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Chapter 5

THE SCHOLARSHIP OF INTEGRATION

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The second dimension of scholarship is what we call the *scholarship of integration*. This is work that, in the first instance, seeks to draw connections between different kinds of "original research." The scholarship of integration typically crosses traditional disciplinary boundaries. It is the capacity to make connections, place the disciplines in larger context, and illuminate specialized data in a revealing way. Jaroslav Pelikan, Sterling Professor of Philosophy at Yale University, contends that: "The difference between good scholarship and great scholarship is, as often as not, the general preparation of the scholar in fields other than the field of specialization."

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Integration, is closely related to discovery, but the difference between the two can be best understood perhaps by the intention of the scholar, by the questions being posed. Those engaged in scholarship of integration ask, "How do the findings of research fit into larger, intellectual patterns? What connections can be made across the disciplines? Is it possible to interpret what's been discovered in ways that give it greater meaning? Questions such as these can lead the scholar from information to knowledge and, even perhaps, to wisdom." Stephen Jay Gould's column in *Natural History* or the essays of Lewis Thomas suggest the kind of integrative thinking we have in mind. In proposing the *scholarship of integration* we do not suggest returning to "gentleman scholar" of an earlier time, nor do we have in mind the dilettante who dabbles here and there. Rather, what we are attempting to do here is to recognize the need for broadly educated scholars who are serious about making the kinds of connections that give meaning to isolated facts.

Perhaps distinction he was trying to draw

Just as greater specialization is the inescapable concomitant of the growth of knowledge, so is integration. Specialization without reintegration leads inevitably to fragmentation. Within discipline after discipline the question of fragmentation—disconnection—is being raised. While

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serving as a regent of the University of California, the anthropologist, Gregory Bateson, wrote to his fellow board members: "Break the pattern which connects the items of learning and you necessarily destroy all quality." It is "the pattern which connects," Bateson said, that is sorely missing from the scholarship presently receiving recognition and reward in American higher education.

To call for a pattern of patterns—as the ecologically conscious Bateson does—is perhaps too much. But the harsh truth is that much of what passes for scholarship is disconnected and the need for ~~Scholarship that connects~~^{into} is particularly pressing within the specialized disciplines themselves, where in recent years greater and greater fragmentation ~~was viewed.~~^{has accrued.} In literary studies, for example, the scholarship of integration seems appropriately to fit. In her work, *Reconnection*, Betty Jean Craige traces the history of the humanities: the dividing of knowledge into disciplines, the rewarding of specialization, the distancing of the humanities from one another, from other areas of scholarly inquiry, and from dilemmas of the world outside academia. She calls for a more holistic approach to learning, reconnecting literary studies with history and philosophy, with science and politics, and restoring literature again to its central place in our intellectual discourse and social debate.

As a part of the push toward integrative studies, one might also acknowledge the growing demand in American higher education to acknowledge the legitimacy of different ways of knowing. Every year _____ college sponsors what is called the Nobel Conference, and at the most recent conference, Mary Hesse, a philosopher from Cambridge University, argued aggressively that a variety of approaches to scholarship should be considered, approaches that might result in integration. Professor Hesse states the case this way:

Clearly the whole imperialistic aim of theoretical science to be the royal and single road to knowledge has been a profound mistake. Perhaps we should be looking in another direction. Scientific theory is just one of the ways in which human beings have sought to make sense of their world by constructing schemas, models, metaphors, and myths. Scientific theory is a particular kind of myth that answers to our practical purposes with regard to nature. It often functions as myths do, as persuasive theoretic for moral and political purposes (NY Times, Oct. 22, 1989).

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Chapter 5--Integration

The ~~problem~~ of this chapter is that it more or less treats "integration" and "interdisciplinary" as synonymous. ~~As I understand the case that is being made for the scholarship of integration, it~~ ^{mayor} may not be interdisciplinary. Whether or not it is interdisciplinary does not seem to me to be the main point about this type of scholarship.

What counts is that the scholar takes existing knowledge and ^{seeks} ~~tries~~ to integrate it. That existing knowledge may be previous discoveries that are all in a single field or it may be previous discoveries from several fields. ~~The scholar brings together these discoveries in a way that leads to fresh insights.~~ ^{This form of scholarship means}

^{al} One might reasonably expect that by recognizing and encouraging integration there will be an impetus toward ~~the~~ interdisciplinary. ^{work,} But this would not necessarily be the case. Thus, the whole discussion in this chapter of "interdisciplinary" should be recast and made subordinate to integration. Otherwise, the issue is hopelessly confused.

I concede that I may have this wrong and that the point in this chapter is, in fact, to say that the scholarship of integration must by definition be interdisciplinary. If that is so then the chapter fails to take account of integration that occurs within a single field--as I suspect most integration does.

Also, I hate to throw another monkey wrench into the cogs, but I am not all that comfortable with the idea that the

One illustration of an alternative way to approach scholarship is found in Evelyn Fox Keller's account of the scientific work of the pioneering plant-geneticist Barbara McClintock. In *A Feeling for the Organism*, Keller describes McClintock's approach to scientific inquiry, not as detachment that separates the knower and the known but as involvement, empathy and feeling. "Over the over again," she tells us, one must have the time to look, the patience to 'hear what the material has to say to you,' the openness to 'let it come to you.' Above all, one must have a 'feeling for the organism.'"

In addition to an appreciation for the relational character of knowing, Barbara McClintock also demonstrated the importance of valuing the interrelatedness of life.

She has "exceedingly strong feelings" for the oneness of things: "Basically everything is one," McClintock insists. "There is no way" she says, in which you draw a line between things. What we [normally] do is to make these subdivisions, but they are not real. Our educational system is full of subdivisions that are artificial, that shouldn't be there. . . ." Keller concludes: "The ultimate descriptive task, for both artists and scientists, is to 'ensoul' what one sees, to attribute to it the life one shares with it; one learns by identification."

