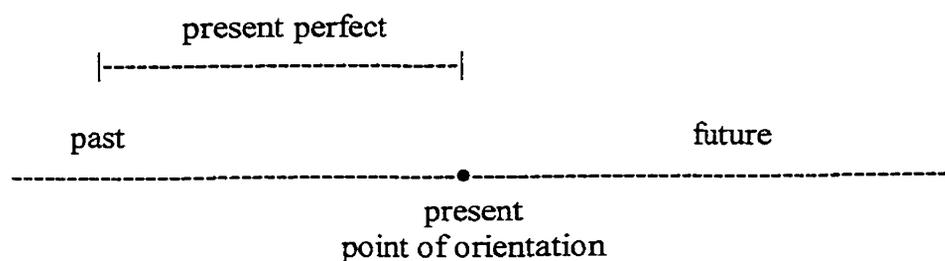
- *Tense*: The grammatical category that relates situations to a point of reference (Comrie, 1985).
- *Point of reference*: A reference point from which the relative time location of the situation described is placed. In spoken discourse, this point of reference is usually the present moment 'now', and the moment of speaking is usually the same as the moment of hearing. In written discourse, the time of writing and reading are not the same, and situations can be considered in relation to either the time of writing or the time of reading (Comrie, 1985; Jackson, 1990). Other terms used interchangeably to refer to the point of reference are point of orientation, reference point, and perspective.
- *Situations*: The various types of functions and references identified in Table 3.2. They may be time-bound activities and events, or time-independent assertions, generalizations, etc.
- *Simple Present*: The tense that locates a situation at the same time as the present moment (instantaneous present) or over an extended period of time which includes the present moment (unrestrictive present) (Leech, 1987).
- *Simple Past*: The tense that locates a situation prior to the present moment.
- *Simple Future*: The tense that locates a situation subsequent to the present moment.

The relationship between these various time locations relative to the moment of utterance 'now' is illustrated in the following time continuum (Jackson, 1990:77):

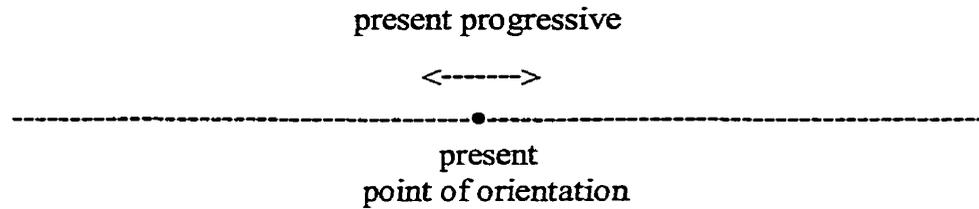


The tense choice of past, present, or future relative to the time of speech is referred to as the primary tense or absolute tense (Halliday, 1993, 1994; Lock, 1996). The time frame of the primary tense can be taken as the reference point for another selection of past, present, or future, resulting in secondary tenses relative to the primary one. For example, the present from the first time choice can serve as a reference point, and the selection of past or present relative to this point is the present perfect or present progressive, respectively.

- *Present Perfect*: Locates a situation started prior to the present moment and continues into the present moment.

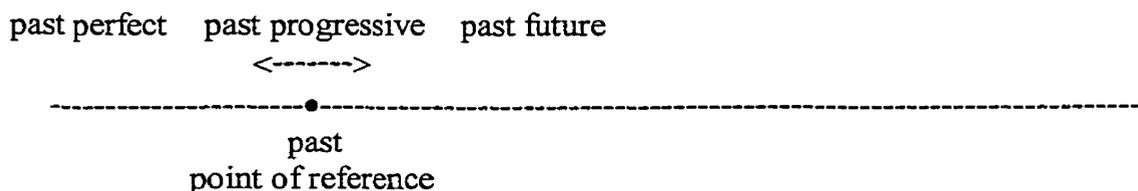


- *Present Progressive*: Places a situation in a time span which includes the present moment and stretches for a limited period into the past and future (Leech, 1987:19).



As another example, when the past from the first time choice serves as a reference point for further choices, the secondary tenses include the past perfect (past-in-past), past progressive (present-in-past), and past future (future-in-past).

- *Past Perfect*: Locates a situation prior to a point in the past. It is “a time further in the past, seen from the viewpoint of a definite point of time already in the past” (Leech, 1987:47).
- *Past Progressive*: Locates a situation over a limited time span including the past point of reference.
- *Past Future*: Locates a situation subsequent to a point in the past. The past future is not one of the twelve tenses but is necessary in usage to indicate a time relative to the past point of reference. Its common form is *would* followed by the base form of the main verb.



The past point of orientation is typical of narrative texts conventionally written in the past tense and is particularly useful in the analysis of the history texts.

Finally, the time frame for the modals is considered below:

- *Modals – Temporal*: As said earlier, the modal verbs will and shall can be used to form the simple future tense, and could, would, might, and should can be used to

express the past time of the related present-tense forms can, will, may, and shall.

In these cases, the same time related definitions as those given above apply.

- *Modals – Modality*: Modals can be used to express modality, adding to a proposition “an attitudinal component, giving the hearer (or reader) an assessment of the possibility, likelihood, probability, etc.” of a situation (Jackson, 1990:99). When used to express modality, the modals are regarded as tenseless and the time frame is the unrestrictive present.

Meanings and Uses

For the relationships between tense and meanings and uses, Celce-Murcia and Larsen-Freeman (1999) offer comprehensive descriptions that cover a wide range of situations. Examples showing these relationships are presented in Table 3.3.

Table 3.3 Basic Meanings and Uses of the Tense Categories (adapted from Celce-Murcia & Larsen-Freeman, 1999:111-122)

Tenses	Core meanings	Basic uses
Simple Present	Complete and unchanging; immediate factuality	Habitual actions in the present General timeless truths States (with be or other stative verbs) Future conditionals (in subordinate clause) Future (scheduled event) Present event/action (in sporting events or demonstrations/procedures) Present speech acts (action accomplished in the speaking of it) Conversational historical present (past events in narration)
Simple Past	Completeness or remoteness	A definite single completed event/action in the past Habitual or repeated action/event in the past An event with duration applied in the past and no longer applied in the present States in the past Imaginative conditional in the subordinate clause Social distancing

Table 3.3 (continued)

Tenses	Core meanings	Basic uses
Simple Future with will	Strong predictions	An action to take place at some definite future time A future habitual action or state A present situation with future termination in sight Future conditionals (in main clause)
Present Perfect	Retrospective point of view from the present to a time prior to now	A situation that began at a prior point in time and continues into the present An action occurring or not occurring at an unspecified prior time that has current relevance A very recently completed action (with just) An action that occurred over a prior time period and that is completed at the moment of speaking Conditionals (in subordinate clauses of time or condition)
Past Perfect	Retrospective point of view on some past time	An action completed in the past prior to some other past event or time Imaginative conditional in a subordinate clause (referring to past time)
Present Progressive	Imperfective – portrays events as being incomplete or somehow limited; temporary	Activity in progress Extended present (with limited duration) A temporary situation Repetition or iteration in a series of similar ongoing actions Future (planned events) Emotional comment on present habit (usually co-occurs with frequency adverbs) A change in progress
Past Progressive	Incomplete event in the past time frame	An action in progress at a specific point of time in the past Past action simultaneous with some other event that is usually stated in the simple past Repetition or iteration of some ongoing past action Social distancing (from the past tense with a sense of tentativeness added)

Table 3.3 illustrates how the core meanings of tenses are related to a broad range of uses. However, these descriptions are mostly relevant to general everyday situations. The present study looks at how these general descriptions can be related to rhetorical uses specific to academic writing.

Chapter 4

Tense Profiles in the Humanities Corpus

The quantitative analysis of the humanities corpus reveals some general patterns of use. The following sections examine these patterns. First, the distribution of the finite verb forms over the entire corpus is presented in Section 4.1. Next, a cross-disciplinary comparison is made in Section 4.2, followed by a comparison of the individual texts within each discipline in Section 4.3. Finally, Section 4.4 summarizes the findings from the analysis.

4.1 Distribution of Finite Verb Forms in the Corpus

The finite verbs in the 18 journal articles were identified and counted. A total of 10,188 finite verbs were found. These were classified by tense form, with the modals placed in a separate group. Table 4.1 shows the number of occurrences and the frequency of each form.

Table 4.1 The Distribution of Finite Verb Forms in 18 Humanities Articles

Verb forms	# of occurrences	Frequency (%)
Simp Pres	5327	52.3
Simp Past	3128	30.7
Modal	1272	12.5
Pres Perf	188	1.8
Past Perf	158	1.6
Pres Prog	66	0.6
Past Prog	46	0.5
Pres Perf Prog	1	--
Past Perf Prog	2	--

As can be seen in Table 4.1, the simple present tense occurs most frequently, followed by the simple past. The combined total for the simple present and past tenses is 83.0 percent. There is a drastic drop in the use of the present and past perfect and progressive forms. The combined total for the four tenses is only 4.5 percent. The modal category is relatively high at 12.5 percent. The two most complex forms, the present and past perfect progressive, are extremely rare, with only three occurrences out of the 10,188 verbs. Because of the low frequency, these two forms are excluded from further analysis and the total number of finite verbs used for calculation is thus reduced to 10,185.

Figure 4.1 presents the frequencies of these finite verbs graphically.

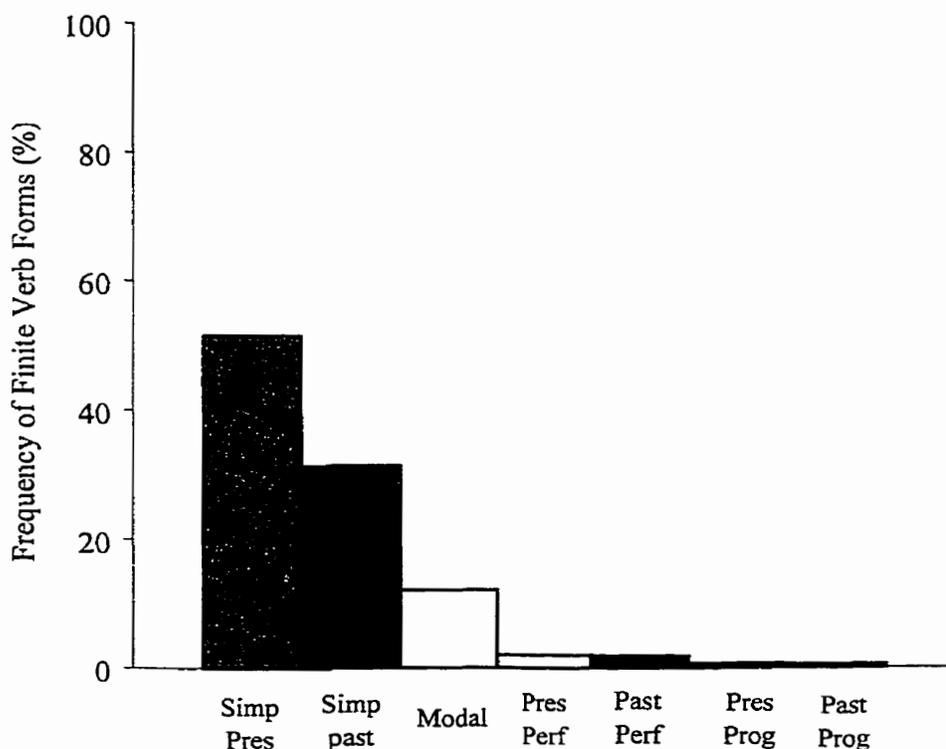


Figure 4.1 The Distribution of Finite Verb Forms in the Humanities Corpus ($N = 10,185$)

To look at variability within the corpus, an alternative method of calculating the frequencies of the verb forms was used. For a given verb form, the frequency of its occurrence in each article was calculated, then these frequencies were averaged over the 18 articles, giving the mean and standard deviation values presented in Table 4.2.

Table 4.2 Mean Frequencies and Standard Deviations of the Finite Verb Forms in the Corpus

Verb Forms	Mean	S.D.
Simp Pres	51.5	32.5
Simp Past	31.4	32.9
Modal	12.1	4.8
Pres Perf	2.0	1.4
Past Perf	1.8	2.3
Pres Prog	0.7	0.7
Past Prog	0.5	0.6

The large standard deviations for the simple present and simple past indicate a high level of variability. The implication is that no meaningful generalization can be made at this level, when the three disciplines are considered together. The reason for this high level of dispersion will become clear when the three disciplines are examined separately, as presented in the next section.

4.2 Cross-disciplinary Comparison

In this section, the distributions of the verb forms for each discipline are presented and comparisons are made across the three disciplines. The corpus yielded 3,023 finite verbs in English, 3,466 in history, and 3696 in philosophy. Table 4.3 presents the distribution and frequency of these forms by discipline. Under each discipline heading,

the first column reports the number of occurrences of each verb form. The second column shows the frequencies of the corresponding forms, which are presented graphically in Figure 4.2.

