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WRITING ACROSS THE CURRICULUM

THE PHRASE "writing across the curriculum" is relatively new, as far as I am aware. I want to examine its underlying meaning, its various administrative forms, and its implications for the faculties of colleges and of high schools to look at the theory, the practice, and occasionally the history of the notion.

Despite its novelty, the practice of writing across the curriculum, in one form or another, has spread rapidly. Prestige institutions like Harvard and Yale; large state institutions like Michigan, Maryland, and Texas; large private institutions like Brigham Young; small liberal arts institutions like Beaver College in Philadelphia or St. Mary's College in California; community colleges in many states; and high school systems (even a whole state like Michigan) have considered or are considering adopting some version of the practice. I know of scores of institutions that are implementing the notion. In a short time (much less than it took Piaget, for instance), writing across the curriculum has been entered in the list of descriptors for bibliographic searches for the ERIC system (Educational Retrieval Information Centers).

The central idea behind the various practices seems to embody a resurrected sense of the responsibility of entire faculties and administrative bodies for the literacy competence of the graduates of our high schools and colleges. Almost twenty years of declining SAT, ECT, ACT, and GRE scores, registered regressions in writing skills reported by the National Assessment of Educational Progress, continual complaints from industry and government, and the daily intuitive reactions of thousands of teachers have all made us realize that we can no longer deny the hard facts—for whatever reasons, writing and reading skills of students in this decade are not what they were twenty years ago.

Writing across the curriculum is one response of the academic world to this chorus of concern. Some of the others include higher entrance requirements in admission tests for colleges, more required courses in English composition at the high school and college levels, competency tests in some thirty-five states, competency tests for students in the junior year in college, tougher tests for prospective teachers, and in-house courses and workshops for persons in business and industry.

Writing across the curriculum may become the most important and far-reaching of these responses to what has been called the literacy crisis. The reason is that the others are Band-Aid provisions affecting only some aspects of a massive concern, whereas writing across the curriculum can, if properly interpreted, be a total immersion, horizontally in all departments and vertically at all levels of high school and college.

James L. Kinneavy

Writing across the curriculum may be seen as reasserting the centrality of rhetoric to the humanities tradition, a position it has not occupied since the middle of the eighteenth or the beginning of the nineteenth century. In fact, the ability to write intelligent prose has been the hallmark of the educated person from antiquity to the present. The student of the *ephebia*, the two-year college training for citizenship, was mainly taught to write speeches for the political assembly or for the courts, speeches that he then memorized and delivered. The *ephebia* was the core educational experience for hundreds of city-states in the Mediterranean area for nearly eight hundred years. The cleric in the Middle Ages was, before anything else, a man who could read and write. And if there is anything in common to the university experiences in England, the Continent, South America, Asia, and the United States, and to the community colleges of this country, the *gymnasium* in Germany, the *lyceo* in Italy, or the *lycée* in France, it is the ability to write intelligent prose. When the college student no longer has this ability, the central achievement of higher education has been missed.

To support the importance I attach to the notion of writing across the curriculum, I want to define the term more carefully.

Ordinarily two different meanings are given the phrase. Perhaps most frequently, the phrase is used to mean that the business of writing is taken over by the various departments, such as government, physics, history, and music. Typical of this approach is the program at the University of Michigan, where, in the College of Letters, Arts, and Sciences, each department proposes specific writing courses to the English Composition Board of the college. The courses, after being approved by the board, are carried out by the teachers of the various subjects, usually with the help of a teaching assistant from that department who has been given some training in the teaching of composition by teachers designated by the board. This fall over one hundred and forty such courses were offered. Members of the board have also got in touch with all the high schools of the state and advocated the adoption of a similar program

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in the secondary level. Let me call this the individual subject approach to writing across the curriculum.

A second, rather different approach can be seen in programs at the University of Maryland, Brigham Young, and others. These schools retain the notion that all students should write prose about the concerns of their disciplines, but they centralize the responsibility of training students in individual writing departments, usually English or rhetoric. At Maryland and at Brigham Young, for example, the English department offers courses in four different areas: the natural sciences and technology, the social sciences, the humanities, and business (at Brigham Young, however, the business courses are taught by teachers in that discipline). But the generic offerings by college are not further differentiated into subject courses. Let me call this second approach the centralized generic system. It clearly differs in important respects from the individual subject approach.