But integration, while occurring within the various specializations broadly defined, surely ^{will} can cross the disciplines, occurring in what ^{is} Palonyi calls the "overlapping academic neighborhood." The constantly beleaguered interdisciplinary programs and creative efforts dealing with such matters as the interrelationship of science, technology and values, will continue on their anemic way unless and until we enlarge our notion of scholarship. To limit what is regarded as scholarship to ^{what it means to be a} specialized research is to neglect the essential scholarly task of interpretation made necessary by the extension of specialization itself. ^{"discovery"}

The old categories of knowledge are proving to be too confining and new hyphenated disciplines are being formed to match the emerging questions. The wall dividing the two cultures—scientific and humane—is still standing, but it is being continuously breached; the pattern of intellectual investigation is being rearranged.

More than at any time in our memory, researchers feel the need to communicate with colleagues in other fields. And this epistemological change may have profound impact on the future of scholarship itself. As new investigative links are drawn, scholars at all levels will—of necessity—make new connections between their own disciplines ^{and} of others. A more integrated view of knowledge and a focus on the larger questions in our teaching and research will create, we believe, a climate favorable to general education in the nation's colleges and schools.

Anthropologist Clifford Geertz of the Institute for Advanced Study at Princeton, ~~in his~~ influential essay ~~Blurred Genres~~, has gone so far as to describe these shifts in the world of scholarship as a fundamental “refiguration . . . a phenomenon general enough and distinctive enough to suggest that what we are seeing is not just another redrawing of the cultural map—the moving of a few disputed borders, the marking of some more picturesque mountain lakes—but an alteration of the principles of mapping.” “Something is happening,” Geertz says, “to the way we think about the way we think.” [Emphasis ours] This is reflected, he observes:

... in philosophical inquiries that look like literary criticism (think of Stanley Cavell on Beckett or Thoreau, Sartre on Flaubert), scientific discussions that look like *belles lettres morceaux* (Lewis Thomas, Loren Eiseley), baroque fantasies presented as straight forward empirical observations (Borges, Barthelme), or histories that consist of equations and tables or law court testimony (Fogel and Engerman, *Le Roi Ladurie*), documentaries that read like true confessions (Mailer), parables posing as ethnographies (Castenada), theoretical treatises set out as travelogues (Levi-Strauss), ideological arguments cast as historiographical inquiries (Edward Said), epistemological studies constructed like political tracts (Paul Feyerabend), methodological polemics got up as personal memoirs (James Watson).

We are convinced that an intellectual sea change is occurring in American higher education. Jaroslav Pelikan, while serving as dean of the Graduate School at Yale, went so far as to suggest that, for those preparing for advanced study, the undergraduate major should go beyond the discipline because of the “increasingly interdisciplinary character of scholarly research.” In the sciences a neurobiologist writing the introduction of a book in his field describes the subject as “new, multidisciplinary, and without boundaries.” In the 1989 faculty

survey conducted by the Carnegie Foundation for the Advancement of Teaching, respondents were overwhelmingly supportive (81%) of multidisciplinary work as a legitimate form of scholarship.

There is a danger, of course, that new interdisciplinary efforts will themselves become ossified and restrictive. Take as an example the recently formed discipline of communications. Here is an interdisciplinary field that invited provocative, open exchange between established disciplines in the humanities, social and behavioral sciences, and even physics and biology. At a time when we needed the opportunity and stimulus to break out of our specialized enclaves, this vital field was expanding rapidly and offered enormous promise. The stage was set for stimulating cross-disciplinary inquiry and debate over issues that mattered—significant scholarship.

Instead, the field of communication was fenced off and boundaries were erected to define it as a discipline in its own right. Disciplinary graduate programs surfaced, associations formed, journals appeared, and a communications faculty was established. Rather than a broad, multi-faceted debate over substantive intellectual issues, the exchange became politicized as the new communications department set out to establish its curricular jurisdiction and academic “turf” over against the established claims of English, psychology, sociology, and the burgeoning programs in business administration. The academy was not well served, and certainly not the students or the intellectual life of the society.

Thus, the push for the scholarship of integration is being driven by an internal imperative, the traditional field of inquiry are being realigned, but the need for integration is being driven by *external* imperatives as well. Given the human condition, there is a profound and growing need for scholars with the capacity to bridge across the categories of knowledge to synthesize, to look for new relationships, and discover patterns that cannot be seen when viewed through traditional disciplinary lenses. Specifically, we are convinced that the challenge of human survival that relate to health, or food supply, or energy resources, or the environment, all require an interdisciplinary approach to scholarship.

The need for the scholarship of integration is especially important if undergraduate education is to be vitally sustained. Fundamental curriculum reforms in general education, for example, will require a different, more comprehensive view of scholarship. Until faculty are encouraged to give time and energy to the integration of knowledge, most of the reforms being recommended for colleges will flounder. Nearly 50 years ago, Mark Van Doren wrote that discovering connections is the key to wisdom, and that "the student who can begin early in life to see things as connected has begun the life of learning." This larger vision is at the very heart of the scholarship of integration.

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The resistances to integrative studies are primarily structural and political, not intellectual. They are rooted in the strong commitment to the discipline, the departmental structure, and the reward systems that support them. As Frank Rhodes, the President of Cornell, put it:

"... our present faculty appointment procedures, departmental organization, and curriculum development do little to establish a correlation between courses and even less to encourage and protect the creative teacher beyond the sometimes narrow range of departmental interests. In some instances such teachers are seen as disloyal and unsound. We need to develop structures to support and reward the builders of departmental bridges" (Rhodes, 1985, p. 80).

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