The Innovative University

CHANGING THE DNA OF HIGHER EDUCATION FROM THE INSIDE OUT

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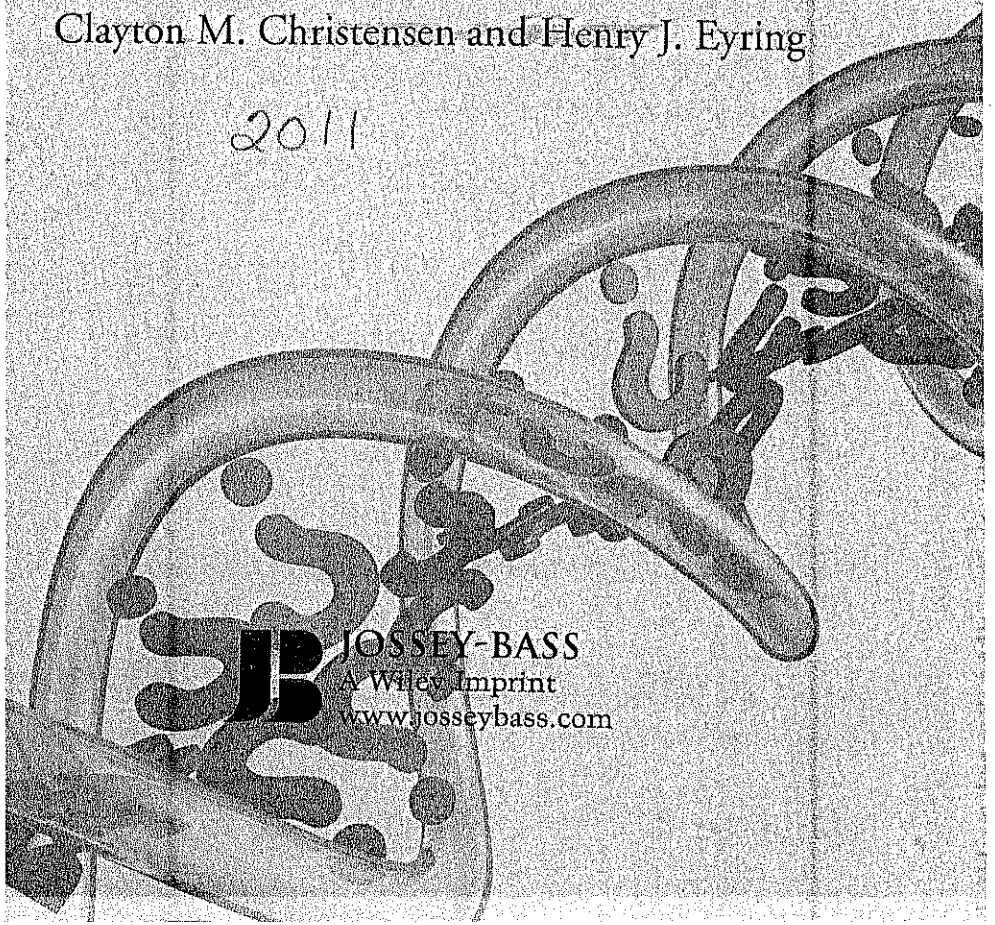

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Ch 5

Chapter 5

Revitalizing Harvard College

Charles Eliot's legacy, though prodigious, was not without its critics at Harvard. Among them was Abbott Lawrence Lowell, Eliot's successor. Lowell, like Eliot, was born into a family of privilege and prominence with deep Harvard ties.[1] A. Lawrence Lowell was a sixth-generation Harvard alumnus, having graduated with highest honors in mathematics from Harvard College and then from the law school.

Also like Eliot, Lowell was the beneficiary of special mentoring as a college student. His gift for math drew the attention of Benjamin Peirce, America's foremost mathematician. Lowell excelled under Peirce's tutelage, so much so that Peirce arranged to have Lowell's college honors thesis published by the American Academy of Arts and Sciences.[2]

Entirely unlike Eliot, Lowell never knew even the slightest financial hardship. Embarking in 1880 on the practice of law, he found the work tedious.[3] Family wealth allowed him to redirect much of his time to writing. An astute observer of the role of political parties on government, he published two studies that won him scholarly recognition and an appointment as a lecturer at Harvard. A professorship of government soon followed, though he arranged to teach only half-time so as to continue writing (thus avoiding Eliot's problem of letting other duties impinge on his scholarship). The balance worked well, as Lowell was able to publish several acclaimed books and also win distinction

as a teacher. His Government 10 course was one of the college's most popular, with more than four hundred students enrolled.[4]

Serving on the faculty during the last of Eliot's four decades as Harvard's president, Lowell saw and studied both the good and the less desirable aspects of the great university Eliot had forged. He was particularly troubled by the loss of what he called "the collegiate way of living." As a Harvard College student, Lowell had excelled not only in the classroom but also on the field of athletic competition, where he set school records in the 880-yard and mile footraces.[5] He had likewise enjoyed his residential living experience, through which he made lasting friendships with both fellow students and faculty mentors.

When he returned to Harvard twenty years later, in 1897, there was obvious evidence of the breakdown in this collegiate way of life. Even the casual observer could see it, for instance, in the Gold Coast of private dormitories lining Cambridge's Mount Auburn Street, to which wealthy students had increasingly resorted since the beginning of Eliot's presidency. The Gold Coast was only the most visible evidence of two disturbing trends: growing class distinctions among students and the elevation of leisure pursuits over studies.

Lowell discovered more evidence of these trends in formal studies he made of undergraduate education while serving on ad hoc faculty committees.[6] He found that students were studying far less than the faculty and administration thought.[7] As a kind of battle cry to abandoning the study hall in favor of the playing field or pub, many students invoked the Mark Twain witticism, "Don't let your studies interfere with your education."[8] They further eased their consciences with the slogan, "C is the gentleman's grade."[9] Even relatively serious students spent little time studying. One freshman, upon learning of the Harvard College expectation that he study at least seven hours each school day, including class time, replied, "Nobody I know works seven hours a day!"[10] Many students employed paid tutors, or "crammers," to help them win passing marks, their "gentleman's grades."[11]

Lowell observed the students' disconnectedness not only from one another and from their studies, but also from the faculty. The college's

largest courses were enormous, some with enrollments in excess of five hundred.[12] Professors typically lectured to these vast groups of students once each week. Much of the real teaching, conducted in smaller and more frequently convened sections, was delegated to assistants.

Equally disturbing to Lowell was the tendency of undergraduate students to abuse the elective system. They clustered at the extreme ends of the curricular spectrum. The majority took courses for idiosyncratic reasons: a subject of interest, a popular professor, friends in the class. These students graduated having studied nothing in any real depth. Nor, because of the randomness of their choices, were they likely to have obtained a broad educational foundation.[13]

At the other end of the spectrum, some students pursued one discipline in great depth to the exclusion of others. Not only did the absence of required courses make this possible, the structure of the university and the content of its course catalog tended to encourage specialization by ambitious students. Shortly after Lowell assumed the presidency, only 12 percent of Harvard's courses were designated "For Undergraduates Only."[14] Nearly three times as many carried the label "For Both Undergraduates and Graduates." Given the relative abundance of specialized courses, an enterprising student with a clear view of his future was naturally inclined to treat college as focused professional training.

What Lowell saw, in the aggregate, was the loss of much of what he cherished in his Harvard College education: strong social ties; the competitive spur to excellence; a broad foundation for success in fields as diverse as mathematics, law, and political science—the ones he had pursued. In general, he felt the need to take Harvard back to its roots, by refocusing on undergraduate students and their learning experience, broadly defined. Years before the end of Eliot's term, he began agitating for reform. It is much to Eliot's credit that he not only countenanced this potentially subversive activity but also made no effort to prevent Lowell's ascension to the presidency. Not so creditable were the retiring Eliot's warnings to Harvard's governing boards about Lowell: Eliot urged "incessant watch against [his successor's] defects of judgment and

good feeling."[15] Still, Eliot accepted the inevitability of innovation and change, given that he had made both a new Harvard tradition.

Lowell's Strategy

Lowell, a scholar of government and politics, was a gifted strategist with the university's best interests at heart. Like Eliot, he had spent many years preparing to assume Harvard's presidency. During that time he had seen the weaknesses inherent in Eliot's model, borrowed mainly from the great German universities, which emphasized graduate education, diverse fields of inquiry, and discovery scholarship. When he became president, Lowell brought a clear conception of the changes he hoped to make, many of them drawn from the great English universities, particularly Oxford and Cambridge, upon which Harvard College had been originally modeled. He already had both the need for those changes and the innovations that would facilitate them well articulated, as became apparent in his inaugural address.

He began his speech, on that October day in 1909, with a description of the social and intellectual benefits of "the college of the old type," in which students were "constantly thrown together" and provided a "universal foundation of liberal education."[16] Tipping his hat only slightly to the "unanswerable force" with which Eliot had shown the need for curricular choice, he proceeded to describe how the elective system, along with the growth in the number of students and their tendency to live off-campus, had "broke[n] down the old solidarity" of the college and led to a loss of public esteem for college education.

Lowell raised and summarily dismissed the possibility of Harvard's adopting a German model of education for the college, one focused on career preparation, as the university's professional schools were. American high schools he pointed out, were incapable of educating students at the level of the German gymnasia; in his mind, Eliot's attempt to make the high schools responsible for what had been the early years of a college education had failed. Moreover, Lowell felt that

the American republic needed "a freedom of thought, a breadth of outlook, a training for citizenship" that only the college could offer. Rather than reducing Harvard's emphasis on undergraduate education, he wanted to increase it. Responding to Eliot's argument that the college experience be limited to three years instead of four, he asked rhetorically, "May we not feel that the most vital measure for saving the college is not to shorten its duration, but to ensure that it shall be worth saving?"

Lowell alluded to the types of innovations that would make the college worth saving. Two reflected his admiration of the great English universities, with which he had become familiar as a scholar of that nation's government. One was to recreate, through college dormitories of the English type, the collegiality of the old Harvard, with students spending time together not only in the classroom but in informal settings where they could freely discuss both their studies and their professional aspirations. As in the colleges of the English universities, they would be presided over by scholars resident in their living quarters.

Another idea drawn from Oxford and Cambridge was a system of honors designations, intended to simulate healthy competition in academic achievement. The third notion was uniquely American and the innovation for which Lowell would become best known. It was a college curriculum that would provide both professional preparation of the German type and also English-style liberal education.

An Unsustainable Financial Reality

Lowell's high aspirations for social and curricular reform had to be undertaken in the face of pressing financial realities. In spite of generous philanthropic support, the university's operating budget trends were unsustainable.[17] Eliot had spent forty years establishing new graduate schools and physical facilities. His elective system had produced an explosion of new courses to be taught, and his drive for excellence in all fields of scholarship meant that new hires were needed both for the classroom and for the research laboratories and libraries.

All the while, tuition had remained constant, at $150.[18] Eliot had recognized and defended the costs of his innovations, particularly the elective system and its proliferation of specialized courses. "Like most things worth having," he said, "it is expensive."[19] He was reluctant, though, to increase the financial burden on students (or to break ranks with Yale and Princeton universities, whose tuition rates were similar).[20] Optimistic that philanthropy would continue to grow, he stayed the course with tuition.

However, enrollments were falling, due in part to competition from rivals both old and new, many of which had recognized the deficiencies of a pure elective system and were reinstituting some required courses. At the same time, frugality measures taken at Harvard had included the cutting of graduate courses and the refusal to match external job offers, which in turn led to the loss of high-profile faculty.[21] The institution faced a potential downward spiral, with quality-defeating cost cuts leading to even greater declines in revenues.