Both approaches can be called horizontal, giving this metaphor the meaning of extending across the various subjects and disciplines of a college or high school viewed as a static structure.

Another issue concerns the developmental sequence of a student's college experience. Studies at Harvard and Bradley have shown that it is possible to train freshmen to a certain level of skill in writing ability but that such a skill, if not used, can deteriorate during a student's college career. The Harvard study of 1978 showed that, because of a lack of sustained practice, seniors in the natural sciences wrote worse prose than did their freshman counterparts who had just finished a course in freshman composition (Bok). By contrast, seniors in the humanities wrote better than their freshman counterparts. The Harvard experience and a research study at Bradley, as well as the common experience of many teachers of advanced courses of composition for juniors and seniors, have caused many writing-across-the-curriculum programs to incorporate a vertical dimension into their system (Snider). Part of the writing experience should occur in the upper-class years of the student. The faculty of the University of Texas, for example, has approved a program with a freshman course in writing, a sophomore course in literature with required writing components, and a junior course in writing across the curriculum (offered in four generic areas, like the Maryland and Brigham Young programs); and a fourth course in the senior year specifically located in the particular subject department (like the Michigan program). Such a program would monitor students' writing at every year of their college careers. This is another dimension of writing across the curriculum.

Let us now look in some detail at the two major types of writing across the curriculum, the single subject approach and the centralized writing department approach.

In recent times the two examples of a subject specialization in writing across the curriculum are the earlier textbooks on technical writing and programs like the one at Michigan. In both, the particular department is in charge of the writing in that discipline. In effect, European universities function the same way.

Some theoretical and many practical results follow from what seems simply an administrative decision to adopt the single subject approach. The most obvious feature of such a program is that the teacher is an expert in the field in which the writing is being done; he or she knows the subject, its vocabulary, and the methods of reasoning and the major genres of the field. Outsiders are often looked on as aliens, persons incapable of following the jargon and arguments of the specialist. The more specialized and advanced the discipline, the more pronounced this attitude becomes. In fact, as Percy Tannenbaum reported in *Science*, "J. Robert Oppenheimer stated the dilemma of science communication succinctly when he said some years ago that science is defined in words and phrases which are almost impossible to translate into conventional lay language (581). Since the specialist teacher is the immediate audience for the student's writing in these programs, students can be as technical as they want, and the accuracy of their statements can be checked by an expert. There are obvious pedagogical advantages to this relationship.

In such circumstances, students tend to write in the genres of the specialist, use the vocabulary of the technician, and make commendable efforts to address and imitate peers or even superiors. The situation approximates the actual career circumstances where experts write for their equals. The logic and methodology of the specialist are exploited to the full. The resulting themes are comprehensible to the insider, sophisticated, and technical—much like the writing of the scholarly journals of the department. They are, indeed, a far cry from "What I Did Last Summer."

But these advantages bring with them correlative disadvantages. Students do not learn to address a popular audience, they use the jargon of the trade, and they make no concession to the university at large. The department is isolated, fragmented, and increasingly withdrawn from a common intellectual ferment. Even more important, the specialist does not attempt to go beyond the university community and speak to the populace at large. Students write esoteric prose, often incomprehensible even to their university comrades, a fortiori to the great unwashed.

Certainly this picture is not far removed from the current situation. Most of the writing of the academic world is light years away from the ordinary citizen and some years away from the rest of the university community. This holds true for disciplines as far apart as physics

and physical education or engineering and English. Indeed, it is probably true that the latest piece in the journals of literary criticism is as unintelligible to the general reader as the latest article in the publications of petroleum engineering. Neither would seem terribly relevant to the average citizen of the polis, who, if forced to a choice, would probably take the engineering article.

A further disadvantage can be seen in the subject matter decentralization. Precisely because the programs are decentralized and operate on the unexamined assumption that disciplinary products are accessible only to the initiated, they often resist a centralized scrutiny. Dan Fader, in charge of the program at Michigan, expressly takes this stand; his overseer board approves of programs that are suggested almost solely on the basis of quantitative norms (actual pages of writing). He does not look into the actual themes written in the classes. In the past such an attitude has permitted carelessness and neglect in some programs of this type, leading occasionally to their demise.

