

INQUIRY. INTERDISCIPLINARY STUDY, AND MINOR PROGRAMS OF STUDY

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ABSTRACT

The inquiry form of liberal education conveys a much-needed sense of purpose for undergraduate education. Inquiry principles enable the assessment of conventional organizations and practices with much clearer criteria than currently available, and they call into sharp question the efficacy of relying exclusively on disciplinary criteria for organizing undergraduates' advanced, "in depth" study. Through an inquiry approach, we can see that academic disciplines are a part of the professional culture of academics rather than an expression of inherent properties of universal knowledge structures. This enables the case for interdisciplinary study to be made in cogent intellectual and pedagogical terms that do not implicitly accept the centrality of disciplines. The last section of the essay contains a proposal for a curricular structure that holds substantial promise in promoting the type of education advocated in the first two sections. While very aware of the danger of overstating the case, the proposal does directly and plausibly address some of the most pressing concerns in higher education.

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Interdisciplinary education is not an end in itself, and its desirability should be regarded as a conclusion that follows from a set of explicit educational goals. This essay, therefore, argues that the inquiry conception of liberal education offers an exciting and worthwhile sense of purpose for undergraduate education and that interdisciplinary approaches to teaching and learning follow from it. A major advantage of this argument is that it counters the notion that the case for interdisciplinary education is based primarily on other than intellectual grounds. This view, apparent among both proponents and critics of interdisciplinary education, implies that for really serious intellectual work, one must, look to the academic disciplines (Grant and Riesman, 1978; Trow, 1984/85). The second section of this essay proposes a curricular organization that advances these educational goals without being unduly Utopian.

INQUIRY AND LIBERAL EDUCATION

The tacit definition of liberal education that often informs discussions amounts to no more than designating that which goes on in liberal arts colleges and divisions as liberal education (e.g., Hawkins, 1981; Zingg, 1982-1983). A large part of this definitional imprecision stems from the existence of two distinct dimensions in the meaning of liberal education that can be seen in the period of the classical curriculum in the early history of U.S. higher education. Distinguishing between these two traditions of liberal education is important both for clarity and for understanding the influences that have shaped the current status of liberal education.¹

In spite of considerable variation, the classical curriculum of the early colleges rather consistently embodied two primary educational goals, the combination of which constituted the definition of liberal education: the development of mental faculties; and the transmission of liberal culture (Kolesnik, 1958; Rudolph, 1977: 25-150). These two strands were graphically described in the famous Yale Report of 1828, where it was argued that the purposes of education concerned "the discipline and the furniture of the mind; expanding its powers, and storing it with knowledge" (quoted in Rudolph, 1962: 132).

In the domain of liberal culture (the furnishings), emphases on Greek and Latin texts and the Bible were to acquaint students with that body of knowledge whose mastery was seen as necessary for being regarded as an educated, cultivated gentleman suitable for the ministry, learned professions, and leadership elite – all, of course, very vocational in their effect.

Students repeatedly translated these texts from one language to another, and by means of recitation and disputation students were also instructed in ancient languages, mathematics, formal logic, and natural philosophy. While these subjects had some liberal culture rationale, they were also valued as a way to develop students' mental faculties such as attention, memory, and reasoning. The curriculum and pedagogical strategy were thus designed to achieve both the liberal culture and mental discipline goals of liberal education, and they made sense in terms of then-current learning theory.

Although colleges changed in different ways and at different rates, the natural sciences and modern languages and literature had become established in the curricula of many of them by the middle of the nineteenth century, and the social sciences were rapidly becoming differentiated from moral philosophy and included as separate curricular entities by the end of the century. Linked to the expansion of the curriculum, pedagogical styles also shifted towards seminar and lecture formats and forensic rather than deductive debates, and elective systems

began to exert a significant influence.

In light of current controversies about the liberal arts, there is definite irony in the fact that proponents of the earlier ideal of liberal education viewed these new subject matters as intrusions, as pandering to students' vocational interests. Debates about "practical" instruction had been going on for at least a century, but the rapid growth of land grant institutions and research universities at the end of the nineteenth century changed the context and forums of the debate; the liberal arts colleges were eclipsed by the newer, more dynamic institutional forms. The old-style colleges that survived this sea change in higher education either transformed themselves into research universities or altered their curricula in ways appropriate for serving as feeder schools for professional and graduate programs located elsewhere. In either case, liberal arts colleges were no longer a major force in U.S. higher education (Jencks and Riesman, 1967: 24-27; Veysey, 1965: 21-251).