Remarkably, Lowell kept tuition at its $150 level (about $3,700 in 2011 dollars) for the first seven years of his presidency. Rather than raise Harvard's price, he found ways to manage its costs and to stimulate nontuition sources of revenue. His strategy, which amounted to a significant modification of Harvard's DNA, had three components: rebuilding a sense of community, assuring educational breadth and depth, and promoting academic excellence. Lowell saw these initiatives as interdependent and potentially reinforcing. He began work on all three in his first year as president.

Fostering Community at Harvard

One of the earliest of Lowell's community-building innovations, the creation of the Harvard Extension School, wasn't among the most strategic such actions he hoped to take. It was, however, the most immediately feasible, and it took the university in a symbolically important direction. The precedent for offering evening courses to community members had already been established by the University of Chicago,

and doing so required neither additional fixed investment in facilities and faculty nor alteration of any daytime activities. It also comported with Lowell's belief that education should be available to all who desired it and with his vision of a Harvard less aloof from its surrounding community. Today such extension programs, which generate both goodwill and incremental income, are standard features of many universities. Increasingly, they offer courses online, thus providing a foundation for responding to emerging competitive threats, as we'll see. However, in Lowell's day extension programs offering full degrees rather than just courses were relatively rare; even today many universities refer to this kind of study as "continuing education" and are more likely to offer certificates than degrees. This was one of several Lowell innovations that wasn't broadly adopted.

Another of Lowell's strategically important but not widely reproduced innovations refocused Harvard on its student housing. He required freshmen to live in the school's dormitories, as most students had done in the early days. He reasoned that housing all freshmen together, under close supervision, would not only allow Harvard to admit students at a younger age but also set a tone for their subsequent years of study. "A boy's career in college is largely determined," he believed, "by the conditions of his freshman year, and it ought to be possible to organize that year so as to improve the whole state of the college intellectually and socially."[22]

Although this new policy meant that four new dormitories had to be built, Harvard reaped a good return on its investment. The sum total of room and board, at $200 and $140 respectively,[23] amounted to more than twice the price of tuition but was still below the Gold Coast market, where Harvard undergraduate Franklin D. Roosevelt had paid $400 in rent alone for his corner suite in a building with an indoor swimming pool.[24] Most important to Lowell, the investment in dorms replaced a fragmented, class-based system of freshman housing with one conducive to his ideal collegiate life.

Nearly two decades later, a philanthropic windfall allowed Lowell to make this housing opportunity available to all Harvard College students. In 1928 a $10 million gift from Standard Oil heir and Yale alumnus Edward S. Harkness funded a house system similar to those of the great English universities.[25] Harvard built seven new dormitories, in which sophomores, juniors, and seniors not only lived but also studied, under the tutelage of a master, resident dean, faculty members, nonfaculty advisors, and graduate students.

The house system allowed Lowell to recognize two educational ambitions. One was to have students of differing backgrounds and professional objectives rubbing shoulders, sharing important ideas not only in the classroom but also over meals and in social activities.[26] The other goal was to bring the faculty back into the extracurricular lives of the students.[27] House masters taught in the formal sense, but they also served as role models. Along with their spouses, many became surrogate parents to the students, often living in the same house for decades. Younger faculty tutors likewise performed both formal and informal services; they not only explained the content of specific courses but also offered tips for "navigating the system," teaching students how to choose the right professors and the sequence of courses to ensure good learning and high marks.

Through the freshman dorms and the houses, which serve nearly all Harvard undergraduates today, Lowell reintroduced to the university's DNA one of the most educationally and socially powerful traits of early Harvard College. The system of comingled living and learning was copied only by a few other institutions, mostly elite private colleges like Harvard that could afford the high financial cost, though on-campus dormitories serving at least a fraction of undergraduate students became a standard feature of traditional universities. By his retirement, in 1933, Lowell could claim not only to have revitalized Harvard College's sense of community but to have taken it to new, exemplary heights.

Breadth and Depth in the Curriculum

Lowell worked an even more influential change in the college's curriculum. He was not the first university president to introduce a distribution requirement, elsewhere more commonly called general education (GE) or liberal education. However, he was the first to create a combination of distribution and concentration requirements (the latter known at most schools as a major). For this innovative but soon-to-be-ubiquitous system of general education-plus-major he coined a memorable tag line: "The best type of liberal education in our complex modern world aims at producing men who know a little of everything and something well."[28]

The purpose of simultaneous distribution and concentration requirements was to promote a degree of classical well-roundedness and also impart the specialized knowledge needed for a trade or for pursuit of advanced studies. In theory, it was an Aristotelian golden mean, the ideal combination of two desirable but competing extremes.[29] In practice, it proved difficult to achieve, as Lowell himself conceded.

Ready-made components for concentrations already existed, thanks to Eliot's success in creating graduate curriculum. The foundational courses for Ph.D. programs served equally well as building blocks for concentrations.[30] They were already there in the catalog, many bearing the name "For Both Undergraduate and Graduate Students."

It was more difficult to find courses well suited to the distribution requirement, which was meant to assure a degree of breadth in an undergraduate student's education. Lowell recognized two main challenges.[31] One is the inherent difficulty of creating a course for uninitiated students that provides a true synthesis of a subject rather than merely laying the foundation for further study. The typical introductory course, which must treat in detail the fundamentals of a discipline, such as chemistry, offers little insight into its connection to other disciplines, let alone the role of that science in the broader world. Faculty members trying to summarize their discipline for students in a single dose face a curricular

Catch-22. Broad perspective is hard to achieve absent a modicum of basic understanding, and in most disciplines the latter requires at least one course unto itself. As Lowell admitted, "Instruction that imparts a little knowledge of everything is more difficult to provide well than any other."[32] His proposed solution was to have these difficult-to-teach courses delivered by "the leading men of the department," those with "mature minds, who can see the forest over the tops of the trees" and possessed of "unusual clearness of thought, force of statement, and enthusiasm of expression."[33]

Lowell also recognized, though, the "serious obstacle ... that many professors, who have reaped fame, prefer to teach advanced courses, and recoil from elementary instruction, an aversion inherited from the time when scholars of international reputation were called upon to waste their powers on the drudgery of drilling beginners."[34]

In fact, it wasn't just already-tenured professors who faced this disincentive to teaching courses for nonspecialists. The university Eliot created still aspired to offering its students a broad education, but it rewarded its faculty for specialization. A Ph.D. had become de rigueur for entrance to the professoriate, and the plaudits, promotions, and pay raises went to those faculty members who were recognized by fellow scholars for their published work.

Lowell's Curricular Compromise

Lowell saw the organizational disincentives to teaching general courses, just as he did the intellectual challenge of designing them. Because the system of faculty scholarship had been firmly established before his time, he made the best of things by aligning the distribution requirements with the graduate departments created to grant Ph.D.s.[35] In other words, his distribution system did not necessitate the creation of cross-disciplinary courses; a student could satisfy the distribution requirements by taking discipline-specific offerings already in the catalog as long as they were unrelated to the student's concentration, or major. Also, as the price of exposing young undergraduate students to senior professors, Lowell condoned the practice of offering small sections in

which junior faculty led discussions and gave exams. "Such a policy," he said, "brings the student, at the gateway of a subject, into contact with strong and ripe minds, while it saves the professor from needless drudgery."[36]

A Scholarly Solution Shop and an Instructional Value-Added Process

Lowell's system of distribution and concentration requirements conceded the new university reality of academic specialization, while still providing a way for an increasingly balkanized institution to produce graduates "who know a little of everything and something well." It was an uneasy compromise that universities still struggle to strike today. Much of the challenge is that they are operating two fundamentally different enterprises under a single institutional roof. The one enterprise, knowledge discovery, can be characterized as "solution shop."[37] In this part of the university, scholars draw upon their subject matter expertise and intuition as they seek to diagnose and recommend solutions to unstructured problems, such as splitting the atom or managing national economies. The consumers of these discoveries are not the university's students so much as fellow scholars and nonacademic experts in the field.

The other main enterprise in the university, the instruction of students, is a "value-adding process."[38] The value added is to students, who know more when they leave the university than when they entered. This process is less dependent on creative instinct and original insight than the work of knowledge discovery. Though teaching requires expertise and judgment, it is repetitive, so it can be embedded in standardized curriculum and delivered at reasonably high quality by teachers with less subject matter expertise and scholarly intuition.

That is why the best Lowell could hope for was a modicum of participation by senior scholars in his proposed distribution courses. Harvard's tenured professors justifiably concluded that their highest and best contributions to the university were to be made through original research rather than teaching undergraduate students. Most of

that work was delegated to graduate students and tutors, whose more limited training and capability meant that their opportunity cost of teaching was lower.

The problem, though, was—and is—that students pay not only for this less expensive instruction but also for whatever portion of a university's scholarship is not covered by research grants or donors' gifts. Put differently, undergraduate tuition often subsidizes scholarship. In addition, students bear other less quantifiable but nonetheless significant costs. Academic departments are better organized to facilitate specialized scholarship and curriculum development than to create cross-disciplinary general education courses and majors. Undergraduate students who do not choose to specialize in one discipline, as though they are headed for graduate studies in the same field, must browse back and forth across departments, attempting to create an integrated learning experience for themselves. Though Lowell couldn't see it at the time, the costs to students of the university's conflation of scholarly and instructional activities, with the former being dominant in the departments, would steadily grow.

Lowell implemented the system of distribution and concentration in his first year as president. Of the sixteen full-year courses required to graduate from Harvard, a student had to take at least six in his area of concentration and at least four in other subjects.[39] As noted by Harry Lewis, "Lowell's dream of general courses that were not introductory did not materialize during his presidency. Nor did he ever resolve the problem that the 'clearness of thought, force of statement and enthusiasm of expression' so valuable in college teachers were qualities largely unrelated to scholarly excellence."[40]

Nevertheless, as the most effective compromise among the competing interests of scholars and students, Lowell's system of distribution and concentration soon became the curricular model of choice in American-style universities.

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Promoting Student Excellence

Having struck an imperfect but workable balance between the liberal and practical aspects of a college education, Lowell turned his attention to the problem of undergraduate dilettantism. He conceded only grudgingly the necessity of granting all graduates a standard degree.[41] It piqued him that a half-dedicated student received the same college credential as a diligent one. Over time, he perceived, this lack of academic distinctions had eroded both students' ambitions and the value of the college degree.

Ironically, Lowell's inspiration for solving this problem came partly from athletic competition, one of the causes of Harvard's student dilettantism. Recalling his own experiences as an athlete and observing the intensity of college athletic rivalries, Lowell saw a model for bringing greater competition to the classroom. He observed the zeal with which students sought athletic glory even though they had no intention of making a career of athletics.[42] How much easier it should be, he reasoned, to bring a competitive spirit to the classroom, where students prepare for their life's work. The key was merit-based prizes such as those awarded to athletes. He was willing to risk the potential downsides, including a decrease in collegiality and intrinsic motivation to learn, for the sake of greater academic excellence.