Table 4.3 Distribution of Finite Verb Forms by Discipline

	English		History		Philosophy	
	# of Occur	Freq (%)	# of Occur	Freq (%)	# of Occur	Freq (%)
Simp Pres	2181	72.1	310	8.9	2836	76.7
Simp Past	405	13.4	2608	75.2	115	3.1
Modal	273	9.0	359	10.4	640	17.3
Pres Perf	92	3.0	35	1.0	61	1.7
Past Perf	37	1.2	118	3.4	3	0.1
Pres Prog	23	0.8	2	0.1	41	1.1
Past Prog	12	0.4	34	1.0	--	--
Totals	3023	100	3466	100	3696	100

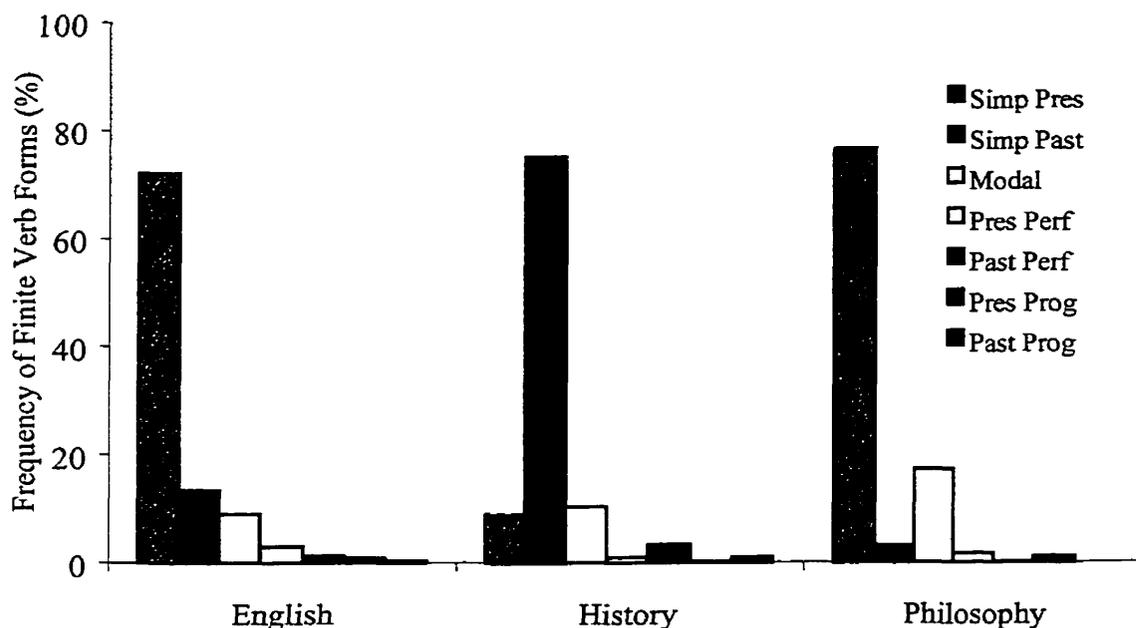


Figure 4.2 Distribution of Finite Verb Forms in English ($N = 3023$), History ($N = 3466$), and Philosophy ($N = 3696$)

Several general trends can be observed from the distributions:

- Each discipline has one preponderant form: simple present in English and philosophy, simple past in history.
- The use of modals is relatively high, particularly in philosophy.
- The use of the perfect and progressive forms is low in all three disciplines.
- English and philosophy appear to be similar in that they both have a high frequency of the simple present. However, they differ in that English has a higher frequency of the simple past while philosophy has a higher frequency of modals.
- There is a pairing of the relative tense and absolute tense, i.e. the present perfect shows up more often where the simple present is high (English and philosophy); the past perfect occurs more often when the simple past is high (history). The past perfect is almost absent in philosophy where the past tense is very low.

The cross-disciplinary comparison shows that while sharing some common characteristics, each discipline has its own distinct pattern of use. This explains the high level of dispersion shown earlier in Section 4.1 and suggests that when looking at tense usage, each discipline must be examined separately.

Finally, to find out whether the distribution within each discipline is consistent enough for any generalization to be drawn, the patterns of use of the individual articles were examined.

4.3 Intra-Disciplinary Comparison

The following subsections show the frequencies of the verb forms for each individual text. The three disciplines are presented separately.

4.3.1 History

The frequencies for each history text are presented in Table 4.4 together with the mean frequencies and standard deviations for the forms. For the number of occurrences of the verb forms in each text, see Table B.2 in Appendix B.

Table 4.4 Percentage Distribution of Finite Verb Forms in Six History Articles

	H1	H2	H3	H4	H5	H6	Mean	S.D.
Simp Pres	20.8	16.1	12.7	2.5	5.6	0.6	9.7	8.1
Simp Past	65.9	66.7	73.0	85.7	74.9	77.6	74.0	7.4
Modal	9.4	11.1	10.7	7.4	10.0	14.7	10.5	2.4
Pres Perf	1.2	1.7	0.8	0.1	3.4	0	1.2	1.3
Past Perf	2.1	3.3	2.5	2.9	5.4	5.0	3.5	1.3
Pres Prog	0	0.3	0	0	0	0	0.1	0.1
Past Prog	0.6	0.7	0.4	1.3	0.7	2.1	1.0	0.6

The verb profile is quite consistent across the six history texts, with the simple past tense predominant, as can be seen clearly in Figure 4.3. Consistently across the texts, the progressive tenses are used least frequently, with the total absence of the present progressive in five of the articles. The use of present and past perfect is also quite low, with the past perfect slightly higher than the present perfect throughout. The modals range from 7.4 percent in H4 to a high of 14.7 percent in H6. The simple present shows the most variation, ranging from a low of 0.6 percent in H6 to 20.8 percent in H1. This high level of variability in the simple present is reflected in the high standard deviation shown in Table 4.4.

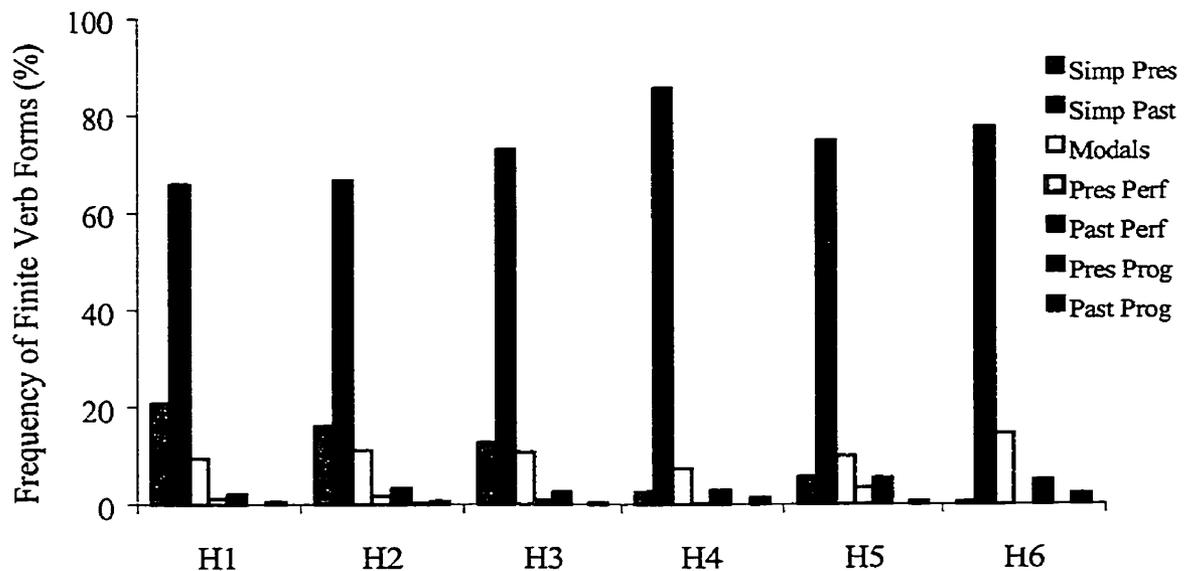


Figure 4.3 Distribution of Finite Verb Forms in Six History Articles ($N = 3466$)

4.3.2 Philosophy

Table 4.5 shows the frequency count for each philosophy text and the means and standard deviations (see Table B.3 in Appendix B for number of occurrences).

Table 4.5 Percentage Distribution of Finite Verb Forms in Six Philosophy Articles

	P1	P2	P3	P4	P5	P6	Mean	S.D.
Simp Pres	82.0	74.7	81.2	72.2	81.9	67.8	76.6	6.0
Simp Past	1.3	1.3	2.7	3.7	1.3	9.4	3.3	3.1
Modals	13.5	21.2	14.8	20.6	15.4	17.4	17.2	3.2
Pres Perf	2.3	1.2	0.8	2.4	0.9	2.5	1.7	0.8
Past Perf	0	0	0	0	0	0.6	0.1	0.2
Pres Prog	0.9	1.6	0.5	1.0	0.4	2.3	1.1	0.7
Past Prog	0	0	0	0	0	0	0.0	0.0

Similar to history, the distribution is also consistent across the six texts in philosophy but with the simple present tense predominating in this case, as shown in Figure 4.4. The modal category is relatively high, ranging from 13.5 percent in P1 to 21.2 percent in P2. It stands out on the graph as the form with the next highest frequency. The past tenses are consistently low across all the texts in philosophy: the past progressive and past perfect are almost non-existent; the simple past is very low except in P6 (9.4 percent).

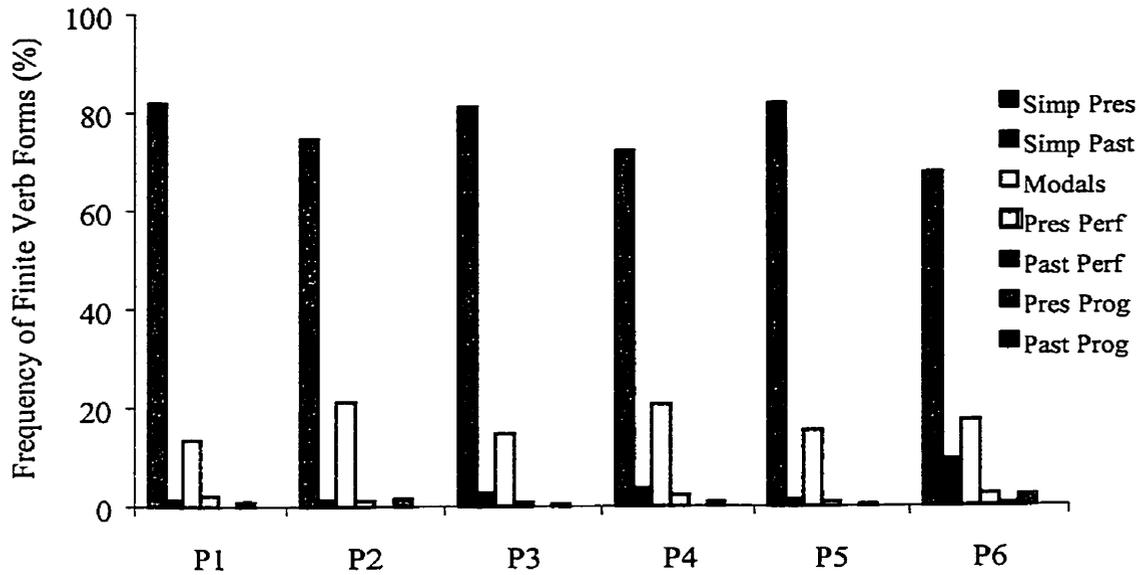


Figure 4.4 Distribution of Finite Verb Forms in Six Philosophy Articles ($N = 3696$)

4.3.3 English

Table 4.6 shows the distribution of each verb form and the mean and standard deviation in each of the English articles (see Table B.1 in Appendix B for number of occurrences).

Table 4.6 Percentage Distribution of Finite Verb Forms in Six English Articles

	E1	E2	E3	E4	E5	E6	Mean	S.D.
Simp Pres	82.2	44.3	86.6	54.2	60.0	82.1	68.2	17.7
Simp Past	7.4	36.9	3.1	34.0	17.8	1.9	16.9	15.5
Modals	7.8	6.7	8.1	4.0	14.9	10.8	8.7	3.7
Pres Perf	2.4	1.3	2.1	5.7	3.5	3.5	3.1	1.5
Past Perf	0.2	8.0	0	0.5	1.9	0	1.8	3.1
Pres Prog	0	1.6	0	0.3	1.5	1.6	0.8	0.8
Past Prog	0	1.3	0	1.3	0.4	0.2	0.5	0.6

The English articles show the most variations from text to text, as can be seen in Figure 4.5. Though the simple present is still the dominant tense throughout, E2 and E4 show high use of the simple past tense compared to the other texts. This high level of variability for the simple present and simple past is reflected in the large standard deviations listed in Table 4.6. The present perfect is higher than the past perfect except in E2, and the progressives are low in all texts.

