Chapter 4

Speaking as an insider: promotion and credibility in abstracts

This chapter examines a genre critical to disciplinary knowledge-making and therefore to the work of academics: that of research article abstracts. After the title, the abstract is generally the readers’ first encounter with a text, and is often the point at which they decide whether to continue reading and give the accompanying article further attention, or to ignore it. The research and the writer are therefore under close scrutiny in abstracts and, because of this, writers have carefully, and increasingly, tended to foreground their main claims and present themselves as competent community members. To gain readers’ attention and persuade them to read on, writers need to demonstrate that they not only have something new and worthwhile to say, but that they also have the professional credibility to address their topic as an insider.

As I have argued, this kind of persuasion is not simply accomplished with words, but with words that demonstrate legitimacy. This means that abstracts, like articles, letters, reviews and other genres, must recognise and replicate the field’s organisational structures, beliefs and authorised institutional practices; they must appeal to readers from within the boundaries of a disciplinary discourse. Abstracts are worthy of study because they are significant carriers of a discipline’s epistemological and social assumptions, and therefore a rich source of interactional features that allow us to see how individuals work to position themselves within their communities.

This involves a certain ‘marketisation’ – a promotion of oneself and one’s paper through discursive means which might be considered analogous to the promotion of goods (e.g. Fairclough, 1995). There is a considerable degree of interdiscursivity present in abstracts as writers seek to package their articles in a manner that highlights their relevance and credibility, thereby borrowing from the discursive practices of a more central, promotional culture. Such a borrowing, of course, is not simply a means of presenting ideational material; it also projects a specific professional identity and a way of conducting social relations with colleagues.

This chapter examines the generic patterns and certain formal qualities of over 800 article abstracts to determine how writers use this genre to typically situate themselves and their work in their disciplines, how they display credibility and ‘membership’. Once again I shall be searching for similarities and
differences between a number of academic fields, and shall, in addition, briefly consider a few of the changes that have occurred in abstracts since 1980.

ABOUT ABSTRACTS

Abstracts have been considered in the literature as an independent discourse, but one which functions as a 'representation' (Bazerman, 1984: 58), a 'distillation' (Swales, 1990: 179), a 'crystallisation' (Salager-Mayer, 1990: 367) or a 'summary' (Kaplan et al., 1994: 405) of an associated text. Often the purpose of an abstract is regarded as 'a description or factual summary of the much longer report, and is meant to give the reader an exact and concise knowledge of the full article' (Bhatia, 1993: 78). This emphasis on the summarising function of abstracts is common (e.g. Graetz, 1985; Ventola, 1997). It is clear in the work of Salager-Mayer (1990), for example, who argues that abstracts should reproduce the structuring of the full paper, reflecting the moves which 'are fundamental and obligatory in the process of scientific inquiry and patterns of thought' (ibid.: 370). Similarly, Kaplan et al. regard the 'jargon, acronyms, repetitions, adjectival modifications, subordinate clauses, and nominalizations' (1994: 422) that they find in a large sample of conference abstracts as 'counter-intuitive' deviations from the need to provide a brief synopsis of the full text.

While the abstract might point towards an associated text, and may indeed offer a representation of it, its purpose, rhetorical construction and persuasive intent are all distinct from the article itself. The research article is, in essence, a codification of disciplinary knowledge, where writers seek to persuade their communities to accept their claims and certify them as recognised and legitimate knowledge. Abstracts, on the other hand, have both a more modest and more urgent purpose: to persuade readers that the article is worth reading. It is therefore a selective representation rather than an attempt to give the reader exact knowledge of an article's content. It does more than simply provide the 'gist of the article in a precise and maximally efficient way' (Ventola, 1997: 333). The abstract selectively sets out the stall, highlighting important information and framing the article that it precedes, but it does so in such a way as to encourage further examination and draw the reader into the more detailed exposition.

The importance of abstracts in influencing the readers' decisions about whether the accompanying article is worth reading has been demonstrated in a number of studies. Academics are overburdened with a growing amount of scholarly papers which make impossible demands on their ability to digest and synthesise what is relevant and worth attention. The time needed to scan and process this massive research output means that to keep up with the hyper-production of knowledge in their fields they increasingly rely on scanning-reading strategies (Lock, 1988). These strategies are guided by personal schemata dominated by a search for novelty and relevance to their own active research programmes and they rely heavily on information contained in abstracts (Bazerman, 1988: 240; Berkenkotter and Huckin, 1995: 50). After searching the table of contents of a journal for keywords, academics typically read the title and abstract to decide whether to go further. This, then, is the point at which a piece of research may stand or fall – at which the reader must be 'hooked'.

To describe precisely how writers accomplish this, there have been a number of attempts to identify the features that distinguish abstracts as a recognisable genre. Graetz (1985: 125), for example, argues that:

The abstract is characterized by the use of past tense, third person, passive, and the non-use of negatives. It avoids subordinate clauses, uses phrases instead of clauses, words instead of phrases. It avoids abbreviation, jargon, symbols and other language shortcuts which might lead to confusion. (...) In short it eliminates the redundancy which the skilled reader counts on finding in written language and which usually facilitates comprehension.

Swales (1990: 180) considers this assertion 'a little bold' and Kaplan et al. (1994) discovered considerable variation of tense and voice choices, a fair number of abbreviations and acronyms, and a heavy use of subordinate clauses in their conference abstracts. It is, in fact, easy enough to find counter-examples, and while abstracts are characterised by compaction, propositional density, and syntactic complexity, the requirement for brevity is clearly tempered by rhetorical considerations.

Salager-Mayer (1992), for instance, shows that while the past is the most frequently used tense in medical abstracts, the present is commonly employed to emphasize the generalisability of specific findings, and the present perfect to show disagreement with prior research. Similarly, Rounds (1982) found lexical choices to reflect writers' rhetorical concerns by revealing the extent of hedging and propositional mitigation in abstracts, toning down claims to avoid potential audience rejection. This persuasive element is also suggested in the cognitive structuring of abstracts which seems to respond to a potential interrogation of the article itself. A number of writers, for example, point to an introduction – method – results – discussion pattern reflecting in 'microstructure' the stages of the entire text (e.g. Graetz, 1985; Kaplan et al., 1994; Salager-Mayer, 1990, 1992; Samraj, 1998; Ventola, 1997).

