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the judicial review of performance evaluations, in any event further than United States law, where courts have been reluctant to conduct reviews in this area other than from the standpoints of malice, bad faith, manifest abuse of discretion, or arbitrary or unlawful action:

> In matters of scholarship, the schools are uniquely qualified by training and expertise to judge the qualifications of a student, and efficiency of instruction depends in no small degree upon the school faculty's freedom from interference from other non-educational tribunals. (Conelly vs. University of Vermont, 244 F. Supp. 156 [D. Vt. 1965])

One can only hope that this trust by the judicial system in pedagology is well justified.

See also: Academic Freedom; Access to Higher Learning; Academic Labor Markets; Faculty Recruitment, Promotion, and Tenure; Accreditation; Institutional Autonomy

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I. Richter

Linguistics and Rhetorical Studies

Linguistic and rhetorical studies of disciplinary language begin, but do not end, with the observation that the primary product of most disciplines, and a secondary product of all, are published texts which are taken to constitute the knowledge of the disciplines. The study of the language and rhetorical action of these texts helps us understand both the process and product of disciplinary work. Identifying differing patterns of language production, use, and form among various disciplines also helps us understand the differences of activity and accomplishment among the disciplines. Several practical considerations further support the general reflexive curiosity about disciplinary language: if we understand more about the kinds of language used in disciplines and how those languages are used, we can use them more effectively as individuals and as members of the disciplinary groups; we can prepare students better to communicate within their fields; and we can provide guidance for editors and others with influence in shaping the communication system. Finally, by

demystifying the apparently arcane character of discourse within various disciplines, we can provide more access to that discourse for nonspecialists, or people trained in other specialist languages.

1. Two Fundamental Issues

In order to take the language of the disciplines as a topic of investigation, two questions must first be addressed: the relation between the spoken language and the written, and the epistemological consequences of focusing on the symbolic character of knowledge.

Several observations—clearly relevant to science, but more deeply embedded in unarticulated practices in the humanities—have seemed to call into question the importance and validity of the formal publications of disciplines: (a) researchers in disciplines often communicate information and knowledge-in-the-making in informal ways (sometimes orally and sometimes in informal written genres) (Crane 1972); (b) the formal written texts of a field do not explicitly represent all the activity that went into their making (Medawar 1964), nor do they provide sufficient detail for individuals to replicate findings (Collins 1985); (c) researchers often speak about their researches in ways that differ from the way they formally write up their claims (Gilbert and Mulkay 1984); and (d) the construal of phenomena in a research setting is a local constructive activity, whereas these objects are reified into fixed objects in formal publications (Garfinkel et al. 1981). These observations suggest that the real work of knowledge making is local and oral and that the formal publications are a secondary phenomenon serving various social functions, but not essential to knowledge production. Formal texts appear as an after-the-fact reconstruction (Latour 1987). The implication is that more serious attention should be focused on the oral, informal use of language in making knowledge.

This attention to the informal and oral constitutes a reaction to a prior tradition of considering texts as though they were transparent, timeless, and nonrhetorical conveyers of objective knowledge (although intellectual and scientific history is filled with individuals sensitive to the complications of language use). Looking at informal communication offers a way of getting beneath the appearance of authority maintained in knowledge-bearing texts. However, once one adopts a rhetorical perspective on the formal texts, suggesting that they accomplish local action within evolving discussions within fields, the disjunction between the formal and the informal no longer seems so severe. Texts are written and read locally, but with consideration of the context of other relevant localities with which the texts serve as a link. Moreover, the transmission of texts among locales, the development of regularized forms of texts (genres and conventions), and the development of standardized procedures for handling texts and relating them to other disciplinary activities can create structural homologies among various locales, bringing them into a similar, and perhaps continuous, social space. Thus although formal or written language may carry on different kinds of work from the informal and spoken, the work of formal language is nonetheless coordinated and integrated with the work done by informal language: there is a continuity between them. Both written and spoken language, as well as the dialectical relationship between the two, remain important research sites.