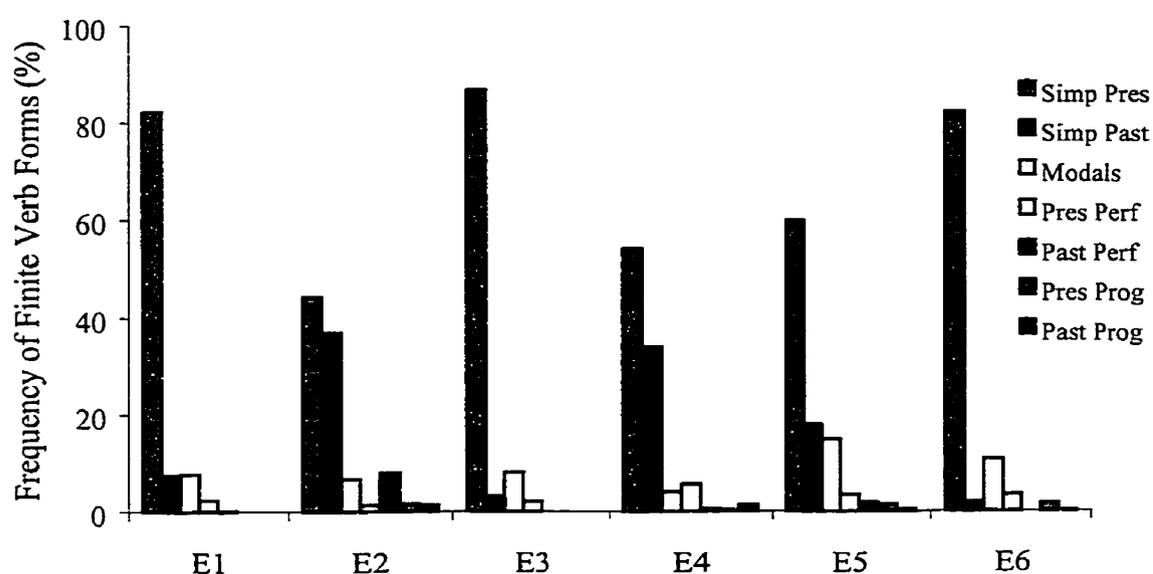


Figure 4.5 Distribution of Finite Verb Forms in Six English Articles ($N = 3023$)

4.4 Summary

To recapitulate, the findings show some general tendencies across the three humanities disciplines:

- The two simple tenses are used most frequently in all three disciplines
- Modals are relatively common in all disciplines

- The perfect and progressive forms are used infrequently, with the progressive the least frequent
- The present and past perfect progressive are almost totally absent.

As well, the analysis reveals certain discipline-specific variations:

- History is consistent in the high use of the simple past
- Philosophy can be characterized by its high use of the simple present and modals
- English shows a higher level of variability in its use of the simple present and past.

The above quantitative analysis provides some useful insights into the patterns and variations in tense use in the humanities disciplines. In the next chapter, a detailed text analysis is conducted to identify factors that affect choice and to examine the reasons for the variations.

Chapter 5

Influencing Factors in Tense Choice in the Humanities

This chapter presents the contextual component of the analysis. First, Section 5.1 identifies the rhetorical functions in the corpus and notes the tense choices associated with these functions. Section 5.2 analyzes these tense-function associations in terms of time and meanings and explores probable explanations and interpretations for the choices. Section 5.3 applies the analysis to units of discourse beyond the single clause level and discusses discrepancies between general descriptions and actual usage. In Section 5.4, cross-disciplinary and intra-disciplinary variations presented in Chapter 4 are examined in light of the findings. Finally, Section 5.5 looks at instances of strategic choices in tense use.

5.1 Tense and Rhetorical Function Associations

As proposed in Chapter 3, the present analysis adopts Tadros's (1993) notions of text averral and attribution as the basic text components of an academic text. Averral refers to the parts of a text attributed to the person writing the text; attribution refers to parts attributed to the other sources. Throughout the discussion, the convention of referring to the person citing as the 'writer' and the person cited as the 'author' is adopted (Thompson and Ye, 1991; Hyland, 1999a)

The rhetorical functions under the two text components were differentiated according to the modified version of Malcolm's (1987) deictic and referential categories defined in Chapter 3. In the following subsections, the deictic and referential functions and their associated tenses are illustrated with examples from the corpus. The journal

articles and the page numbers from which these examples were taken are shown in parentheses. Within each function category, the examples are grouped by verb forms.

5.1.1 Deictic Functions

Deictics, as defined earlier, are utterances through which the writer communicates with the reader, telling the reader what is coming up, what has been done in the text, or how data are interpreted. Included in this group are metatextual devices and commentary and evaluation attributed to the writer.

5.1.1.1 Metatextual Devices

The term metatextual is borrowed from Brett (1994) to refer to “parts of the text which refer to the data or to other written sections; it is text about the text, not furthering the writer’s argument, but guiding the reader to other parts of the writing” (52). Included in this category are what Tadros (1993) calls advance labelling and recapitulation.

Advance labelling indicates to the reader what is happening or what is coming up in the article. Stating purpose and announcing arguments are two common functions in this category.

Stating Purpose

The function of stating purpose occurs in all three disciplines – all but one article (E3) in the corpus include in their introduction an explicit statement to announce the purpose or the nature of research. The finite verb forms associated with this function include the simple present, the modal phrase *would like to*, the simple future, and the present progressive:

Simple Present:

This paper examines . . . (E1, 19)

This essay begins by mapping . . . (E4, 40)

I intend to adopt a different approach, which is to examine . . . (H1, 203)

This study is about . . . (H6, 539)

The purpose of this paper is . . . (P1, 206)

In this paper we offer an account of . . . (P2, 44)

Modal Phrase *would like to*:

I would like to discuss . . . (P5, 545)

In this paper, I would like to enter into . . . (P6, 13)

Simple Future – Modal *will/shall* + main verb:

. . . as I shall argue in this article . . . (E2, 332)

As I will argue . . . (E6, 13)

. . . this case study . . . will set out to demonstrate . . . (H3, 4)

This article will explore . . . (H4, 77)

In what follows I will argue that . . . (P3, 642)

I shall try to show . . . (P4, 353)

Present Progressive:

While I shall deal with . . . , I am aiming . . . (E5, 233)

What we are seeking to offer in this article is . . . (H2, 142)

The modal phrase “I would like to” can be treated as a polite or informal way of declaring “I want to” or “I intend to” and is thus combined with the simple present group for the purpose of analysis.

Outlining Argument

The function of outlining argument was found to associate with either the simple present or future:

We distinguish between . . . , survey some candidate analyses . . . and then argue that. . . We offer reasons for. . . Finally we draw attention to. . . (P2, 161)

I want to begin this paper by. . . . After this, I will move to. . . . I will present some criticisms of. . . and propose that. . . . In doing so, I will also be suggesting directions toward an alternative approach. . . . (P6, 13)

Both examples above are from the introduction section of philosophy articles. No instance was found in the English and history articles. Outlining arguments at the outset does not appear to be a common move in this corpus.

Recapitulation

Recapitulation indicates to the reader what has been presented before. This device is a common move in all three disciplines. The tenses used are the present perfect and the simple past:

Simple Past:

In fact, as we saw in the previous section, . . . (P4, 357)

Present perfect:

As I have already hinted, . . . (E5, 240)

In all of the examples in the metatextual category, the writer's presence is apparent through the use of the first person pronoun, or through the personification of the writer's work, e.g., "This article will explore . . ." or "This essay begins by. . ." The deictic determiner 'this' points to the present work.

5.1.1.2 Commentary and Evaluation

Also common to all three disciplines are commentary and evaluation from the writer. These utterances serve to make clear to the reader the writer's point of view, to focus the reader's attention, or to direct the reader to interpret the information in a way that is intended by the writer. This function is often recognizable by a first person subject

or by what Thetela (1997:110) calls the objective type subject ‘it’. A modal adjunct such as *perhaps*, *possibly*, or *obviously* often accompanies the statement. The tense choices are simple present or modals:

Simple Present:

Perhaps the best way to discuss Imperial Majesty <u>is</u> . . .	(E5, 241)
It <u>is</u> perhaps of little surprise that . . .	(H3, 24)
We <u>think</u> Begelow <i>et al.</i> are on the right track, but . . .	(P2, 167)

Modal:

It <u>should</u> come as no surprise then that . . .	(E1, 21)
We <u>must</u> assume that . . .	(H2, 157)

5.1.2 Referential Functions

References to other sources, or reported speech, are realized in a variety of forms in the corpus, which are classified into two broad categories on the basis of whether or not they include a signaling element in their structure. Table 5.1 provides examples of these types of structure. The first column shows the signalling element which introduces the source and, through a reporting verb, attributes a stance to the source, i.e. whether it is “arguing a point, making an observation, reporting a fact, drawing a conclusion, refuting an argument, or stating a belief” (Hacker, 1989:173). The second column shows the content of the material cited. This propositional content can occur with or without a signal phrase. The third column shows the labels used in EST literature to refer to the various types of reported speech (e.g., Swales, 1990; Shaw, 1992). References with the name of the source and a reporting verb integrated in the signal phrase are referred to as integral reporting (IR); references with a reporting verb but without the source name in

the signalling element are referred to as non-integral reporting (NR); references without a signalling element are referred as non-integral non-reporting (NN).

Table 5.1 Structure of References

Signal phrase <i>x says</i>	Propositional content <i>"y" or gist of y</i>	Labels used in EST
In his first sentence Aristotle <u>states</u> unequivocally (simple present)	that human beings <u>desire</u> to know, without saying what it <u>is</u> they <u>desire</u> to know. (P3, 642) (simple present)	integral reporting IR
. . . a study by Pollins <u>has suggested</u> (present perfect)	that the transfer of the fashion clothing trade from Berlin and Austria to Britain via refugee entrepreneurs <u>was</u> of even greater economic importance. (H5, 506) (simple past)	integral reporting IR
It <u>has been estimated</u> that . . . (present perfect)	in 1935 about 30 per cent of Britain's gross manufacturing output <u>was controlled</u> by trade association cartel arrangements. ⁶² (H5, 507) (simple past)	Non-integral reporting NR
Nil [source appears earlier in the same paragraph]	Both Gilbert and Hooker <u>think</u> that they <u>must</u> <u>warn</u> the family, but they <u>are</u> unable to do so. (E6, 23)	Non-integral non-reporting NN
Nil [source referred to in footnote]	But Washington <u>did not fall</u> into line; the State Department <u>fired back</u> a response to Norweb's report of the offer instructing him to demand nothing less than a complete embargo. ⁴⁷ (H6, 553)	Non-integral non-reporting NN

As can be seen from the table, the tenses associated with the signalling element are not necessarily the same as those of the propositional content. They are reported separately in the following subsections.

5.1.2.1 Signal Element – Previous Research

The tenses associated with the signal element of references to past research can be found in the simple present, present perfect, and simple past.

Simple present:

Bloom <u>writes</u> of Ruskin: “. . . ”	(E2, 343)
Professor H. E. Mayer <u>believes</u> that . . .	(H1, 205)
Benardete <u>stresses</u> the fact that . . .	(P3, 650)

Present perfect:

As Laurie Ricou <u>has said</u> , . . .	(E6, 13)
Some scholars <u>have concluded</u> that . . .	(H1, 203)
John Perry <u>has argued</u> . . .	(P1, 215)

Simple past:

At this time [1941], Professor J. L. La Monte <u>tried</u> to demonstrate . . .	(H3, 203)
In 1988, Charles Griswold <u>edited</u> a collection of essays . . .	(P6, 13)

The choice between the simple present and present perfect varies among the individual writers. For example, the writers for E1, E3, and E5 use the simple present exclusively in all of the signal phrases in the articles, but the writer of E4 uses the present perfect more frequently than the simple present.

5.1.2.2 Signal Element – Primary Sources

The signal element of the references to primary sources is primarily found in the simple present or the simple past.

Simple Present:

Ruskin <u>writes</u> of climbing above his favourite Derwentwater . . .	(E2, 337)
In his first sentence Aristotle <u>states</u> unequivocally that . . .	(P3, 642)

Bristol's patronage papers suggest he deserves . . . (H3, 5)

Simple Past:

As a 9-year-old, in 1828, he [Ruskin] wrote a poem recalling . . . (E2, 335)

Unlike the signal element for secondary sources, only a couple of instances of the present perfect are found in the signals for primary sources. A few instances of the present progressive and simple future also occur. These exceptional cases are discussed in Section 5.5.

5.1.2.3 Propositional Content

Much of the cited material in the corpus has been found to be discipline specific. This is not surprising as each discipline deals with a different subject area. The major content areas identified in the articles and their associated tenses are shown below.

Fictional Events and Characters

In the English articles, references to fictional events and characters are used frequently to support a generalization or interpretation. The predominant tense for these references is the simple present:

Gilbert himself displays the romanticized gestures of the poet. True to popular stereotype, he drinks and smokes to excess, suffers from an "illness of the heart" (64), and is misunderstood by those around him. (E6, 24)

While the simple present is the dominant tense in references to fictional events and characters, the simple past, future, present progressive, and present perfect, in much lower frequency, are also found in the corpus. Examples of these will be given in the analysis section (Section 5.2.2.3)

Historical Figures or Events

In history, references to historical figures or past events are the common supporting evidence cited and these are predominantly in the simple past:

. . . in the period from the Revolution until the mid-1920s the Bolshevik Party directed the main thrust of its coercive and ideological antireligious assault not against individual believers but against church hierarchs and the institutional and property base of religion of the country. (H4, 79)

As a result, not even Tory newspapers bothered to quote Bristol's speeches at any length . . . (H3, 6)

The past perfect, past progressive, and past future also occur, though much less frequently (see examples in Section 5.2.2.3).

Philosophical Ideas and Assertions

In philosophy, references to philosophical ideas and positions are common and the tense used is predominately the simple present:

The cardinality of a set is just the cardinality of every concept whose extension is that set. (P1, 208)

Wisdom (somehow) both is and is not a separate form of knowledge, just as self-reflection both is and is not separable from that which is reflected upon, and just as the state of knowledge to which human beings aspire both is and is not about content. (P3, 648)

5.1.3 Summary

The previous sections have identified the rhetorical categories and tense-function associations in the corpus. A summary is provided below in Table 5.2. In categories where several less frequent tenses occur in addition to a dominant tense, only the dominant tense is listed in the table; the other tenses are discussed in the analysis section.