In spite of their initial differences in purpose and auspices, however, there was increasing convergence between the two vital new institutional types -- the land grant college and the research university. By the 1920s and 1930s, the research orientation of both the land grant and research universities had nurtured the development of academic disciplines. Although academic disciplines continued to be vaguely and inconsistently defined, they served to heighten the intellectual character of higher education. At the same time, however, academic disciplines were effective vehicles for increased faculty professionalism, and it is as professions, rather than as meaningful intellectual categories, that we should understand academic disciplines (Weaver, 1981: 151-160).

The transformation of the liberal arts into a collection of academic disciplines designed for conducting research qualitatively changed the meaning of liberal education. This is not acknowledged frequently enough, and even when it is, seldom is it understood that the division of knowledge into supposedly discrete categories appeared possible and productive only because of the common stance towards knowledge that underlay and informed the research-oriented disciplines. This conception of knowledge, most commonly known as positivism (but perhaps more properly called "realism," following Churchill, 1983) was clearly articulated as early as Bacon and Descartes but truly flowered in the late nineteenth century with the triumph and prestige of positive science. And it is here, in the positivist approach to knowledge and in the consequent understanding of the teaching function, that we need to look for the most important effects on the meaning of liberal education.

Although tainted by self-serving myth and by nostalgia for lost intellectual unities and social exclusiveness, an attenuated form of the liberal

education spirit survived in a notion of general education. Literature, history, the remnants of philosophy not incorporated in natural and social science disciplines, classics, religion, and other unclaimed parts of the classical curriculum did undergo the process of professionalization (i.e., became disciplines). In the 1920s, scholars in this disparate group of academic fields (eventually collected together under the umbrella label of "humanities" (Veysey, 1978) became a self-conscious force in academic politics known as the general education movement. Reacting to the high status of positive science and to the rewards of specialization, aided by patriotic fervor during the First World War to identify and teach students the U.S. democratic heritage, and often supported by administrators trying to contain departmental power in the institution, the movement succeeded in legitimizing required general education core courses in a large number of institutions. These general education requirements, including core courses, a few Great Books programs, and distribution requirements (eventually their most common form), were chiefly for lower-division students and were but a pallid resurrection of the liberal culture component of liberal education.

It is vital to understand how strictly limited are most conceptions, of general education: these requirements were, and continue to be, requirements defined in terms that stressed the liberal culture ("necessary body of knowledge") side of liberal education compatible with positivism. That is, students were to acquire a certain set of information and techniques from an established corpus of material, an enterprise that could be expressed in terms such as coverage and breadth that emphasized the external, objectified character of knowledge.

While it is clear that this form of learning involved certain types of mental discipline from students (e.g.s attention and memory), the broader sense of mental discipline in the definition of liberal education all but atrophied. This was fully consistent with the positivist attack on the nineteenth century psychology of faculties. For instance, the work of Edward Lee Thorndike and his colleagues in the early twentieth century not only dismantled the hollow tenets of faculty psychology, their work was interpreted as proof that there are no general intellectual skills; there were only specific information and techniques to be known (Hofstadter, 1962: 349; Cremin, 1964: 110-115).

Even with some core courses and distribution requirements, then, the idea of liberal education survives mainly as a vaguely defined artifact in faculty culture. Undergraduate major curricula in "liberal arts" disciplines remain as diluted versions of graduate professional programs designed to train research professionals, and the differences between the liberal arts and programs in education, business, engineering, and whatever (the B.A. vs. B.S. and other specialized baccalaureates) primarily reflect the historical roots of the subject

matter, an atavistic form of elitism, and conventions of administrative organization, rather than distinctive educational conceptions and practices.

The criticism in the last couple of paragraphs suggests the need to revive, in an appropriately modified form, the second historical strand of liberal education goals: mental discipline and the development of intellectual capacities. This strand, shorn of the language of mental faculties from eighteenth and nineteenth century psychology, still survives in the fulsome rhetoric of college catalogues, where the goals of liberal education invariably include something along the lines of "the promotion of critical, independent thinking." But as long as questions of significance and interpretation are ignored for the sake of tidy instructional packages of information and techniques, this side of the classical conception of liberal education tends in practice to be collapsed into a positivist form of liberal culture.