The drawback cited most frequently by the teachers in the classes is that they are not trained to teach students to write. It is true, as Fader and others point out, that most of the teachers are writers themselves and therefore know, in an intuitive way, something about writing. But to assume that they can thereby teach writing is a position that could reduce almost any discipline to the level of the dabbling amateur. We all know something about the English language since we use it every day, but that does not make us linguists or speech teachers. We all think, but that does not make us logicians.

The systematic analysis of the processes and products of writing constitutes a particular discipline of long historical standing. And if all of us are to become writing teachers, it would benefit us to learn something about the discipline. Otherwise it might be said that the university assigns one of its most important functions to amateurs, unskilled and bungling, while it subjects other concerns to all the careful disciplinary methodologies that modern science and art can muster. Perhaps this very disparity has caused our present crisis.

One final drawback must be mentioned. At my university, it was clear that many departments did not want to take on the responsibilities of teaching writing because of the time it takes to correct, grade, and assess compositions. Busy assistant professors or even professors do not feel that such a commitment of their time would be rewarded by the university's promotion and merit system. Promotions and merit follow on scholarship, teaching, and service—usually in that order. And assigning and correcting themes do not fit neatly into any of these categories without extensive readjustments. This objection, a serious one, probably obtains more in the institutions that insist on a "publish or perish" reward system. I don't see it in small liberal arts institutions.

Of all these objections, only the lack of training in

rhetoric is necessarily inherent in the single subject approach.

The Centralized Writing Department Approach

The centralized writing department is a peculiarly American phenomenon in the university. American English departments, like their British counterparts, are a relatively late development in university organizational structures. And their function as almost sole guardians of literacy is generally unparalleled in university history.

When professors with some backgrounds in classical and modern rhetoric and composition move into writing-across-the-curriculum courses, what sorts of things happen in the classes? Let me take as prototypes of these programs the courses offered at Brigham Young University, the University of Maryland, and the University of Texas, since I have followed each of them with some interest.

The Brigham Young program grew out of the success of the university's technical writing classes, organized under the direction of John S. Harris. He extended the technical writing classes to courses in writing for all the science and engineering students. This success was repeated in the social science classes and then in the humanities. The departments of business offered their own courses. But the first three sets of courses were offered by members of the English department.

Harris' approach represents that of most modern authors in technical writing. Building on programs pioneered by Mills and Walter at Texas, these authors of college texts have moved away from the early emphasis on individual subjects to considerations of rhetorical principles that transcend departments—such as careful description, explanation and proof, and problems of definition and classification—and to some considerations of style and audience.

With a knowledge of these basic concerns, which might be called logical or rhetorical, anyone can train writers in various disciplines as long as the subject matter does not get too esoteric. These have been the assumptions made by most of the successful texts and teachers of technical writing over the past twenty years. And most of the courses have been offered through English departments—as they are at Brigham Young. When such a mentality is extended to all the undergraduate schools of a university system, as it is at Brigham Young and Maryland and Texas (each offering four college-generic courses), a different kind of approach to writing across the curriculum results.

Let us describe this approach and, in the process, contrast it to the single subject approach considered earlier. Most likely, the teacher is from the English department and hence an expert only in that discipline, usually in literature but sometimes also in rhetoric. Since the teacher is only generally knowledgeable in such areas as chemistry, physics, economics, and petroleum

engineering, the student writer cannot assume the sophistication about the discipline that the single subject approach takes for granted. Consequently, the assumed audience in such programs becomes the generally educated reader. The task of the writer is to make clear to a generalist, who knows less than the writer, the intricacies of a discipline that he or she has been learning for two or three years (assuming that these courses are given in the junior or senior year, as they are at all three of these schools).

The rhetorical effects of such a task are massive. The writer must eschew the usual genres of the career specialist, translate technical vocabulary into language the generalist can understand, and sacrifice subtlety in argumentation and methodology. All these constraints are distinct losses. And, if one argues that specific disciplines really do have their own logics, then the unique logic of a discipline is adjusted to the general logic of the educated reader—assuming there is such a thing.

The gains of such a program are substantial, however. First, the university does not have to train the entire faculty to be expert teachers of writing; such a role can be left to specialists. And if the specialists are trained to their *métier*, they ought to be better at it than just anyone. Such a concept gives dignity to the career and to the concept of the writing teacher and to the importance of teaching writing.