My purpose in this chapter is not to suggest a definitive description of the move (i.e. generic stages) structure or features of this genre, but to offer an account of abstract writing that reflects its central place in the ways that writers interact and negotiate the significance of their research. Therefore, I shall detail some of the linguistic and rhetorical practices by which academics demonstrate their professional credibility and the value of their work to the discipline – the practices, in other words, accepted by their communities as legitimate displays of membership.
TEXTS, INFORMANTS AND METHODS

Once again, the discussion is based on both textual and interview data, although here I offer a largely qualitative and interpretive analysis. The written corpus comprised 800 abstracts from the 1997 issues of ten journals in each of eight disciplines comprising 127,000 words. The interview data were collected from the same expert informants I discussed in the Preface. My method was to carry out a move analysis of the abstracts and to search for features which might be used to advance the writer’s purpose by strengthening the value of claims or by denoting disciplinary membership (what Berkenkotter and Huckin call ‘insider status’). I then discussed these with the subject specialists.

I discuss my approach to texts in detail in Chapter 7, but because my analysis of these texts involved longer stretches of discourse than concordancing typically allows, it may be worth setting out the procedure more fully here. First, I went through the entire corpus examining each abstract several times to get a feel for the overall organisation of the abstracts and to identify recurring rhetorical patterns. The literature on abstract moves discussed above was useful in establishing a classificatory framework. I then marked the moves with coloured highlighter pens, an effective if rather labour-intensive and low-tech method. To check for inter-rater reliability, the specialist informants were also asked to categorise move functions in several of the abstracts from their disciplines, and a colleague independently carried out an analysis of 10 per cent of the abstracts randomly taken from the corpus. A cross-check with my categorisations showed an agreement in 84 per cent of cases.

I then used text analysis software to locate ‘membership’ features. Brenton’s (1996) study of abstracts submitted to the Conference on College Composition and Communication was helpful in compiling a list of features that can discursively signal community status. He identified a range of traits such as jargon, acronyms, often repeated words or expressions, and occasional citation practices which contributed to the success of accepted papers by reflecting and shaping a valued disciplinary ethos. I therefore scanned the texts for features to determine the methods by which writers demonstrated their right to have their work taken seriously by readers. I also searched for phrases and lexical items that could be used to offer persuasive weight to the texts, particularly those which advocated claims by asserting their value or novelty. I then contrasted their frequencies between disciplines and compared them with a smaller corpus of 240 abstracts from the same disciplines published in 1980. Finally, I discussed the findings with the consultants and interviewed them about their own abstract reading and writing practices.

A MOVE-STRUCTURE CLASSIFICATION OF ABSTRACTS

I first divided the abstracts into a series of communicative categories, or moves, representing the realisation of a specific overall communicative purpose (Swales, 1990, offers a detailed discussion). As I noted above, previous analyses of abstracts have identified a rhetorical macrostructure broadly corresponding to the organisation of the paper itself: Introduction–Methods–Results–Conclusion (e.g. Bhatia, 1998; Brenton, 1996). These four elements are occasionally mentioned in editorial guidelines and provide an explicit intertextual link to the accompanying article. While fitting this schema of positivist inquiry onto humanities abstracts is not without difficulties, it offers a fairly robust, if rather general, classification for cross-disciplinary comparison if we admit a certain flexibility. I have also distinguished the writer’s purpose from the introduction, where it is often located, as it seems to perform a very different role to the introduction’s typical purpose of providing a justificatory context for the research. The schema is outlined in Table 4.1.

<table>
<thead>
<tr>
<th>Move</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>Establishes context of the paper and motivates the research or discussion.</td>
</tr>
<tr>
<td>Purpose</td>
<td>Indicates purpose, thesis or hypothesis, outlines the intention behind the paper.</td>
</tr>
<tr>
<td>Method</td>
<td>Provides information on design, procedures, assumptions, approach, data, etc.</td>
</tr>
<tr>
<td>Product</td>
<td>States main findings or results, the argument, or what was accomplished.</td>
</tr>
<tr>
<td>Conclusion</td>
<td>Interprets or extends results beyond scope of paper, draws inferences, points to applications or wider implications.</td>
</tr>
</tbody>
</table>

This arrangement of generic stages or moves can be seen in the following abstract from Plant Molecular Biology (the symbol // marks move boundaries):

(1) Acetaldehyde is one of the intermediate products of ethanolic fermentation, which can be reduced to ethanol by alcohol dehydrogenase (ADH). Alternatively, acetaldehyde can be oxidized to acetate by aldehyde dehydrogenase (ALDH) and subsequently converted to acetyl-CoA by acetyl-CoA synthetase (ACS). // To study the expression of ALDHs in plants we isolated and characterized a cDNA coding for a putative mitochondrial ALDH (TobALDH2A) in Nicotiana tabacum. // TobALDH2A shows 54-60 per cent identity at the amino acid level with other ALDHs and shows 76 per cent identity with maize R2, a gene involved in restoration of male fertility in cms-T maize. TobALDH2A transcripts and protein were present at high levels in the male and female reproductive tissues. Expression in vegetative tissues was much lower and no induction by anaerobic incubation was observed. // This suggests
that TobALDH expression is not part of the anaerobic response, but may have another function. The use of specific inhibitors of ALDH and the pyruvate dehydrogenase (PDH) complex indicates that ALDH activity is important for pollen tube growth, and thus may have a function in biosynthesis or energy production. /// (Bio)

A brief introduction sets the scene for the reader, providing essential background to the paper and, equally importantly, indicating the significance of the topic to the community and the writer’s grasp of the issues involved. A purpose statement is then given, introduced by the imperative ‘to study’ and embedded in a general description of the method. The writer then presents the product of the research, in this case the results of an experimental study together with a bottom-line generalisation based on these findings, suggesting an outcome that readers may find surprising. The conclusion explicitly announces the wider significance of the research to the discipline and implicitly suggests a line of further research.