Lowell knew that no single measure would be enough; as he liked to say, "A blanket cannot be lifted by one corner."[43] Among the first of his competition-stimulating innovations was the creation of the grading curve. During the Eliot years, he had seen how students flocked to courses taught by lenient graders, doing themselves a double dose of educational damage: they not only studied less diligently in these massive courses, but also enjoyed less student-teacher interaction. Focusing especially on high-enrollment courses, he used his normal grading curve, with C's predominating, to stimulate competition for A's.[44]

Borrowing a tradition from England's universities, Lowell also pushed through a measure to have Latin honors—*cum laude, magna cum laude,* and *summa cum laude*—noted in the commencement program and alumni catalogue. These, he foresaw, would become the academic equivalents of newspaper box scores and athletic record books.[45] He also created a new form of academic recognition: "honors," "high honors," and "highest honors" designations; these were tied to a student's concentration and required a thesis, in addition to the standard coursework. To help students win the high grades and write the theses that would earn them graduation honors, Lowell introduced a system of tutorials through which individuals and small groups received focused instruction. Specialized tutors, working at the direction of the academic departments, supplemented the efforts of those in the houses.

The reinforcing system of incentives and supports for academic excellence took hold with generally gratifying results. The balance of student interest and effort shifted markedly during Lowell's presidency. The A replaced the C as the "gentleman's grade," and many of the hours spent in the Eliot era on socializing and athletics were redirected to study, which Harvard's athletic director called the school's principal sport. "This," wrote Samuel Eliot Morison, "was Mr. Lowell's greatest achievement; he 'sold' education to Harvard College."[46]

Lowell's achievement was not without its costs. In *Excellence Without a Soul*, former Harvard College Dean Harry Lewis wrote, "Nothing I saw during my eight years as dean brought Harvard as much scorn as the grades and honors it awards."[47] The problem for Lewis and his fellow professors was the *Boston Globe*'s 2001 discovery that more than half of Harvard College grades were A's and A-minuses, and that more than 90 percent of graduates earned honors. A *New York Times* article declared, "Harvard, long a center of excellence in so many forms, is becoming known as a pioneer in grade inflation, too."[48]

In *Excellence Without a Soul*, Lewis explored the myriad potential causes of grade inflation, from the pernicious—such as untenured faculty members' fears of low student evaluations—to the laudable, ever-better-performing teachers and students. Lewis also enumerated the downsides of promoting academic excellence through grades: course selection becoming a game of identifying lenient graders; demotivation

and alienation of students who cannot excel relative to their peers; excellence calculations being "inaccurate to the point of fraud."[49] Given the prevailing attitudes toward academic achievement he inherited, Lowell's introduction of grading curves and honors represented an improvement over the status quo. Even today, the difficulty of measuring in absolute terms what a student has learned makes relative ranking and the awarding of academic honors an attractive, practical alternative. But the system was and is an imperfect one.

Lowell and the Cause of Academic Freedom

University professors in particular are indebted to Lowell for another achievement in the realm of academics. From his bully pulpit at the nation's greatest university, he powerfully articulated a broad definition of academic freedom. Though Eliot had supported freedom of inquiry and speech for the faculty in principle, no case of great consequence had come before him.[50] World War I forced upon Lowell a host of such cases, as Harvard faculty members spoke out on both sides of the issue of American involvement. In a particularly difficult instance, he withstood strong pressure to dismiss psychology professor Hugo Munsterberg, a German American, who spoke publicly in defense of the German cause. In Lowell's annual report for 1916–1917, at the height of the war, he explained his reasoning not only in the Munsterberg case, but in terms of broad principle.

Lowell explored the freedom of professors to speak according to conscience in two realms: the classroom and the world beyond it. In each of those realms, he distinguished between those statements related to the professor's expertise and those not. In the classroom, he asserted, "The teaching by the professor on the subjects within the scope of his chair ought to be absolutely free."[51] At the same time, though, he spoke of

From his bully pulpit at the nation's greatest university, [Lowell] powerfully articulated a broad definition of academic freedom.

the students' right "not to be compelled to listen to remarks offensive or injurious to them on subjects of which the instructor is not a master." Thus, academic freedom in the classroom is complete but conditioned on expertise. Of course, Lowell likewise asserted the right of professors to share, unfettered, their expertise outside of the classroom, as the publication of research and the dissemination of knowledge requires this.

It was in the matter of public speech unrelated to the academic discipline that Lowell's logic took an asymmetrical twist. Lowell posed the hypothetical case of a professor of Greek who publishes an article on "the futility and harmfulness of vaccination" and cites his university affiliation, but does not identify his discipline as unrelated to medicine. In this case, Lowell granted, the professor "is misleading the public and misrepresenting his university."[52]

Yet, he argued, even in such circumstances the university must not impose any expectation other than "sincer[ity]." The reasons for allowing such a risk of injury to the institution and to the public, he felt, were two. First, academicians should not, by virtue of their profession, be subject to greater constraints on public speech than lawyers, physicians, engineers, and others. Such constraints would "tend seriously to discourage some of the best men from taking up the scholar's life." Second, Lowell argued, if universities did restrain faculty members' communications in select instances, they would by implication be endorsing their statements in all others. "If the university is right in restraining its professors, it has a duty to do so, and it is responsible for whatever it permits. There is no middle ground."[53]

It was reasoning atypical of Lowell; he was a master of finding the golden mean, or middle ground. Moreover, having run his own legal practice, he would have appreciated that an attorney could expect to be dismissed from a firm for behavior not worthy of disbarment from the profession, yet inimical to the partnership. In fact, the 1940 academic freedom statement of the American Association of University Professors (AAUP) took a more temperate position, noting that a college and university teachers' "special position in the community imposes obligations," including being accurate, restrained, respectful,

and "making every effort to indicate that they are not speaking for the institution."[54] The AAUP statement also makes allowances for limits to individual freedom based on an institution's religious or other special mission. In this case, the impassioned proposal of a Harvard president did not take hold in the traditional university's DNA. However, Lowell's championing of the cause of academic freedom strengthened it as a guiding principle of American higher education and thus reinforced the autonomy of the professoriate.

When Lowell retired, after twenty-four years at the helm and at age seventy-six, he had not only revitalized Harvard College but taken it to

TABLE 5.1 Harvard in the Lowell Era, 1909–1933

New Trait	Implications
Residential house system	More unified collegiate community Social and academic support for students Significant expense Limitation of student social freedoms
Curricular distribution (GE) and concentration (majors)	Balance of subject matter depth and breadth Increased demand for less popular subjects Tendency toward delegation of instruction in distribution courses
Grading curve and academic honors	Increased incentive to excel academically Potentially decreased intrinsic motivation to learn Student pressure on faculty for generous grading

an unprecedented level of quality. By innovatively combining elements of the old Puritan college with Eliot's curricular free market, he had also finalized much of the essential DNA of undergraduate education. (See Table 5.1.) Grading curves, honors designations, general education, and majors would soon become known to most university undergraduates. That was true even at Ricks Academy, which before the end of Lowell's presidency at Harvard would become Ricks College.

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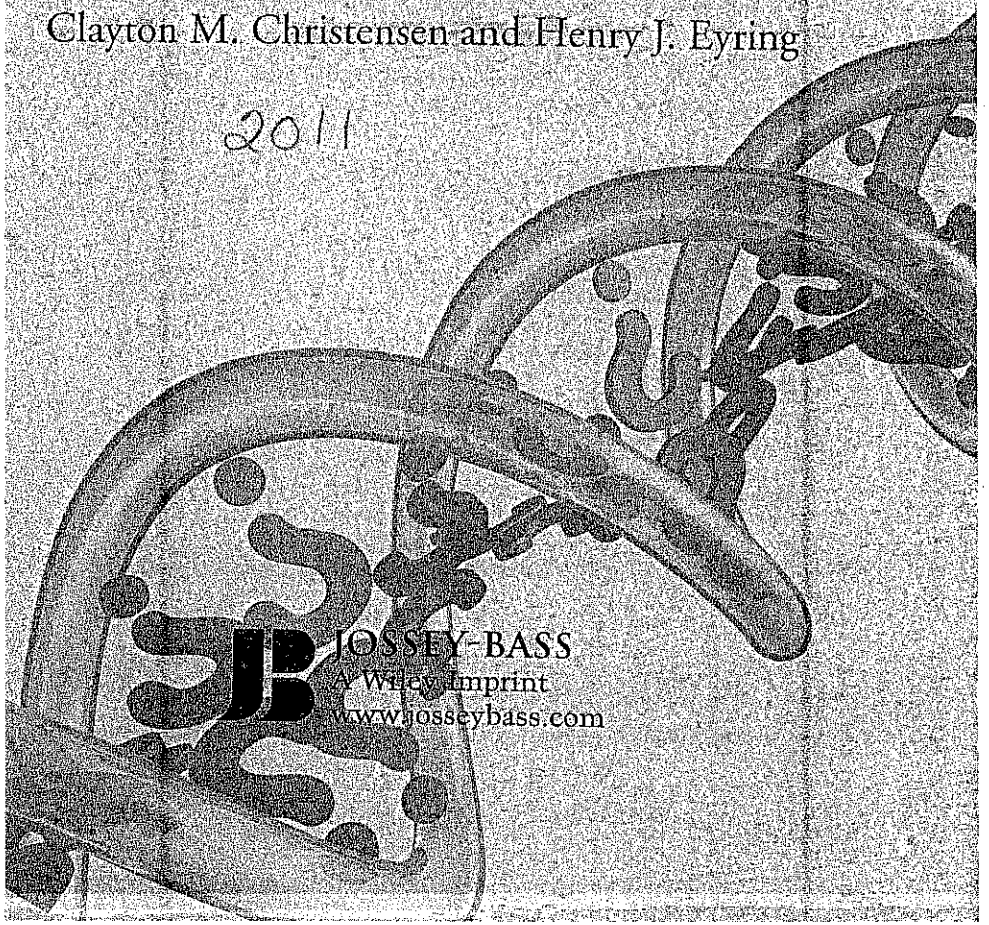

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ch 7

Chapter 7

The Drive for Excellence

The DNA of Harvard University was not entirely set by the time A. Lawrence Lowell gave up its helm in the early 1930s. Charles Eliot had established the institutional structure, which mingled graduate students with undergraduates. He had also broadened the curriculum to include all academic subjects. By reordering the college, Lowell brought much needed rationality to the university's broad choice of students and subjects. There was, though, still the matter of scholarly excellence, to which neither Eliot nor Lowell had given much attention. It was left to Lowell's successor to do that.

Appointed in 1933, James Bryant Conant was the first world-renowned scholar to lead Harvard. Already decorated for his research in organic chemistry, he was recognized during his presidency with the Priestley Medal. Had he not left the laboratory to lead Harvard, he might have contended for a Nobel Prize.[1]

Even more than Eliot and Lowell, Conant owed his success to generous academic mentors. His scientific career began with a gifted and dedicated high school teacher, at Roxbury Latin School, who recommended him to the Harvard chemistry department. Among the most significant of Conant's mentors there was Charles Loring Jackson, America's first and most prominent organic chemist. Like so many other leading-edge chemists, Jackson had studied and conducted research in Germany. He shared the benefits of that training with Conant, along with connections that allowed him to take a German

tour of his own. That experience led to a tremendously productive period of laboratory research and the opportunity to serve as chair of the chemistry department, his only administrative experience before being tapped to lead Harvard.

