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Chapter 3

TOWARD A BROADER VIEW OF SCHOLARSHIP

Since colonial times the role of the professoriate in America responded to changes within the academy and beyond. Viewed schematically, first came teaching, then service, and finally the challenge of research. In more recent years, and most especially since World War II, faculty have been expected to blend the three traditions. But in spite of this idealized expectation, a wide, yet largely unacknowledged gap, exists today between the myth and reality of academic life. Faculty, all too often, are given one assignment and then held accountable for another—a situation harmful both to institution and to individuals. Further, with all of our spectacular achievements there is a growing feeling that higher education in this country is faltering in its service to the nation.

How then should we proceed? We believe the time has come to move beyond the tired old "teaching versus research" debate. It's time to find new language about what professors do and new ways of thinking about how the work of the academy relates to the new realities, both on the campus and beyond. The most promising approach, we believe, is to return to the familiar and honorable term "scholarship," and assign to it a broader meaning, one that acknowledges the life of the intellect in its fullest, richest sense.

Today, when we speak of being "scholarly," it usually means being productively engaged in original research. This makes sense in the contemporary context since research is so highly prized. But we're also reminded that long before the modern view of research was well defined, or even imagined, scholarship had a larger, more inclusive definition, one that referred to all kinds of creative work occurring in all sorts of places. The measure of scholarship was determined by the quality of a person's knowledge and capacity to learn.

Scholarship, as we use it here, surely includes research, but goes beyond it. Specifically, the work of the scholar means being intellectually engaged, pursuing consequential tasks, going

about one's work in a disciplined and systematic way. It means using procedures of inquiry that can be understood and assessed by others. To be a scholar means knowing the literature in one's field and communicating such information effectively. And surely it includes not only critical thinking, but accuracy and integrity as well.

The aim of scholarly activity should be to release creativity and every campus should generate an environment in which the wide range of academic functions are affirmed. With this in mind, we propose a framework for scholarship that will, we hope, both extend and enrich the current vision of the professoriate. Specifically, we suggest that the work of faculty might be thought of in four separate, yet interlocking ways: The scholarship of *discovery*; the scholarship of *integration*; the scholarship of *application*; and the scholarship of *teaching*. We acknowledge that dividing scholarship in this way separates functions that relate closely to each other. Still, while calling for a wide range of academic talent, we also would insist that the separate parts be seen as forming, in the end, an interdependent whole.

The Scholarship of Discovery

The first and most familiar element in our model is the advancement of knowledge through the *scholarship of discovery*. This category comes closest to what is meant when academics speak of "research," and no tenets in the academy are held in higher regard than the commitment to knowledge for its own sake, and to freedom of inquiry—the opportunity to question critically, to follow an investigation wherever it leads, to ask the exciting questions: "What is to be discovered? What is yet to be learned?" Indeed, it was to train and certify people for this kind of scholarship that the Ph.D. degree was devised.

The scholarship of discovery has a significance that can transcend measurable ends. In his well-known 1919 address on "Science as a Vocation," Max Weber pointed out that the Western world had entered a previously unknown phase of specialization. "Only by strict specialization," Weber asserted, "can the scientific worker become fully conscious, for once and perhaps never again in his [sic] lifetime, that he has achieved something that will endure. A

really definitive and good accomplishment is today always a specialized accomplishment."

Weber goes on to speak of the ecstasy that can be experienced on the far frontier of a field.

Research, at its best, contributes not only to the stock of human knowledge and to the advancement of specific academic disciplines, but also to teaching and to the general intellectual climate of a college or university, by keeping the process of inquiry alive. In this sense, it is not just the outcomes that are important, but the process—and especially the passion—that gives meaning to the effort. The commitment and struggle to advance knowledge can generate an almost palpable excitement in the life of an educational institution. William Bowen, former president of Princeton University, put it this way: "[Scholarly research] reflects our pressing, irrepressible need as human beings to confront the unknown and to seek understanding for its own sake. It is tied inextricably to the freedom to think freshly, to see propositions of every kind in ever-changing light. And it celebrates the special exhilaration that comes from a new idea" (1979, p. 31).