However, while the formal characteristics of this abstract correspond to descriptions often proposed in the literature, this model is actually quite rare in my corpus, even in the science sample. In fact less than 5 per cent of the papers contained all five steps in this sequence. Roughly half of the papers contained no method section, about 55 per cent omitted an explicit introduction, and only 22 per cent offered a conclusion. Thus, despite the admonishments of some researchers (e.g. Salager-Mayer, 1990), writers obviously chose to represent their work in ways that fail to conform to a universal ‘ideal’ of information structuring. Clearly, then, more than summarising is taking place.

MOVE-STRUCTURE AND RHETORICAL PERSUASION

The most striking feature of the data is that virtually all papers included a Product statement (94 per cent) which foregrounded the main argument or findings. This underlines the assertion by Berkenkotter and Huckin (1995: 34) that the abstract is essentially a promotional genre. Writers are anxious to underline their most central claims as a means of gaining reader interest and acceptance; a point clearly made by a number of my informants:

Without results you can’t do justice to the paper. They are the key to the study and they need to be there so that people know what to expect. What they can get out of the paper, whether it will be useful to them or not. /// (Bio interview)

It is essential. If I didn’t say anything else I would put my main claims in the abstract. I think readers expect it and I always look for them when I’m reading. /// (Soc interview)

The main points, what we’ve found and what we think it means. These are the most important things to go into the abstract. A summary of what the paper is really about. /// (ME interview)

The most frequent move structures in the corpus were the sequences Purpose–Method–Product (P–M–Pr), accounting for about 25 per cent of all cases, and Introduction–Purpose–Product (I–P–Pr), comprising around 15 per cent of the sample. These patterns are illustrated below as (2) and (3) respectively:

(2) This paper is intended to evaluate the linearity that can be provided by general-purpose MESFET’s. /// By a simple physics-based analysis and a practical amplifier design, /// it will be shown how educated device and bias-point selection can approximate intermodulation distortion (IMD) performance of some normal channel-doping profiles, for which previous theories would not be able to predict good IMD performance, to the one expected from MESFET devices with specially tailored doping profiles. /// (EE)

(3) The process of modernization in China is speedy and turbulent, requiring an effective solution to various social problems. The situation of handicapped people in China poses an increasingly serious social problem but publications on this subject are rare. /// This article outlines the author’s proposals for how to remedy the problem, /// giving an initial outline and an analysis of the current state of handicapped people in China. /// (Soc)

In (2) a clear Purpose is offered in the first sentence, followed by a sketch of the Method to be used, ‘a simple physics-based analysis and a practical amplifier design’. A Product statement follows, presenting the principle findings of the study, introduced by verb show, together with a promotion of these results, favourably comparing them with previous approaches. The sociology text (3), on the other hand, contains a relatively lengthy Introduction and no Method statement. The Introduction provides readers with a context for the study and persuades them of a significant problem to be addressed, in fact two problems, a social issue, ‘the situation of handicapped people in China’, and a disciplinary issue, an important gap in the literature. The writer indicates that his Purpose is to ‘remedy the problem’, and finally states the Product. Essentially a product is an outcome, or what the paper achieves. In the soft disciplines this is often an argument, where writers discuss or address a topic rather than report research findings. In (3) the writer represents the Product as a discussion which will analyse the situation of the handicapped in China.

While P–M–Pr and I–P–Pr were the dominant sequences using these four moves – the most ‘prototypical’ in the Swalesian sense – there was some generic variation, principally with Purpose following Method in the first pattern and preceding the Introduction in the second. Some longer abstracts, mainly in the sciences, also recycled moves throughout the abstract, often in order to highlight a series of results by presenting them as outcomes of different purposes or methods. There were also a high number of two-move abstracts, most often where writers presented their purpose and product only, presupposing the background to be recoverable by an informed audience. The choice of presentation verb often distinguished the two moves, items such as discuss, describe, explore and address marking intentions, and show, demonstrate, find and establish signalling results.

I do not intend painstakingly to itemise the possible diversity of abstracts here; I am less interested in offering a detailed classification of these data
than in using them to see how academics socially negotiate their purposes in different institutional contexts – how the moves become ‘strategic elements in a rhetorical game’ (Mauranen, 1993: 251). It is clear, however, that writers are acutely aware of the linguistic resources that the functional structures of abstracts offer them and exploit these possibilities rhetorically in many ways. This shows, to say the least, that move sequences appear to be less predictable than previously supposed, and that consequently current descriptions of move sequences may be overly restrictive.

**DISCIPLINARY DIFFERENCES IN ABSTRACT STRUCTURES**

More importantly, the analysis points to considerable disciplinary variations in move structuring in the corpus, which once again suggests that credibility, significance and persuasion are community-specific matters.

Table 4 shows a general preference for the P–M–Pr pattern among the physicists and engineers (60 per cent of all cases), and the I–P–Pr model among the humanities/social science writers (75 per cent of cases). Biologists once again fell between the two groups. These differences indicate that writers in the soft knowledge domains saw a greater need to situate their discourse with an Introduction, while writers in the hard knowledge fields tended to omit this move in favour of a description of the Method. So, while over 60 per cent of abstracts in the soft disciplines contained Introductions, this figure was only 30 per cent for the hard disciplines. The percentages were almost exactly reversed for Methods.