Unlike his distinguished predecessors Eliot and Lowell, Conant was a first-generation Harvard man. His ancestors on both sides were early New Englanders, but his family lacked ties to the Boston aristocracy.[2] His father was an engraver whose work in copper etching provided his first contact with chemistry.[3] The contrast between self-made Conant and his privileged predecessor Lowell came starkly into focus as the two discussed the transfer of office. When Conant asked what salary he would draw as president, Lowell replied that he did not know, as he had always donated his compensation back to the university.[4] Conant, to his chagrin, felt compelled to haggle for more than the $20,000 initially offered.[5]

His up-by-the-bootstraps, outsider's perspective may have helped Conant see that while Lowell had been revitalizing Harvard College, the university had lost some of its academic luster.[6] Lowell's emphasis on the college, though invaluable, had not been equaled by his investment in scholarship, the established coin of the realm in higher education. Thus, while Harvard had reasserted its educational leadership and grown tremendously in physical and financial resources, it was no longer preeminent in many fields of scholarship. As Samuel Eliot Morison observed, "In certain departments of knowledge, a chair in Harvard University was no longer recognized as an academic first prize."[7]

Conant worried that the university was contributing less than it should to the welfare of the country and the world, in a time of desperate economic and political need. During the Roaring Twenties, it had been natural

Conant worried that the university was contributing less than it should to the welfare of the country and the world, in a time of desperate economic and political need.

to focus on campus investments such as the house system and other building projects. But the times had changed dramatically, and the university's capacity to serve practical societal ends lagged that of some of its peer institutions. Conant thought Harvard could do more, particularly in the physical and social sciences.

Fortunately, the university's finances were relatively well ordered. Thanks to generous donors and wise budget officers, it had survived the worst of the Depression without cuts in salaries, staff, or services.[8] Costs had risen substantially during Lowell's tenure; he had not only doubled the university's physical footprint but also allowed the salary of the university's highest paid professors to more than double, from $5,500 in 1918 to $12,000 in 1930.[9] But Lowell's Harvard had also set records in philanthropic giving. In addition to the Harkness gift for the house system, which in the end totaled more than $13 million, a postwar fundraising campaign had netted a similar amount. In spite of the stock market crash, during Lowell's term the university's endowment grew from $20 million to $126 million.[10] Tuition revenues also rose: beginning in 1913, the price of a year at Harvard climbed in stages from $150 to $400.[11] The net effect was a balanced budget, even in the worst of economic downturns. Few other universities were so financially fortunate. Though the times dictated prudence, it was not unreasonable for Conant to hope to raise Harvard's scholarly standards and increase its social impact.

Conant's Meritocracy

He did so by the application of principles and procedures that collectively came to be called "meritocracy." The Harvard of Eliot and Lowell was, for all its strengths, clubby and inbred. New students and faculty tended to be drawn from the same narrow pools. In the case of the students, those pools were the elite private and public high schools of New England.[12] Faculty were too often from Harvard's own graduate programs. These sources produced more than their share of capable

candidates. But students from the elite New England secondary schools were as likely to have been admitted for reasons of family wealth and social standing as for intellectual capability. Likewise, personal connections gave Harvard graduate students the inside track to new faculty appointments. Conant saw the undesirable consequences of these non-merit-based structural preferences more clearly than had his immediate predecessors, both of whom were so supremely well connected that they may have been oblivious to them.

Selecting new students and faculty on the basis of demonstrated merit would not only raise the standard of performance at Harvard, Conant reasoned, it would also spread limited opportunities for educational advancement more broadly. He worried that, in a world of low growth and limited social mobility that seemed to be the new normal in those years of economic depression and political isolationism, it was incumbent on Harvard and the nation to improve "the selective machinery in our school system which should sort out those who can profit most by four years of college and a subsequent professional education."[13] Bringing the best students to Cambridge, Conant believed, would serve not only Harvard but also the country.

He wasn't without enticements for recruiting new professors. Under Lowell the faculty had received additional research funds, reduced teaching loads, and an occasional semester entirely free of teaching responsibility.[14] The introduction to the academic calendar of six weeks' worth of reading periods gave them additional time for scholarship. Conant added other perquisites, including the new position of University Professor, which entitled the scholar so designated to work across traditional departmental boundaries.

In attracting faculty Conant also had the benefit of Harvard's financial stability, a rare asset in the mid-1930s. Within a few years, he had hired a clutch of distinguished professors from around the world, especially out of economically and politically unstable Europe.[15] But the austerity of the time prevented the full realization of his dream to recruit the world's best scholars to Harvard. That would have to wait until the exigencies of the Great Depression and the war were past.

Up-or-Out Tenure

Conant was more immediately successful in raising the scholarship bar for Harvard's young faculty members. He did so via a system of up-or-out tenure. Rather than being able to stay indefinitely as untenured faculty members, newly hired assistant professors would have eight years to demonstrate their worthiness for tenure.[16] That demonstration would be made not just to committees internal to the university, but also to external reviewers, peers from a candidate's academic discipline.[17] This system of peer review fostered merit-based competition in tenure, undercutting the tendency toward faculty cronyism and inbreeding, thus benefiting the university. It also benefited the candidates. Thanks to unbiased peer review, the worthy prevailed. The eight-year time limit for a tenure decision prevented the university from stringing the others along.[18]

Conant's implementation of up-or-out tenure also solved a practical problem left by Lowell. With the creation of the house system, Lowell had significantly expanded the faculty through the hiring of tutors for the houses. By the mid-1930s many of these tutors had been around long enough to hold expectations of tenure. However, they lacked the scholarly star power that Conant wanted to maximize through the tenure system. They also represented a growing financial cost. As with innovations such as Eliot's elective system and Lowell's system distribution and concentration, Conant's up-or-out tenure had both long-term strategic and immediate tactical benefits.

There were, though, unintended casualties of the new tenure system. One partial casualty was faculty collegiality and commitment to the institution. An untenured faculty member was now more inclined to view his departmental peers as competitors and the needs of the community—including students—as secondary to the tenure goal. Over time, undergraduate students have been particularly affected by this change in university DNA. Conant made it clear that good teaching, a point of pride for Lowell, would not compensate for mediocre scholarship, by this time clearly defined as research and

publication.[19] However, his tenure system tended to skew the efforts of tenure-track faculty toward scholarship and away from teaching. With so much of the undergraduate teaching load carried by junior professors and graduate assistants with tenure aspirations, the research emphasis of the process inevitably drew attention away from the classrooms and study halls.[20] Lowell's beloved tutorials in particular suffered. By 1950, three out of four tutorials were staffed by graduate students; some departments had voted to eliminate them altogether.[21]

The new tenure system also widened the gulf between the haves and have-nots on the faculty. Many Harvard departments began to focus their searches for tenure candidates outside the university. The test of worthiness for a tenured position was recognition as being "the best" in one's field. In later years, Dean Henry Rosovsky of the Faculty of Arts and Sciences would describe the search process Conant instituted this way: "At Harvard we ask a traditional question: who is the most qualified person in the world to fill a particular vacancy, and then we try to convince that scholar to join our ranks."[22]

Successful scholars thus became sought-after free agents. This had been happening ever since the German model of scholarship was adopted in the late 1800s. The new universities created by wealthy philanthropists used their capital to attract the world's best scholars, often poaching from one another. Cornell, one of the first to play this game, gained early prominence only to find itself outbid for its own faculty by new universities founded by John D. Rockefeller in Chicago and Leland Stanford in Palo Alto, California.

Conant's drive for excellence required Harvard to enter this free agent market for scholarly talent, a financial competition he preferred to avoid. His goal was to set newly tenured faculty members' salaries at a consistent level across the university.[23] But that goal conflicted with his drive to recruit "the best." For example, in the early 1950s the nation's most promising young geneticist, a twenty-six-year-old from Wisconsin, demanded a full professorship, a paid position for his wife, the promise of additional faculty appointments in his field, lab space

and research funding, and no teaching except of graduate students. On top of that, he refused to wear a necktie to work.[24] University officials declined this tall order and watched their lost quarry win a Nobel Prize just seven years later. In time, Harvard would find a balance, eschewing bidding wars but deviating as necessary from Conant's goal of parity in faculty salaries, so as to be competitive in recruiting "the best," and to recognize the higher salaries available outside of the academy in fields such as science and business. Meanwhile, Harvard graduate students and junior faculty, the workhorses of undergraduate instruction, labored under the apprehension that, when tenure time came, they would need to find other employment, as they were unlikely to be deemed the world's best candidate in their field.

Conant's tenure system, with its emphasis on finding the world's premier scholars, also made Harvard's curriculum more specialized and graduate-student focused. Many of the most noted scholars in a field had found some subspecialty in which to make discoveries. Their teaching preferences reflected this narrowness. Specialty offerings proliferated; in the latter part of Conant's presidency, most departments offered two to three times as many courses as in Eliot's day.[25] With the student body growing less rapidly than the course catalog, this meant that many offerings operated at less-than-economical levels. A Conant-commissioned report revealed that 169 courses had fewer than five students. Handwritten notes on the margin of this report reflect his surprise and dismay: "This is ridiculous"; "My God!" [26] Ridiculous or not, academic specialization, with its attendant costs, was by then firmly embedded in the university's DNA. Fortunately, Harvard could afford those costs.

Merit-Based Admissions

Conant also introduced meritocratic measures for the recruitment and evaluation of the best students. The need to access a bigger, broader

pool was clear. Harvard College was admitting more than two-thirds of all applicants, and it had the highest percentage of students from its home state of any major school.[27] To draw more candidates outside of the New England region, Conant created national scholarships that included target regions such as the Midwest.[28] Anticipating that students in these distant regions would need greater financial support, he included need-based aid up to several times the cost of tuition.[29] Though the combination of merit and need-based student support was rare at the time,[30] packages of scholarships and financial aid would soon become standard features of the traditional university. The cost at Harvard grew large: by 2010, 60 percent of Harvard College students received some portion of $158 million in financial aid from the school, with the average grant estimated to be $40,000.[31]

The immediate challenge became judging the merit of the new candidates that Conant hoped to admit. Few of them had experienced the kind of classical curriculum found in New England's private preparatory schools and elite public high schools. It wasn't fair to judge them on what they knew of Homer or Milton or classical languages, which is what the entrance examinations pioneered by Eliot and the College Board at the turn of the twentieth century did. Those tests required essays, rather than multiple choice responses, and included sections testing not only English but also French, German, Latin, and Greek.[32]

To implement a standardized, widely administered test of merit that wouldn't penalize students from ordinary high schools, Conant and his Harvard colleagues turned again to the College Board. The new screening mechanism he advocated for wide adoption was the SAT, an evaluation instrument developed in the 1920s by Princeton psychologist Carl Brigham.[33] Unlike the early entrance exams, the SAT was a form of IQ test that attempted to measure academic potential separate from the knowledge of specific subjects, other than English and math. The test wasn't perfect. It assessed primarily word familiarity, which of course depended to a large degree on formal education.

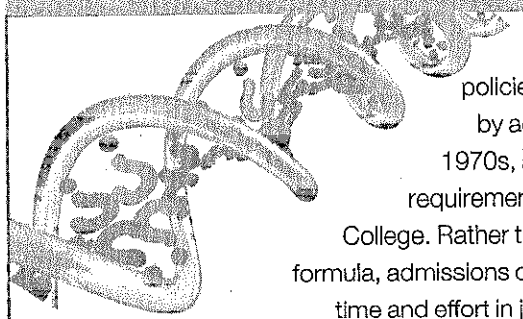
Brigham himself soon disavowed the SAT as a true measure of native intelligence.[34] That others share his view is evidenced by the time and money today's college applicants spend in test preparation.

However, the SAT yielded better results than the old college boards that Eliot helped create. It could be administered and scored much more reliably, and it predicted college success better.[35] While it still favored students with more education, it leveled the playing field for those who hadn't attended New England's college prep schools. The SAT proved tremendously popular and influential, thanks largely to the efforts of Henry Chauncey, the Harvard assistant dean and scholarship committee chairman who first brought the test to Conant's attention. He left Harvard and founded Educational Testing Services (ETS), which marketed and administered the SAT nationwide.[36]

By making the SAT the national standard for college admissions, Conant and Chauncey gave Harvard and other elite colleges access to the country's brightest students. They also paved the way for remarkable growth in American higher education. Administration of the SAT was a much less expensive way of ensuring high-quality student "inputs" than Henry Ford–style vertical integration. Its adoption as a national standard allowed colleges and universities to deliver standardized curriculum to the masses at very low cost, putting a college education within reach of all high school graduates, much as Ford's integrated manufacturing process made Model T cars affordable even for his factory workers.

