Genre Analysis, and the Social Sciences: An Investigation of the Structure of Research Article Discussion Sections in Three Disciplines

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Abstract—The Discussion sections of 30 social science Research Articles, 10 each from the disciplines of history, political science and sociology, were analyzed according to a modified version of the moves, or communicative categories, presented in previous studies. It was found that, although there were fundamental similarities to the natural sciences, social science Discussion sections also displayed some distinctive features. History texts were particularly distinctive, and of the three disciplines bore the least resemblance to those of the natural sciences. It is suggested that this distinctiveness is sufficient to justify the idea of a social science subgenre of the Research Article genre and that data of this kind are needed if academic reading and writing materials are to be developed that are sensitive to the structural features of academic texts and in particular to the ways in which such features vary according to discipline. © 1997 The American University. Published by Elsevier Science Ltd

Introduction

Since the early 80s applied linguists and language teachers, especially those concerned with the teaching of ESP and EAP, have shown a great deal of interest in genre-centered approaches to the analysis of written and spoken discourse. This interest in genre analysis has, to a large extent, been motivated by pedagogical concerns, in particular by the need to provide satisfactory models and descriptions of academic and scientific texts and to enhance the ability of non-native speaker students to understand and, where appropriate, to produce them. It has been suggested, for example by Bhatia (1993), that earlier studies of academic and scientific discourse have failed to produce relevant and comprehensive accounts of such texts.

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The essence of the concept of genre, as now used in applied linguistics, ESP and rhetoric, is an emphasis on the primacy of communicative purpose and the ways in which communicative needs shape or influence both surface form and deeper rhetorical structures. For example, reprint requests, which Swales (1990) has discussed in some detail, can be considered members of a single genre since they share a clear communicative purpose, the obtaining of a copy of an article or paper, that results in their being structured in a very distinctive fashion. A genre then can be briefly defined as a class of texts characterized by a specific communicative function that tends to produce distinctive structural patterns. The concept of genre has been discussed at some length by several writers, including recently Devitt (1993), Freedman (1993) and Berkenkotter & Huckin (1993) but the most helpful definition is still perhaps that provided by Swales (1990:58):

A genre comprises a class of communicative events, the members of which share some set of communicative purposes. These purposes are recognized by the expert members of the parent discourse community, and thereby constitute the rationale for the genre. This rationale shapes the schematic structure of the discourse and influences and constrains choice of content and style. Communicative purpose is both a privileged criterion and one that operates to keep the scope of a genre as here conceived focused on comparable rhetorical action. In addition to purpose, exemplars of a genre exhibit various patterns of similarity in terms of structure, style, content and intended audience.

There is now a substantial literature in English on a variety of academic genres including abstracts, presentations, lectures, theses, dissertations and textbooks. It is, however, the Research Article (RA) that has received the most attention with several studies focusing on its overall structure. This is scarcely surprising since in many disciplines the RA is the main channel of scientific or scholarly communication, although its dominance has lately been challenged by some social researchers (see Canagarajah 1996). Where the structure of specific sections of the RA has been analyzed, attention has been mainly directed towards the Introduction or, less frequently, the concluding Discussion section. Swales 1981 study, which was the first full-scale analysis of RA Introductions, has been particularly influential. The RA Introduction has also been studied by Cooper (1985), Crookes (1986), and Taylor & Chen (1991). Introductions to social science RAs have been analyzed by Dudley-Evans & Henderson (1990) and Holmes (1995). The central portions of the RA, the Methods and Results sections, seem to be generally regarded as relatively straightforward and unproblematic, although Conduit & Modesto (1990) and Thompson (1993) indicate that this may not be the case.

It is noticeable that little of the research by applied linguists has dealt with the variability of discourse structures between or within disciplines. This is a question that has been of some concern to scholars working in the American tradition of rhetoric studies. Peck MacDonald (1987), for example,
has indicated that problems are formulated very differently in particular disciplines, while Dillon (1991) argues that academic discourse is characterized by considerable diversity, competition and contention.