<table>
<thead>
<tr>
<th>Discipline</th>
<th>I-P-M-Pr [%]</th>
<th>P-M-Pr [%]</th>
<th>I-P-Pr [%]</th>
<th>P-Pr [%]</th>
<th>I-Pr</th>
<th>Others</th>
</tr>
</thead>
</table>

These preferences are clearly related to the disciplinary variations discussed in Chapter 2. There I noted that an important dimension of disciplinary knowledge-making is the extent to which fields agree on a common set of outstanding problems and appropriate procedures for pursuing them. Toulmin (1972) suggests that communities can be approximately arranged on a continuum from ‘compact’ to ‘diffuse’ in the ways that they identify and study problems. The former are more closely associated with the sciences which form close-knit ‘urban’ (Becher, 1989) fields where a small, discrete number of problems have relatively large numbers of people working on them. Researchable problems are therefore fairly well defined and there is a general expectation that readers will be familiar with the issues in which any piece of research is embedded. As my informants pointed out:

> There are certain things one expects one’s readers to know. It would be insulting to spell everything out to them. (ME interview)

> I want to use my 150 or 200 words to tell them what I’ve done and how I’ve done it, not why. Most people who read my work will know the why. They will probably be working in the same area and have the background anyway. (EE interview)

> This abstract concerns quite a specialised line of research. The number of labs capable of making the kind of investment needed to do this is probably very small and they are probably mainly writing for each other. You couldn’t hope to get everyone else up to speed in a three line introduction, there’s just too much background. (Phy interview)

Writers in the hard sciences are therefore often able to draw on a reservoir of understandings, presupposing much of the background required to contextualise their studies. They can anticipate that readers will be able to access these understandings to determine the value of the research, the productivity of the procedures, the theoretical rationale of the study, and its significance to the incremental development of knowledge. So, by opening the abstract with a Purpose move, or occasionally a Method statement, a writer can explicitly signal these assumptions, pointing not only to the shared knowledge required to unpack the text, but also to shared membership of a community. These examples show how this is often achieved:

4 A Co-Cr-Ta/Ni-Fe double-layer tape was fabricated on 10 gm-thick polimide film by facing targets sputtering. The Co-Cr-Ta/Ni-Fe double-layer tape showed higher read/write performance than the Co-Cr-Ta single-layer tape in not only the short but also the long wavelength region. (Phy)

Here, we report the localization and characterization of BHKp23, a member of the p24 family of transmembrane proteins, in mammalian cells. (Bio)

The objective of this work is to search the optimal shapes and locations of ribs in order to increase the stiffness of structures using the topology optimization technique. (ME)

The soft disciplines, on the other hand, are characterised by the relative absence of well-defined sets of problems and a definite direction in which to follow them. Community members participate in less clearly identifiable areas of study and proceed along less heavily trodden paths of research. As a result, writers have to work much harder to acquaint readers with the background to their research and to construct its significance rhetorically. The presence of sometimes lengthy introductions in these abstracts therefore demonstrates attempts both to accommodate and engage explicitly with
readers. In Swales's (1990: 140) terms, they have to 'Create a Research Space' for the work.

I tend to spend a lot of time providing the background, making sure people understand the context I'm working in, the questions I'm addressing. You have to position yourself in an identifiable area and then talk up the issue. (Soc interview)

There are just so many live topics in my field. No-one can keep abreast of them all so it's necessary to establish, or at least reestablish anyway, the importance of the subject. (Mkt interview)

So, because research in the humanities and social sciences tends to be more diverse and have more permeable boundaries, statements which functioned to provide a general context were more common:

(5) Despite widespread confusion over its meaning, the notion of a conceptual scheme is pervasive in Anglo-American philosophy, particularly amongst those who call themselves 'conceptual relativists'. (Phil)

The decline in traditional nuclear family households, and the marked increase in the proportion of people living alone, or alone with dependent children have led some to claim that individualism has replaced the importance of family life. (Soc)

Relative to younger adults, older adults appear to exhibit greater use of schema-based, as opposed to detailed, processing strategies. (Mkt)

Disciplinary peers look for a reason to read the paper, and generally expect to find it in an explicit Introduction to justify the time the reader will have to devote to understanding it.

This greater contextualisation also reflects another obvious difference here: that the purposes of the papers themselves are often quite different. While the science and engineering articles reported the fact of acts of research and their outcomes, writers in the softer fields frequently sought to discuss or define an issue rather than establish empirical truths (cf. Myers, 1992b). Consequently, Purpose statements were more likely to introduce the reader to the area to be covered, and perhaps the interpretation that would be made, rather than signal an explicit research claim.

(6) In this article we (a) argue that mainstream composition studies is at present too narrow in its scope and limited in its perspective and (b) offer some thoughts, from our unique interdisciplinary position, that we feel could help mainstream composition professionals improve this situation. (AL)

This paper is a critical engagement with some of the writings of Judith Butler who is perhaps best known for popularising the idea of gender as performative. (Soc)

In this article we review recent economic, demographic and cultural trends in Spain and discuss changes in consumer buying behaviour and in the macromarketing environment. (Mkt)

Biology, as I noted earlier, was once again an exception to these broad patterns, departing from the hard science conventions by containing fewer P–M–Pr and P–Pr sequences and far more concluding moves. As I discussed in Chapter 2, molecular biology is in many senses a more interpretive and inferential discipline than many of its scientific cousins, allowing considerably more discursive scope to writers. Francis Crick (1990: 5), with typical incisiveness, has drawn this comparison very clearly:

It is the resulting complexity that makes biological organisms so hard to unscramble. Biology is thus very different from physics. The basic laws of physics can usually be expressed in exact mathematical form, and they are probably the same throughout the universe. The 'laws' of biology, by contrast, are often only broad generalizations, since they describe rather elaborate chemical mechanisms that natural selection has evolved over billions of years.

Data and evolutionary premises can only suggest possible lines of research and interpretations, and these may not always be reliable guides. This means that arguments in biology are often more geared to devising, testing and persuading one's colleagues of the veracity of speculations and theories. The rhetorical practices that lead from these approaches to research therefore often resemble those more typical of disciplines at the softer end of the knowledge spectrum.