The names of the thousands of distinguished university researchers who have added luster to the nation's intellectual life would surely include heroic figures of earlier days—Yale chemist, Benjamin Silliman; the Harvard naturalist, Louis Agassiz; and astronomer, William Cranch Bond; the Amherst geologist, Edward Hitchcock; and the Columbia anthropologist Franz Boas. It would also include giants of today, such as Norbert Weiner and James Watson, who helped unlock the genetic code; Helen Vendler, literature; political philosopher, Hannah Arendt; anthropologist Ruth Benedict; historian John Hope Franklin; chemist Linus Pauling; geneticist Barbara McClintock; Noam Chomsky who transformed the field of linguistics; Toni Morrison; and the whole host of nuclear physicists and chemists—Lawrence, Urey, McMillan, Seaborg, and the others—who, on campuses across the land, did the basic research that reshaped our thinking and changed our world.

When the *research* records of universities are compared, The United States continues to be the world pacesetter. To make the point, one has only to look at the field of physics. A recent survey conducted by the National Research Council states: "Until World War II, physics was

predominantly a European activity, but by the war's end the center of physics had moved to the United States." The survey reviews the advances in everything from elementary-particle physics to cosmology and concludes: "The United States has led the world in physics ever since. . . ." If we take as our measure of accomplishment the number of Nobel Prizes awarded since 1945, American scientists received 56 percent of the prizes in physics, 42 percent of the awards in chemistry, and 60 percent in medicine. Prior to the outbreak of the Second World War, American scientists, including those who fled Europe and found a climate of free inquiry here, had received only 18 of the 129 prizes in these three areas of basic research.

The gains of basic research are particularly evident in the history of medicine. On the basis of painstaking international research over decades, the taxonomy of infectious diseases was introduced and penicillin, streptomycin, and other antibiotics were made possible. Late nineteenth century investigation on bacteria and viruses paid off in the 1930s when it contributed directly to the development of immunization for diphtheria, tetanus, lobar pneumonia, and other bacterial infections. In reviewing these extraordinary medical breakthroughs, Lewis Thomas observes:

We need reminding, now more than ever, that the capacity of medicine to deal with infectious disease was not a lucky fluke, nor was it something that happened simply as the result of the passage of time. It was the direct outcome of many years of hard work, done by imaginative and skilled scientists, none of whom had the faintest idea that penicillin and streptomycin lay somewhere in the decades ahead. It was basic science of a very high order, storing up a great mass of interesting knowledge for its own sake, creating, so to speak, a bank of information, ready for drawing on when the time for intelligent use arrived. (p. 205)

Thus, the restless, probing mind of the researcher is an incalculably vital asset to the nation, indeed the world, and the pursuit of knowledge must be assiduously defended. Not only should the work of distinguished research scholars across the full range of fields be well supported but pressures to shift the bulk of basic research beyond the campus—especially to government to government centers or industry that may be driven by politically and

economically restrictive ends—should, we believe, be vigorously resisted. Such a move could compromise the integrity of scholarly inquiry and undermine, as well, the intellectual strength of the academy.

Additionally, basic research standards must be uncompromisingly protected. At the same time, more attention must be paid to the quality, not to the frequency of the effort. We worry that, in some instances, inconsequential questions are being asked under the guise of "scholarly research." Jacques Barzun had condemned what he calls the new scholasticism; others complain of "self-trivialization" of academic specialties (Barber, 1989). Indeed, there is a real danger that the scholarship of discovery may be compromised, as investigators conditioned to value it above all else simply repeat the work of others and contribute, at best, only footnotes to their fields.