Table 5.2 Rhetorical Categories and Tense-Function Associations

Rhetorical functions		Tenses	
Deictic	Advance Labelling	stating purpose	simple present
			simple future
		present progressive	
	outlining argument	simple present	
		simple future	
	Recapitulation		present perfect
			simple past
Commentary & Evaluation		simple present	
		modal	
Referential	Signalling References to Previous Research		simple present
			simple past
			present perfect
	Signalling References to Primary Sources		simple present
			simple past
	Propositional Content	fictional events & characters	simple present
		philosophical ideas & assertions	simple present
past events & participants		simple past	

5.2 Analysis

As can be seen from Table 5.2, in most cases, there is not a one-to-one relationship between tense and function. For a given function, various tenses may be used. The following subsections examine the different choices. As defined in Chapter 3, tense establishes the relationship between two time locations: the time of the situation described and the time of a reference point. The nature of the situations, i.e. whether they are instantaneous, time-bound or timeless, determines the time location of the situations relative to the reference point. The time for the point of reference is usually the here and now, i.e. the moment of utterance; however, it may change with a shift in perspective. To

interpret the choices for each function, the nature of the function and its relative point of orientation will be examined.

5.2.1 Deictic Functions

As deictic functions belong to the averral component of a text, i.e. they are utterances through which the writer communicates with the reader, both the writer's and the reader's perspective will be considered in the analysis of the functions in this category.

Stating Purpose

This function can be found in the simple present, simple future, or the present progressive. For the choice of the simple present, two interpretations seem plausible. The first is that the paper is treated as a complete whole, existing in its entirety in the reader's hand at the moment of reading. In this sense, the verb used in the statement of purpose is taken as a 'state' verb, presenting the notion of 'having the characteristic of'. Take "This paper examines x", for example, the interpretation can be "This paper is about the examination of x" or "The examination of x is a characteristic of this paper". This interpretation works particularly well with purpose statements with the state verb 'be':

This study is about . . . (H6, 539)

The purpose of this paper is . . . (P1, 206)

In terms of time location, this interpretation represents the unrestrictive use of the present tense, where the situation described extends over an unlimited time span including the present moment. With the reader's perspective in mind, the writer adjusts the moment of writing to coincide with the time of reading.

Nonetheless, it should be noted the present progressive and future do occur in genres such as progress reports and proposals in technical writing (Huckin & Olsen, 1991).

On the other hand, though the simple past is not found in the statement of purpose in the present corpus, it has been mentioned in previous EST literature (Swales, 1990; Swales and Feak, 1994; Salager-Meyer, 1992). Swales and Feak (1994) discuss the use of the simple past in limited circumstances, e.g., a change in purpose, but the advice is for students to use the simple present to signify current relevance.

Announcing Argument

The choices for the function of announcing argument are the simple present or the future. Similar analysis as for the function of stating purpose can be applied to the analysis of this function. The choice between the two tenses depends on whether the writer chooses to see the work as a completed whole or as a work in progress. When a work is considered as a complete entity, the unrestrictive present is used to describe the state of the entity. When a work is seen as a work in progress, the instantaneous present can be used to express a performative act, or the future tense can be used to declare a future action.

Recapitulation

For recapitulation, the choices are the simple past or the present perfect. Both tenses serve the function of referring back to what has been presented earlier in the paper. However, the simple past describes the situation as complete at some point in the past. It conveys a sense of remoteness, i.e. the situation is “done and over with” (Celce-Murcia & Larsen-Freeman, 1999:114):

Earlier . . . I pointed out . . . (E3, 78)

We claimed above that . . . (P2, 165)

However, more often various “markers of limitation” (Giltrow, 1995:302), or hedges (Hyland, 1996a, 1996b), are used to tone down the writer’s assertions, presenting the writer’s ideas as inferences or “estimates from positions of limited knowledge” (Giltrow, 1995:300). One such device is the modal adjunct:

Perhaps the best way to discuss Imperial Majesty is . . . (E5, 241)
It is perhaps of little surprise that . . . (H3, 24)

Another means is to communicate a sense of conjecture with a verb such as *seem* or *appear*:

The telling of stories, it seems, is fraught with . . . (E6, 15)

Sometimes a sense of subjectivity is conveyed with the use of a first person subject and a cognition verb such as *think* or *believe*:

We think Belelow *et al.* are on the right track, but . . . (P2, 167)
I believe the term can be used profitably without presently going into much greater detail. (P6, 18)

All the above statements are in the simple present as they express the writer’s mental state or what the writer avers to be true. The time frame is therefore the unrestrictive present with an unlimited time span.

However, perhaps one of the most common devices used to express the writer’s reasoning and inferences is the modal verb. Modality can be used to indicate varying degrees of certainty and possibility. For example, *should* or *must* or *ought to* expresses necessity or certainty of a proposition (Jackson, 1990) or a logical conclusion:

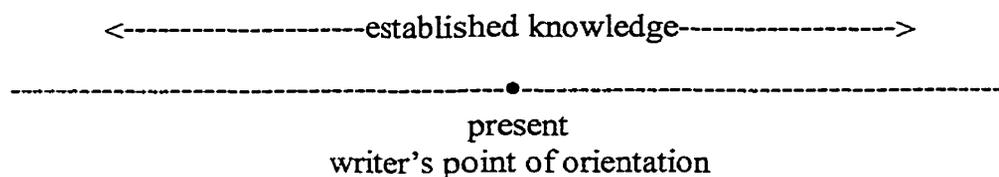
It should come as no surprise then that . . . (E1, 21)
Though Bloom’s view carries much authority, it should be balanced by . . . (E2, 343)

5.2.2.1 Signal Element – Previous Research

The tenses associated with the signalling element for references made to previous literature are the simple present, present perfect, and simple past.

The simple present expresses the highest degree of generality (Lackstrom *et al.*, 1970, 1973). When the writer wishes to refer to the cited ideas or assertions as established knowledge that is not restricted to a specific time frame, the simple present is used. Day (1998:207) advises writers to use the present tense, as “when a scientific paper has been validly published in a primary journal, it thereby becomes knowledge.” It seems to work the same way in the humanities.

In terms of time location, this use of the simple present represents the unrestrictive present, which has an unlimited time span.



The present perfect conveys generalization without making a commitment to the future (Lackstrom *et al.*, 1970, 1973). It describes what is known or has been done in the field on a similar or related topic up to the present moment:

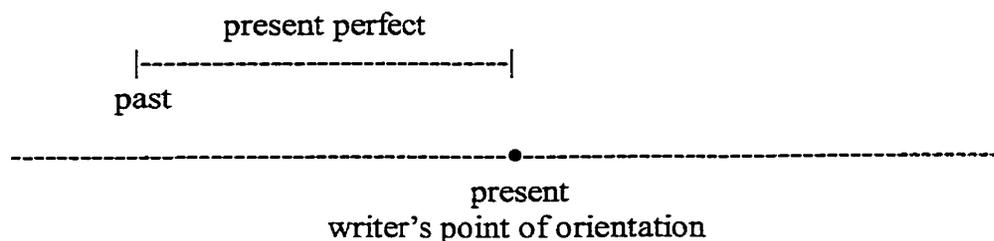
Research over the last two decades has conveyed at least an initial impression of both the complexities of England's legal records and of those records' immense richness as an historical source. (H2, 140)

Since Elizabeth Waterston's 1966 landmark essay, . . . pioneering scholarship has firmly established . . . (E4, 39)

Often the present perfect is used with a negative lexical item to indicate a gap and thus create a new research space for the current study:

. . . yet there has been little direct attention to them in the . . . (P2, 161)

Non-criminal litigation has attracted less research . . . (H2, 140)



Finally, the simple past is usually used to refer to a time-bound activity that took place at some definite past time, indicated by a time adverbial or implied by context:

At this time [1941], professor J. L. La Monte tried to demonstrate . . . (H1, 203)

In 1988, Charles Griswold edited a collection of essays . . . (P6, 13)

Findley commented on viewing the film that . . . (E6, 27)

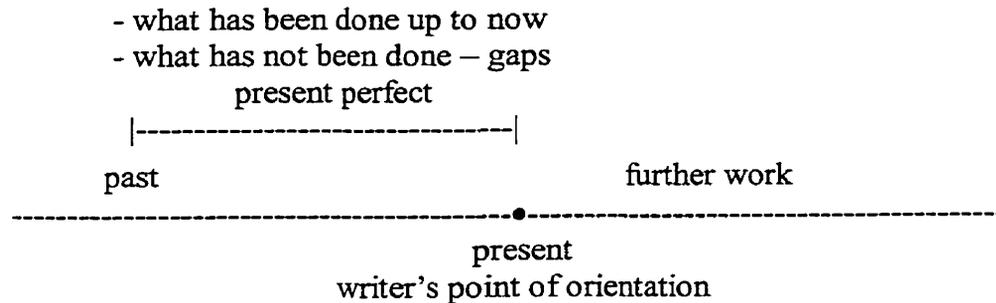
The evaluative use of the simple past to indicate disagreement with the cited material, as proposed in previous EST research, does not appear to be a common practice in this corpus. One instance in H1 can perhaps be counted as evaluative:

Many historians considered the crusades to be merely military expeditions sent out from Europe to recapture the Holy Places from the infidels, . . . (H1, 203)
[The writer disagrees and sets out to show otherwise.]

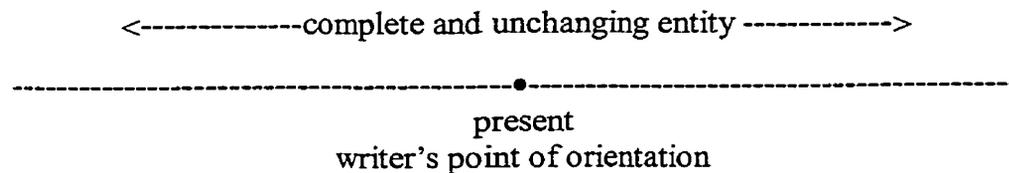
5.2.2.2 Signal Element – Primary Sources

While signals for attributions to previous research can be found in the simple present, present perfect, or simple past, the signal elements for primary sources are found

mostly in the simple present or simple past. The present perfect is found in only a couple of instances. An explanation for this contrast may be that previous research is considered to be part of a growing body of knowledge, subject to debate and further development. As shown earlier, the present perfect can be used to indicate what has been done and that further work is possible or necessary:



On the other hand, literary works, philosophical writing, or historical records are conceptualized as completed products that have a permanent existence, not subject to further development or change:



The unrestrictive present is thus the appropriate choice for references to primary sources:

- Sula*, Toni Morrison's second novel, begins with a myth . . . (E1, 17)
- Plato's texts are dialogic . . . (P6, 14)
- Bristol's patronage papers suggest he deserves . . . (H3, 5)

References to authors, philosophers, or historians, though long dead, are still referred to in the present tense, as they allude to the ideas or opinions expressed by these sources rather than their physical beings or past activities:

Ruskin writes of climbing above his favourite Derwentwater . . . (E2, 337)
 In his first sentence Aristotle states unequivocally that . . . (P3, 642)
 William of Tyre refers to a Frank who was entrusted with . . . (H1, 206)

It should be pointed out that the unrestrictive present is not reserved for dead authors. Authors who are still living are also referred to in the present tense, for the same reason as above:

Peter Geach famously holds that . . . (P1, 205)
 Morrison humanizes Black characters in fictions . . . (E1, 23)

Nonetheless, the inclusion of the name of a source in a sentence is not a necessary indicator of an attribution. Rather, it could be referring to participants of historical events who also happen to be recorders of the events. The following two examples show the contrast between a source and a participant and the corresponding tense choices:

Primary Source – Simple Present:

James of Vitry describes the Syrians, using Arabic in their common speech . . . (H1, 209)

Participant – Simple Past:

Bearing in mind that James of Vitry used a translator in Tripoli because Arabic was its main language, . . . (H1, 209)

Often the simple past is used when events or activities can be placed at a specific time point in the past by a time adverbial or a specific date:

As a 9-year-old, in 1828, he [Ruskin] wrote a poem recalling Skiddaw and Derwentwater, part of which was published in the *Spiritual Times* in 1829—Ruskin’s first publication, at the age of 10. (E2, 335)

Similarly, biographical details are also in the simple past as they refer to events or activities occurring in a specific past time:

Wordsworth, born in 1770, was just five years older than Turner. Both died as the confidence of the Victorian age reached a peak: Wordsworth in 1850, Turner in 1851. (E2, 334)

The simple past is also used to express counterfactual conditions, either with a negative lexical item or in the if-clause of the hypothetical/conditional constructions:

If Frege claimed that every meaningful cardinality-sentence must involve a general predicate, then indeed examples of the above kind would pose serious problems. . . . Frege does not, however, claim that every meaningful cardinality-sentence must involve a general predicate. (P1, 220)

Indeed, it is abundantly clear that Frege did not adopt the doctrine of relative number. (P1, 216)

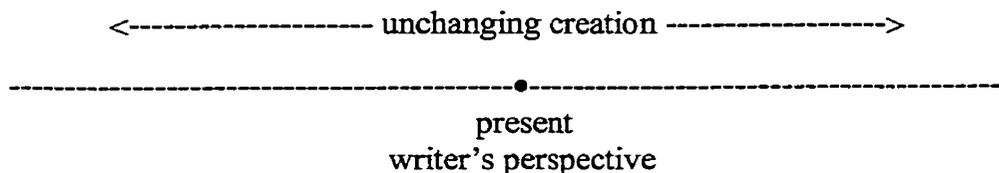
5.2.2.3 Propositional Content

The content areas examined in this section are fictional events and characters, historical events, and philosophical doctrines and ideas.