Calling attention to the symbolic, rhetorical character of statements (both formal and informal) made within disciplinary knowledge-producing contexts raises fundamental issues about the validity of that knowledge. Rhetoric has always been tainted by the implication that it rests merely on the use of words to foster belief and has little concern for truth. This view assumes that we can achieve pre-symbolic access to truth and certainty in special domains, separated from the world of daily affairs (where uncertainty, passion, differing beliefs, and power reign). In such special domains, we can then translate that certain knowledge into the symbols of language without tainting the knowledge with the human vicissitudes of language. A radical counter-position, first articulated by the Greek sophists and recently advanced in literary theory and related philosophic programs, argues that since all knowledge is cast in symbolic systems, which in themselves are purely human creations carried out purely among humans, there can be no grounding for knowledge: that we are locked into beliefs generated by the artifice of language. Neither position is fully satisfying, for the first assumes we can exceed the bounds of humanity, while the second draws those bounds very narrowly, denying our collective experience of having developed statements that seem to describe the realities we live among with greater force than the self-fulfilling prophecies of cultural belief.

This philosophic difficulty arises from considering language use as an autonomous process, separated from our full range of individual and communal practices. When we see language as part of our daily practice in finding our way about the world, in dialectic with our individual and communal experiences, we can understand language use as neither a hermetically sealed fictive system, nor a transparent communicator of presymbolic truths. We can then also understand the development of disciplinary languages and the larger web of practices and structures around them as attempts to create more ordered and reliable ways of discussing our world, and ones that are in closer and more predictable contact with the range of our experience. Study of the language of the disciplines thus needs to focus on those languages in use within the larger systems of disciplinary activity and relationships, in order both to draw our attention

to some of the most interesting and powerful aspects of language use and to avoid the mistakes on the one hand of thinking that language is all-encompassing and all-defining, and on the other of considering language as a trivial afterthought to knowledge or a delusionary artifice that hides the truth.

2. Disciplines as Discourse Systems

Each discipline may be perceived as relying upon a complex web of spoken and written language transmitted among disciplinary practitioners. These practitioners, within the structured relations that constitute the professional community at that moment, share their language within fluid subgroupings—reading and listening, thinking about, evaluating, acting upon, and citing each other's words (Cozzens 1985, Geisler 1991)—over the lab bench, in seminars, at conferences, in refereeing situations, through journals and books, or within any other forum the discipline offers. In addition to the forums of knowledge generation, contention, and discussion, where each practitioner calls upon the words of others as those words seem immediately relevant, disciplines also have forums for codification, where knowledge is sorted out, evaluated, synthesized, and made authoritative (such as in reviews of literature, handbooks, textbooks, and public popularizations). Within these various forums, negotiations occur over what constitutes current disciplinary knowledge (Myers 1989b). Each discipline has its own configuration of these forums, characteristic activities within them, and characteristic ways of transforming its experiential data into disciplinary claims for discussion and ultimate codification.

By way of general illustration, consider the example of experimental physics, where the archetypical experiential act of designing and carrying out an experiment is embedded in a web of theoretical discourse and accounts of prior experiments, and is then represented in various forums where the representations are weighed against other representations, evaluated, and integrated (through the use made of the representation by other disciplinary statement makers) into the evolving web of discourse in the field. The character of representations made in the forums of experimental physics and the various procedures by which these representations are related to events occurring in laboratories are distinctly different from the character of representations of the archetypical experiential event of literary studies, that is, reading a text. In each case there is a complex structure of forums and activities, some directed internally to core practitioners and others directed outward to other communities, such as related disciplines, funding agencies, students, and the general public. Whereas many of the core institutions of physics face inward toward the core community of knowledge producers, looking outward mostly for support, dissemination, and social influence, literary studies are interpenetrated at many levels by the wider systems of literature and culture in which large ranges of the public are active participants, as are members of many nonacademic institutions (such as publishing, journalism, religion, and government).