As I mentioned in the opening paragraph, I see the so-called "inquiry" approach, which has been gaining increased attention by education thinkers, as the most promising educational idea for productively enhancing liberal education. The American Association of Colleges' Integrity in the College Curriculum (Project, 1985) is the most prominent, recent advocacy of an inquiry form of undergraduate education, but there are many others.²

By the inquiry notion, liberal education does not stand in contrast to professional education but rather to "training," a style of learning in which knowledge is considered to be inert and external to the student and teacher. As a consequence, the teacher transmits a body of information and techniques to students and judges their abilities to reproduce and apply it following prescribed procedures. It is not difficult to recognize courses that have training as their principal objective; such courses are defined in terms of "covering" a particular subject matter, and in them, students are expected to come up with the same answers to assigned questions and problems.

According to inquiry principles, liberal education entails a very different approach to knowledge: liberal education is an educational endeavor that regards knowledge as multi-faceted and as requiring interpretation. The role of the teacher, therefore, is to develop students' abilities to use logic, evidence, and sense of context to identify the role of selection, premises, and perspectives in other people's analyses and to construct and defend interpretations of their own. In other words, students must engage self-consciously and critically in the constitution of meaning. Teaching of this type is much more an intellectual enterprise than a packaging and distributing function; the view that knowledge is (or rather ought to be) created in the course of teaching challenges the conventional idea that teaching is but the transmission of knowledge while research, the higher order activity, is where knowledge is created (or

"discovered").

In all of this, however, it needs to be acknowledged that some training is necessary for liberal education. Each program of studies, and often a single course, requires both types of learning, but in a curriculum that emphasizes critical inquiry, both faculty and students must recognize that the training component is only a vehicle for broader educational purposes.

In respect to the conception of knowledge that underlies such a teaching effort, it is vitally important to note that questioning the vision of objective and universal knowledge does not necessarily imply that relativism and subjectivism are desirable alternatives. For instance, a defensible and productive middle ground between the extremes of positivism and subjectivism is the position that "knowing" anything requires removing (i.e., abstracting) particulars from the bewildering complexity of reality, which in its totality cannot be comprehended. In this view, knowledge involves prior conceptualization, because concepts are the means by which elements and relationships are selected from the whole (cf. Hekman, 1983: 19-21). The resulting stance in teaching, then, is that knowledge is constructed rather than discovered, and the selection process integral to knowing and constituting meaning requires prior judgments that reflect human concerns and volition. So while this view of knowledge does not regard knowledge as objective and value free, it is hostile to solipsism and makes the rigorous use of empirical evidence an important goal.

INQUIRY AND INTERDISCIPLINARY STUDY

This view of education has profound implications for the role of disciplines in undergraduate curricula. From the above, it should be clear that education in the liberal arts disciplines does not in itself comprise an adequate definition of liberal education. Any of the traditional subjects in the liberal arts, including ancient history and the calculus, is capable of being taught in the form of training, encouraging the same unfortunate habits of mind as the worst caricature of a professional course. On the other hand, the liberal arts disciplines do not hold a monopoly of subject matter appropriate for liberal education. For example, business management and elementary education are important subjects whose complexity calls for treatment from a variety of angles and at various levels of abstraction; both subjects are fully capable of being taught in ways that promote the development of students' critical intellects.³

The liberal arts disciplines, therefore, are neither necessary nor sufficient for an inquiry based liberal education, but this does not mean that

disciplinary curricula are inherently incompatible with it. I do, however, maintain that disciplinary curricula are unlikely to promote the intellectual properties I regard as most important.

Before proceeding with this argument, however, it is important to establish that inquiry, in the way in which I have been using it, is very different from the idea that "critical thinking" is a skill (like the older idea of a "mental faculty") that putatively is capable of being developed through a curriculum of puzzles and exercises. Critical thinking has to be about something, and after satisfying the faculty's expectations about what an educated person should know (i.e., liberal culture, with a strong dose of training and skill development appropriate for advanced inquiry), a student should systematically pursue some study in depth. That study should be coherently structured around a set of substantive questions and issues and organized so that the student appreciates the significance of analytical frameworks' underlying premises and selectivity for alternative interpretations as well as the complexity of inter-relationships in order for abstraction to be used intelligently. Moreover, such curricula need to be cumulative, ensuring that students successively draw on previous learning.