Accommodating one's work to fellow community members, however, not only means taking into account the knowledge they are likely to have of the topic, but also involves providing information that they anticipate will be given. In the science and engineering disciplines in particular, there was a fairly strong expectation that the abstract would indicate how the study was conducted. Method was therefore the most frequently occurring section after the Product and Purpose moves and sometimes dominated the hard knowledge abstracts. In cases where what was done was seen as more important than what was found, it replaced the Product move altogether. But more often, Method was handled briefly and occasionally merged with the Purpose move:

(7) The effects of milling a–Fe203 in a range of NaCl solutions (0.1M, 0.5M, 1.0M and 2.0M) as investigated by x-ray diffraction and Mössbauer effect spectroscopy are reported. (Phy)

This paper discusses the design and implementation of a novel two-element active transmit–receive array using dual linear polarization and sequential rotation. (EE)

To determine if low diversity was caused by a lack of polymorphism: at vegetative incompatibility (vic) loci, we made crosses between isolates in the three common vc types and estimated the number of vc genes segregating. (Bio)

Using survey responses (n = 401) of a sample of households in one market area in Austria, we test hypotheses grounded in accessibility theory: a concept or object may be 'available' from memory but may be 'accessible' only under certain conditions. (Mkt)

This merging of Purpose and Method moves into a single sentence appears to be a rational response to the space constraints of the abstract, but it also performs a useful rhetorical function. Presenting them together in this way, the writer can insinuate the appropriacy of the technique by strategically
linking the approach in an unproblematic and reasonable way to accomplishing the research objective.

Method sections were also evident in the more empirical social science studies, and particularly in the marketing abstracts (61 per cent). Such studies are predominantly focused on relatively tangible, real-world phenomena and often seek to yield measurable results with material advantages for government bodies or the commercial sector. Method moves were, of course, rare in the philosophy abstracts, where procedures generally involve the elaboration of concepts and argument through analogy, detailed exemplification, hypothetical cases, peer engagement and so on rather than modes of inquiry that can be objectively characterised and labelled:

*What I try and do is say something about the issue, put it into the reader's immediate consciousness so they have something to hang the argument on, then I set out my main points. Give something of the flavour of the way I'm thinking and where the argument will lead.*

(Phil interview)

Setting the scene for readers is then a far more significant rhetorical act in philosophy and Introductions occurred in about 80 per cent of papers, often with only a Product move or as part of a three-par: I–P–Pr sequence.

Finally, Conclusions seemed to be an optional extra in all disciplines, appearing in only 21 per cent of the abstracts, principally in biology and marketing. This move typically takes the reader from the text into the world by commenting on the implications of the research or its applications. Conclusions therefore explicitly emphasise the value of the paper, either to the discipline or to the wider community:

(8) Implications for marketing management are drawn by proposing controversial developments to be considered. (Mkt)

These results reinforce the utility of combining genetic and biochemical analyses to studies of biosynthetic pathways and strengthen the argument that brassinosteroids play an essential role in Arabidopsis development. (Bio)

I conclude with the hope that the issue will help address the current fragmentation in the literature on the relationship between language and identity and encourage further debate and research on a thought-provoking and important topic. (AL)

The IQ literature needs to be reconceptualized. (AL)

Such simulated inductors have important applications in microwave active filters. (EE)

To some extent a writer's choice of moves is constrained by the editorial directives set out in the journal's submission guidelines, but these are generally very vague and give little guidance on creating a discursive context beyond the need to be 'informative', 'succinct' and to 'summarise the main points'. Only a handful of journals stipulate what is to be included and most, as these examples illustrate, specify little more than a maximum length:

Include a brief abstract (not more than 100 words) sumarising the findings. (American Journal of Sociology)

The abstract may not exceed 200 words. (Journal of Cell Biology)

Next should appear an abstract of not more than 80 words, in the same language as the paper. (Mechanical and Machine Theory)

Each article should include an abstract of between 150–200 words which succinctly presents the content of the article. (System)

More centrally, these decisions are based on a kind of virtual dialogue between the individual practitioner and his or her community of peers, a decision to use the same agreed upon discipline-specific standards and practices of method choice, reasoning and argument that have evolved within a research tradition. The variety of patterns within each discipline suggest that how writers use such practices is not determined by editorial prescription or genre constraints. Rather, it represents a choice of how best to convince others of their work, given the particular circumstances of their research, their individual goals and considerations of discipline membership.

CLAIMING SIGNIFICANCE IN ABSTRACTS

We have seen that writers construct their abstracts using the functional moves which best position both their research and themselves. However, in addition to framing their research with an appropriate rhetorical structure, they also claimed significance and disciplinary competence by employing a variety of discursive markings.

One way that writers claimed significance was by opening their abstracts with a promotional statement. Although the science and engineering abstracts rarely included an Introduction, when this move did occur it was often less with the purpose of naively establishing a territory to be covered, than of strengthening the importance of the topic. Writers frequently invested their Introductions with persuasive intent, offering the research as a valuable contribution to pressing real-world issues:

(9) Solid state diffusion is of great theoretical and practical importance. The tracer-technique can be applied to help solve many theoretical and practical problems. (Phy)

In many applications electronic sensors are used to improve performance and reliability of measurement systems. Such sensors should provide a correct transfer from the physical signal to be measured to the electronic output signal. One important step to achieve this, is to calibrate each sensor by applying different reference input signals and adjusting the sensor transfer accordingly. (EE)

Vibration analysis of rotating machinery can give an indication of possible faults, thus allowing maintenance before further damage occurs. Automating this analysis allows machinery to be run unattended for longer periods of time. (ME)

Thus, while we might expect competent practitioners to be aware of these points, and therefore their potential appeal to be greater the less specialised
the domain, their inclusion in the Introduction serves to reinforce the significance of the topic in the minds of readers.