At the same time, though, Conant's use of the SAT ultimately produced a further narrowing of the types of students Harvard served; only the brightest and best prepared could win admission. With Eliot's emphasis on graduate and professional schools, the proportion of the university's students who were undergraduates had fallen. With Conant's added emphasis on the SAT, Harvard's accessibility by undergraduate students of ordinary intellect would plummet. That happened when Conant's system of meritocratic admission met a wave of student demand after World War II.

THE UNFORESEEN COSTS OF STANDARDIZED TESTING



Thanks to innovative policies and procedures created by admissions personnel in the 1970s, a near-perfect SAT is not a requirement for admission to Harvard College. Rather than applying a quantitative formula, admissions officers invest extraordinary time and effort in judging intangibles such as "strength of character" and "ability to overcome adversity." Standardized tests factor in, but not decisively. As the college's admissions website says, "We regard test results as helpful indicators of academic ability and achievement when considered thoughtfully among many other factors."[37]

Nonetheless, Harvard's huge pool of qualified applicants means that its students' standardized test scores are among the highest in the country, and no farsighted applicant to it or any other selective school sits for the SAT or ACT unprepared. Test preparation strategies range in cost from few dollars for a used book to a few hundred dollars per hour for private tutoring, with the sum of options in between amounting to a multibillion-dollar industry.[38] Rankings-conscious institutions also pay a price, offering scholarship packages to high-scoring applicants.

In addition to this financial cost, there is the social cost of unequal preparation for the economically disadvantaged, as pointed out by Nicholas Lemann, author of *The Big Test: The Secret History of the American Meritocracy.* Lemann has noted how Conant's attempt to blunt the power of privilege—by substituting a standardized test for personal connections in the admissions process—ironically created a new form of privilege and a fierce drive to secure it, via admission to an elite university. In a PBS interview exploring the strengths and weaknesses of standardized assessment, he observed, "It would horrify [Conant] to see the way in which people regard getting high test

scores and getting selected for these universities as a kind of way to get stuff—to get the goodies in America. That is not what the system was built for."[39]

Harvard During World War II

World War II turned Harvard on its head. The draft caused the population of traditional students to shrink dramatically. Four hundred faculty members, a quarter of the total, also joined the war effort. Filling the classrooms and keeping the university running required drastic measures; the faculty who remained voted unanimously to teach year-round, with no increase in salary.[40] Students were inducted in February and June, in addition to the usual September entry point, and the professional schools admitted candidates without bachelor's degrees.[41] The university's classrooms and dorms were rented out to the Army and Navy for the training of their personnel.

Most of these measures were temporary. But one important change, the inclusion in Harvard's classrooms of women from its sister institution, Radcliffe, proved lasting. It would be twenty years before female students received Harvard diplomas, and almost thirty before they took up normal residence on the campus, but the door to equal educational opportunity had been opened.

The war also provided an unexpected boost to Conant's drive for meritocracy. Peacetime and the G.I. Bill brought a flood of applicants—20,000 in 1946. These prospects hailed from around the country, and from all social and economic strata. Rather than admitting two of every three applicants, Harvard could choose one in fifteen, with an eye to diversity as well as academic excellence. The swollen postwar tide of applicants soon ebbed, but the makeup of the student body would never be the same. Meritocracy in admissions, designed to inhibit social inbreeding at a time of low demand, would create a new kind of elite as more and more students vied for a prized spot at Harvard.[42]

The Rise of Government-Funded Research

The war brought two other major changes to Harvard, one pervasive and permanent, the other less so. The more lasting change was the rise of government-funded research. During World War I university scientists had been enlisted, both in the military sense of the term and also on a project basis, to create weapons and equipment. In fact, Conant was among the most prominent of these serviceman-scientists. He left Harvard to join the Chemical War Service, where he oversaw the development of poison gas and gas masks and became "practically a section of the War Department."[43] By the conflict's end, he had been promoted to major.[44]

Conant's involvement in the Second World War was much more strategic and high profile. He chaired the National Defense Research Committee (NRDC), the federal government's vehicle for mobilizing civilian scientists and engineers, and for funding research in university and company laboratories.[45] He also played a personal role in expediting the development of the atomic bomb; his position at Harvard provided cover for covert recruitment visits to the nation's leading scientists.[46]

Conant's work in Washington gave Harvard an inside track on government-funded research contracts.

Conant's work in Washington gave Harvard an inside track on government-funded research contracts. Its $31 million in NDRC grants put it behind only science and engineering specialists MIT and Cal Tech as a player in the world of sponsored university research.[47] Harvard scientists made valuable contributions to military communications and to the development of radar, napalm, and the atomic bomb.

The war's end brought a decrease in government-funded research, but its role in the university was established. The volume of research contracts and grants would grow with the coming of the Cold War and the creation of agencies such as the National Science Foundation

and the Atomic Energy Commission, both of which Conant advised. Government research funds produced not only economic benefits to the university but also scholarly ones. Money attracted discovery-minded scientists. Particularly in the physical sciences, the growth of external research funding coincided with a rise in the number of world-class scholars at Harvard. Four candidates tenured in physics in October 1945 went on to win Nobel Prizes.[48]

The new externally funded research came with costs. Faculty and administrative time was taken up in grant writing and regulatory compliance, and the programmatic nature of some of the research made it more difficult for professors to carve out time for teaching. External funding also widened the haves-and-have-nots divide in the university, creating greater opportunities for scientists than for other members of the faculty. Still, the net effect for Harvard was positive. The war indirectly enhanced the quality not only of its student body, but of its scholarship as well.

The Redbook

The war produced yet another benefit at Harvard, one to the undergraduate curriculum. In addition to being concerned about the merits of the university's scholars and students, Conant was intent on raising the academic rigor and social usefulness of the college curriculum. Lowell's distribution requirements were an improvement over Eliot's elective free-for-all, but they failed to promote either a truly general education or academic excellence. As in Eliot's day, some students sought out the curricular path of least resistance, congregating in easy courses known colloquially as "bow-wows."[49] Distribution requirements produced a general education that was, in Conant's view, spotty, shallow, and bereft of moral authority.

The specter of war, to say nothing of its actual horrors, stimulated a redesign of the core undergraduate curriculum of which even Harvard's Puritan founders might have been proud. The West's narrow escape

from totalitarianism temporarily unified academicians separated by their specialties. A committee of twelve well-regarded Harvard scholars sought broad input and published a 267-page volume called *General Education in a Free Society*, or, in reference to its crimson binding, the "Redbook."

The Redbook's authors stated their view that a fundamental purpose of education is to promote freedom. That, they declared, requires a degree of commonality of "traits and outlooks" among the citizenry: "A successful democracy (successful, that is, not merely as a system of government, but as democracy must be, in part as a spiritual ideal) demands that [certain] traits and outlooks be shared so far as possible among all the people."[50]

In addition to advocating common traits and outlooks, an educational goal abandoned for practical purposes by both Eliot and Lowell, the authors quoted Conant on the importance of values: "Unless the educational process includes ... some continuing contact with those fields in which value judgments are of prime importance, it must fall far short of the ideal."[51] The main writer on the project, a young professor of Greek literature named John Finley, went so far as to suggest that "if many courses should set forth our view of life as rooted in a humane tradition, it seems only fair that some should set it forth as rooted in a religious tradition." Conant wouldn't go so far. He doubted "if a secular university today can take the step necessary to put its argument on the plane of absolute values."[52]

> *"Unless the educational process includes . . . some continuing contact with those fields in which value judgments are of prime importance, it must fall far short of the ideal."*
>
> —The Redbook

As ultimately adopted by the faculty, the new general education (GE) program lacked not only grounding in absolute values but also any single course required of all students. Yet it did, as recommended by the Redbook, require that courses designed specifically for general

education comprise more than a third of the undergraduate curriculum.[53] This represented a substantial increase over the 25 percent required in Lowell's day.[54] No courses from a student's concentration could be "double counted" for GE credit, though that curricular compromise would creep into later versions of the system.[55]

The new GE program also specified that students take at least one course in each of three areas: humanities, social sciences, and natural sciences. To the Harvard faculty's credit, many courses met Lowell's ideal that distribution requirements give students a synoptic view of a broad area of learning, rather than a mere introduction to a narrow academic discipline. Well-received offerings such as "Western Thought and Institutions" and "Principles of Physical Science" met the Redbook's standard of "form[ing] a comparatively coherent and unified background for an understanding of some of the principal elements in the heritage of Western civilizations."[56]

The Redbook improved general education for a generation of students not only at Harvard but elsewhere: 40,000 copies were purchased, many by representatives of other universities, some of which introduced general education programs modeled after Harvard's.[57] Yet the effect in Cambridge was not long lasting. Courses consistent with the Redbook's broad vision were popular with students but difficult to teach, both because they spanned traditional disciplines and because of the high student–teacher ratios.[58] Newer offerings tended to be narrower, more rooted in a single academic discipline.[59] Conant saw that coming. He knew that the gravitational pull of the university's departments would inexorably bring cross-disciplinary courses back within the traditional lines of scholarship. However, his hoped-for separate department for general education, which might have resisted this tendency, never materialized.[60]

The prosperity of the 1950s and social turmoil of the 1960s soon brought a shift away from postwar idealism. Confidence in great books and historical Western values, temporarily revived by the Allied triumph over totalitarianism, waned. By the early 1970s, some faculty members were calling the Redbook's view of the world "chauvinistic

and dated."[61] The war had temporarily changed patterns of thought and behavior, but the specialization and skepticism written into the university's DNA inevitably reemerged.

The Redbook and High School Education

Paradoxically, the Redbook's most lasting impact may have been not on Harvard or other colleges but on American high schools. In fact, secondary education was arguably its primary focus. In charging the committee's members, Conant advised them that "the general education of the great majority of each generation in high schools [is] vastly more important than that of the comparatively small minority who attend our four-year colleges."[62] Like Eliot before him, Conant appreciated the importance of ensuring a steady supply of well-prepared students for Harvard and other universities. However, he was also genuinely concerned for the welfare of that majority of Americans whom he presumed would not seek college education.

The committee took the challenge to heart, devoting more of the Redbook, by page count, to advice for secondary schools and "community" education than to proposals for Harvard College. Several trends in the realm of high school education concerned them. One was the explosive growth of high school participation and associated changes in the profile of the typical student. Between 1870 and 1940, they noted, laws making secondary education mandatory led to a thirty-fold increase in the percentage of Americans attending high school. Not surprisingly, the fraction of those students going on to college fell, from 3 in 4 to just 1 in 4.[63]

Another trend of concern was diffuseness in the high school curriculum. To meet the varied interests and abilities of their exponentially larger and more diverse student bodies, and in response to the rapid advance of knowledge, high schools introduced more courses.[64] In this respect, they were little different from colleges, where electives had come to rule.

Still, the Redbook's authors lamented the tendency of elective offerings to foster concentration in a particular field of study at the high school level.[65] They worried that societal cohesion required imparting shared values to future scholars and tradesmen before they parted ways to lead separate lives. The authors also aspired to exposing young people to "the good." They worried especially about students in rapidly growing cities, where the social functions of the traditional community had broken down.[66] High school, they reasoned, was the last and best opportunity for doing those things, and general education was the vehicle. Their recommended curriculum bore striking resemblance to the one put forward by Eliot's Committee of Ten, whose focus was college preparation. They reasoned that a general education in the humanities, social studies, and science and math would serve not just future college and technical school students but also the 75 percent of high school graduates going directly into the workplace.