Fictional Events and Characters

The primary tense used to refer to fictional events and characters is the simple present. A plausible explanation for this tense choice is that fictional events and characters are treated as complete and unchanging entities existing in a timeless imaginary world. Like any works of art, once completed, the creations are left alone and subject to no further change. The unrestrictive present is used to express the timeless

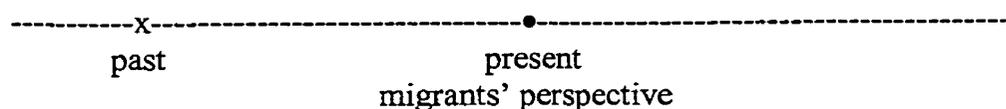
aspect of the entity. This use is consistent with the meaning of wholeness inherent in the simple present as described by Celce-Murcia and Larsen-Freeman (1999).



As mentioned earlier, the simple past, future, present progressive, and present perfect are also found in references to fictional entities. These tense choices are analysed as having been selected from the fictional character's perspective, after the initial placement of the character in the present time frame. Take this sentence, for example (choices relative to the shifted perspective are indicated by double underlines in this and subsequent examples):

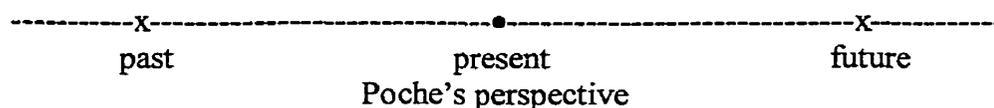
Only after migrants leave "home" do they tend to regard their place in the South propitiously—a place where they were "whole" and part of a whole. (E1, 30)

In relation to the time of writing, the migrants, as fictional characters, are referred to in the simple present. Then from this present time frame, situations are placed relative to the characters' perspective. In the example, the simple past is selected to refer to a situation that occurred prior to a present point of orientation from the migrants' perspective:



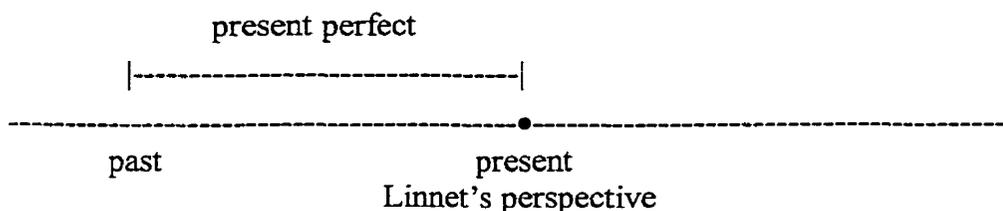
Following the same line of analysis, the next example shows the choice of the simple past and the simple future relative to the character's present time frame:

The relationship, as this turn in the story indicates, did not, and will never occur from Poche's point of view. (E3, 76)

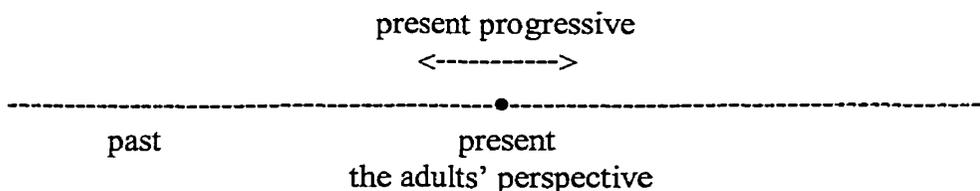


Similarly, the present perfect and present progressive in the following examples can be accounted for in the same way:

Linnet's intrusion on (or, more precisely, interrogation of) her father's friends allows for her self-definition, not within the "fable" . . . "they" have constructed, but in opposition to it. (E3, 80)

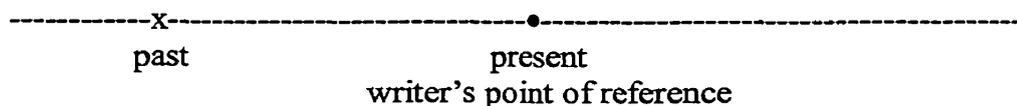


The adults in these stories engage in a conspiracy of silence about the frightening things that are happening in their families . . . (E6, 14)



References to Historical Figures and Events

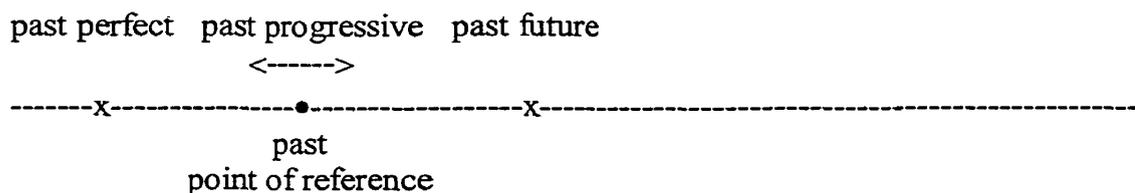
A similar approach as above is proposed for the analysis of this category. However, in direct contrast to fictional characters and events, historical figures and events existed in the real world at some past time relative to the time of reading and writing, and references to these events are primarily in the simple past.



The less frequent tenses related to the simple past are the past perfect, past progressive, and past future. Following a similar line of analysis to the above, a shift in perspective is proposed here. But in this case, the first tense choice relative to the time of writing is the simple past. Then further choices are made relative to the past time frame of the first past event. The relative locations available to this past point of orientation are past-in-past, present-in-past, and future-in-past. These time locations account for the occurrences of the past perfect, past progressive, and past future:

Conducting aggressive antireligious agitation had been a priority from the outset, but a more self-critical attitude, the lessons of experience, and above all a perception that religion was not only surviving, but possibly increasing led the party to place greater stress on this tactic by the mid-1920s. (H4, 79)

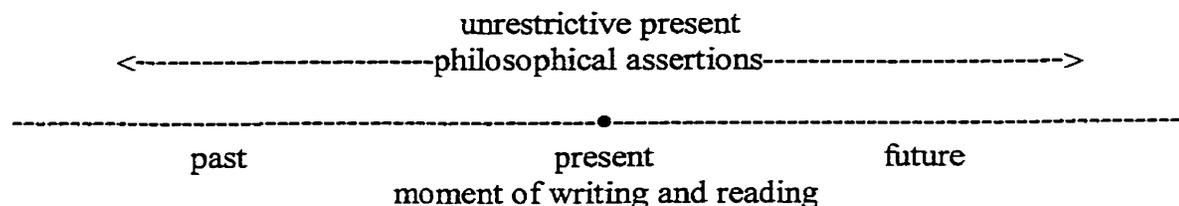
The Allies expected that as their military fortunes improved in 1943 they would be able to force a more favorable arrangement the next time. (H6, 545)



Philosophical Ideas and Arguments

The analytical examinations of philosophical problems or critical analysis of philosophical positions often involve extensive definitions and descriptions of concepts and opinions expressed by philosophers. These are generally expressed as timeless. As Watson (1992) notes, a position expressed by a “great, grand” philosopher like Descartes

in the past “still is and ever will be his position” (31), and the unrestrictive time frame of the simple present is appropriate.



The simple present is not restricted to ideas expressed by grand philosophers of the past, but is used in most philosophical assertions, including those made by the article writers themselves.

The act of ‘making a resolution’ does nothing more than express commitment to undertake processes, but those processes are precisely those that have the potential to powerfully affect motivational states. (P2, 168)

Wisdom (somehow) both is and is not a separate form of knowledge, just as self-reflection both is and is not separable from that which is reflected upon, and just as the state of knowledge to which human beings aspire both is and is not about content. (P3, 648)

However, the writers often downgrade the strength of their assertions with the use of modals or other markers of limitation. This type of expression has been included in the category of writer’s commentary and evaluation, which has been discussed in Section 5.2.1 and will not be repeated here.

5.2.3 Summary

The analyses above show that the choice of tense is influenced by the interaction of a number of factors. How the writer chooses to see the overall composing process and

the perspective from which a situation is considered determine the temporal location and thus the choice of tense. The following tables provide a summary of what has been presented so far. Table 5.3 includes the deictic functions and the signal elements for the referential functions. The cited content areas are presented separately in Table 5.4, with an additional column showing the relationship between the primary tenses and relative tenses.

Table 5.3 Influencing Factors in Tense Choice – Rhetorical Functions

Function	Perspective	Situation type	Temporal meanings	Tense
Stating purpose & announcing argument	geared towards the reader's perspective	paper as complete whole – stative	unrestrictive present – extended over a time span including the present moment	simple present
	geared towards the writer's perspective	paper as work in progress – performative act	instantaneous present – simultaneous with the moment of writing & reading	simple present
	the reader and writer move along together	paper as work in progress – future act	subsequent to the time of reading & writing	simple future
	the reader and writer move along together	paper as work in progress – activity in progress	span of time in the present with limited duration	present progressive
Recapitulation	the reader and writer move along together	paper as work in progress – an act completed in the past	a past point before the moment of writing	simple past
		paper as work in progress – what has been done up to now	prior and up to the present moment	present perfect
Writer's comment	from the writer's perspective	the writer's mental state or what the writer avers to be true	unrestrictive present – extended over a time span including the present moment	simple present
		the writer's attitude & judgement	tenseless modality	modals
Signalling references to previous literature	from the writer's perspective	established knowledge	unrestrictive present – extended over a time span including the present moment	simple present
		what has been done or known up to now	prior and up to the moment of writing	present perfect
		specific activities & events in the past	before the time of writing	simple past
Signalling references to primary sources	from the writer's perspective	unchanging works of art or timeless opinions	unrestrictive present – timeless	simple present
		biographical details	definite past	simple past

Table 5.4 Influencing Factors in Tense Choice – Content Areas

Cited content	Situation type	Temporal reference	Temporal meaning	Primary tense	Relative tense
Fictional events & characters	complete and unchanging creation	present relative to moment of writing	unrestrictive present	simple present	
		fictional character's time frame: present relative to the first present	before the present	simple past	
			after the present	simple future	
			present-in-present		present progressive
		past up to the present		present perfect	
Historical events & participants	account of past events	past relative to the moment of writing	definite past	simple past	
		past time frame relative to the first past	past-in-past		past perfect
			present-in-past		past progressive
			future-in-past		past future
Philosophical ideas and assertions	timeless universal truths	present	unrestrictive present	simple present	

5.3 Tense Usage in Larger Units of Discourse

One common criticism aimed at the traditional approach to tense grammar has been that it focuses only on sentence level usage and therefore often does not reflect actual usage in connected discourse. So far, except in the discussion related to fictional characters and historical events, the analysis presented above has mostly focused on single tense occurrences within a clause. This section examines tense use in larger units of discourse. Discussions include tense use in complex/compound sentences where there is more than one finite verb and also tense use in a series of sentences. Whenever applicable, discrepancies between textual advice and actual usage will be discussed.

5.3.1 Tense Sequence in Complex and Compound Sentences

A complex or compound sentence is made up of two or more clauses, with each clause containing a finite verb. The finite verb forms in the clauses within the same complex or compound sentence are found not to be necessarily the same. The following examples illustrate some of the possible sequences. The clauses are separated by two slashes, and the function type or the nature of the content is indicated in bold above the clauses.

Simple Future - Modal Sequence

In the following complex sentence, the dependent clause serves the function of announcing argument, which associates with the simple future. It is followed by an independent clause with a modal of possibility, expressing the writer's hypothesis:

announcing argument	writer's comment
As I <u>will argue</u> , // these three narrative practices <u>can be read</u> as	
the manifestation of strong ambivalence about the telling of	
stories. (E6, 13)	

Modal - Simple Present Sequence

The independent and dependent clauses can have similar functions but different tenses, as the same function can be expressed by different tenses:

writer's comment	writer's comment
. . . it <u>should be</u> clear by now // that this agreement <u>is</u> largely	
superficial. (P1, 223)	

Simple Present - Simple Past Sequence

The independent clause can serve as indicator of the writer's interpretation of the content stated in a dependent clause. In this example, the writer's comment is in the simple present and the content is in the simple past as it refers to past events:

writer' comment**past event**

It is therefore worth emphasising in this context // that in the period from the Revolution until the mid-1920s the Bolshevik Party directed the main thrust of its coercive and ideological antireligious assault not against individual believers but against church hierarchs and the institutional and property base of religion of the country.

(H4, 79)

Simple Past - Simple Present Sequence

In the following compound sentence, the first independent clause depicts the past activity of recording and therefore is in the past tense; the second independent clause shifts to the simple present to describe a general fact about the books:

past activity

From the later sixteenth century onwards, however, the business of the courts was set down in separate paper books // and these exist right down to 1914, . . .

general fact

(H2, 146)

It is clear that clauses in the same complex or compound sentence do not require the use of the same tense. Rather, the tense in each clause is individually determined by the function type or the nature of its content.