Similarly, while Introductions in the humanities/social science texts often served to fill-in potential gaps in readers' topic awareness, they more frequently claimed topic centrality (Swales, 1990: 141). The principal means of establishing importance was to identify a problem convincingly enough to encourage further reading into the article to learn more, about either the problem itself or its 'solution'. My sociologist informant emphasised the importance of this:

*I always try and problematise the topic of my research, to create an issue that is worth studying and worth reading. You have to carve an issue out of any number of areas and a framing it as a problem makes it more important as a piece of research.*

(Soc interview)

Unlike the science and engineering abstracts which principally addressed real-world issues, these problems often sought to establish a disciplinary relevance and dealt with problems internal to the research community itself:

(10) An important problem in inductive probability theory is the design of exchangeable analogous methods, i.e., of exchangeable inductive methods that take into account certain considerations of analogy by similarity for predictive inferences.

(Phil)

The problem of separating the effects of household heterogeneity from state dependence in brand choice models is important from a theoretical as well as a managerial perspective.

(Mkt)

Two central unresolved problems in labour process theory are the disjuncture between structure and agency and the problem of what constitutes 'good' work.

(Soc)

Because this strategy also has important memberships consequences, allowing writers to stake a position as credible researchers, I shall return to it in more detail in the next section.

Turning to particular rhetorical strategies, we find that writers used a variety of devices to emphasise the value of their papers. A key-word-in-context (KWIC) search on some 50 commonly occurring 'promotional' items in the corpus revealed some interesting disciplinary patterns in the ways writers presented their research. The most frequent rhetorical appeals, in order of occurrence, were to what can be glossed as 'benefit', 'novelty', 'importance' and 'interest'. The hard knowledge abstracts principally employed appeals to novelty and benefit, comprising over 75 per cent of all cases in each of these categories, while writers in marketing, applied linguistics and sociology largely drew on the notion of importance to promote their work (60 per cent of all cases). Statements overtly claiming the interest value of the research were surprisingly rare in all fields.

Engineers employed the most appeals of all disciplines, with both mechanical and electronic engineering abstracts containing about twice as many as any other discipline and almost five times as many as philosophy. These two fields underlined their practical, applied orientation by emphasising the utility of the reported research, mainly to the industrial world which relies on it. This was also the major strategy employed in the marketing abstracts, another field closely associated with non-academic interests, but the engineering papers contained over 55 per cent of all cases:

(11) The new model gives significantly improved predictions for both liquid holdup and pressure drop during gas-liquid, stratified-wavy flow in horizontal pipelines.

(ME)

Further economical analysis indicated that the concept could effectively help in reducing the electric energy consumption and improving the energy demand pattern.

(ME)

We report on the linear and enhanced transconductance by Multi-step doped channel camel-gate field-effect transisors (CAMFETS) as compared with conventional CAMFETS.

(EE)

This paper answers these questions by developing an integer nonlinear programming model and solving it using a very efficient dynamic programming approach.

(EE)

The two science fields, on the other hand, tended to stress the novelty of their research as a means of claiming significance. For these fields constant innovation and progress is a central part of their disciplinary cultures and reasons for being. Practitioners expect advancement and scientific readers tend to look mainly for new results in order to further develop their own research (Bazerman, 1988: ch. 8). Consequently, the need to stress novelty was paramount, although this was sometimes also combined with a statement of its value:

(12) Four new species, *X. elegans* sp. nov., *X. giganteus* sp. nov., *X. punctatus* sp. nov. and *X. puillus* sp. nov. are described from wood submerged in freshwater collected in various countries.

(Bio)

The assays presented herein illustrate two novel approaches to monitor the intracellular dynamics of nuclear proteins.

(Bio)

A new design for a minimum inductance, distributed current, longitudinal (z) gradient coil, fabricated on the surface of an elliptic cylinder is proposed. (Phy)

A novel method for the measurement of self-diffusion coefficients employing oscillating gradients is presented. The method used has advantages over conventional techniques and will allow measurements to be made at very short diffusion times (< 1 ms) and should prove particularly useful for short T2 materials.

(Phy)

Finally, the Conclusion was also widely used to advance claims for significance and it is perhaps surprising that this move is not used more often. The reasons why writers chose not to make greater use of the promotional opportunities offered by a Concluding move are no doubt complex, but one reason may be that writers consider brute promotion alone too crude a strategy to carry a sophisticated audience into the article itself. As two informants remarked:
I’m not sure if it’s counter-productive to bang people over the head with what you are doing. If they are working in my area they will be able to judge whether what I’m doing is important or not. (Phy interview)

It’s important to give a clear picture of how you approached the problem by explaining the method in some detail. They can then decide if you are on track or not. (ME interview)

Readers make judgements about whether to read further based on their knowledge of the topic and how it is being handled, and part of this involves making an evaluation of the writer. A researcher who appears to demonstrate sufficient background knowledge in other parts of the abstract may therefore be regarded as someone able to offer a contribution to the problem at hand. By omitting a conclusion, then, a writer might signal by its absence that the significance or value of the research can be recovered by intelligent readers – the presupposition of shared knowledge emphasising their joint membership of a single community.

CLAIMING INSIDER CREDIBILITY

Clearly readers consider more than the strength of an abstract’s promotional appeal when deciding whether to read an article, and an important consideration is the writer’s apparent ability to deliver on the topic. Readers make judgements about the credibility of the writer as an informed colleague, a bona fide member of the discourse community who is able to speak with authority on the subject. It might be observed in passing that academic genres are no different from other domains in this respect, the voice of sanctioned authority is a familiar figure of our age, from the expert witness in courtrooms to the trustworthy specialist in detergent commercials. There are numerous ways in which writers are able to project an insider ethos and thus signal their right to be heard as competent members of the field. In this section I shall point to the ways such intimations of insider status create an effective persuasive context.

The first concern the role of topic choice. Bruner (1994) observes that topics are resources of joint attention which co-ordinate activities and mark co-participation in communities of practice. The selection of a particular area, method or approach can therefore be critical, not only in securing colleagues’ interest, but also in displaying one’s credentials as a group member. This is especially the case in the soft knowledge disciplines where theories often fail to provide a coherent programme to guide research (Chalmers, 1978). Lines of inquiry are less linear and topic selection apparently less constrained by clear disciplinary problems. This helps to explain why identifying a credible problem was the main way that writers in the soft disciplines justified their work to readers, with over four times as many ‘soft field’ abstracts making use of this strategy.