Second, the centralized writing department, by forcing all students of the college to speak about their specialties to the uninformed generalist, imposes a common language on the university community. It reunites the fragmented "pluriversity" of the twentieth century into a linguistic *university*. This would be a major achievement by itself. It has happened, I believe, at Beaver College, in Pennsylvania, as a result of the school's program in writing across the curriculum. At the college's summer seminars, organized under the auspices of the English department and led by rhetoricians of some note, the faculty members discovered that they could talk to one another about their particular interests without getting lost in occult obscurities. The college became a collegium, a unified intellectual community.

The purpose of the writing tasks in this situation also changes. Whereas the single subject approach tends to the demonstrative or the exploratory, the audience change in the centralized approach requires the writer to move in the direction of the explanatory or informative. These movements have organizational and stylistic corollaries.

It seems that this approach is radically different from the first one. And an institution that commits itself to one or the other is committing itself to different kinds of writing in audience, in purposes, in genres, in style, and even in organizational patterns (though I haven't stressed them in this article).

It also seems that what the single subject approach gains in depth it sacrifices in breadth, what it gains in audience specificity it loses in intellectual community, what it gains in subtlety it loses in clarity, what it gains in demonstrative power it loses in informative reach, what it gains in precision it loses in lucidity, what it gains in freedom it loses in accountability, and what it gains in scientific rigor it loses in rhetorical appeal.

A Suggestion: The Best of Both Worlds

These two options are not incompatible. And in my opinion, both are desirable. But no program has successfully combined the two in a workable sequence, as far as I know. Maryland, Texas, and Brigham Young have a semester of freshman English not committed to any particular subject and then a semester of junior English of the centralized type. Michigan and Beaver College have a similar semester of freshman English and a specialist-type course in the junior year.

Part of the reticence to adopt the full set of options is governed by administrative units of semester sequences and hours of courses allotted to departments. Each institution has to face up to its own student body and implement the theoretical and practical program it needs. Some prestige institutions with elite entrance requirements may not need the large beginning freshman composition courses that institutions like Maryland, Texas, Brigham Young, and even Michigan feel are necessary. Maybe it will eventually be possible to use this first-year experience in conjunction with some writing-across-the-curriculum subjects. A few community college experiments in this direction teach us something about what is possible at the under-class level. But I am not too optimistic: both options seem to call for the sophistication and maturity of the upper-class student.

Whatever administrative structure the final program takes, I believe that it must meet certain theoretical and practical criteria. First, there must be some sort of vertical sequence; the Harvard experience demonstrates this necessity even for the very gifted. Second, there ought to be some training for the teachers of writing, whether specialists or generalists. Third, there ought to be a period in which the mature student explains his or her discipline to the general reader in a common university dialect; this requisite should entail persuasive in addition to explanatory and informative purposes. I shall return to this point later. Fourth, there ought to be a period in which students can write as subtly and as esoterically as they wish in the genres of their careers to an audience of peers or superiors. Fifth, there ought to be recognition that literacy is the concern of the entire faculty since it is the cornerstone of a higher education. Finally, there ought to be a system of accountability at all levels of a vertical continuum.

I do not wish to propose any single system for dif-

ferent colleges and universities. But, to illustrate these different criteria, let me describe the program we are in the process of constructing at Texas. If adopted, it will meet most, though not all, of the criteria I have outlined.

We find that about three fourths of our freshmen need a first course in composition that emphasizes basic rhetorical principles, the fundamentals of reading, and a review of mechanics with a handbook. At this level we use general topics generated by a reading anthology or, in a few sections, some literary readings.

The second course in our sequence is required because of its literary content and only secondarily because of its composition component. Although it is basically an introduction to either British, American, or world literature, there are four required themes. This course is offered at the sophomore level, mainly for logistic reasons—the English department could not handle a heavy infiltration of sophomores into the freshman sequence. The course does, by design, continue the literary component of the liberal arts tradition.

The third course, offered in the junior year, is a course in writing across the curriculum modeled on either the Michigan or the Maryland variation. The departments in the university that wish to offer their own classes may do so. So far, there has not been a mad rush to accept this responsibility. Generally, most students choose the sort of course offered in the Maryland version—one with the subject matter drawn from their own discipline but taught by a member of the English department. It meets the criteria of addressing informative and persuasive writing to the general reader and of being taught by teachers trained in rhetoric.