This concern with disciplinary variability is part of a growing awareness by rhetoric scholars and sociologists of science over the last two decades of the intensely social nature of scientific and academic writing. Increasingly, academic discourse is analyzed in the context of disciplinary communities that are formed by a variety of social pressures and constraints. This approach has been advocated with particular force by Bazerman (1993):ix:

We can no longer view writing as limited textual practice, understood only as the bounded rules of the page. Nor is writing to be understood only as the product of an isolated mind... Writing is potentially responsive to and dependent on everything that is on the social stage...

Although there have been some studies of academic writing in the humanities and social sciences, for example by McCloskey (1986), Peck MacDonald (1987, 1990, 1992), Dillon (1991), Hunston (1993) and Brett (1994), the bulk of the research to date on particular sections of the RA or on its overall structure has dealt with the natural sciences. This is perhaps unfortunate since a large and increasing number of non-native speaker students are studying social science subjects through the medium of English. There is therefore a pedagogical rationale for extending the genre analysis of the RA into the social sciences. A further justification for studying social science RAs is that this will enable us to determine how far the patterns observed in the natural sciences are generalizable to all written academic discourse.

The objective of the present study is therefore to examine the structure of the Discussion sections, or equivalent, of articles from the disciplines of history, political science and sociology. Although there are studies by McKinlay (1984), Hopkins (1985) and Peng (1987), research on this section is limited compared to the Introduction and there appear, moreover, to be no published studies to date that have focused on Discussion sections of social science RAs. Given the variability of this section and the importance attached to it by students and supervisors (Dudley-Evans 1986, 1993), the absence of research is especially striking. This study will examine the ways in which the Discussion sections of social science RAs differ from those in the natural sciences and the ways in which there is variation within the social sciences. Political science and sociology were chosen since they are, by common consent, central social science disciplines. History was included because its ambiguous status, “traditionally poised between the social sciences and the humanities” as Dillon (1991:15) puts it, might help to distinguish the features specific to social science disciplines.

**Methods**

Thirty articles were selected for analysis, 10 each from the disciplines of history, political science and sociology. The choice of journals was motivated
by the need to control as much as possible for such variables as writers' nationality, levels of experience and expertise, period of publication and the special features of subdisciplines. Articles were selected from the American Historical Review (AHR), The American Journal of Political Science (AJPS), and the Sociological Quarterly (SQ). These three journals are of comparable status, are published in the United States by professional disciplinary associations (national in the case of the AHR, regional in the case of the AJPS and the SQ) and show no obvious bias towards any subdiscipline or overt ideology. The corpus was restricted to a period of two years to control for rapid changes within any of the disciplines. As well as RAs, all three journals publish a variety of items such as review essays, rebuttals, comments and research notes. It is plausible that such texts represent distinct genres with distinct communicative purposes and they were therefore excluded from the corpus. Consequently, the corpus in the present study is restricted to articles the primary function of which is to present original research. The RAs in the corpus were selected by using a table of random numbers. Full bibliographical details of the articles are given in the Appendix. In the text of this study each item is also identified by a letter and a number.

Analysis of the RAs was based on a modified version of the model outlined by Hopkins and Dudley-Evans (1988:118) for natural science Discussion sections. They identify 11 moves that can be observed in Discussion sections, although they found that only the second of these, Statement of Results, is obligatory. The moves are: (1) Background Information, (2) Statement of Result, (3) (Un)expected Outcome, (4) Reference to Previous Research (Comparison), (5) Explanation of Unsatisfactory Result, (6) Exemplification, (7) Deduction, (8) Hypothesis, (9) Reference to Previous Research (Support), (10) Recommendation, and (11) Justification. For the present study, a number of modifications were made, mainly by conflating moves or by somewhat extending their scope. It was also found necessary to add one new move, Outlining Parallel or Subsequent Developments. This move was found only in the concluding paragraphs of history articles and consists of the presentation in summary form of data additional to that given in the main body of the article. For example, the conclusion to RA H8, “Struggles for the Screen,” the main body of which ends in 1929, contains a paragraph briefly outlining events in the 1930s. Thus, the following list of moves was adopted for the analysis of Discussion sections:

1. Background Information.
2. Statement of Result, or statement about the significance of the present research.
3. (Un)expected Outcome, in which the writer comments on whether the result is expected or not.
4. Reference to Previous Research, in which the writer compares his or her results with those reported in the literature or compares his or her research procedures, objectives or assumptions with those of previous writers or refers to previous work to support his or her generalization or refers to a deduction or hypothesis generated by previous research.
5. **Explanation of Unsatisfactory Result**, in which the writer suggests reasons for a surprising result or one different from the results in the literature or gives an example to support his or her explanation. This includes a single case of a satisfactory result being explained.

6. **Generalization**, in which the writer makes a claim about the generalizability of the particular results or limits claims to generalizability or raises, discusses and/or dismisses questions that are indirectly related to his or her research results.

7. **Recommendation**, in which the writer makes suggestions for future research or regarding public policy or justifies the need for such suggestions.

8. **Outlining Parallel or Subsequent Developments**, in which the writer summarizes data from a period subsequent to the one covered in the main body of the article or data about a closely related topic.

For present purposes, a move is defined as a segment of text that is shaped and constrained by a specific communicative function. A more rigorous definition can be found in (Nwogu 1991:114):

> By the term "move" is meant a text segment made up of a bundle of linguistic features (lexical meanings, propositional meanings, illocutionary forces, etc.) which give the segment a uniform orientation and signal the content of discourse in it. Each "move" is taken to embody a number of "Constituent Elements" or submoves which combine to constitute information in the move.

In most cases the unit of analysis was the sentence. There is a case for adopting a unit of analysis below the level of the sentence such as the clause, phrase or T-unit since a small number of instances were observed where writers embedded one move inside another or included two moves within a single sentence, techniques that seem to be more prevalent in the natural sciences. It was felt, however, that such a procedure would be too cumbersome for the present study and would not be worthwhile since it would involve very few sentences. Where a sentence appeared to contain two moves it was assigned to the move that seemed to be more salient. In the very few cases where it was impossible to decide which of the two moves within a sentence was more salient, it was coded as containing two moves. This was necessary for only three sentences in the entire corpus. It must be noted that this procedure does involve a degree of subjectivity that is perhaps unavoidable. The main consequence of using the sentence as the unit of analysis is that there is a slight underestimation of the degree of subtlety and complexity in a few Discussion sections. It might be noted that Crookes (1986) also argues for this procedure. If, however, we were to analyze a single text or segment of text rather than comparing several texts, it might be more appropriate to adopt for analysis a unit below the level of the sentence. Table 1 below presents an example of analysis of a Discussion section. The text is from history article H5, "Moving out and settling in:
Our study of residential mobility in interwar Riverside and the postwar United States yields several findings. First, the evidence on tenure in Riverside before 1950, and especially before 1946, carries implications for understanding both historical and postwar residential mobility. Historical estimates of 50 percent turnover within a decade probably mask a cycle of movement that was much shorter, on the average about two years. Also, interwar residential mobility paralleled the general pattern of nineteenth-century mobility historians have consistently found, which leads us to conclude that there was no fundamental change in the American propensity to move until after World War II. Second, the two major explanations advanced by postwar social scientists to explain contemporary residential mobility cannot by themselves account for the sudden, dramatic, and nationwide decrease in mobility that has characterized the United States since 1950. We believe that Franklin Roosevelt’s New Deal housing programs and policies ultimately constrained mobility by making home ownership easier and more attractive than it had been since the mid-nineteenth century. Roosevelt’s vision of a modernized social compact depended on a residentially stable citizenry. The size and power of the state that Roosevelt’s administration created allowed the federal government to intervene directly and forcefully in the home-financing market to achieve the president’s goal. It was not, however, simply a matter of the state providing access to home owning that restrained the American people’s propensity to move but rather its providing the means, the long term mortgage, which was motivated by the government’s desire to promote better citizenship.