Returning now to the place of academic disciplines in liberal education, a first step is to recognize that disciplines differ markedly in the precision of their definitions. For our purposes, it is useful to think of arraying disciplines along an axis according to the degree and specificity of disciplinary professionals' consensus about what constitutes each discipline. At one end of the array, therefore, will be those disciplines that are loose congeries of subject matters, approaches, and techniques, and at the other end will be the more tightly defined entities.

As I have already suggested, most disciplines will be considerably closer to the first end of the array than to the second. This situation offers difficulties for those who promote interdisciplinary work on the grounds that disciplines over-emphasize specialized rigor at the expense of breadth (e.g., Campbell, 1969; Hausman, 1979; Swora and Morrison, 1974; and Newell, 1983; Bailis, 1984/5 is a good review of a related issue). When sociologists, historians, philosophers, anthropologists, geographers, and biologists among others convincingly demonstrate how such a portrayal seriously misrepresents the substantive scope of legitimate work within their disciplines, and rigor has already been conceded, the case for interdisciplinary work is not especially compelling. Moreover, the all-things-are-connected argument for interdisciplinary education, while at some level obviously true, seriously distorts the intellectual and pedagogical imperative; the issue is not whether abstraction will be employed, but rather which kind and how conscious are students of its implications.

It is very difficult for the more loosely defined disciplines to create curricula that enable students to proceed to increasingly more sophisticated levels of understanding along consistent lines of inquiry. The group of upper-division courses a student finally chooses to satisfy a major in one of these disciplines -- most often in the humanities and social sciences -- is typically diffuse in content and horizontal in trajectory. Completing major requirements in one of these disciplines is an experience that makes about as much educational sense as satisfying distribution requirements that have been fashioned by log-rolling in faculty politics.

At the other end of the array, where the more specifically defined disciplines are located, there are other problems. Here there is more clarity and tangibility about what comprises the discipline, even though the wide range of applications recognized as legitimate within, say, economics and physics blurs some of the clarity. As opposed to the curricula of the disciplines at the more casual end of the spectrum, the curricula of this class of disciplines are more coherent and cumulative. As a direct result of the consensus by disciplinary professionals, however, the discipline is presented to undergraduates as a codified category of subject matter and techniques. That is, these disciplines have solved basic conceptual problems (arising, for the most part, out of research), and as a consequence, their curricula point students in directions that have been set by those solutions and discourage questioning the intellectual grounds for those directions.

Getting students to accept a particular set of unexamined and often unstated assumptions and precepts is a far cry from teaching them the ways in which the resulting focus of a theory defines the range of issues considered and questions asked, thereby circumscribing the range of acceptable answers and setting the terms in which they may be debated. Liberal education goals require abstraction and analytical tools to be used deliberately and self-consciously, and it is absolutely essential that curricula engage students, actively and critically, in the creation and interpretation of knowledge. Curricula of well-developed disciplines, because they are so well developed, seldom explore the implications of particular disciplinary categories, and thus they tend to expose students to the results of thinking rather than to involve them as active participants in the processes of that thought.

There is an odd quality to this argument: some disciplines are too diffuse in content to be satisfactory bases of an inquiry curriculum, while others are too tightly constructed. But both observations are accurate, and; moreover, no intermediate points along the array are satisfactory. The argument is simply that categories of knowledge, whether consistent and coherent or not, do not lend themselves to curricular forms appropriate for inquiry goals.⁴

There are no intellectual or pedagogical reasons preventing disciplinary faculty from constructing inquiry-oriented individual courses or even programs of study around sub-sets of disciplinary subject matters. Apart from possible professional difficulties, however, when one begins to develop undergraduate curricula around some clear questions, it is contrary to the logic of the study to restrict the scope of the inquiry to that of the sponsoring discipline. For the purposes of inquiry, the need is for curricula that are narrower than most disciplines in central questions and themes but at the same time are broader than most disciplines in approaches, perspectives, contexts, theoretical formulations, and techniques.