The fourth course is in the specific subject with a heavy writing component. It meets the criterion of demonstrative and exploratory prose addressed to an expert in the field and written in the career genres of the specific major. And, of course, since it is a university-wide requirement, it places the final responsibility for the student's literacy in the hands of the entire faculty. In essence, it is a course like that offered upperclassmen at Michigan. Ideally, as at Michigan, graduate students in the particular departments will be trained to help professors with the grading and holding of conferences in this fourth course also. This will help the program meet the criterion of trained teachers, assuming that the English department trains its own members to be rhetorically knowledgeable.

Let me say a word about the desirability of writing persuasive papers addressed to the general reader. This kind of writing serves two purposes. First, it continues the rhetorical component of the liberal arts tradition, just as the literature course at the sophomore level continues the "grammar" component of the tradition and just as the demonstrative and exploratory writing at the fourth level continues the logic and dialect components

of the tradition.

The continuation of the liberal arts tradition is not merely an exercise in meaningless antiquarianism. The liberal arts tradition is valid today because it represents a care for three quite different kinds of thinking—scientific (in logic and dialectic), persuasive (in rhetoric), and aesthetic (in the study of literature, the grammar of the tradition). In my opinion—and I can only state it dogmatically, given the current circumstances—these are the three types of thinking that it is the duty of the university to get each student to engage in for a full mental life. Without any of the three, a person's intellectual health is impaired. In effect, he or she is missing a mental limb.

Most of the university courses giving some attention to writing emphasize the logical and the exploratory. Some pay attention to the aesthetic (literature, art, music, drama). But few consciously focus on the persuasive. This alienation of rhetoric from the university's explicit goals has had some unfortunate corollaries. First, it has broken the major connection between the humanities and the daily life of the average citizen of the state. Rhetoric, more than literature and more than science (the grammar and logic of the tradition), was the linking bridge of the humanities to the ordinary person. Without this bridge the university has lost its major relevance contact with real life, in the view of the populace. This partly explains the university rebellions in this century in France, Germany, and this country. The academic can become, well, academic.

Second, the alienation of rhetoric from the university has produced a new exemplar of the teacher since the Renaissance. The reduction of the training of the student writer to an expertise in expository writing (demonstrative, exploratory, informative prose) has narrowed the writer's conceived audience down to peers or superiors and has separated ethical and moral responsibilities from scientific concerns. Once the scientist-teacher no longer feels a duty to address the populace in rhetorical genres and can pursue scholarly interests untrammelled by the intervention of religious or moral beliefs, he or she can perform amorally in the laboratory and in the classroom as a scientist-teacher. Scientist-teachers can pass on to intermediaries—political or journalistic or marketing—the responsibility of using the objects of their scientific research, since they are no longer responsible to the populace directly.

Yet it does seem immoral for a discipline as a whole to disavow the responsibility for its creations. Computer scientists, chemists, philosophers, journalists, novelists, and engineers, as social groups, have a responsibility for the abuses to which society puts their products, just as they have a right to the plaudits that follow on their successes. The chemist and the computer scientist can most accurately foresee the beneficial and harmful uses to which their inventions may be put. Each profession has a rhetorical obligation to alert society to new benefits

and also to new dangers.

This informative and rhetorical function should be taught to the practitioners of the professions. In practice this means that the politics, the ethics, and the rhetoric of a profession ought to be a part of the curriculum of any discipline. And the rhetoric of the discipline means the ability to address the populace in persuasive language that, to be listened to, will often have to be intensive, even impassioned, audience-biased, and stylistically appropriate to a segment of the populace. We don't teach our majors to write this kind of prose.

Consequently, it is not enough to teach the practitioners of a given craft how to communicate with one another in the jargon of their department. They must also be taught the common language of humanity in its full rhetorical scales. This means that all disciplines must offer training in the persuasive techniques of rhetoric. Thus at least some physicists, chemists, pharmacists, journalists, political theorists, and so on should engage in the impassioned and simple prose that affects the multitude. Training these future professionals to write only expository prose is training them to ignore their political and ethical responsibilities.

The wholesomeness of the teacher exemplar who was scholar and rhetorician and also aesthete is a wholesomeness we cannot dispense with. Fragmented scholars are irresponsible scholars, as capable of turning out iniquitous monsters as beneficent marvels.

Rhetoric, consequently, should be incorporated into the curriculum of all college students. Its exile has been costly.