We recognize that documenting the change in residential mobility before and after World War II does not explain it. We have tried to suggest that variations in endemic socioeconomic characteristics do not appear powerful enough to explain the dramatic shift in the historic pattern that we have observed. Instead, any satisfactory explanation of the change in residential mobility must take into account the enormous role of the state. William Leuchtenburg recently argued that historians beset by myriad varieties of social history and calls for synthesis needed to resurrect the state as a major factor in American history. We concur and further suggest that historians will need to reevaluate the role of Franklin Roosevelt’s New Deal state in restructuring such a basic feature of American life as residential mobility, armed with social-scientific sensibilities that will allow them to analyze the political articulation of social
values, the bureaucratic implementation of social policy and the experience of ordinary people. (1420)

The structure of this text seems fairly straightforward although there are some points of difficulty. The reference to “findings” in the first sentence is somewhat confusing since it seems to refer both to data uncovered by the authors’ research and to deductions and hypotheses arising from the data. The fifth sentence of paragraph 1 also presented some difficulty. At first glance the sentence reads like an indication of a gap or weakness of the kind normally found in Introductions. It was eventually classified as a Move 4 since it is unambiguously a reference to a hypothesis produced by previous research although, unusually, it criticizes a previous hypothesis instead of using it to support the authors’ generalizations. The fourth sentence of the second paragraph was classified as part of a Move 7 since, although it refers to another writer, it concerns a recommendation by that writer rather than his previous research.

**Results**

The RAs in the corpus were first analyzed for general patterns of organization. It was observed that all the texts were divided into sections. Those in the history articles were not titled and were demarcated by double spacing and partial capitalization of the first line of each section, presumably as a result of editorial policy. The sections in the political science and sociology RAs, except in most cases for the Introductions, were titled although the number of sections and their titles varied quite considerably.

The organizational patterns of the political science and sociology RAs were quite similar. Firstly, they all contained a recognizable Introduction. In 18 out of 20 cases this was untitled and was then followed by a titled section. With one exception, this was an extensive section that dealt with theoretical background, previous research and general topical information in varying proportions. Political science and sociology RAs also had, with two exceptions, sections in the main text that dealt with methods. One of the exceptions discussed questions of method in an appendix. Two political science and four sociology ras had fairly long sections in which hypotheses were laid out. All of the RAs had identifiable sections dealing with Results and Discussions.

Most of the history articles were rather different. All contained an identifiable Introduction and a Discussion section, or conclusion as the authors would probably prefer to call it, but only two contained a section devoted to background and only two a section that dealt with methods. They all had a main section that, for the sake of comparability across the disciplines, will be referred to as the Results section although normally historians would probably call it an argument or a narrative.

It seems safe to say that there is a standard pattern of organization for RAs in political science and sociology and perhaps for other social science
disciplines consisting of Introduction—Background—Methods—Results—Discussion, with a number including a Hypotheses section between the Background and the Methods section. The presence of such lengthy Background sections can perhaps be considered a distinctive feature of RAs in the social sciences as opposed to those in the natural sciences and might reflect the absence of an agreed theoretical framework and what Bazerman (1988:35) calls “a fixed codified literature.” For history RAs, however, the preferred structure is Introduction—a main argument or narrative section that for convenience will be referred to as Results—Discussion or conclusion.

The distinctiveness of history texts is perhaps related to the discipline’s concern with providing accounts of discrete events rather than with the discovery of generalizable patterns. Extensive Background sections are uncommon in history articles since the delineation of a larger context is generally seen as unnecessary. Political scientists and sociologists do need, as noted above, to establish such a context while it seems that natural science Discussion sections tend towards brevity because much of the context can be assumed to be common disciplinary knowledge. The absence of a Methods section in most of the history texts is in all probability a consequence of the nature of historical data which, while they may be selectively ignored or emphasized, are not actually constructed by the researcher.