So while these are interdisciplinary curricula, they are significantly different from interdisciplinary efforts informed by a coverage rationale, and their specialized nature enables them to draw effectively from disciplines without at the same time reifying disciplines. The term "adisciplinary" rather than interdisciplinary may be more appropriate; by inquiry principles, teaching undergraduate students the relations among disciplines makes no more sense than teaching students a discipline.

MINOR PROGRAMS OF STUDY

The last section concludes that upper-division student programs should be organized around some clearly formulated, substantive questions rather than a discipline. In most colleges, however, this is not feasible because of institutional politics, and even if the faculty and administration were in favor of such a far reaching change, there is some danger that students would resist it. For these reasons, I strongly suggest considering a system of thematic minors, which would significantly enhance the liberal education component of liberal arts programs and may be much more palatable to important constituencies.

Minor programs seem to be making a comeback in liberal arts colleges and divisions, and although this change has not been as dramatic as the resurgence of general education requirements, it is a significant aspect of colleges' and universities' widespread movement towards prescription and structure. I suggest that such momentum could be built upon for the purposes outlined above by requiring students to enroll in a thematic minor program in addition to a major.

Most minors are disciplinary minors, which are simply abbreviated versions of disciplinary majors, and as such offer little help in furthering an inquiry form of liberal education. I propose the development of an array of thematic minors, each organized around a set of substantive questions dealing

with a clearly defined content area. That is, the minor programs of study need to be organized around specific questions and subject matter stressing inquiry rather than around "covering the facts."

It is easy to suggest suitable matter from which such questions could be constructed: urban problems; environmental issues; area studies (e.g., Africa, Asia, Latin America, Soviet Union, and so on); patterns and significance of technological change; the experiences of minorities and of women in the U.S.; international relations (perhaps with an emphasis on national security and disarmament); a regional studies program drawing on local resources; children (including nature vs. nurture debates, the varieties and meanings of youth cultures); the "greying" of America: energy – sources and uses; the place of religion in private and public life; high culture, popular culture, and the media; and so on. All of these have appeared in colleges and universities at one time or another, and the choices among possible areas for establishing minors would depend on student and faculty interests and on institutional resources. Students would simply declare a minor at the same time and in the same way they declare a major.

The curriculum for these programs need not be elaborate; a lower-division course and a four-course upper-division sequence would be sufficient. The individual upper-division courses initially would not have to be interdisciplinary, but it is critical from the very beginning that each course explicitly address the respective programs' common questions, albeit from different perspectives, that each course deliberately and consistently refers to and builds upon the materials of the preceding courses in the sequence, and that each entails explicit explorations of the implications of abstraction and particular categories of knowledge. These qualities would contribute an erosion of the faculty members' attaching much significance to maintaining a specific disciplinary identity for their courses, and at the very least, would raise the issues in a clear way for students as well as for faculty.

The main purpose of establishing such a system of minors is to structure a part of the curriculum along the lines of critical inquiry, and even if disciplinary majors were retained, there is good reason to believe that this relatively modest change would make an educational difference. By supplying students with a consistent line of inquiry, minors can increase the meaning of majors and by its structure, confirm (or more likely begin to impart) a cumulative, progressive character to their studies. And this can be achieved without directly confronting disciplinary departments' hegemony over major programs or undermining their value as a brake on administrative authority.

In addition to the principal argument about inquiry education, there are further advantages to be derived from instituting a system of minors. These are

advantages that flow from the thematic, interdisciplinary character of the minors but are in themselves sufficiently significant and tangible that many faculty may find these additional aspects to be more persuasive than arguments based on general rhetoric about inquiry or interdisciplinary education.

1. A system of thematic minors would supply the organizational mechanism and the minors' specialized focus would form the intellectual contexts for systematically extending general education into the upper-division years. Analyses from the humanities, sciences, and social sciences could easily be incorporated into most (and perhaps all) of the themes, and therefore, completion of such a minor could count towards satisfying distribution requirements. By being able to choose among a range of minor programs, each of which progressed to increasingly sophisticated levels, students would be far less likely to perceive (and experience) general education as arbitrary hurdles of little intrinsic interest and intellectual challenge. Furthermore, these very same qualities should evoke more commitment from faculty than general education efforts limited to the level of introductory surveys. Finally, by taking some of the general education burden out of the lower division years, some of the problems of articulating curricula of four-year institutions with those of community colleges would be eased.