The structures of disciplinary forums have arisen historically as part of the process of disciplines constituting and continuously reconstituting themselves. Indeed, we can often see the formation of forums (such as the founding of the Royal Society and all other professional societies since), the advancement of rhetorical programs (such as that fostered by Joseph Priestley in his *History and Present State of Electricity* [1767]), or the practice of specific genres of communication (such as the review of the literature) as explicit attempts to use language and to create social space for language so as to shape the future of the disciplines. The typical features of the modern experimental article, for example, emerged gradually since 1665 as a response to the dynamics of arguments carried out within the pages of the new forum of the journal, as that forum served the changing needs of the evolving scientific community. What started out as only an announcement of an event in the first issues of the *Philosophical Transactions of the Royal Society of London* gradually turned into an argument for the existence of the event, then a search for the meaning of the event, and finally—at the end of the eighteenth century—into an experimental proof of the validity of a general claim. Only with the emergence of modern citation and reference practices (Swales 1983) in the nineteenth century did all the standard features of the canonical contemporary experimental report fall firmly into place. Moreover, as these forms of communication emerged, it was possible to discern a web of social relations and empirical practices becoming organized around the production and use of the knowledge statements (Bazerman 1988).

The emergence of contention as a primary dynamic in many disciplines has produced recurrent occasions of role conflict and challenges to reputation, particularly as the work of disciplines has been increasingly defined as that of producing novel claims of general import, to be evaluated by evolving disciplinary standards and to be measured against alternative claims. Colleagues must continue to cooperate in disciplinary endeavors even when they are structurally responsible for that critique of each other's claims upon which their disciplinary standing depends. Significant features of the discourse are accordingly devoted to mediating role conflicts and face-threatening acts (Bazerman 1988, Myers 1989a). Another structural consequence of many disciplines being organized around the production of consensual knowledge, arrived at through contention, is that

discourse often appears to be divided between that which recognizes unsettled contention and that which presents the placid appearance of achieved knowledge, where the contention is forgotten or treated as irrelevant (Gilbert and Mulkay 1984, Latour 1987). One common tactic within contention, however, is to present theories and findings as though they were already consensually settled and accepted, leaving the overt contention to later attacks and defenses: research articles sometimes attempt in this way to bridge the contentions of knowledge-in-the-making and the authoritative calm of knowledge-already-made.

A discipline's discourse is shaped by the constitution and institutionalization of each of the communication sites in the field, the changing memberships and constituencies of the organizations and journals over time, the distribution of contending forces at any given moment, the development of communal aims for the fields, the formation of consensus over the most effective use of language to realize those aims (by means of the genres and conventions of discourse which are maintained through communal recognition of their appropriateness and force), the major challenges to prevailing practices, and the consequences of such challenges.

Thus, for example, to understand current patterns of language use in contemporary psychology, it is helpful to understand how the field emerged out of the discourse systems of both philosophy and physiology, and then, as it began to generate its own journals and communication forums, redefined an appropriate way to talk about mental events distinctive from the prior models of physiology and philosophy. Moreover, one must see how language use in psychology was reshaped by the various reigning theories and epistemologies of the field which defined what one could know and how one ought to talk about what one was coming to know, as well as (finally) what kind of statement could appropriately be considered knowledge. In particular, the institutional dominance of behaviorism resulted in an official rhetoric embodied in the various publication manuals of the American Psychological Association (Bazerman 1988). Despite the effective control of the form of communication by the behaviorists, there remained an undercurrent of contention among the various schools of psychology, each with their programs about the proper way to produce statements and talk about the mind. Finally, it is necessary to consider how the various branches of psychological discourse have interpenetrated with various other related discourse systems, such as clinical medicine and psychiatry, artificial intelligence, sociology, education, public health policy, history, literature, and military planning. Thus, rather than seeing psychological writing as a unitary phenomenon, we must locate the language use within its particular moment and understand the various macroinstitutions and forces, as well as the dynamic local concerns, that bear upon it.