The ability to identify a discipline-relevant issue is thus not only a means of motivating readers but a clear indication of disciplinary competence. It implies a familiarity with the discipline’s literature and awareness of the topics which it currently considers urgent, interesting, or worth addressing. It is, in other words, an element of the rhetorical promotion of oneself and one’s paper which draws on an order of discourse from another, more entrepreneurial domain of interaction (e.g. Fairclough, 1995).

Representing the topic as important to the community was thus occasionally achieved, particularly by philosophers, sociologists and applied linguists, by indicating that it had formed the subject of earlier work. However, while persuasion is frequently accomplished by linking past and present research in the RA itself, formal, dated citations were rare in the abstracts. Less than 10 per cent of the hard discipline abstracts contained references to other writers, and only applied linguists cited work with dates to any degree. A more common, and perhaps more effective strategy if one is concerned to display one’s disciplinary savvy and insider knowledge, simply for writers to drop names or summarise current knowledge in a few lines, thus hinting at even greater depths of understanding:

(13) Frege and many following him, such as Dummett, Geach, Stenius and Hare, have envisaged a role for illocutionary force indicators in a logically perspicuous notation. (Phil)

- The literature includes many studies on consumer attitudes toward marketing and/or business practices, and consumerism. (Mkt)
- It is widely acknowledged in the literature that reports on beliefs of the type... (AL)

- Recent work on social movements has drawn attention to the interactions of movements and power-holding elites. (Soc)

To move one step further in claiming significance and in demonstrating one’s community membership is to indicate a gap in this literature (Swales, 1990). Here writers represent a problem as something which is unknown or unresolved by the community. The following cases, for example, do not directly address the focus under study – i.e. ‘race’, ‘hedging’ or ‘cross-cultural communication’ – but the state of argument and knowledge current in the field:

(14) Despite its commonplace acceptance by sociologists, the constructionist notion of ‘race’ has not been the subject of adequate empirical research. (Soc)

- Recent studies of hedging in academic writing have argued for the inclusion of hedging in EAP syllabi but have not, unfortunately, worked from a common understanding of the concept. (AL)

- Much has been written about the differences in the perception, motivation and behaviour of people from different cultures, in particular about the American and Japanese interface. However, very little scientific confirmation and measurement exist. (Mkt)

The ability to identify such omissions is a critical step in claiming insider status in all disciplines, but is particularly crucial in the soft fields where greater diffusion of research areas and approaches often requires validation of the topic itself.
Another, and related, insinuation of insider credibility is a writer’s use of explicit appeals to the community’s situated cultural understandings. Instead of demonstrating the relevance of their research by invoking the literature, writers frequently drew on, or exploited, the implicit domain knowledge of the discipline. They occasionally emphasized that they were doing this by marking the connection explicitly, through references to familiar approaches, ‘well known’ behaviour or ‘traditional’ assumptions:

(15) Many philosophers would approach this question from the point of view of an expressive theory of linguistic communication, …

(Phil)

It is well known that in bi-anisotropic media, e.g., chiral media, gyrotropic media, the polarization vector of linearly polarized waves undergoes rotation.

(Phy)

Ideological assumptions of equality and economic individualism have permeated the traditional analysis of social mobility.

(Soc)

This strategy is found in all disciplines, but a variation heavily used in the soft fields was to appeal to the community directly rather than its domain knowledge. Here writers deliberately promoted their membership of the community by invoking it specifically, aligning themselves with readers as peers:

(16) What do we now mean by the term ‘applied linguistics’? Can we provide a coherent characterisation that says it’s more than simply all and anything that isn’t ‘autonomous’/‘core’? Should we even try?

(AL)

Sociologists today are faced with a fundamental dilemma: whether to conceive of the social world as consisting primarily in substances or processes, in static ‘things’ or in dynamic, unfolding relations.

(Soc)

Insider credibility is therefore promoted in these abstracts through various displays of intimacy with implicit cultural knowledge. The acronyms, jargon, citations and other features which Kaplan et al. regarded as ‘counter-intuitive’ can, in this sense, be seen as discursive markings of disciplinary identity which serve to position the writer within ‘the apparently naturalized boundaries’ of the discipline (Brenton, 1996: 356). Acronyms, for instance, draw heavily on insider knowledge for their elaboration into full forms, and thus function to signal discipline-specific understandings and suggest the writer’s familiarity with them. This was principally a feature of the highly codified hard knowledge abstracts, where 45 per cent of the papers included acronyms compared with only 18 per cent in the soft disciplines. There were, however, considerable variations. The biology corpus contained a disproportionate 37 per cent of all cases, and while there were only a handful in sociology and philosophy. The ubiquity of EFL, TESOL, ESP, SLA and L2 – examples of relatively stable and widely used conceptualisations – ensured that applied linguistics accounted for a fifth of all acronyms in the corpus.

These and other signals of privileged discourse therefore play an important role in memberships of writers as community-situated participants and thereby contributing to their goal of opening a channel with the reader and encouraging greater interest in the following research paper. By the use of particular moves and by highlighting specific activities or positions, writers can demonstrate their insider status to promote themselves and their research, constructing a persona that can interact with readers from a location within the boundaries of their disciplines.


This discussion has so far provided a static description, a snapshot characterising the way things are rather than a moving image of how they have become. While all genres are responses to what are perceived as recurrent situations, such stability is not eternally enduring. Social and material conditions, and writers’ understandings of them, change over time and genres gradually change with them. Genres, even the apparently conservative scientific paper, are sites of both constancy and movement. Bazerman (1988) and Atkinson (1996) have provided extensive discussion of the evolution of the research article genre, tracking how textual features have changed in response to changes in the social and epistemological directions of scientific disciplines. In recent times such changes have resulted in articles in various fields showing greater concern with theoretical than empirical issues, increasingly downplaying methods, reducing authorial presence, and expanding discussions.