2. The flexibility of the minors would allow them to be developed for particular sets of students. For instance, some minor programs could be tailored, say, to serve an honors program or to promote the sustained development of writing and quantitative skills. Others could be designed especially for students majoring in professional programs. The case for professional students taking a substantial number of liberal arts courses simply is not very convincing when it is based primarily on vague, unsupported, and ultimately suspect claims about qualities of liberal education that all liberal arts courses (and only liberal arts courses) putatively embody. But well-organized packages of thematic minors directed to particular groups of professional students (eg., Business in American Thought; the Politics of Schooling) could be considerably more attractive to colleagues and students in professional curricula.

3. Thematic minors could serve as important forums of faculty development. Minor programs would engage faculty across disciplines but on specialized questions of interest, and the type of intellectual stimulation from working with new sets of colleagues to design upper-division thematic minors is particularly important as faculty turnover continues to decline and opportunities for professional advancement and mobility contract. If the faculty are going to be able to sustain the intellectual vitality and commitment necessary for first rate scholarship and teaching, the curriculum is simply going to have to be rewarding and educational for faculty as well as for students.

In respect to improving teaching, it is frequently argued that tinkering with curricula is less important for educational quality than faculty ability and dedication (e.g., Veysey, 1973: 61). Excellent teachers can indeed give students first-rate educations in standard, uninspired curricula, but it is in spite of those curricula and the pressures (and temptations) of disciplinary categories and professionalism. Qualities such as responsibility, goodwill, and shared commitment are vitally important, but they must be nurtured and supported by the institutional framework in which teaching is done. Moreover, curricula set the range of student choice and, by doing so, the catalogue is a public, operational declaration of what the institution considers to be educationally important and encourages particular student attitudes towards learning.

The assertion that excellent teaching is the critical factor in excellent undergraduate education has the attractiveness of all tautologies, but the argument tends to be static in nature, implying that effective teachers are born, not developed. As such, it fits comfortably into the ideology of disciplinary professionalism and the reluctance to consider teaching as a genuine part of professional work and development.⁵ When one accepts the possibility of increasing pedagogical effectiveness, however, it follows that a curriculum that faculty have fashioned and in which they have considerable investment is a surer path to excellent teaching than one that expresses inherited knowledge structures.

4. A system of thematic minors would allow an institution the opportunity to give meaningful curricular expression to areas that represent strong faculty and student commitments (e.g., Black Studies, Women's Studies) but have trouble sustaining themselves as full departments competing with conventional disciplinary departments. Thematic minors may be a means, thus, for an authentic curricular pluralism that would create more space for different educational and political visions and reduce competition among internal factions.

5. Related to the fourth point, the range of feasible minor programs would be determined by faculty and student interests and institutional resources and mission. But these factors are not merely constraints; they ensure that the actual configuration of minor programs will express the special and distinctive character of a liberal arts college or division with a vividness not available through disciplinary majors. The striking similarity of liberal arts major programs in virtually every institution has flattened out the diversity of U.S. higher education, and by doing so, it has created the conditions for measures of "quality" to be the principal (and often exclusive) criterion for differentiating among liberal arts programs. This one-dimensional mode of comparison is, in my opinion, undesirable both because measures of quality are essentially just measures of relative privilege and because uniform conceptions of quality

actively promote even greater conformity. Institutionalizing a system of thematic minor programs, therefore, may constitute a substantial break with current pressures toward homogeneity.

These potential benefits, which I have grouped into five general areas, have to be weighed against the anticipated costs of establishing and operating a system of minor programs, and the cost side of the ledger is not especially daunting. The educational resources necessary for such a system could come chiefly from reallocation rather than from augmentation, and the reallocation could be directed along lines that would systematically tighten up major curricula and that would even up enrollments among fields.

The political costs involved in establishing the programs of minors need not be prohibitive. The proposal has a somewhat traditional ring to it and would entail only a modest rearrangement of curricular organization and faculty work, as opposed to the relatively breathtaking rededication of the academy so often blithely proposed (e.g., Martin, 1982; Project, 1985). The introduction of the minor system would require collective faculty agreement at only quite general levels of educational purpose and structure, and small groups of faculty, presumably with long-standing commitments to particular subject matters, would work out the specifics of individual minor programs. If framed intelligently, then, such a proposal should not be perceived as being terribly threatening by even the most beleaguered and defensive segments of the liberal arts faculty (although one cannot afford to be too sanguine about this).