Their logic rested on a presumption that today seems shortsighted and even blithe—that the majority of these students would take one of the 60 to 65 percent of U.S. jobs requiring "no previous training." They derided the value of high school "vocational and trade courses, regarded as inferior, made up of inferior students, and taught by inferior teachers." Better, they reasoned, for those going straight from high school to work to pursue liberal studies. "For these students," declared the Redbook, "their whole high school education is in the truest sense general education."[67]

The Redbook offered detailed opinions about the preferred structure of this general education. English literature ought to be studied through all four years, via "great works." By great the Redbook meant difficult, citing approvingly the dictum that "if it were easy the book ought to be burned, for it cannot be educational." All students, the Redbook's authors felt, should also study a foreign language, ideally Latin or French, for the sake of better understanding English. Those seeking a deeper appreciation of the humanities should recognize Russian and Greek as superior to German and Spanish, the latter being valuable more as "tools." Art—music, painting, drawing, and modeling—should

be studied by all students for aesthetic reasons, but not for either career preparation or creative self-expression.[68]

The Redbook was equally prescriptive about the ideal curriculum in the social sciences and in the physical sciences and math. Four years of history: world and European first, then American history, including government, economics, and "contemporary society." At least three years of physical science: biology, chemistry, and physics, in that order. A three-year sequence of math: algebra, geometry, and trigonometry, followed by calculus, for the mathematically gifted. Education in mental and physical health was also recommended.[69]

That the Redbook's authors wanted good education for all high school students is beyond dispute. They can hardly be faulted for failing to imagine, in a country only just emerging from decades of isolationism, a global economy that would soon expose unskilled factory workers to competition from around the world. In fact, the general education they prescribed for all high school students was well-timed for the growing fraction of those students who would attend college with the help of the G.I. bill and other federal aid programs.

Yet their prescriptions, reflected in high school curriculum to this day, did not only presume that students headed directly to work could prepare sufficiently via the mere one-third of the curriculum not consumed by general education. The Redbook also presumed that high school teachers could do what college professors would not: teach required courses "characterized mainly by broad integrative elements," rather than specialized electives.[70] Ironically, a general education curriculum that was too rigid and too difficult to deliver for Harvard students and faculty became the standard for American high schools.[71]

The Redbook's authors may have failed to appreciate the extent to which Harvard's academic rise had distanced it from the kind of students the institution had served in its earliest days, when sixteen-year-old freshman were taught not only Latin and Greek but also the fundamentals of English composition and arithmetic. The authors' suggestions that "easy" books cannot be educational and that vocational training is inherently "inferior" indicate that Harvard's professors had

lost sight of a large portion of the potential higher education market, the one below them, in which ordinary high school graduates (and nongraduates) need remedial liberal education and practical career preparation. Today, the universities and colleges that have emulated Harvard may be making a similar misjudgment, as evidenced by the growth of for-profit institutions that increasingly cater to "at-risk" students who might otherwise be nonconsumers of higher education.

The Ivy Agreement

The postwar years saw one change to Harvard's DNA that was not only permanent but had been a long time in coming: the end of big-time football. Harvard's intercollegiate football tradition could hardly have been richer. In the opening decades of the twentieth century, its squad was a perennial national powerhouse. From 1911 to 1915 it won thirty-three consecutive games, producing three perfect seasons. In 1920, it secured its seventh national championship with a Rose Bowl win.[72]

Harvard left its mark not only on the record books but on the game itself. Its early players and coaches were among those who defined the rules of college football and created what would become the National Collegiate Athletic Association (NCAA). Harvard built the first concrete stadium, an architectural wonder seating more than 30,000 people. The stadium stimulated, indirectly, one of the football's most important innovations, the forward pass. Before 1906, the ball could be advanced only on the ground. Because of this limitation, as the game became more serious it grew brutal. Giant ball carriers and blockers drove straight ahead, often with arms locked, into opposing behemoths on the defensive line. Size and strength trumped speed and strategy.

Rule makers considered several options for opening up the game, the most popular of which was widening the field by 40 feet, to reward agility. But Harvard's immovable stands, completed just three years

before, ran down to the edges of the field. Other gridirons might be adjusted, but not the nation's premier football facility. Hence, the adoption of one of the alternative proposals: allowing a forward pass.[73]

Harvard also established the tradition of sparing no expense to build a winning program. The alumni who helped pay for the new stadium couldn't bear to sit in it and watch Yale win. They pressed for the hiring of Bill Reid, a former Harvard football hero, as the university's first paid coach. When Reid declined the athletics committee's initial offer of $3,500, the alumni contributed a matching amount. The $7,000 starting salary of the twenty-six-year-old football coach exceeded by 30 percent that of the university's highest-paid professor and was comparable to President Eliot's, who had served in his capacity for thirty-six years.[74]

Eliot's successors were no happier than he had been about the trend toward big-money football. Lowell, who valued athletic competition, preferred that it be intramural, loosely organized competition among fellow scholar-athletes for its own sake. His ideal intercollegiate football schedule would have had just one game per year (with Yale). The most prolific builder in Harvard's history, he nonetheless rebuffed alumni offers to fund a new stadium.[75]

Intercollegiate athletics looked even less attractive to Conant as he grappled with Depression-era budgets. Football gate receipts had paid for all other competitive sports in the Roaring Twenties, but they failed to cover the freight during the lean 1930s.[76] Even in the good times, the game had been difficult to manage. Reid was called twice to the White House by Harvard alumnus Teddy Roosevelt to discuss football violence and casualties, including the deaths of eighteen players from around the country in the 1905 season.[77]

Revisions to the rules and the introduction of protective equipment ameliorated these life-or-death concerns, but big-time football still seemed incompatible with Conant's vision of scholarly excellence and social consciousness. As competition from larger schools increased,

there was pressure to reduce admissions standards for athletes.[78] Pending proposals for a "two-platoon system," with players specializing on either offense or defense, would only worsen the problem.

Recognizing the handwriting on the wall, Harvard joined seven sister institutions—Brown, Columbia, Cornell, Dartmouth, Penn, Princeton, and Yale—in an Ivy Group Agreement by which football and all other intercollegiate sports would be bound. The soon-to-be members of the Ivy League agreed to hold all students to common academic standards, to offer no athletic scholarships, and to participate in no postseason games. In addition, professional participation in *any* sport by a student-athlete would preclude collegiate participation in all sports.

Harvard joined seven sister institutions—Brown, Columbia, Cornell, Dartmouth, Penn, Princeton, and Yale—in an Ivy Group Agreement by which football and all other intercollegiate sports would be bound.

Overlaid on the Ivies' relatively small student populations, these strictures effectively meant the end of nationally competitive football. Harvard not only did not win another national championship, it waited nearly twenty years for an outright Ivy League football title. Yet there were compensating benefits. With football expenses under control, there was more money for other sports, in which Harvard and the other Ivies continued to compete well nationally. Also, intramural athletic participation, which had doubled with the creation of the house system, became an even stronger tradition.[79] By 1979, three-fourths of Harvard undergraduates would be participating in intramurals.[80] Lowell, who championed "athletics for all," would have been pleased.[81]

Conant likewise was satisfied with the effects of the Ivy Agreement, though by this time larger matters engulfed him. In 1953 President Dwight D. Eisenhower called him into service as the U.S. high commissioner to Germany. He left Harvard with three weeks' notice to

the school.[82] With the subsequent creation of the Federal Republic of Germany, he became U.S. ambassador.

Even before these presidential appointments, Conant had brought Harvard national recognition not seen since Eliot's day. He appeared on three *Time* covers during his presidency. The caption on the last of these, in September 1946, read, "A scholar's activities should have relevance." Certainly Conant made Harvard's scholarship nationally relevant as never before. He also laid the foundation for scholarly excellence not only at Harvard but at other elite universities. His rank and tenure system quickly became ubiquitous, as did SAT screening of college applicants. His alterations to Harvard's DNA had profound implications. (See Table 7.1.)

The Essential Genetic Structure

By the end of Conant's administration the dominant traits of the university were set. Harvard would grow larger and more complex, and it would continue to change, becoming wealthier, worldlier, and more diverse. But, by the early 1950s, Conant and his predecessors had fixed the policies that would ultimately determine the quality and cost of a Harvard education, as well the number and type of students it could serve. As these policies were copied, incompletely, by less prestigious and less resource-rich universities, they had tremendous impact on higher education.

Elements of the genetic design originally set by Eliot and Lowell for Harvard have a particularly powerful effect on college students. The overlay of German-style graduate schools and research objectives on an undergraduate college naturally tends to draw senior faculty away from undergraduate teaching; their focus shifts to scholarship and to working with graduate students, leaving the younger students in the hands of less experienced instructors.

Along with Eliot's elective system, the university's graduate programs and scholarly ambitions foster a narrowing of the curriculum.

TABLE 7.1 Harvard Evolution in the Conant Era, 1933–1953

New Traits	Implications
Up-or-out tenure	Increased scholarly excellence Decreased attention to teaching Decreased collegiality and commitment to the institution
Faculty salary and workload distinctions	Increased incentive to win tenure Flexibility in recruiting scholarly stars and approximating market rates outside of higher education Increased salary costs Envy and division
SAT-based admissions selectivity and merit scholarships	Merit-based fairness in student selection Greater opportunities for poor students Increased cost
Externally funded research	Attraction of world-class researchers New opportunities for social contribution New costs of grant writing and regulatory compliance Distraction from teaching Accentuation of haves/have-not's disciplinary divide

continued

TABLE 7.1 *(Continued)*

New Traits	Implications
The Redbook/General Education	Enhanced course quality Broader range of required studies Increased emphasis on values Liberal education prescriptions for high school students (good for future college students, but at odds with technical training needs of others)
The Ivy Agreement	Reduced financial expense Elimination of admissions exceptions for athletes Increased zeal for intramurals Decreased affinity and support from some alumni Loss of athletics' contribution to the university's public profile

So do the creation of departments and the deference that university presidents, in the tradition of Eliot and Lowell, pay to them. Given the choice, as they are in the spirit of academic freedom, faculty organized into departments naturally create courses reflective of their high degree of specialization.[83]

When applied with the intent to promote only "the best," Conant's up-or-out tenure system supercharges those tendencies. With one's livelihood at stake, the preference of some faculty members for discipline-focused scholarship over instruction becomes a self-preservation mandate for all. The survivors of the process expect to be paid more while teaching less, as do star recruits from other universities. The greater absence of senior professors from undergraduate classrooms

affects not only the quality of instruction but also its cost. The university's hope is that its faculty scholars will secure research grants to cover a portion of their increased salaries and absence from the classroom. That failing, though, professors who spend less time in the classroom become relatively more expensive when they are there, as each teaches fewer students per year. The more established and research-oriented a university becomes, the more its instructional costs tend to grow.

Simultaneously, the academic calendar's long summer break, set in the early 1800s, means that utilization of the physical plant remains low by the standards not only of manufacturing businesses but also of human service providers such as hospitals. The American-style university is by design hungry for expensive brick-and-mortar investment and relatively inefficient in its use. That is particularly true of intercollegiate athletic facilities, which sit mostly idle even when school is in session.