With regard to the tense sequence found in attribution to other sources, i.e. reported speech, which generally has a complex sentence structure, some discrepancy has been found between textbook advice and actual usage. Reported speech has often been presented as a derivation of direct speech involving an automatic backshifting of tenses, e.g., simple present becomes past and simple past becomes past perfect in the reported statement, etc. Recent literature has pointed out that this is not necessarily the case in

naturally occurring discourse (Yule, Mathis, & Hopkins, 1992; Riddle, 1986). The present corpus also shows no evidence of backshifting of tenses. The following examples show some of the tense sequences found in the articles:

Simple Present - Simple Present Sequence

signalling primary source	philosophical idea
In his first sentence Aristotle <u>states</u> unequivocally // that human beings <u>desire</u> to know, without saying what it <u>is</u> they <u>desire</u> to know.	
	(P3, 642)

Simple Present - Simple Present Sequence

signalling previous literature	author's viewpoint
Loewen's critique <u>holds</u> // that historical narratives <u>are designed</u> to create or reinforce a national identity based on Anglo-America's ethnocentrism.	
	(E1, 22)

Present Perfect - Simple Past Sequence

signalling previous literature	past event
. . . a study by Pollins <u>has suggested</u> // that the transfer of the fashion clothing trade from Berlin and Austria to Britain via refugee entrepreneurs <u>was</u> of even greater economic importance.	
	(H5, 506)

Obviously, reported speech in academic writing has its unique characteristics. First of all, the reporting statement (the signal element) is generally in the simple present or present perfect, even though the cited assertions had obviously been made at some definite past time. And the tense in the reported statement does not backshift but is determined by the nature of the cited content.

5.3.2 Tense Use within a Series of Sentences

As discussed in Chapter 2, Lackstrom *et al.* (1970, 1973) suggest that organizational factors play a role in tense choice. The authors note that as the preferred progression in a paragraph is from general to specific in scientific texts, and that the present perfect expresses generality and the simple past conveys specificity, the resulting tense sequence may be the present perfect followed by a series of statements in the past.

However, though the general to specific text development pattern is also common in the humanities articles, the tense patterns do not follow those proposed by Lackstrom *et al.* The following are a few examples of the general-specific sequences found in the present corpus.

Simple Present - Simple Present Sequence

In this example from E6, the generalization is supported by a list of supporting details. The tense used is the present tense throughout as both the generalization and supporting facts are references to primary sources:

generalization

Almost every Findley novel starts with violence, and the opening scenes often depict the human figure split, disfigured, or destroyed.

supporting details

// *The Butterfly Plague* begins with a decapitation; *The Wars, Not Wanted on the Voyage*, and *The Piano Man's Daughter* all begin with the evocation of fire; *Famous Last Words* begins with a suicide; *The Telling of Lies* begins, as all good mysteries do, with a murder; and *Headhunter* begins with the most intriguing split of all, as Joseph Conrad's Kurtz doubles himself and emerges from the pages of *Heart of Darkness* to begin a bloody campaign of terror in futuristic Toronto.

(E6, 15)

Simple Past - Simple Past Sequence

In this example, both the general statement and specific details are in the simple past as they all refer to activities that occurred in the definite past:

generalization

Dealing with Portugal was a frustrating experience for the Allies.

supporting details

// Salazar exercised total control of the government, approved all official business personally, and refused to allow. . . . A former economics professor, he lived a solitary bachelor life, was unmoved by public pressure, and adamantly defended. . . . Nevertheless, he played the belligerents against one another with great skill and conceded only what was absolutely necessary. (H6, 544)

Present Perfect - Simple Present Sequence

In this example, the present perfect is used in the general statement and the specific studies are in the simple present:

general

Several critics . . . have focused on Findley's apparent ambivalence

specific

toward specific types of stories. // For example, Marlene Goldman examines. . . . And Lorraine York examines. . . . Both critics reveal . . . (E6, 15)

Present Perfect - Present Perfect Sequence

However, here both the general introduction and the specific examples are in the present perfect:

general

Since Elizabeth Waterston's 1966 landmark essay, . . . pioneering

specific

scholarship has firmly established. . . . // Mary Rubio has reclaimed . . . and has noted. . . . Elizabeth Epperly has argued that. . . . Most recently, K.L. Poe has shown that . . . (E4, 39)

Simple Present - Simple Present Sequence

Finally, in the following example, the simple present is used for both the general and supporting details:

general

Some of the best analytical writing on the subject of patronage (including the works of J.B. Brebner, Escott Reid, H.B. Neatby, John English, and Gordon Stewart) is primarily concerned with

specific

this theme of political management. // . . . as Stewart and

Neatby note, . . .

(H3, 1-2)

The last three examples all involve references to secondary sources, yet they do not follow the same tense patterns. The contrast between these examples can perhaps be attributed to personal preference, as both the simple present and present perfect are equally acceptable for this function.

Again, the above examples provide further evidence that function types and the nature of cited materials, i.e. whether they are references to sources, past events, viewpoints, or literary characters, play a large part in deciding the choice of tenses. The present perfect - past sequence observed by Lackstrom *et al.* (1973) in EST texts perhaps reflects the fact that the specific supporting details refer to specific experiments conducted, rather than simply because they function as supporting evidence.

The series of sentences examined so far are rather homogeneous in the use of tense, as they contain mostly similar situation types. Nonetheless, there are instances where the individual sentences in a paragraph shift in situation types and the result is frequent tense shifts within a paragraph. The following paragraph shows such an example:

William of Tyre, the most illustrious and erudite historian of the Latin
biographical primary source
 East, learned Arabic. He tells us in the prologue of his *Historia* that. . . .
secondary source
 Here, William's modern editor R.B.C. Huygens has expressed doubt as to
 the extent of William's knowledge of Arabic. . . . The form of each of the
general truth
 first three names makes their pronunciation different from the Arabic. . . .
 Here, William of Tyre, basing his *Historia* down to 1127 on the works of
past event past event
 these eyewitnesses, was obliged to use the spellings they used, and
past event past event
 sometimes, because he did not care, or did not have the time, to read what
past-in-past primary source
 he had written, used the most typical ones. In general, he seems to have
 taken most of these spellings from Fulcher of Chartres. As for the name
past event
 of Saladin, William of Tyre used the Latin form, 'Saladinus'. His
past event past event
 continuators, more acquainted with Arabic names than he was, added the
general truth
 'h' which makes the pronunciation of the name more similar to its Arabic
 form. (H1, 205)

As can be seen, the paragraph consists of these components:

- biographical information – simple past
- signal phrase for reference to primary source – simple present
- signal phrase for reference to secondary source – present perfect
- general truth – simple present
- accounts of past events – simple past, past perfect.

The tense shifts are clearly the results of shifts in function type and nature of content.

The discussions in this section can provide clarification to descriptions found in some reference texts. Often, writing guides advise against “unnecessary shifts” and tell

the writers to be “consistent with verb tense” without elaborating on what “unnecessary” or “consistency” means or describing when it is acceptable to shift tenses (e.g. Mitchell & Hemus, 1988:49; Sime, 1990:171; American Psychological Association, 1994:25). The analysis given above provides clear examples to show when tense shifts may be necessary and appropriate.

5.4 Tense Use in the Disciplines

The analysis of tense use based on function types and the nature of content can provide some insights into the distributions of tense in the disciplines. Recall in Chapter 4, it was reported that each discipline has one predominant tense, i.e. the simple past in history, the simple present in philosophy and English. In each case, the dominant tense correlates with the specialized content area each discipline deals with, as illustrated in the following chart:

Primary Tense	English	History	Philosophy
Simple present	literary illustrations		philosophical ideas
Simple past		historical events	

Also in Chapter 4, it was shown that the history and philosophy articles are quite consistent in the distributions of the primary tense across the six texts. This consistency reflects the homogeneity in content across the texts. On the other hand, the English articles show a higher level of variability from text to text. For example, E2 and E4 deviate from the usual pattern and show a high frequency of the simple past (36.9% and 34% respectively). This can be accounted for by the fact that these two articles are more diverse in content. In addition to literary illustrations, they include accounts of past events and biographical details to provide historical and cultural contexts for the work.

As these content areas mainly associate with the simple past, the frequency of the past tense increases. For example, E2 contains a high number of biographical details on Ruskin and Wordsworth and Turner. It also places considerable emphasis on Ruskin's writing activities instead of on the works themselves. These factors lead to the higher frequency of the simple past.

Meanwhile, on the other extreme, E6 shows a low frequency of simple past (1.9%). This can be attributed to the fact that E6 deals primarily with references to literary sources and illustrations.

Primary Tense	E2 & E4	E6
Simple present	literary illustrations	literary illustrations
Simple past	past events	
	biographical details	

In philosophy, P6 has an uncharacteristically high number of the simple past relative to other articles (9.4% compared to a mean of 2.1% for the other five articles), and it contains all of the three past perfects found in the entire philosophy discipline. This is due to the inclusion of biographical details and past events:

The presumed time at which Socrates and Phaedrus are having this discussion is at least before 399, when Socrates was executed; most likely it is even before 415, since Phaedrus was implicated in the mutilation of the Hermae that occurred in 415 and was subsequently banished from Athens. (P6, 18)

In 370 Socrates was, of course, quite an old man; he had developed a prominent career as a rhetorician and teacher of rhetoric. (P6, 19)

When the content is held constant, the variations among the texts within a discipline appear to be influenced by the differences in the use of rhetorical functions and reference structures. For example, both H1 and H6 deal with accounts of past events;

however, they vary greatly over the use of the simple present, which ranges from 0.6% in H6 to 20.8% in H1.

H6 is written in a narrative style where the characters and events take centre stage and the sources are kept in the background. It shows a complete absence of attributive signals, though there are 49 footnotes documenting various sources. All references are of the non-integral non-reporting NN type with the sources documented solely in footnotes. The temporal reference point does not shift back and forth between different time frames but stays mainly in the past. This is reflected in the consistent use of the past tense:

The 1944 Normandy invasion plans made the operational capabilities of German Forces in the field a vital concern. Indeed, at the Anglo-American QUARANT Conference on war strategy in Quebec in August 1943, the Combined Chiefs of Staff agreed that cutting off raw materials to Germany, especially wolfram from Spain and Portugal, should be given high priority.¹⁹ (H6, 546)

On the other hand, H1 contains high instances of the integral-reporting (IR) structure with the names of the sources integrated into the sentence and the cited content followed in a that-clause. While the content is in the past, the signal element is in the present:

Professor H.E. Mayer believes that the Franks co-existed with the Muslims but that there was no symbiosis; the number of those from the upper ranks of society who bothered to learn Arabic was tiny.⁹ (H1, 205)

Another contrast between H1 and H6 is in the use of deictic functions. H1 contains a relatively high number of deictics in the category of the writer's comment in the present tense. Conversely, in H6, the occurrence of deictics that associate with the simple present is very low. In fact, there are only three in total:

This study is about one dimension of that relationship. (H6, 539)

Although it is difficult to determine precisely Germany's wartime ferro-alloy stocks, it is clear that . . . (H6, 543)

	H1	H6
Simple present	deictics	3 deictics
	attribution signals	
Simple past	past events	past events

5.5 Strategic Choices in Tense Use

So far the previous sections have shown the range of choices available for the various functions. However, instances can be found where the writers go beyond the established norm and use tenses outside the range for added effects. For example, it was shown earlier that the tenses for the signal component of a primary source are generally the simple present and simple past. Yet in P3, the future tense is found in references to Aristotle, as shown in this example:

The state of knowing of art and science could only be identified in light of a separate concept with a separate label, because Aristotle needed to distinguish the state of knowing from the particulars known. Yet the state of knowing wisdom is not expressed in terms of another concept. Its own self-reflectiveness is only apparent in the form of Aristotle's investigation. The time will come when Aristotle will provide a label for this activity. (P3, 647)

As P3 is concerned with the ordering of Aristotle's books of *Metaphysics* and the development of certain concepts, the writer uses this movement from past to present to future to convey a sense of progression. And perhaps by placing Aristotle in the present time frame, the writer adds a sense of immediacy and allows the reader to relate to the situation more readily.

Also, in the analysis section, it was shown that the present perfect is not a common choice for references to primary sources, as these sources are considered to be complete and unchanging. However, in the corpus, there are examples of the present perfect being used. And they seem to be used to explicitly express a sense of progression and change, which the restrictive present would not have conveyed:

The interview also points out that Gallant's style, from the very start, avoided straightforward sequencing. . . . Here, the interview suggests Gallant's style has grown increasingly "linear" . . . (E3, 67)

Aristotle has shifted the spotlight from knowing itself to the knower, and indeed to the (possible) knowers of that knower. (P3, 649)

The present perfect in the first example describes the development in Gallant's writing style and the second emphasises the shift from one concept to another in Aristotle's work.

Finally, though references to primary sources are generally in the simple present, a few instances of the present progressive are found in the corpus:

To some extent, both Ruskin and Arnold are reacting to the loss of the generation that had formed their minds. But they are also responding to a deep shift in cultural values as the legacies of Romanticism passed into the high Victorian period. (E2, 341)

Ruskin's critical thought is constantly evolving. (E2, 343)

Heywood is exploiting a difference between messenger and message. (E5, 239)

The present progressive perhaps adds a sense of transition and evolution to the expressions, rather than a sense of completeness the simple present would have expressed.

Finally, even in what Malcolm (1987) considered to be obligatory constraints, i.e. where a temporal adverbial indicating a past time appears as part of a sentence, variation

can be found in the corpus. In the following examples, the presence of a specific date in a sentence does not necessitate the use of the simple past.