The move structure of the Discussion sections (or Conclusions) was analyzed using the model outlined earlier. The structure of the sections is indicated below in Table 2. Thus the structure 1—2—8—1 would indicate that the Discussion began with Background Information, proceeded to a Statement of Result and the Outlining of Subsequent or Parallel Developments and concluded with the provision of further information. Move-units are demarcated by the transition from one move to another. The number of units therefore indicates the degree of structural complexity.

There is considerable variation regarding the moves included in the Discussion sections. It seems that no move is completely obligatory. The most common moves are Move 6, Generalization, and Move 2, Statement of Results, but even these are omitted from four and six articles respectively. Other moves that occurred in at least half of the sections analyzed are Move 1, Background Information (observed in 15 RAs); Move 4, Reference to Previous Research (20 RAs); and Move 7, Recommendation (17 RAs). Move 3, (Un)expected Outcome, was observed in 11 texts, Move 5, Explanation of (Un)satisfactory Result, in four and Move 8, Outlining Parallel or Subsequent Developments, in five. Disciplinary variation was observed with regard to Background Information (present in four history, seven political science and four sociology texts), Reference to Previous Research (four, nine and seven texts) and Recommendation (four, five and eight texts).

The corpus was also analyzed to determine the frequency with which particular moves were likely to open a Discussion section. Move 2, Statement of Results, stands out very clearly as the preferred opening for Discussion sections with 15 RAs choosing this option. The next most common openings
were the provision of Background Information, which appeared five times and Generalization, which was chosen four times. No other move was observed as the opening move in more than three texts.

Turning to the closing moves of the Discussion sections, it was observed that every move except for Move 1 made at least one appearance as a closing move. The most frequent choice was Move 7, Recommendation, which ended 13 articles, followed by Move 6, Generalization, which occurred seven times. It is noticeable that sociologists showed a strong tendency to select Recommendation as the closing move.

The number of sentences devoted to each particular move in the Discussion section was also calculated and is indicated in Table 3. It can be seen that, as far as the amount of text given over to particular moves is concerned, Move 2, Statement of Result, Move 6, Generalization, and Move 8, Outlining Subsequent or Parallel Developments, are the most prominent. However, the prominence of Move 8 in the table is somewhat misleading.
since it appears only in history RAs and then in only half of them, although when it does appear it takes up a substantial amount of text.

Variation according to discipline is highly significant with regard to Move 2, *Statement of Result*, which was favoured by sociologists, Move 6, *Generalization*, which was especially prominent in political science texts, Move 7, *Recommendation*, which was much more in evidence in sociology texts than in the other two disciplines and Move 8, *Outlining Parallel or Subsequent Developments*, which occurred only in history articles.

Overall complexity was another area where there was a marked difference between the disciplines. History Discussion sections were the least complex with 4.5 move-units and political science the most complex with 10.9 units. Sociology occupied an intermediate position with 7.9 units. This is in marked contrast to the Introductions where history R4s were the most complex (see Holmes 1995). The writers of History Discussion sections also tended to employ a more restricted repertoire of moves. On average, 3.3 moves were observed in history Discussion sections, 4.7 in political science and 4.3 in sociology. As well as being less complex and employing fewer moves, history Discussion sections also accounted for a smaller proportion of the RA than those in the other two disciplines.

The observation, referred to earlier, by Dudley-Evans (1986) that moves tend to occur in a predictable order was found to be applicable to the social sciences. In the present corpus, the moves higher up the list usually made their first appearance before those lower down. There were, however, some exceptions. Move 2 appeared before Move 1 several times and Generalization was observed to normally occur before either Move 4, *Reference to Previous Research*, or Move 5, *Explanation*.