Finally, while each program no doubt would quickly begin to operate as an interest group in faculty politics, the life cycle of any one minor or even of the whole pattern is capable of being decided with a freedom not available in the case of disciplinary majors and departments, which are key units of faculty professional life within the institution and derive much of their definition and legitimacy from without the institution.



In this essay, I have stressed the promise of inquiry-based liberal education and thematic minor programs of study for promoting interesting and effective types of interdisciplinary education. In this final paragraph, I wish to repeat one of the essay's important sub-themes. The inquiry approach to undergraduate education encourages one to see that academic disciplines are a part of the professional culture of academics and do not express some inherent

properties of universal knowledge structures. There are other ways to gain this recognition, but the manner in which the inquiry approach encourages such a recognition is in itself an argument for its adoption. Seeing disciplines in this way is, in my opinion, necessary in order to make the case for interdisciplinary study in cogent intellectual and pedagogical terms that do not implicitly accept the centrality of disciplines in intellectual matters. That is, in our efforts to create more exciting and worthwhile curricula, we must be careful not to fall into understandings of academic disciplines that are those of the disciplines themselves.

NOTES

1. In dealing with eighteenth and early nineteenth century colleges in the United States, there is the persistent tendency "by scholars of higher education to represent early colleges through static models or "ideal types." This device, similar to social scientists use of "feudalism," has the unfortunate tendency to flatten out the considerable variation and evolution among those colleges, which reflected the local and regional communities they served and the religious denominations that sponsored them. A second chronic problem is the apparent temptation to romanticize these colleges by ignoring their authoritarian, dogmatic, and intellectually shallow nature (Handlin and Handlin, 1975). Aside from a few pockets of relatively high culture, the colonies and early Republic were frontier societies in which the life of the mind simply was not especially valued.

2. I argue that the roots of the inquiry notion are in the mental discipline side of the classical curriculum, but there is no question that its development was strongly influenced by John Dewey's thought and work. For instance, the project-oriented curriculum advocated by William Heard Kilpatrick in the Columbia Teachers College during the 1920s is very closely related to what I have been calling inquiry education. To the extent to which the current understandings of inquiry education are indeed part of the Dewey legacy, it is definitely the interpretation of Dewey that stresses the strongly intellectual side of educational purpose as opposed to the sentimentalized, student centeredness of other interpretations (Cremin, 1964: 179-224 ff). As such, the relationship of inquiry education and the so-called Progressive colleges is, at best, ambiguous (cf. Rudolph, 1962: pp. 472-479).

In addition to the AAC report (Project, 1985), see Bell (1965), Dressel and Marcus (1982), Gamson (1984), Kavaloski (1979), Lee (1967), articles in Liberal Education (1983), Mitroff (1982), McPeck (1981), Weaver (1981), Wegener (1978), and Zeichner (1983: 5-6) for more recent discussion of the inquiry idea. Albeit from very different perspectives, they all promote the inquiry idea, whether or not they call it by that name.

3. Consistent with this judgment, a decade ago the Carnegie Foundation suggested that one of the reasons students were turning away from the liberal arts in favor of professional curricula could have been that the latter curricula were so much more coherent in their rationale and organization (Carnegie, 1975).

4. Some of the most serious problems might be avoided if the discipline itself were to be the subject of critical study. The anomaly of this tactic, however, is that in order for it to be done well, it could not be done

under the sole auspices of the particular discipline. It would require drawing heavily from intellectual and social history, philosophy, sociology of knowledge, and so on and would necessarily be an interdisciplinary program.

The array of disciplines I suggest is not, of course, as one-dimensional as I suggest. There are disciplines, like literature, which are rather clear about subject matter but not about the proper questions to ask of it. Also there is the problem of misrepresentation; for the purpose of undergraduate teaching, faculty and textbooks represent some amorphous disciplines as clearly defined and coherently structured intellectual categories.

5. Mauksch (1980) is a good discussion of this problem. Weaver (1982) criticizes the understanding of teaching that underlies the exclusive process orientation (pedagogical techniques and affective concerns) of most analyses and programs of faculty and instructional development. This understanding of what teaching involves implicitly denigrates the importance and status of teaching and teachers.

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