Some Problems That Remain

The distinction between writing for a general audience and writing for a specialist audience, however, does not answer some of the questions raised by the problems of general audiences trying to read translated messages from the individual disciplines. In fact, a wholesale attempt to translate these messages may bring to light hitherto hidden issues having to do with the particular logical patterns of each discipline. The issues occur in at least three different stages of the scientific method of the various sciences. I use the word "science" in a tolerant and pluralistic sense for the kinds of evidence that each discipline accepts in its textbooks and professional literature. In addition, these "logics" will require some major readjustments of the centralized reading and teaching departments (usually English). Let us consider a few examples of these logics and then turn briefly to a sketch of the administrative changes they entail.

Anthropologists frequently talk about the ethnoscience of a culture, that is, the material accepted by that culture as scientific, regardless of how it may be viewed by other cultures. Using this distinction, I have talked in *A Theory of Discourse* about the ethnologic

of scientific proof, the kind of logic accepted as valid within an academic subculture. Thus "even within the matrix of Western civilization, the German view of science can tolerate a brand of metaphysics and a *Literaturwissenschaft* which much Anglo-Saxon thought would term speculation at best" (128).

But we don't have to go as far as Germany to find such cultural differences in ethnoscience and ethnologic.

Indeed one does not have to go beyond the province of a single major university in this country. Many physicists, sociologists, even educators, would not label much dissertation work by literary critics *scientific* at all. Similarly, many English professors would consider the endless survey and statistical techniques of educators trivial and inconsequential. Even within the individual English departments, the time is not too removed when historical critics would not speak to "new critics" or "descriptive" to "prescriptive" linguists. (Kinneavy 128)

I have personally been involved in some of these cross fires. And the general reader of courses in different disciplines had better be prepared for such cross fire, even within the narrower limitations of, say, Writing in the Humanities, as opposed to Writing in the Natural Sciences.

These differences, as far as I can see, occur more in the sciences that use deductive methods than in those that use inductive and statistical techniques. The reason is simple: the various disciplines start off from different axiomatic beginnings. The axioms of the law student are the constitutional foundations, the legislative additions, and the judicial precedents and interpretations given the first two. Obviously these axioms differ from country to country, often from state to state. By contrast, the axioms of the theologians within a given church may frequently be international (at least to the extent that the church is), but they certainly differ from those of other churches of the same generic persuasion (such as Christianity) and even more from those of other churches of different general creeds.

Such axiomatic differentiations seem obvious enough in law and theology. But they are not so obvious in politics or literary theory or even mathematics. Indeed, they are frequently not neatly stated in unambiguous formulas but hidden in premises and reasoning methodologies. They may not even be articulated by the users of the subculture. Many of us, for example, used some now questionable axioms in our study of literature under the auspices of New Criticism without being aware of their existence in any explicit promulgation.

These differences are just now beginning to be studied. Chaim Perelman and L. Olbrechts-Tyteca, in *The New Rhetoric: A Treatise on Argumentation*, have begun to work on these problems, as well as on the possibility of something like a universal audience. Some German scholars have revived the notion of rhetorical

topic analysis as an analysis of the different ethnologies of various disciplines. Otto Pöggeler, the disciple of Heidegger, has applied the notion of topic analysis to philosophy, and Theodor Viehweg has applied it to jurisprudence. A number of scholars have applied the notion to literature ever since Robert Curtius used it in *European Literature and the Latin Middle Ages*. Sometimes, however, the topics of literary analysis can simply degenerate into subject matter or theme analysis—and I am not talking about this notion of topic. In any case, there is room for many fertile dissertations and research monographs in the field of the differing axiomatics of different disciplines and their rhetorical applications to the classroom of the writing-across-the-curriculum movement.

There is also some room for the analysis of the varying treatments given inductive generalizations in various disciplines. The general acceptance of the methods of inductive probability and of statistical methods from education to physics indicates much less divergence in induction from discipline to discipline than in deduction. Members of English departments, however, if they are to become general readers for these logics, will have to capitulate to this widespread “ethnologic” and teach something about induction and statistical methodology. Such an innovation should have some beneficial by-products in literary and rhetorical and maybe even linguistic scholarship.

In this article I am going to pass over such ethnologic issues as the differing exploratory methods of different sciences and even the differing persuasive techniques operating particularly in grant proposals—that curious hybrid of exploration and persuasion. There are, however, a few major divergences in the way the various disciplines use what I call the modes (narration, description, classification, and evaluation). As far as I am aware, these differences have never been seriously studied.