A few of the sections in the corpus had a straightforward linear structure in which discussion proceeded from one move to another without recursion. Thus RA S9, “Ethnic enclosure or ethnic competition: ethnic identification among Hispanics in Texas,” opens the Discussion section with a *Statement of Results*. This is followed by a comment on the expectedness of the outcome, a generalization that includes a limitation on claims to generalizability, a reference to previous research on another ethnic group and rec-
ommendations for future research. Many texts, however, did not proceed in such a linear fashion and were characterized by the recurrence of one or more moves. A typical pattern was the appearance of Statement of Result or Background Information followed by Generalization or Reference to Previous Research. Sometimes there was quite an elaborate sequence of such cycles. RA P10, “Explaining change in policy subsystems: Analysis of coalition stability and defection over time,” for instance, comprises five cycles, defined here as segments of text beginning with a Move 1 or Move 2. The first four cycles consist of Statement of Result and Generalization and the fifth of Statement of Result, Reference to Previous Research, and Generalization.

Again, there were noticeable disciplinary variations. Only one history RA was cyclical in that it contained more than one segment of text headed by a Move 1 or Move 2. On the other hand, all the political science RAs comprised at least two cycles and the mean number of cycles per section was 3.5. Sociology was somewhere in between. Seven sections had a cyclical structure and the mean number of cycles was 2.7. An interesting feature of the political science Discussion sections was that opening cycles tended to have fewer moves than later cycles.

To review the ground covered so far, it seems that, although the model derived from the analysis of natural science texts is, in its broad outlines, applicable to the Discussion sections of social science RAs, the latter are less predictable and there were noticeable disciplinary variations with regard to complexity, patterns of cyclical organization, the choice of closing moves and the presence or absence of particular moves.

Discussion

It appears, then, that the rhetorical structure of political science and sociology Discussion sections is quite similar to that found in the natural sciences in the sense that the same moves, or communicative categories, are discernible, albeit in varying proportions and with a lesser degree of predictability. One might also note the similarity of overall RA structure in that the conventional four sections are usually present in social science RAs and that the structure of the Introductions is broadly similar. Natural science and social science RAs can therefore be regarded with a good deal of confidence as members of the same genre. They are not, however, identical. Political science and sociology RAs resemble each other sufficiently and are sufficiently distinct from natural science RAs, as a comparison with previous research indicates, to justify the proposing of a separate subgenre characterized, as far as the Discussion section is concerned, by greater variability, limited complexity and a smaller number of cycles than natural science RAs.

We have noted, for example, that there is no completely obligatory move in social science Discussion sections. This is in marked contrast to Peng’s (1987) study of chemical engineering Discussion sections, which found that four moves, Information, Statement of Result, Comparison with Previous
Result, and Deduction, occurred in all of the texts studied, although Hopkins and Dudley-Evans (1988) found that only Statement of Result was mandatory in biology and irrigation and drainage papers. It is also particularly striking that a comparison of the moves observed in the social science texts with those observed in Peng’s study, which provides a complete analysis of all the texts, shows that generally it is either political science or sociology that most closely resembles chemical engineering as far as the presence of particular moves is concerned. This is consistent with the suggestion that political science and sociology RAs belong to a subgenre that is similar but not identical to that of the natural science RA while History RAs are rather more distinct but still related.

It is also noteworthy that the chemical engineering Discussion sections contained more cycles, defined as segments of text beginning with Move 1 or Move 2, and were more complex than their social science counterparts. Those in Peng’s corpus contained a mean of 6.8 cycles, significantly more than the means of 3.5 and 2.7 observed for political science and sociology Discussion sections. Chemical engineering Discussion sections contained a mean of 21.9 move-units compared to 10.9 for political science, 7.9 for sociology and 4.5 for history (Peng’s data has been reworked to conform to the categories of the present study).