Macroinstitutional considerations include, among other things, the aggregation of most disciplines within the framework of the university as developed in the nineteenth and twentieth centuries. The educational and credentialling practices of the university (in accordance with its own institutional imperatives) have deeply influenced the character of discourse in various disciplines, as we can see when we consider the relation between various types of student essay with professional disciplinary genres. Not only do such essays mimic disciplinary genres by turning knowledge production into formalized exercises to be evaluated as competitive displays, but in turn become influential models of competent disciplinary performance, often reflected in the early publications of new professionals. Local concerns may include such structural issues as the need to maintain internal cohesion and external boundaries against groups competing for authority (Gieryn 1983, Abbott 1988), on-going relations with sponsoring institutions (such as American anthropology's early relations with the Bureau of Indian Affairs), or continuing intellectual and social divisions within disciplines (such as Rudwick 1985 has studied in nineteenth-century British geology).

Even more locally we can understand the specific rhetorical moment by examining the individual histories and rhetorical locations of the individual participants, to see how they have been socialized into the discourse of the disciplines (Berkenkotter et al. 1991), what positions they are trying to advance, how they perceive the current state of the discipline against which they are trying to advance their position, and what they perceive as appropriate strategies and resources to advance their positions. Thus we can see Isaac Newton changing his rhetorical strategies in advancing his optical claims as he changed his understanding of the rhetorical forum in which he was presenting his theses, and as he came to perceive the rhetorical problems posed by each forum. His innovations in scientific argument (leading to the quasi-mathematical structure of an entire system built on inductive proof, as exhibited in the *Opticks*) were the results of local responses to his perceptions of the rhetorical problems. Because these innovations proved so effective in producing compelling arguments, they were widely copied, resulting in the regularization of the discourse. Later readers and writers then took that regularization of the discourse as a set of social facts in the context of which they had to frame their own new positions and arguments (Bazerman 1988).

Thus each act of deployment and reception of language, each use of language by each practitioner, can be understood as a local act, following the individual's perceived needs and goals within that individual's perception of the immediate disciplinary

context; however, that context imbeds a long institutional history which defines the local point of action and sets the terms in which the action is realized. This overall analysis of how each rhetorical moment is embedded within the evolving discourse system of a discipline provides a basis for identifying the current aims and resources of language in a discipline. It enables us to understand the particular features of language and other symbols, how the relevant discourse is produced, how it is maintained, and what is accomplished through its employment. Nonetheless, more limited issues of language use within various disciplines have from time to time received explicit attention, because of immediately perceived problems or difficulties within the discourse.

3. Particular Disciplinary Concerns

Currently a number of disciplines have entered into rhetorical self-examination organized around issues and concepts of particular interest to each. Such moments of self-examination indicate dynamics of change that can lead to major restructuring of the discourse field. The focus is often on particular features of standard textual genres which are seen as inadequate or problematic in some sense—a particular way of writing or speaking is perceived as an immediate irritant. Underlying such discomforts with textual form, one may detect significant issues about the organization of the discipline and its work.

In anthropology, the current debate over the genre of ethnography is really a debate about the entire social positioning of anthropological discourse: who speaks for whom before which forums for which purposes? Such questioning evokes a re-examination of the sociopolitical origins and regularization of anthropology as a discourse field of professionals in a dominant culture reporting back to the intellectual and political elites on the character of subordinate cultures. Anthropology is today seeking new ways of carrying out its task of cultural representation, free of the patterns of cultural domination in authors, audiences, and subjects (Clifford and Marcus 1986, Geertz 1988).

Similarly, gender studies have begun to examine the extent to which all disciplinary discourses embed gender assumptions which may appear questionable, and have begun to offer proposals about new modes of disciplinary discourse that either eliminate or rearrange such assumptions (Bradley 1987).

In economics, an attempt to demonstrate that complex arguments are buried beneath an apparently uncontentious statistical demonstration is motivated by the sense that important issues and conflicting assumptions have simply been submerged, rather than confronted and resolved (McCloskey 1986). The underlying question is whether the work of the field includes addressing these issues, or whether it consists only of technical description and prediction of idealized economic systems.