While these socio-historical studies have little to say about abstracts, Berkenkotter and Huckin (1995: 34) note that they have become a standard feature of articles in the last 30 years. My own corpus shows the increasing importance of abstracts to academics in all the fields studied. Based on a comparison with 30 articles in each discipline taken from journals published in 1980, I found that more journals carried abstracts in 1997 and that these abstracts were longer and more informative. Overall the average length rose from 120.5 to 158.4 words, an increase of 32 per cent, with the greatest increase occurring in the engineering and science fields and in marketing, while there was a marked tendency in most disciplines towards more complex, multi-move patterns and longer Product moves.

Table 4.3 shows a considerable expansion in the use of Introduction and, in particular, Conclusion moves, with the sciences, philosophy and marketing showing huge increases.

As I discussed above, these sections of the abstract are essentially suasive, seeking to construct a context within which the work has significance and value. Such contextualisation has perhaps become more critical with the need to situate activity in fields that are rapidly expanding or becoming increasingly subdivided into ever more specialised units. Some disciplines, such as communication studies in the USA, have also experienced a certain ‘hardening’ in their preferred methods and modes of working, necessitating a reorientation of readers. Marketing, in particular, has witnessed incredible growth as a discipline in the last two decades, becoming a major participant
Table 4.3  Percentage of abstracts containing particular moves (rounded %)

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<td>58</td>
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<td>AL</td>
<td>40</td>
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<td>70</td>
<td>87</td>
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<td>Mkt</td>
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<td>EE</td>
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Note: 1980, n = 50 texts; 1997, n = 100 texts

on the academic stage. Similarly, the sheer growth in the volume of knowledge and its increasing costs in the sciences compel researchers to concentrate their funds into specific projects and to carve out their own niches of expertise. Both epistemological and social forces therefore work towards differentiation and growth, and these discoursal and generic changes perhaps reflect the growing complexity of issues that confront these disciplines.

The growing tendency to provide a disciplinary relevant background and to problematise research, however, may also represent an increasingly competitive market situation where more academics are seeking to publish their research. The pressures on academics to publish are well known and the personal stakes – in terms of reputation and rewards, in the form of promotion, tenure and future research funding – are now much higher. As two senior researchers admitted:

"It's definitely harder to get work published now. It's true there are more journals than before, but universities have become numbers mad. Publications count, they're vital to your career and everyone needs to get them."

(AL interview)

"The number of papers submitted to the journal has definitely increased. Sometimes it's quite difficult to get readers for all of them so delays go longer."

(Bio interview)

This interpretation is supported by the fact that there was also, over this period, a considerable increase in the use of the promotional features discussed above. References to novelty in the sciences and to importance in the soft disciplines, which have begun to form a central part of the persuasive apparatus of abstracts today, were far less prominent in 1980. While the sample is small and relatively recent, there is some reason to believe that 20 years ago abstracts were simpler in their move structures and less overt in the use of the claims they contained for the originality, significance or utility of the product. Readers were less often given clear guidance as to the value they should place on the topic or on the research and were frequently granted more freedom to reconstruct the importance of the paper for themselves.

Features designed to project a disciplinary ethos and establish the writer's insider status, however, appeared to be equally in evidence as they are today. Claiming credibility for oneself as a strategy to enhance the persuasiveness of one's research seems to have been an important feature of academic rhetoric since the early representation of experiments of the Royal Society in the late eighteenth century. Then the appropriate rhetorical stance was 'organized around the recognition of individualist, honorable, and modest veracity as the special province of men of genteel birth or posture' (Atkinson, 1996: 364). At that time the word of a gentleman was his bond and guaranteed the accuracy of the reported observations; today, as in 1980, writers have to construct this reliability explicitly by alerting readers to a collegial relationship. In the 1980 abstracts we find similar appeals to community-specific shared knowledge that writers used today, demonstrating one's insider status through acronyms, specialist terms, reference to an assumed awareness of a generalised literature, or by evocation of a common membership of a community.

The disciplinary distinctions discussed earlier were also conspicuous in the earlier sample, with the hard and soft field writers marking themselves as credible community members in different ways. The sociologists and philosophers, for example, typically sought to balance individuation and collectivism through frequent references to the community or its background understandings. Applied linguists, marketing writers and philosophers tended to draw heavily on the literature of their disciplines, either referring to it as assumed knowledge or citing particular schools or authors. The scientists and engineers, on the other hand, principally negotiated credibility via a repertoire of coded terms and shorthand references to procedures imperceptible to all but the initiated.

So, while perhaps a rather neglected social artefact of disciplinary life, the abstract offers a fascinating insight into the discursive practices of different academic communities. Moreover, like other forms of writing that emerge from the process of publication and peer review, abstracts also reveal, through these generic practices, something of the beliefs and understandings that inform them and which enable them to reach out from their individual sources to the community within which, and for which, they were written. Embedded within them are writers' perceptions of appropriate norms of engagement, their epistemological beliefs of how knowledge is understood, and the best ways to package this knowledge and persuasively represent it to their colleagues. Like other genres, the abstract provides writers with a relatively stable generic template to accomplish their professional and personal goals and, also like other genres, it can perform this function because it is constantly evolving to suit new purposes and social conditions.

In sum, by creating their abstracts to contain elements of promotion and membership, these writers were able to project a specific disciplinary context.
and to situate themselves within it. In doing so they were able to legitimate their work by identifying it as significant and worth reading further, and by defining themselves as competent professionals capable of making a significant contribution to its discussion. Finally, I hope to have again shown some of the ways that particular discursive practices articulate the social relationships and understandings that underpin and facilitate the creation and dissemination of knowledge. Once again, we see that disciplinary discourse is both a symbol system used by community members to negotiate their goals, and a privileged form of communication which serves to include some and exclude others, helping to institutionalise a particular structure of social relationships within the community.

NOTE

1. Five of the philosophy journals and two of the sociology journals that made up the corpus for this book do not contain abstracts. Additional abstracts were therefore taken from the remaining journals.