Rigorous, high quality research is at the very heart of academic life, and in our dangerous, complicated, vulnerable world, the discovery of new knowledge, in the full range of the disciplines, is increasingly important. And if scholarship is to be sustained in our day, the advancement of specialized knowledge is urgently required by researchers working on the frontiers of their fields. It is this inspiration, the exhilaration fueled by the quest for knowledge as well as by its discovery, that enlivens faculty and makes for vital higher learning institutions. As the historian George Trevelyan once said, "intellectual curiosity is the life blood of civilization." We simply cannot solely rely on the intellectual legacy of the past. We must, in our generation, enlarge and renew that legacy.

The Scholarship of Integration

In proposing the *scholarship of integration*, we do not suggest returning to the "gentleman scholar" of an earlier time, nor do we have in mind the dabbling dilettante. Rather, by "integration" we mean serious, disciplined work that seeks to interpret, draw together, and bring new insight to bear on original research. What we seek to recognize is the need for broadly educated scholars who are serious about giving meaning to isolated facts, putting them in perspective. The scholarship of integration, which often crosses traditional disciplinary

boundaries, is the capacity to make connections, place the disciplines in larger context, and illuminate specialized data in a revealing way, often informing nonspecialists beyond the disciplines. Stephen Jay Gould's column in *Natural History* or the essays of Lewis Thomas suggest the kind of integrative thinking we have in mind.

The scholarship of integration is closely related to discovery. Indeed, specialization without reintegration into a large framework of ideas ultimately risks to fragmentation, and even the pedantry that worried Emerson a century and a half ago. The distinction we are trying to draw between "discovery" and "integration" can be best understood, we believe, by the questions posed. If the researcher asks "What is yet to be learned?" those engaged in integration ask, "How do the findings of basic 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 more comprehensive meaning? Questions such as these have a legitimacy of their own and, if carefully pursued, can lead the scholar from information to knowledge and, even perhaps, to wisdom.

While 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 sometimes neglected in our system of granting recognition and rewards in American higher education. To call for a "pattern of patterns"—as the ecologically conscious Bateson did—is perhaps too ambitious, but much scholarship today is fragmented, and there is a need for scholars who can place the pieces in a larger context.

The scholarship of integration has virtue within the disciplines, as well. Betty Jean Craige, in her work *Reconnection*, comments on how the humanities, for example, have distanced themselves from one another. She calls for a more holistic approach to learning, one that would reconnect literary studies and restore literature again to its central place in our intellectual discourse. But integrative work can, and often does, cross the disciplines as well, revealing itself, in what Micahel Polanyi calls "overlapping academic neighborhoods."

Multidisciplinary work is, in fact, becoming increasingly important as old categories of knowledge prove confining and as information is organized in new ways. Today's professors understood this very well. When we asked faculty to respond to the statement "Multidisciplinary work is soft and should not be considered scholarship," only 8 percent agreed, 17 percent were neutral, while a striking 75 percent disagreed. (Table 8) This pattern, with only slight variation, was true for professors in all disciplines.

TABLE 8

MULTIDISCIPLINARY WORK IS SOFT AND
SHOULD NOT BE CONSIDERED SCHOLARSHIP

	AGREE	NEUTRAL	DISAGREE
All Respondents	8%	17%	75%
Research	7	9	84
Doctorate-Granting	6	13	80
Comprehensive	8	14	78
Liberal Arts	8	16	77
Two Year	9	27	63

SOURCE: The Carnegie Foundation for the Advancement of Teaching, 1989 National Survey of Faculty.

More than at any time in recent memory, researchers feel the need to communicate with colleagues in other fields. Anthropologist Clifford Geertz of the Institute for Advanced Study in Princeton, 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." 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).

These examples illustrate a variety of scholarly trends, interdisciplinary, integrative, interpretive. We present them here, however, as evidence that an intellectual sea change may be occurring in higher education. Integrative studies, long the edges of academic life, may be poised to move increasingly to the center. Indeed, some of the most exciting work in the academy today is in the so-called hyphenated disciplines, such as bio-engineering, cognitive science, women's, Afro-American, and multi-cultural studies in the integrative disciplines. As new investigative links are drawn, scholars at all levels will, of necessity, make new connections between their own disciplines and others.