History has undergone a number of rhetorical self-examinations, stemming from such issues as the reflection of political ideology in historical narratives, the cultural embeddedness of historical accounts versus the possibilities of transcultural scientific history, the inevitable specificity of historical evidence versus the possibilities of determining larger generalizations, and most recently and fundamentally the reliance of history on the constructs of language for both primary historical data and secondary historical accounts. All these are questions about what kinds of stories historians should tell, and what are the meanings and functions of these stories both within the profession and within the encompassing culture.

Rhetorical reflexivity in psychology, sociology, political science, philosophy, literary studies, and other fields is similarly framed within local disciplinary concerns and concepts, although each set of issues can also be placed within a more fundamental systemic context.

4. Implications for Practice

The practical importance of rhetorical and linguistic studies of disciplines, however, extends beyond providing a context for addressing immediately salient problems of textual form brought to light by disciplinary issues. By making possible an overall grasp of disciplinary discourse systems, rhetorical and linguistic studies offer an insight into the constitution of the disciplines, enabling fundamental choices (and accidents) embedded in the discourse system to be brought forward for fresh questioning. For example, studies of the dominance of English language use in international journal publication in a number of fields (Baldauf 1986, Baldauf and Jernudd 1983) reveal barriers to the development of international science and intercultural social science. Such studies provide the tools for rethinking the future of the disciplinary discourses in light of new goals, new assumptions, and new disciplinary structures.

For each individual writer within a disciplinary context, a rhetorical understanding of the relevant discourse field can promote a clearer appreciation of the rhetorical problem he or she is addressing, the rhetorical resources available, and the goals appropriate to the discourse. An understanding of the conventions of writing in the field that reveals them as more than arbitrary will allow for their more effective use, as well as flexibility in response to new circumstances and goals which call for rhetorical innovation.

For teachers of writing as well as teachers of disciplines, an understanding of the system of discourse into which the student is being socialized will help effective initiation into the use of language within

disciplinary activities and social relations. Instruction can also help students develop a self-consciousness and questioning about disciplinary language practices, to enable rhetorical adaptation or innovation as disciplinary conditions change. Education in a disciplinary language can be seen as more than mere training in an unchanging set of conventions.

Finally, understanding the evolution of discourse systems of disciplines may help individuals engaged in discipline building, reformulation, or maintenance to make more informed judgments about the creation of new forums, changes in journal policy, or the fostering of new kinds of language use. Rather than responding to linguistic change from the perspective of institutional challenge and threat, of a battle over "the right way" to carry out the discussions of the disciplines, gatekeepers and disciplinary leaders may more productively review the communicative needs of the field and the dynamic evolution of its discourse system.

The work and achievement of the disciplines rely integrally on the use of language. The more we understand about how language uses have emerged in disciplines, the current patterns, and their assumptions and implications, the better able we should be to carry out the communal work of the disciplines themselves. But in our desire to master its complexities, we must be careful not to reduce language to something narrower and more containable than it is: for those reductions will blind us to precisely those powers which we wish to understand better. Self-contained descriptions of language and constraining "rules of rhetoric" may succeed for limited purposes, but such formulations do not help us to see beyond the circumstances for which they were designed. In accepting that disciplines depend deeply on the use of language, we necessarily accept the creative complexity and unbounded future of disciplines. It is not only what disciplines will discover that remains to be known, but what their practitioners will want to talk about and how they will want to describe it.

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C. Bazerman

Literature

The campus novel as we know it is the child of the middle years of the twentieth century. There are novels before then—like Rosamund Lehmann's *Dusty Answer* (1927), set partly in Cambridge—which deal with university life, but they do so only as one milieu among many. One advantage for the writer of taking the campus as the exclusive milieu of the novel is that it presents a microcosm that answers Henry James's problem of *boundary* within art: the university offers a discrete community with its own customs, separate from the real world and