History RAs show particular distinctiveness on a number of points. In terms of overall structure they usually lack a Methods section. The Introductions are very long and very complex while Discussions normally do not have a cyclical structure and tend to be brief. It seems inappropriate, however, to regard history RAs as a separate genre, since there is clearly a communicative purpose shared with the other disciplines and since they adhere closely to the Swalesian model in the Introductions. It is possible that history articles may be regarded as a distinct subgenre, as part of a humanities subgenre, or as combining features of social science and humanities subgenres. Resolving this issue would require comparison with the structure of articles from fields such as philosophy and literary and cultural studies.

To recapitulate, it would seem, if we make some fairly bold assumptions about the representativeness of chemical engineering, that social science Discussion sections are less complex, less predictable and more likely to employ a restricted repertoire of moves than the natural or hard sciences. The comparative complexity of social science Introductions has been noted by Crookes (1986) and Holmes (1995). It seems therefore that the social sciences, in contrast to the natural sciences, tend towards complexity and elaboration at the beginning of the RA rather than at the end.

It is plausible that such disciplinary variation reflects the tendency for research in the 20th century to become more expensive, systematic and hierarchically organized. Bazerman (1988) has discussed the process by which the production of knowledge in the natural sciences has become progressively more rational, cumulative and collaborative. Similarly, McNamme & Willis (1994), following Price’s (Price 1986) concept of “big science,”
outline a trend towards bureaucratization that is objectively measured by reference to quantitative data, collaborative authorship and external financial support. The evidence of the texts used in the present study is that, by these three indicators, political science and sociology are still rather less bureaucratized than the natural sciences, while history is substantially less so. It is not unlikely that bureaucratization has contributed to the increasing conventionalization of genres, a suggestion that is supported by the lesser predictability of the social science texts, particularly those from the least bureaucratized discipline of history.

We might also note the relative scarcity in history of references to previous research, a scarcity that is plausibly rooted in the limited development of cumulative research programs and the absence of a theoretical consensus in that discipline. This proposal is supported by the comments of a leading American historian on the disintegration of the former disciplinary consensus and the ultimate failure of the new social history of the 1960s to provide a new one (Fischer 1989). Such references are more likely to be found in political science and sociology texts, although in the latter they are often very brief, but they are not mandatory as they appear to be in natural science texts. It is also striking that a large section of the sociology texts, well over half the total number of sentences, is devoted to Statement of Result and Recommendation. We might tentatively suggest that this results from the prevalence of external sponsorship in that discipline and a perceived need to respond to sponsors' concern with the effective application of research findings.

The corpus analyzed here is quite limited, being composed of thirty texts. Further research might be profitably conducted within a single discipline to determine the degree of variability according to subdiscipline, ideology, region of origin and level of prestige. Until this is done, generalization about particular disciplines will necessarily remain somewhat speculative.

The findings of this study may have some implications for the teaching of EAP. Much of the recent discussion of the teaching of academic reading and writing skills to non-native speaker students has been concerned with the perceived inadequacy of available tasks, materials and syllabi, a deficiency that may in part be a result of a lack of awareness of the role of genre in academic discourse. Such unease was expressed as long ago as 1984 (Swales 1984) and as recently as 1995 (Thomas 1995). The need for sensitization to the variety and complexity of academic discourse and perhaps also to its social context is all the greater since many students approach academic texts with inappropriate schemata that result from a failure to grasp the characteristic functions and structures of genres.

It is likely that the production of appropriate and relevant materials and syllabi for EAP/ESP courses requires an awareness of the range of genres, the ways in which genres span disciplines and, equally, the ways in which they vary according to discipline and perhaps even to subdiscipline. The present study indicates that social science RAs display patterns that are significantly different from those observed in natural science RAs. This kind
of data might be of value if applied linguists are to have a full understanding of the nature of academic texts.

(Revised version received 1 October 1996)

REFERENCES


**Appendix**

**TEXTS**

**History**

All texts were published in the *American Historical Review*.


**Political science**

All texts were published in the *American Journal of Political Science*


### Sociology

All texts were published in *The Sociological Quarterly*


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