Because of the high cost of its scholarship, instructional activities, and physical facilities, the university is always alert to new sources of revenue. Among those are tuition increases, alumni philanthropy, and, in the case of public universities, new legislative appropriations. Even with increased revenues, though, the inherent unprofitability of the collegiate enterprise necessitates restricted enrollments. Scarce seats are reserved for the most intellectually gifted, as determined primarily by Conant's SAT. Often these applicants come from economically privileged backgrounds. Still, inter-institutional competition requires the less prestigious schools to offer scholarships even to students with the capacity to pay their own way.

> *We crush the enthusiasm out of our young faculty.*[84]
>
> —Gordon Gee, president of Ohio State University

Collectively, Conant, Lowell, and Eliot imbedded in the university's DNA the decision to serve fewer of the country's typical undergraduate students, to make the curriculum expansive in the aggregate but narrower and more arcane at the level of individual courses, and to focus more

faculty attention on research scholarship. For students, universities fashioned after this model are expensive and difficult to access; they also provide preparation more appropriate to advanced study in graduate school than to the workplace. For most faculty, particularly the untenured, such universities are pressure cookers that tend to inspire apprehension, envy, and a sense of organizational and intellectual fragmentation.

Some decisions made before Eliot's time have proven fateful in our day. One is the creation of a pedagogy that presumes face-to-face interaction between teacher and student. Another is the gradual abandonment of early Harvard College's blend of rationality and moral values. We'll see later how those decisions make the modern university vulnerable to new forms of competition.

Table 7.2 summarizes the widely adopted elements of the traditional university's DNA, roughly as they developed chronologically at Harvard, as well as traits that didn't transfer.

Harvard's Advantages

Harvard enjoys prestige and resource advantages that blunt many of the negative effects of its genetic tendencies on undergraduate education. Because it attracts the world's leading scholars *and* provides house and tutorial systems, a Harvard undergraduate student can experience the best of both the German research university and the English college. In the words of Henry Rosovsky, who began his Harvard studies near the end of Conant's tenure, "The people who wrote the books stood at the lectern."[85] While world-famous scholars lecture, the house masters and tutors provide personal mentoring akin to that of the early Puritan college.

Likewise, Harvard's ability to draw gifted students and, as necessary, pay for their education, creates tremendous opportunities for learning from one's fellows. They are, to quote Rosovsky, "students from every state and many foreign countries selected by rigorous standards—a

TABLE 7.2 Traditional University DNA

Strategically Significant Traits Copied from Harvard
• Face-to-face instruction • Rational/secular orientation • Comprehensive specialization, departmentalization, and faculty self-governance • Long summer recess • Graduate schools atop the college • Private fundraising • Competitive athletics • Curricular distribution (GE) and concentration (majors) • Academic honors • Externally funded research • Up-or-out tenure, with faculty rank and salary distinctions • Admissions selectivity
Harvard Traits That Didn't Transfer Generally
• Extension school (degree programs for nontraditional students) • Residential house system • Ivy Agreement (limitations on competitive athletics) • Four-year graduation

diverse, contentious, and marvelously stimulating cohort."[86] Thus, even as Conant's Harvard increased its commitment to scholarly excellence across an ever-expanding range of subjects, its undergraduate students continued to enjoy a first-rate educational experience.

Harvard has also made two important decisions that most other schools have not. One is to restrict intercollegiate athletic competition. The other, which is less visible, is actually more valuable to its students. Notwithstanding the growth of curricular offerings attendant to specialization and departmentalization, the standard time-to-graduation for a Harvard College student is still four years. That compares to a national average closer to five.[87] Undoubtedly, part of the difference lies in Harvard's students' superior academic ability, their full-time focus on their studies, and the financial incentive to move quickly inherent in the College's high tuition rate. There is also a strong desire to graduate "with my class."

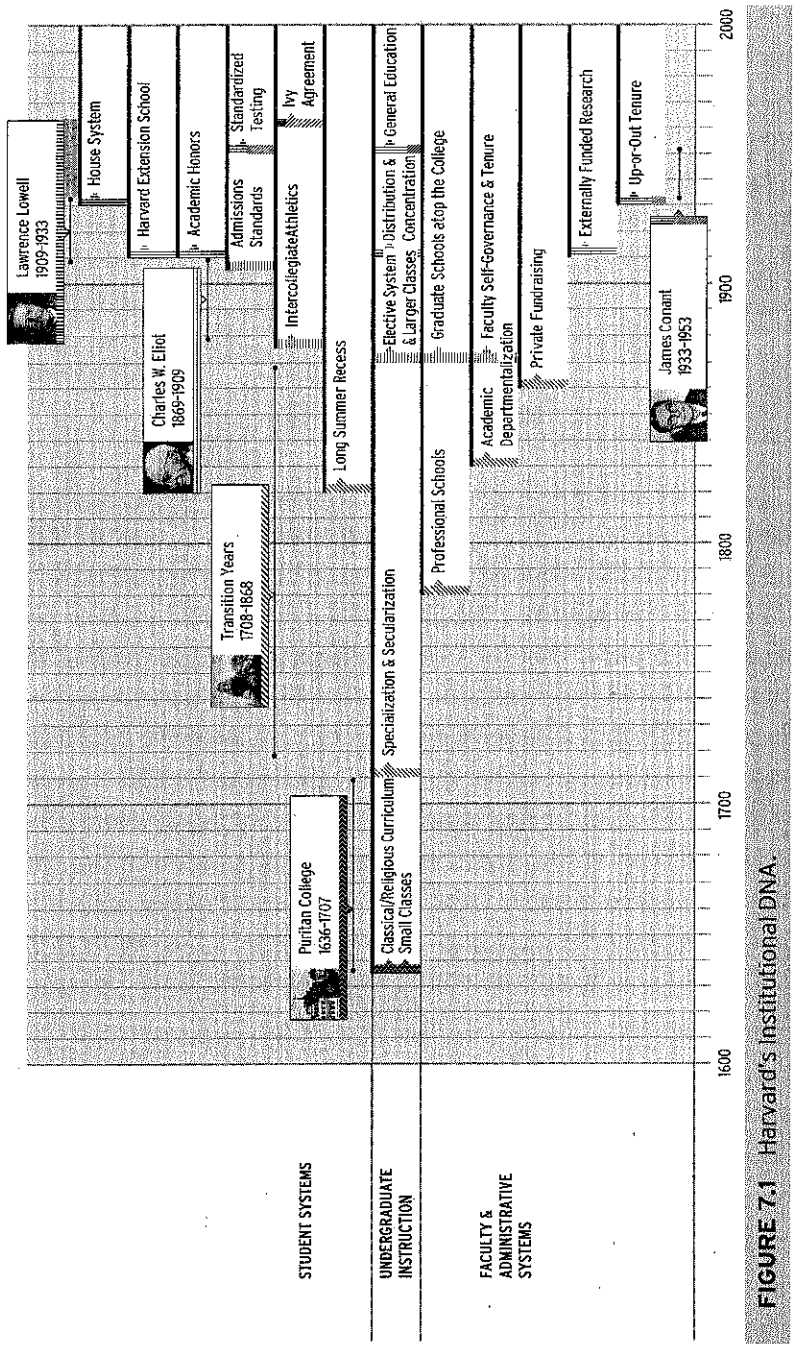


FIGURE 7.1 Harvard's Institutional DNA

However, there is more than student ability, full-time study, high prices, and social cohesion at work. Like other private colleges, Harvard provides more student advising.[88] It has also made four-year graduation structurally more feasible by constraining the growth of its concentration requirements, or majors. Failure to do that elsewhere has become epidemic.

For a graphical representation of the evolution of Harvard's DNA, see Figure 7.1.

The Costs of Harvard DNA

In spite of its uncommon advantages, the burdens of the institutional DNA have proven increasingly difficult even for Harvard to bear. The presidents who followed Conant found they had limited capacity to influence the university, let alone to innovate as he and his predecessors had done. Two of Conant's successors made funding the university's voracious appetite for resources their primary focus. Two others attempted to increase the quality of undergraduate education; they met with some success but also growing resistance. A fifth successor to Conant, who had the misfortune of presiding during the most severe economic downturn since the Great Depression, came face to face with the limits of the university's ability to pay for everything at its best. None of this was foreseen, though, either at Conant's Harvard or at the many institutions bent on becoming like it, including Ricks College.

The Innovative University

CHANGING THE DNA OF HIGHER EDUCATION FROM THE INSIDE OUT

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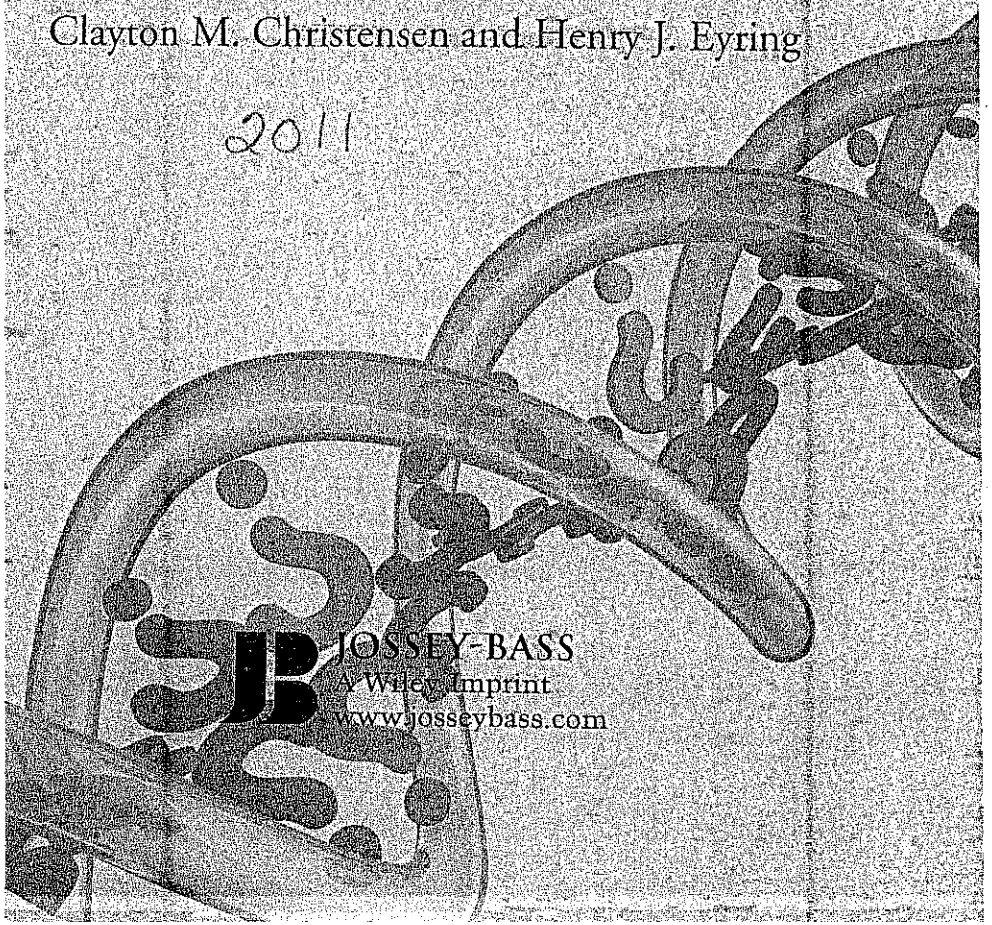

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ch 9

Chapter 9

Harvard's Growing Power and Profile

It would be too strong to say that James Bryant Conant's successor, Nathan Pusey, was his opposite. In choosing Pusey, though, Harvard's governing boards followed their pattern of replacing the outgoing president with a candidate of differing background and strengths.[1] Conant, the distinguished laboratory scientist, Deist, and lifelong Harvard man, was followed by Pusey, a teacher of classics, devout Episcopalian, and educator at female-friendly liberal arts schools. An Iowan who graduated from Cedar Rapids High School and presided for nine years over Appleton, Wisconsin's Lawrence College, he was the first Midwesterner to lead Harvard. His only obvious qualification to succeed Conant was the set of Harvard degrees (B.A., M.A., and Ph.D.) he earned between leaving Cedar Rapids and returning to Appleton. Yet Pusey's family had Boston roots, and he appealed to the Brahmins who had found Conant socially disappointing. In rationalizing his selection, one of them observed, "Mr. Pusey believes in God and he goes to football games. This is progress enough for the present."[2]

Much more important, Pusey brought a sturdy mixture of tenacity and humility to the job. Unlike his three immediate predecessors, all of whom were hired largely for their vision of Harvard's needs, Pusey came with no presumptions about the institution's future. After deliberate

study of the workings of the campus, he determined to simply build on the foundation he inherited.[3] He would make no great changes to the DNA of the university that Eliot, Lowell, and Conant created. But he would grow and strengthen it as never before, by raising money to feed the institutional organism his predecessors had designed. That focus on fundraising would become, in its own way, an essential genetic trait of the great research university.