Let me give a few illustrations. In English literary studies, we are accustomed to a fairly narrow range of types of definition. Most of those we use are of the genus-species kind, often called the “logical” definition by logicians. Frequently these logical definitions are used in a purposive or teleological framework. Aristotle’s definition of tragedy in *On Poetics* ends with such a purposive statement:

A tragedy, then, is the imitation of an action that is serious and also, as having magnitude, complete in itself; in language with pleasurable accessories, each kind brought in separately in the parts of the work; in a dramatic, not in a narrative form; with incidents arousing pity and fear, wherewith to accomplish its catharsis of such emotions.
(1449b.24–27)

Many definitions in the arts, whether fine or useful, are of this type: a watch, for instance, is defined as a small

instrument (genus) for telling time (species, denoting purpose).

But if English teachers are to become general readers, they will have to become accustomed to recursive definitions (in mathematics and linguistics), environmental or slot definitions (linguistics), operational definitions (many of the physical sciences), nominal definitions (those with no pretense to real objects exemplifying them), and so forth. Even the translated messages of the sciences will embody these types of definitions.

One additional example from the modes: Evaluation is a mode that is theoretically proscribed by many disciplines, at least in some circumstances. Value judgments, as they are often called, are taboo in some formal kinds of media and academic discourse. I was once told at a dissertation oral examination for a student in English education that my value judgments were showing. I replied that I hoped that they were and that the colleague who was upbraiding me for such a value display was himself engaging in value judging by repudiating value judgments. In a sense, however, my response was unfair. Some disciplines find it much more necessary than others to distinguish between descriptive and evaluative judgments. In fact, another good study would be for someone to make a comparative study of this matter; it would entail distinguishing between the valid value judgments, though sometimes implicit, and the invalid value judgments of such disciplines and describing the circumstances in which they are invalid.

We in English departments have also to learn to extend our knowledge of plot narrative to expository narrative, in which cause and effect are the determining issues. Case histories in psychology and medicine, physical forces in geology and meteorology, social forces in history all embody a notion of narrative that we have largely neglected in our literary studies.

We are going to have to learn too about some media and genres that we have not encountered or analyzed. Lab reports, case histories, field studies, and other subgenres are only a few examples; the textbook by the five members of the Beaver College staff, Elaine Maimon and others, is a pioneer in this direction.

Preparing English teachers for this kind of reading and teaching will require administrative changes. At such institutions as Brigham Young, Maryland, and Texas, where the centralized department teaches the writing-across-the-curriculum courses at the junior level and asks the students to write for the generally educated reader, some sort of faculty preparation ought to be made for optimal results. Ideally, I would propose that faculty choose one of the three major areas—empirical sciences, humanities, and business—and make some general study of the methodologies, definitions, criteria of evidence, general axiomatic systems, and views of value judgments. Also ideally, these faculty members should meet with the members of the target disciplines

and acquaint themselves with the expectations of these faculties. Reading lists and different types of professional writings, textbooks, and student themes should be collected to give incoming teachers realistic ideas of what the students are dealing with in the various disciplines. The teaching assistants who help the members of the separate disciplines in the writing-emphasis courses should be trained by teachers with the same sort of generic and general background knowledge of the field.

Extending the functions of an English department in this way could have miraculous results. I know "miraculous" sounds pretentious and exaggerated, but for me the word describes the effect I observed at Beaver College the first time I acted as consultant to the writing-across-the-curriculum program there. All the faculty from different departments were speaking the same academic dialect, the dialect of the educated reader, to the members of the English department. The college was a collegium, a unified body of academics, speaking the same language about the problems of the various disciplines.

All the fragmented disciplines of the usual pluriversity can become a university with such a dual movement. The English department must learn to speak the generic logics of the other departments of the university, and the isolated and insulated departments can make the other step toward a unifying language, the dialect of the generally educated reader. Thus the writing-across-the-curriculum movement could, if properly pursued, place the English department at the center of the entire university community. But the price of this enviable and appealing prospect is for the English department to enlarge its interests from literary discourse to all discourse. English should be the study not just of literary artifacts and their production but of all language ar-

tifacts written in English, and especially of scientific and rhetorical artifacts. The department can then rightfully assume the title it usually takes; the Department of English. Such a department accepts as its province the scientific, the literary, the rhetorically persuasive, and the expressive texts of the language.

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