“TODAY I FINISHED *Emily of New Moon*, after six months writing,” notes the author of *Anne of Green Gables* in her journal on 15 February 1922. (E4, 39)

In a typical 11 November 1921 entry, she calls her husband . . . (E4, 55)

The dates in these two examples can be interpreted as an identifier of the entries rather than an indicator of the specific time the activities took place. Or they can be considered to be in the historical present, representing past events as if they were happening now to add a sense of vivacity and immediacy to the writing.

Chapter 6

Conclusion

In the preceding two chapters, quantitative and contextual analyses of tense use in 18 journal articles in three humanities disciplines have been presented. In this chapter, general conclusions from these analyses are presented, followed by discussions on the pedagogical and research implications of the findings.

6.1 Summary and Conclusions

The quantitative analysis has looked at the relative frequencies of the tenses in the corpus and examined general tendencies and variations across the three disciplines as well as within each discipline. The main conclusions from this part of the analysis are as follows.

Discipline-sensitive variations prevent generalizations from being made regarding the humanities domain as a whole. That is, a statement such as “the humanities writers use the simple present tense more than the simple past” based on the result that shows a frequency of 52% for the former and 31% for the latter would not be appropriate. Such a generalization would not reflect the pattern of use in history where the simple past well exceeds the simple present.

However, within each discipline, some generalizations can be made, as the patterns of tense use are quite consistent across the texts, particularly in the occurrences of the dominant simple tense. The simple past dominates in all history texts and the simple present dominates in all philosophy and English texts. In the corpus, the level of variability from text to text is the highest in English.

Another finding is that not all twelve tenses are used in any given discipline, and those that are used do not occur with equal frequency. This is consistent with previous EST findings, though the specific tenses or the frequencies of the tenses relative to each other may vary from discipline to discipline. In the three disciplines studied, the frequency of the simple present or simple past is much greater than the frequency of the other tenses, which represent only a small percentage of the whole. Overall, the present and past perfect and progressive forms add up to less than 5% of the total occurrences. The present perfect progressive and past perfect progressive are almost non-existent.

The contextual analysis that followed has provided some useful insights into the use of tense in the disciplines and helped account for the general tendencies and variations identified in the quantitative analysis. Several conclusions can be drawn from this part of the study.

This study supports the now well-established finding that tense can be related to rhetorical categories unique to academic discourse and that subject matter affects patterns of use. However, caution must be taken to avoid linking a particular tense to a particular discipline and giving advice such as “use the simple past in history”, or “use the present in English”, etc. It is not the discipline itself that determines tense choice, but the nature of the content each discipline deals with. History deals mainly with past events and thus shows a high frequency of the past. Philosophy focuses on the analysis of philosophical ideas and has a high frequency of the simple present. English, with its frequent references to literary works and fictional events, is generally high in the simple present. On the other hand, relating tense to rhetorical functions or content areas allows generalizations to be made across the disciplines. Though differing in overall pattern of

use, the three disciplines show a similar range of tense choices for similar functions or similar propositional content. For instance, the function of stating purpose is usually associated with either the simple present or future, even in history where the simple past predominates. Biographical events and biographical information are in the past tenses even in philosophy and English where the simple present predominates.

In agreement with Malcolm's (1987) findings on scientific writing, the present study shows that the rhetorical uses of tense in the humanities can also be explained by temporal factors and basic meanings of the tenses. Consistent with the basic meaning of wholeness, the simple present in references to literary works, philosophical writing, or historical records exemplifies the complete and unchanging nature of these entities. Congruent with its use to refer to general timeless truths, the simple present in references to previous literature adds a timeless dimension to enhance the degree of generality of the cited work. The use of the simple past in references to specific past research or writing activities of the cited sources is consistent with the basic use of the simple past to refer to specific events in the past. The core meaning of completeness and remoteness in time of the simple past ties in with its use in references to historical events and biographical details. The present perfect, with its retrospective viewpoint from the present, is used to relate what has gone on before to the present moment in the functions of recapitulation and reference to previous research.

Finally, the present study affirms the notion of choice in grammar discussed in the literature (Larsen-Freeman, in press; Riddle, 1978, 1986; Malcolm, 1987). Larsen-Freeman concludes that "far from being a linguistic straitjacket, grammar is a flexible, incredibly rich, system that enables proficient speakers to express meaning in a form

appropriate to the context and to the particular perspective they wish to contribute.” The present analysis shows clearly that tense grammar is not a rigid unitary system where only one correct form is possible for a given situation. Rather, it has great flexibility. As the contextual analysis shows, for most situations, there is generally a range of choices available, allowing the writer to express nuances in meaning. Even more, the writer may go beyond the usual practice and use a tense outside of the normal range to achieve added effects.

6.2 Pedagogical implications

The findings from the present study can provide guidance for the development of classroom or reference materials to help novice writers gain proficiency in tense use in academic writing. Macdonald (1994) suggests that there are at least four points on a continuum the novice moves through to gain access to academic discourse:

1. Nonacademic writing
2. Generalized academic writing concerned with stating claims, offering evidence, respecting other’s opinions, and learning how to write with authority
3. Novice approximations of particular disciplinary ways of making knowledge
4. Expert, insider prose.

(Macdonald, 1994:187)

The samples of journal articles analyzed in the present study can be considered to be at the top of the continuum. The conclusions drawn from the examination of these expert texts have helped identify some of the elements that are important for the teaching and learning of tense in academic discourse:

1. Awareness of variations and general tendencies in tense use
2. Knowledge of the salient features and rhetorical categories unique to academic discourse and the range of choices available for each function

3. Knowledge of how temporal factors and basic meanings of tenses are related to rhetorical uses in academic writing.

These elements are discussed in turn below.

First, the present study has raised awareness of disciplinary variations and pointed out areas where generalizations should be avoided and where meaningful generalizations can be made. Being aware of variations can prevent overgeneralization and help teachers and writers evaluate textbook advice such as the following, found in a text intended to prepare advanced ESL students for academic writing:

To minimize verb tense errors . . . try to write as often as possible in the simple past tense.

(Reid, 1987:195)

Knowledge of general tendencies and the relative importance of the various tenses in different genres and disciplines can help teachers or textbook developers decide where to focus their limited class time and resources. This application can be illustrated by looking at some examples from EST. In Huckins and Olsen's (1991) technical and professional writing text for non-native speakers of English, the coverage of tense departs from the typical approach of describing the forms and temporal meanings of the twelve tenses. It covers only the five tenses that have been found to occur with any kind of frequency in the subjects and genres covered in the book. In Sime's (1990) chapter on experimental report writing in a physical chemistry text, the author focuses on only two tenses, the simple present and simple past, which he suggests would satisfy the requirements about 95% of the time. Both texts discuss tense in terms of rhetorical categories.

As for the second element, being aware of the relationships between tense and the salient features and rhetorical categories unique to academic discourse can help shape teaching approaches. Weissberg & Buker (1978) describe how they incorporated knowledge of correspondences between grammatical form and rhetorical function to develop a syllabus for a class of graduate foreign students in agricultural sciences. The syllabus was divided into rhetorical teaching units and each unit focused on one or two grammatical choices and lexical items that typically occur in a given rhetorical category. In this approach, linguistic forms are not treated as “ends in themselves but as integral features of written communicative acts” (321). A similar approach can be used in the teaching of tense, where the tense categories are not taught as isolated entities but as consequences of rhetorical choices.

Nonetheless, given what has been learned about genre and disciplinary variations, the rhetorical categories are not necessarily the same in all situations. The schema proposed in the present analysis for the identification of text components and rhetorical functions can be used by teachers and writers to inform themselves of the requirements specific to any situations. It could be useful, particularly in a multidisciplinary writing class, to introduce students to the schema and give them practice in conducting their own research. Using authentic texts as models, students can find out for themselves the conventions and practices of any particular genres or disciplines relevant to their needs. The same exercise could also be useful for students taking courses in different disciplines or engaging in interdisciplinary studies who often have to satisfy diverse disciplinary requirements.

Finally, an understanding of how the temporal factors and basic meanings of tenses affect tense choice in academic discourse is important. As Malcolm (1987:41) points out, “a list of ‘uses’ to memorize . . . is much easier to forget than a general understanding of how temporal references affect tense choices.” The present study has gone beyond providing a list of tense-function associations. It has pointed out the relevant aspects of general tense grammar and has shown how they can be used to explain usage specific to academic discourse. A thorough understanding of the full range of possible meanings and uses of the tenses and how they can be applied to rhetorical uses in academic writing will allow the writer the greatest flexibility in the use of tense to express nuances in meanings. Table 6.1 provides examples showing how temporal references and the basic meanings and uses of tense as described in general English (examples shown in Table 3.3) can be linked to rhetorical uses and content categories specific to academic writing. Several findings from previous EST studies have been included to illustrate how the descriptions can be expanded to cover a broader range of disciplines.

Table 6.1 Time, Meanings, and Rhetorical Uses in Academic Writing

Simple Present	
Temporal location	Coincides with the present moment or extends over a period of time including the present moment
Basic meanings	Complete and unchanging; immediate factuality
Rhetorical uses specific to academic writing	<p>Stative: describes what is contained or shown in the paper</p> <ul style="list-style-type: none"> • statement of purpose when the paper is viewed as a complete work • reference to figures or tables (Malcolm, 1987) <p>Performative: describes an action that is accomplished by the uttering of it</p> <ul style="list-style-type: none"> • statement of purpose when the paper is viewed as a work in progress, signifying the activity as occurring simultaneously with the moment of writing <p>Immediate factuality: represents the writer's present mental state or what the writer avers to be truth</p> <ul style="list-style-type: none"> • writer's commentary and evaluation, presenting the writer's opinions and interpretations <p>Timeless generalizations: adds a timeless dimension to enhance generalizability; depicts unchanging entities</p> <ul style="list-style-type: none"> • reference to previous research, presenting the cited work as established knowledge and emphasizing the current relevance of the cited work • reference to primary sources, presenting the sources as complete and unchanging • reference to fictional events and characters, reflecting the timeless and unchanging nature of works of art • reference to philosophers, philosophical works, ideas, and arguments, presenting opinions or doctrines expressed as general timeless truths • reference to results of scientific experiments, focusing on the present implications of the findings (Biber <i>et al.</i>, 1998) • description of current practice (Malcolm, 1987) • description of apparatus used but not designed specifically for the experiment (Lackstrom <i>et al.</i>, 1973) • description of procedures habitually used (Wingard, 1986, cited in Salager-Meyer, 1992)

Table 6.1 (Continued)

Simple Past	
Temporal location	Prior to the present moment of reading and writing
Basic meanings	Completeness and remoteness; past facts
Rhetorical uses specific to academic writing	<p>Events, actions, or processes completed in the past:</p> <ul style="list-style-type: none"> • recapitulation, referring to what was said earlier in the paper • introducing secondary or primary source where a specific date is stated or a past time frame is implied • reference to historical events and participants in the events • reference to biographical information • reference to experimental research, focusing on the specific procedures used and experiments performed (Malcolm, 1987; Biber <i>et al.</i>, 1998) • description of apparatus designed for a specific experiment (Lackstrom <i>et al.</i>, 1973)
Present Perfect	
Temporal location	From some point in the past up to the present moment of reading and writing
Basic meanings	Retrospective point of view from the present to a time prior to now
	<p>Relating a past situation to the present moment:</p> <ul style="list-style-type: none"> • recapitulation, referring to what has been said up to this point in the paper <p>Conveying generalization without committing to the future:</p> <ul style="list-style-type: none"> • reference to past research: referring to what has been done so far on a related topic in the field and placing the present work in relation to other works in the discourse community • reference to past research (with a negative lexical item), identifying what has not been done so far to justify the needs for further research <p>Referring to a prior situation with current relevance:</p> <ul style="list-style-type: none"> • reference to past experiments with direct relevance to the current study (Lackstrom <i>et al.</i>, 1973)

The descriptions provided in Table 6.1 are in summary form and are only meant to serve as samples. For teaching purposes, it would be helpful to elaborate on the definitions and basic meanings of the tenses and to illustrate each use with examples taken from authentic texts. It would also be essential to discuss tense use in units of discourse beyond the single clause level, using examples from authentic texts to show how tense sequences and tense shifts occur in actual discourse, as demonstrated in Section 5.3.

6.3 Suggested Further Research

As stated in Chapter 3, due to time constraints, it was necessary to limit the scope of the present analysis to tense and aspect. Further research which includes a focus on modality and voice would lead to a more complete picture of tense use. With regard to modality, this thesis has only commented on the use of modals as a group. Future studies could compare the choices of the individual modal forms or the use of modals in different disciplines. With regard to voice, previous findings from EST research have called into question a common notion concerning the use of the passive in the natural sciences. Scientific writing has been characterized as being objective and impersonal and science writers are often encouraged to use the passive voice to show objectivity. However, as reported in Chapter 2, several EST studies have shown that the active voice typically exceeds the passive except in the method section (Heslot, 1982; Hanania & Akhtar, 1985; Biber *et al.*, 1998). On the other hand, the presentation of humanities arguments has generally been portrayed as being more subjective and personal than scientific writing. Do these characteristics lead to higher use of the active voice in the humanities domain? To find out, analyses of voice use in the humanities disciplines would be necessary.