The Scholarship of Application

The first two parts of our enlarged view of scholarship, the discovery and the integration of knowledge, reflect the investigative and synthesizing traditions of the scholar. This third element—the application of knowledge—moves toward engagement as the scholar asks, "How can knowledge be responsibly applied to consequential problems? How can it be helpful to individuals as well as institutions?"

Emerson, in his 1837 essay on scholarship, focused with special intensity on the need for scholarly *engagement*. "[H]e who has put forth his total strength in fit actions," the sage of Concord proclaimed, "has the richest return of wisdoms." Rensselaer Polytechnic Institute was a college for builders and doers, as were the land grant institutions. This was the *Zeitgeist*; in 1906, an editor celebrating the leadership of William Rainey Harper at the new University of Chicago, articulated what he believed to be the essential character of the American scholar.

Scholarship, he observed, was regarded by the British as "a means and measure of self-development," by the Germans as "a means in itself," but by Americans as "equipment for service." Self-serving though it may have been, this analysis had more than a grain of truth.

In light of this tradition, one is struck by the gap between what is valued as scholarship in the academy today and the needs of the larger world. While "service" is routinely listed as a category for faculty assessment, the application of knowledge is accorded little serious attention, even in those programs where it is most appropriate. Consider, for example, professional education. Twenty years ago, Christopher Jencks and David Riesman pointed out that the affiliation of professional schools with universities had, oddly enough, tended to dampen the institutions' commitment to the application of knowledge even though the original purposes of these schools was to provide a bridge between theory and practice. Professional schools, they concluded, have fostered "a more academic and less practical view of what . . . students need to know" (1968, p. 252). Even at the undergraduate level, the rapidly growing career-oriented programs tend to be analytical and abstract; learning is confined to the classroom, with too little attention given to real-life situations and hands-on experience. President Derek Bok of Harvard defined vividly the natural result(?) of this failure:

Armed with the security of tenure and the time to study the world with care, professors would appear to have a unique opportunity to act as society's scouts to signal impending problems long before they are visible to others. Yet rarely have members of the academy succeeded in discovering emerging issues and bringing them vividly to the attention of the public. What Rachel Carson did for risks to the environment, Ralph Nader for consumer protection, Michael Harrington for problems of poverty, Betty Friedan for women's rights, they did as independent critics, not as members of a faculty. Even the seminal work on the plight of blacks in America was written by a Swedish social scientists, not by a member of an American university. (p. 105)

Higher learning institutions have, in recent years, shied away from the notion of applied knowledge as serious scholarship, not only because so many different functions have been dumped into the category called "service" that it has all but lost its meaning. For example, the term used today is virtually synonymous with meeting a wide range of campus responsibilities,

these functions are important, colleges may wish to give credit for such acting, but they are not to be confused with scholarship, participating in faculty committees, etc. The definition blurs still more when applied to faculty participation in general civic activities beyond the campus—town councils, youth clubs, and the like, and it is not unusual for any worthy project to be dumped into the amorphous "service" category.

In fact, a sharp distinction must be drawn between those social and civic responsibilities that all faculty should fill, and action projects related directly to scholarship itself. As Emerson argued, action is an *intellectual* resource for the scholar. "Service" has lost meaning in the academy precisely because it has become disconnected from intellectual life. It often means not application doing scholarship, but doing good. For the application of knowledge to be true *scholarship*, that leads application must relate to and flow out of scholarly activity. Such a definition of service in a world in which huge, almost intractable human problems call for the knowledge, and even perhaps wisdom that only the academy can provide. Oscar Hanlin once observed that a troubled universe "can no longer afford the luxury of pursuits confined to an ivory tower so that scholarship has to prove its worth not on its own terms, but by service to the nation and the world." (Bok, p. 103)

The scholarship of application leads to new insights and understandings. Drawing on his work with both practicing physicians and teachers, Lee Shulman contends that the connection between theory and practice works both ways and that education can build in practice from the very beginning. Donald Schön writes about what he calls "the reflective practitioner," and calls for a new "epistemology of practice." We are suggesting that learning can, in fact, occur in the act itself—whether in medical diagnosis, working with a client in psychotherapy, shaping public policy, creating an architectural design, or working with the public schools and the application of knowledge be fully recognized as a legitimate function of scholarship at its very best.