In terms of corpus size, what has been examined in this thesis represents only an infinitesimal portion of the whole. However, the schema of analysis proposed in the present study can be extended to the investigation of a larger corpus and to test the quantitative results of this thesis, perhaps using computer corpus-based methods where resources permit. Another approach is to increase the sample size but to focus on only one single discipline. With a larger sample, comparison studies can also be conducted to compare the subfields within each discipline.

Also, as noted earlier, the evidence of disciplinary variations found in the quantitative study suggests that results based on the study of a given discipline can not be readily transferred to another. To gain a more complete profile of tense use in the humanities domain, research on disciplines other than the three studied here needs to be done. Comparative studies can also be conducted to compare usage between the domains of the humanities, the social sciences, and the natural sciences.

Finally, the present study has focused solely on the genre of the journal article. Further research can be done on other academic genres such as abstracts, theses and dissertations, textbooks, proposals, etc. In addition to examining texts written by experts at the highest level of the continuum of progression noted in Section 6.2, texts written by writers at the lower end of the continuum can be analysed to provide insights into the tense usage in various levels of academic writing.

The present study of three humanities disciplines, together with previous studies from the natural sciences, has led to a broader picture of tense use in academic writing. Further work in the areas suggested above will continue to add valuable insights to the growing knowledge base.

Bibliography

- American Psychological Association. (1994). *Publication manual of the American Psychological Association* (4th ed.). Washington, DC: American Psychological Association.
- Biber, D., Conrad, S., & Reppen, R. (1998). *Corpus linguistics: Investigating language structure and use*. Cambridge: Cambridge University Press.
- Bley-Vroman, R., & Selinker, L. (1984). Research design in rhetorical/grammatical studies: A proposed optimal research strategy. *English for Specific Purposes*, 3, 1-6.
- Brett, P. (1994). A genre analysis of the results section of sociology articles. *English for Specific Purposes*, 13(1), 47-59.
- Bull, W. (1963). *Time, tense and the verb: A study in theoretical and applied linguistics*. University of California Publications in Linguistics, 19. Berkeley: University of California Press.
- Celce-Murcia, M., & Larsen-Freeman, D. (1983). *The grammar book: An ESL/EFL teacher's course* (1st ed.). Boston, Massachusetts: Heinle & Heinle Publishers.
- Celce-Murcia, M., & Larsen-Freeman, D. (1999). *The grammar book: An ESL/EFL teacher's course* (2nd ed.). Boston, Massachusetts: Heinle & Heinle Publishers.
- Comrie, B. (1976). *Aspect*. London: Cambridge University Press.
- Comrie, B. (1985). *Tense*. London: Cambridge University Press.
- Day, R. A. (1998). *How to write and publish a scientific paper* (5th ed.). Phoenix, Arizona: The Oryx Press.
- Een, J. A. (1982). Tense usage in reporting research in geotechnical writing. *Working Papers in ESL*, 2, 72-91. Minneapolis: University of Minnesota.
- Furay, C., & Salevouris M. J. (1988). *The methods and skills of history: A practical guide*. Arlington Heights, Illinois: Harlan Davidson, Inc.
- Giltrow, J. (1995). *Academic writing: Writing and reading across the disciplines* (2nd ed.). Peterborough, Ontario: Broadview Press.
- Hacker, D. (1989). *A Canadian writer's reference*. Scarborough, Ontario: Nelson Canada.

- Halliday, M. A. K. (1993). Quantitative studies and probabilities in grammar. In M. Hoey (Ed.), *Data, description, discourse*. London: Harper Collins Publishers Ltd.
- Halliday, M. A. K. (1994). *An introduction to functional grammar* (2nd ed.). London: Edward Arnold.
- Hanania, E. A. S., & Akhtar, K. (1985). Verb form and rhetorical function in science: A study of MS theses in biology, chemistry and physics. *English for Specific Purposes*, 4, 49-58.
- Heslot, J. (1982). Tense and other indexical markers in the typology of scientific texts in English. In Hoedt *et al.* (Eds.), *Pragmatics and LSP* (pp. 83-104). Copenhagen: Copenhagen School of Economics.
- Holmes, R. (1997). Genre analysis, and the social sciences: An investigation of the structure of research article discussion sections in three disciplines. *English for Specific Purposes*, 16(4), 321-337.
- Huckin, T. N., & Olsen, L. A. (1991). *Technical writing and professional communication for nonnative speakers of English* (2nd ed.). New York: McGraw-Hill, Inc.
- Hyland, K. (1996a). Talking to the academy: Forms of hedging in science research Articles. *Written Communication*, 13(2), 251-281
- Hyland, K. (1996b). Writing without conviction? Hedging in science research articles. *Applied Linguistics*, 17(4), 433-454.
- Hyland, K. (1999a). Reporting verbs in research articles. Paper presented at TESOL'99. New York.
- Hyland, K. (1999b). Academic attribution: Citation and the construction of disciplinary knowledge. *Applied Linguistics* 20(3), 341-367.
- Jacoby, S. (1987). References to other researchers in literary research articles. *ELT Journal*, 1, 33-78.
- Jackson, H. (1990). *Grammar and meaning: A semantic approach to English grammar*. New York: Longman Inc.
- Lackstrom, J. E., Selinker, L., & Trimble, L. P. (1970). Grammar and technical English. In R. Lugton (Ed.), *English as a second language: Current issues* (pp. 101-133). Philadelphia, PA: The Center for Curriculum Development, Inc.
- Lackstrom, J. E., Selinker, L., & Trimble, L. P. (1973). Technical rhetorical principles and grammatical choice. *TESOL Quarterly*, 7, 127-136.

- Larsen-Freeman, D. (in press). The grammar of choice. In E. Hinkel & S. Fotos (Eds.), *New perspectives on grammar teaching in second language classrooms*. Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc.
- Leech, G. N. (1987). *Meaning and the English verb* (2nd ed.). London & New York: Longman.
- Lock, G. (1996). *Functional English grammar: An introduction for second language teachers*. New York: Cambridge University Press.
- Lyons, J. (1977). *Semantics* (Vols. 1-2). London: Cambridge University Press.
- MacDonald, S. (1994). *Professional academic writing in the humanities and social sciences*. Southern Illinois University.
- Malcolm, L. (1987). What rules govern tense usage in scientific articles? *English for Specific Purposes*, 6(1), 31-43.
- Mitchell, M. R., & Hemus, R. C. (1988). *Style guide for research papers*. Victoria, B.C.: Camosun College.
- Oster, S. (1981). The use of tenses in "reporting past literature" in EST. In L. Selinker, E. Tarone, & V. Hanzeli (Eds.), *English for academic and technical purposes* (pp. 76-90). Rowley, MA: Newbury House Publishers, Inc.
- Reid, J. M. (1987). *The process of composition* (2nd ed.). Englewood Cliffs, New Jersey: Prentice-Hall, Inc.
- Riddle, E. (1978). *Sequence of tenses in English*. Unpublished doctoral dissertation, Urbana, Illinois: University of Illinois at Urbana-Champaign.
- Riddle, E. (1986). The meaning and discourse function of the past tense in English. *TESOL Quarterly*, 20(2), 267-286.
- Salager-Meyer, F. (1992). A text-type and move analysis of verb tense and modality distribution in medical English abstracts. *English for Specific Purposes*, 11, 93-113.
- Shaw, P. (1992). Reasons for the correlation of voice, tense, and sentence function in reporting verbs. *Applied Linguistics*, 13(3), 302-319.
- Sime, R. J. (1990). Writing the report. In *Physical chemistry: Methods, techniques, and experiments* (pp. 158-176). Philadelphia: Saunders College Publishing.
- Sinclair, J. M. (1988). Mirror for a text. *Journal of English and Foreign Languages (Hyderabad, India)* 1, 15-44

- Swales, J. M. (1981). *Aspects of article introductions*. Birmingham, UK: The University of Aston, Language Studies Unit.
- Swales, J. M. (1990). Research articles in English. In *Genre analysis: English in academic and research settings* (pp. 110-176). New York: Cambridge University Press.
- Swales, J. M., & Feak, C. B. (1994). *Academic writing for graduate students: Essential tasks and skills*. Ann Arbor: The University of Michigan Press.
- Tadros, A. (1993). The pragmatics of text averral and attribution in academic texts. In M. Hoey (Ed.), *Data, description, discourse*. London: Harper Collins Publishers Ltd.
- Thetela, P. (1997). Evaluated entities and parameters of value in academic research articles. *English for Specific Purposes, 16*(2), 101-118.
- Thompson, G., & Ye, Y. (1991). Evaluation in the reporting verbs used in academic papers. *Applied Linguistics, 12*(3), 365-382
- Watson, R. A. (1992). *Writing philosophy. A guide to professional writing and publishing*. Carbondale and Edwardsville: Southern Illinois University Press.
- Weissberg, R., & Buker, S. (1978). Strategies for teaching the rhetoric of written English for science and technology. *TESOL Quarterly, 12*(3), 321-329.
- Wingard, P. (1981). Some verb forms and functions in six medical texts. In L. Selinker, E. Tarone, & V. Hanzeli (Eds.), *English for academic and technical purposes* (pp. 53-64). Rowley, MA: Newbury House Publishers, Inc.
- Yule, G., Mathis, T., & Hopkins, M. F. (1992). On reporting what was said. *ELT Journal, 46*(3), 246-51.

Appendix A

Corpus of Journal Articles

English

- Barnes, D. H. (1998). Myth, metaphor, and memory in Toni Morrison's reconstructed South. *Studies in the Literary Imagination*, 31(2), 17-35.
- Birch, D. (1999). Elegiac voices: Wordsworth, Turner, and Ruskin. *The Review of English Studies*, 50(199), 332-344.
- Dobozy, T. (1998). "Designed anarchy" in Mavis Gallant's *The Moslem Wife and Other Stories*. *Canadian Literature*, 158, 65-88.
- Gammel, I. (1999). "My Secret Garden": Dis/Pleasure in L. M. Montgomery and F. P. Grove. *English Studies in Canada*, 25, 39-65.
- Happe, P. (1999). Dramatic images of kingship in Heywood and Bale. *Studies in English Literature 1500-1900*, 39(2), 233-247.
- Hunter, C. (1998). "I Don't Know How to Begin": Findley's work in the sixties. *Essays on Canadian Writing*, 64, 13-31.

History

- Attiya, H. M. (1999). Knowledge of Arabic in the Crusader States in the twelfth and thirteen centuries. *Journal of Medieval History*, 25(3), 203-213.
- Dickinson, J. R., & Sharpe, J. A. (1999). Courts, crime and litigation in the Isle of Man, 1580-1700. *Historical Research*, 72(178), 140-159.
- Gordon, A. (1999). Patronage, etiquette, and the science of connection: Edmund Bristol and political management, 1911-21. *The Canadian Historical Review*, 80(1), 1-31.
- Husband, W. B. (1998). Soviet atheism and Russian orthodox strategies of resistance, 1917-1932. *The Journal of Modern History*, 70, 74-107.
- Scott, P., & Rooth, T. (1999). Public policy and foreign-based enterprises in Britain prior to the Second World War. *The Historical Journal*, 42(2), 495-515.
- Stevens, D. G. (1999). World War II economic warfare: The United States, Britain, and Portuguese wolfram." *The Historian*, 61(3), 539-555.

Philosophy

Blanchette, P. (1999). Relative identity and cardinality. *Canadian Journal of Philosophy*, 29(2), 205-224.

Kovach, V., & Fitzpatrick, J. (1999). Resolutions. *Australasian Journal of Philosophy*, 77(2), 161-173.

Schaeffer, D. (1999). Wisdom and wonder in metaphysics. *The Review of Metaphysics*, 52, 641-656.

Shaw, P. (1999). The Pareto argument and inequality. *The Philosophical Quarterly*, 49(196), 353-368.

Williams, M. (1999). Meaning and deflationary truth. *The Journal of Philosophy*, 96(11), 545-564.

Wolfsdorf, D. (1999). Plato and the Mouth-Piece theory. *Ancient Philosophy*, 19, 13-24.

Appendix B

Number of Occurrences in Individual Articles

Table B.1 Number of Occurrences in Six English Articles

	E1	E2	E3	E4	E5	E6	Total
Simp Pres	508	139	525	201	289	519	2181
Simp Past	46	116	19	126	86	12	405
Modals	48	21	49	15	72	68	273
Pres Perf	15	4	13	21	17	22	92
Past Perf	1	25	--	2	9	--	37
Pres Prog	--	5	--	1	7	10	23
Past Prog	--	4	--	5	2	1	12
Total	618	314	606	371	482	632	3023

Table B.2 Number of Occurrences in Six History Articles

	H1	H2	H3	H4	H5	H6	Total
Simp Pres	69	93	101	21	23	3	310
Simp Past	218	385	580	716	308	401	2608
Modals	31	64	85	62	41	76	359
Pres Perf	4	10	6	1	14	--	35
Past Perf	7	19	20	24	22	26	118
Pres Prog	--	2	--	--	--	--	2
Past Prog	2	4	3	11	3	11	34
Total	331	577	795	835	411	517	3466

Table B.3 Number of Occurrences in Six Philosophy Articles

	P1	P2	P3	P4	P5	P6	Total
Simp Pres	455	504	488	483	552	354	2836
Simp Past	7	9	16	25	9	49	115
Modals	75	143	89	138	104	91	640
Pres Perf	13	8	5	16	6	13	61
Past Perf	--	--	--	--	--	3	3
Pres Prog	5	11	3	7	3	12	41
Past Prog	--	--	--	--	--	--	--
Total	555	675	601	669	674	522	3696