The Scholarship of Teaching

Finally, the *scholarship of teaching*. The mandate here is to recognize that the work of the scholar becomes consequential only as it takes on social meaning and is understood by others. Teaching in this country all too often has been viewed as a rather routine function, something almost anyone can do. However, teaching, as an essential component of scholarship is a demanding task, one that both educates and entices future scholars. Alfred North Whitehead put it this way: "At no time have universities been restricted to pure abstract learning. . . . The justification for a university is that it preserves the connection between knowledge and the zest for life, by uniting the young and the old in the imaginative consideration of learning."

Teaching, as a *scholarly* enterprise, begins with what the scholar *knows*. Those who teach must, above all, be well informed, steeped in the knowledge of their field, and teaching can be well regarded only as instructors are widely read, and intellectually engaged. One of the reasons legislators, trustees, and the general public do not understand why ten or even fifteen hours of teaching a week is a heavy workload is their failure to appreciate the hard intellectual work of preparation that undergirds good teaching.

The scholarship of teaching also is concerned, not just with content, but with process. Teaching, at its best, is a *dynamic* endeavor. The analogies used, the metaphors, examples, demonstrations, and experiments employed in building bridges between the teacher's understanding and desired student outcomes are pivotal. This is not to call for indulgent catering to students or faddish interests. Rather, it is to insist that teaching is a scholarly function when the pedagogical process itself is seriously examined. Martin Trow, professor of Sociology at the University of California, insists that high quality teaching is evident "in the relations between students and teachers, the duration and intensity of that relationship and its emphasis on the shaping of mind, character, and aspirations of the student."

Further, teaching becomes a scholarly function when faculty themselves become learners. Teaching, all too often, is a one way street. The teacher "transmits" information which students are expected to remember and then, perhaps, recall. But the process of teaching, if it is to be truly scholarly must be a learning experience for the teacher, too. Through preparation for a class, reading the latest research, and confronting questions posed by students, the professor is pushed in creative new directions developing new intellectual insights. Teaching truly comes alive when the inquiry is pushed beyond the boundaries anticipated by the teacher, and, in such a climate, the vital classroom, students become teachers, too.

Finally, teaching is an essential dimension of academic life as it keeps the flame of scholarship alive. Almost all academics credit the inspiration of a creative teacher—a mentor who defined their work so compellingly that it became, for them, a lifetime challenge. Robert Oppenheimer, in a lecture at the 200th anniversary of Columbia University in 1954, spoke elegantly of the role of teaching when he said: "The specialization of science is an inevitable accompaniment of progress—yet it is full of dangers and it is cruelly wasteful since so much that is beautiful and enlightening is cut off from most of the world. Thus, it is proper to the role of the scientists that he not *merely* find the truth and communicate it to his fellows, but that he teach—that he try to bring the most honest and most intelligible account of new knowledge to all who will try to learn. Teaching is the means by which scholarship is sustained." This, it seems to us, is scholarship at its finest.

We return to the point where we began. For over 350 years, American higher education has shaped and reshaped its programs in response to changing social realities. As we look to a world whose contours remain obscure, but whose needs will clearly be vast and urgent, the moment has come for higher learning once again to redefine its mission, and rethink its traditional and laudable commitment to scholarship. In issuing this challenge, we seek to

reaffirm a vision of scholarship that is both liberating and demanding; that recognizes the rich diversity of institutions of higher learning in modern-day America; and that, we hope, will prove serviceable to scholars themselves as they reflect on the meaning and direction of their lives.