Fundraising Excellence

Pusey had no real track record as a fundraiser when he returned to Cambridge, nor did he immediately distinguish himself as one. Throughout the 1950s, including the first seven years of his presidency, smaller Yale University consistently raised more money than Harvard. Had it not been for the generosity of charitable foundations, most notably the Ford Foundation, Pusey would have been hard-pressed to offset the post–World War II decrease in federal research funding.[4]

In 1957, though, he warmed to a path-breaking proposal by his administrative staff. Rather than raising money on a project or school basis, the university would launch a campaign called "The Program for Harvard College" (PHC). The PHC plan was innovative in two respects. First, it would encompass multiple investment priorities, including new buildings, faculty salary enhancements, and student scholarships. Second, it would be ambitious: the $82.5 million goal was twice the amount ever raised anywhere.[5] If successful, the strategy would not only allow the campus to recover from the relative neglect of the Depression and war years but to realize Conant's ambitious goals of meritocratic excellence.

Pusey proved to be an able pitchman. He took his fundraising activities nationwide, making use of jet travel, and to the national airwaves, appearing on programs such as *Meet the Press*. What had been a discreet gentlemen's game, focused on alumni classes and major individual donors, became a mass market affair of which others took

notice. The goal for Harvard College was exceeded, but not before 134 institutions had launched similar drives. Princeton University raised nearly $60 million, MIT $100 million.[6]

The PHC approach worked equally well for Harvard's medical school, which launched a drive for $58 million drive in the early 1960s. In 1963, Pusey set a $200 million goal for the next ten years, but this proved conservative; Harvard raised more than that amount in the first half of the decade alone. In 1955 the university's endowment had stood at $442 million. By 1965, it surpassed $1 billion.[7]

At the same time, federal research funds multiplied, expanding from 8 percent of the university's income to 25 percent. There were also good financial omens from the admissions office: applications were up, allowing for steady increases in tuition. The cost of enrolling at Harvard tripled, to $2,600, during Pusey's term, having doubled under Conant.[8]

Pusey applied this tripartite financial bounty of donations, research grants, and tuition increases to the causes of his predecessors. The size and quality of the undergraduate student body grew. More applicants meant that the entering class could be increased from 1,000 to 1,500 without a lowering of entrance standards. Also, new student aid funds allowed for "need-blind" admission; in other words, Harvard could select students without regard to ability pay.[9] This new student recruiting tool enhanced not only the academic quality of the class, but also its socioeconomic diversity. Conant-style meritocracy in student selection steadily increased.

The university's operations likewise grew in both size and quality. Pusey oversaw the construction of thirty-three new buildings and a doubling in the number of faculty and administrators. As in student selection, meritocracy produced better scholars and scholarship. Harvard systematically increased the reasons for the world's best to come to Cambridge. Those reasons included more endowed chairs, more research positions and research funding, higher salaries and benefits, and greater faculty perks, such as leaves of absence for focused scholarship. The number of Nobel laureates on the faculty increased, a further lure to prospective professors and students.[10]

There was also the draw of the university's political mystique. Alumnus John F. Kennedy built his presidential administration on Harvard talent. Former deans and professors became public figures known not only by name but by face and voice as television broadcasted their policy musings nationwide, much as it did Pusey's fundraising pitches. President Kennedy himself promoted Harvard, hosting a meeting of its board of overseers, of which he was a member, at the White House.[11]

Explosive Expansion and Faculty Autonomy

As Harvard's power grew and its profile rose, its operational complexity and cost expanded. By the 1960s the university comprised fifty departments and schools, with 2,300 subdivisions. The catalog listed 1,614 courses, one for every four undergraduate students.[12] With so many different operating activities (teaching, research, administration, student services, physical plant, and so on) and equally diverse sources of revenue (tuition, research grants, royalties, philanthropy, rents) it was all but impossible to know what anything cost and whether the expense was justified.

Operating expenses grew faster than the endowment, notwithstanding the latter's doubling between 1955 and 1965. Fortunately, healthy growth in government research grants and tuition compensated.[13] Yet some close observers questioned both the sustainability and the justifiability of the growth. Harvard Corporation fellow William Marbury, a Baltimore lawyer, was led to wonder about a pattern of sustaining innovation that, like that of some successful companies, seemed out of control:

> Apart from financial difficulties, has not the time come when we should put the brakes on the explosive expansion which seems to be taking place in every department of the university? Are the demands for more space, more equipment and more personnel

really justified by the accomplishments? May there not be something in [the] stricture that the Harvard faculty is spending too much money on a kind of intellectual featherbedding?[14]

In the increasingly complex environment, faculty found new sources of power. The decentralization of fundraising gave many schools and departments greater fiscal autonomy. At the same time, they consolidated their control of new faculty appointments and the curriculum.[15] A striking case in point was the new Kennedy School of Government. The Kennedy family agreed to have the school named for John F. Kennedy with the understanding that its emphasis would be practical. The faculty, though, preferred a more scholarly approach and expressed astonishment that the Kennedys might expect anything else. Morton and Phyllis Keller, chroniclers of this period in Harvard's history, described the inevitability of the faculty's strategic triumph: "The essence of the meritocratic University was faculty autonomy; the essence of an autonomous school was its own staff and curriculum. And over time the Kennedy School of Government evolved in accord with its faculty's vision, not that of America's most prominent political family."[16]

In the increasingly complex environment, faculty found new sources of power. The decentralization of fundraising gave many schools and departments greater fiscal autonomy.

Implications for Instruction

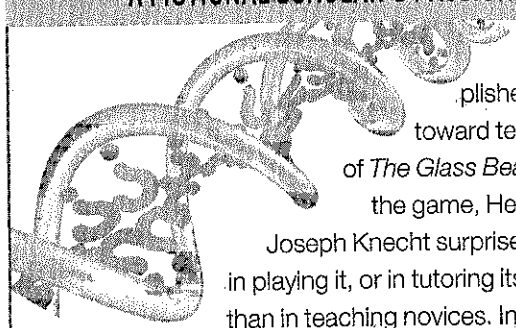
Greater faculty autonomy affected the classroom. Things may not have been as bad at Harvard as the situation described in a 1964 Carnegie Foundation Report called *The Flight from Teaching*.[17] Yet it was increasingly difficult to compete for star scholars without promising light teaching loads. That was particularly true in the sciences and medicine, where faculty effectively paid their own way with research grants. A case in point was a chemistry star, one of five in that

department at Harvard who would win Nobel Prizes. As his public profile rose, he refused to teach first introductory courses and then any scheduled courses at all.[18] Students drawn to Harvard by such stars often found access to them limited.

However, a national study conducted in 1969 revealed that the so-called flight from teaching could not be explained by faculty preferences alone. More than two-thirds of U.S. professors identified themselves as being at least equally balanced in their teaching and research orientations. Moreover, the data showed that the preference for teaching was significantly greater among older faculty than younger ones: more than 40 percent of professors over age fifty described their orientation as primarily or exclusively teaching focused.[19]

One set of researchers concluded that "men's own interests and values seem to turn away from research and towards teaching with increasing age—and begin to do so fairly early in their careers."[20] Another plausible explanation is that the older generation of professors in the late 1960s had started their careers before the typical university began placing Conant-style emphasis on research in faculty hiring and promotion. Even so, a natural aversion to teaching seems hard to find in this and similar datasets.

A FICTIONAL SCHOLAR'S PASSION FOR TEACHING



The image of an accomplished scholar' interests turning toward teaching is familiar to readers of *The Glass Bead Game*. Having mastered the game, Hermann Hesse's protagonist Joseph Knecht surprises himself by finding less joy in playing it, or in tutoring its most advanced devotees, than in teaching novices. In fact, he begins to dream of working in the academic realms where the game is all but unknown, schooling youngsters at the level where, as he recalls, "teaching and educating were more, and more deeply, a unity."[21] In time, Knecht determines to leave his scholarly community entirely, to devote himself

full time to teaching. He steps down from his prestigious academic post with this call to his colleagues: "Above all else we need teachers, men who will bring to our youth the capacity for moderation and judgment and who, by their example, will instill a reverence for truth, obedience to the spirit and service to the world."[22]

A Changing Student Body

By the late 1960s, Harvard's students had changed along with its faculty. In political unrest Harvard lagged Berkeley, where the undergraduate sense of depersonalization and abandonment by the "multiversity" was much greater. But the 1960s also left their mark in Cambridge. Arthur Schlesinger Jr., a Pulitzer Prize-winning Harvard historian who served in the Kennedy administration, described the Harvard College students of the 1950s as "an uncommonly unoriginal, conventional-minded, sloganized, and boring undergraduate generation."[23] That would soon change. A decade later, the successors of this "boring" generation would effectively drive their college president from office.

As the 1960s opened, the typical Harvard undergraduate was a relatively wealthy, white, religious male. He felt no great sense of achievement or entitlement in his admission, given that 1 out of every 2 applicants got in. He took courses from professors who remembered the sacrifices of the war years and expected students to work hard for good grades. He had a concentration in the liberal arts and was planning to write an honors thesis and then go on to graduate school.[24]

This typical student was equally conservative in his life outside the classroom. He conformed to the prevailing preppy dress style and, by written policy, wore a jacket and tie to dinner in his campus house. He also submitted to the university's parietal rules, curfews limiting visits by females to undergraduates' rooms. He read a student newspaper, the *Crimson*, that supported the political establishment. A Republican or political independent, he might turn out for traditional springtime pranks and minor rioting, but not for political demonstrations.[25]

Ten years later the typical student was still male, white, and wealthy. Other than that, almost everything about him had changed. He was less religious and less interested in being taught the kind of values espoused by the Redbook. He was also more aware of having earned his place at Harvard, where admission rates had fallen and tuition had risen. Thanks to grade inflation, he was twice as likely to make the dean's list, an honor shared by 80 percent of his classmates.[26]

Outside of class, he set his own standards. He could dine sans jacket and tie—and, for a time, sans shirt. With the opening of all Harvard classrooms to females, he not only encountered them more often there but could, with the end of parietals, entertain them all night in his room. He was aware of drug dealing and usage on the campus, though he wasn't personally involved.[27]

In addition, the typical student in 1970 lived in a vastly different political environment. He wasn't a member of the campus chapter of Students for a Democratic Society (SDS), but he knew of their confrontational campus protests. He read sympathetic reports of those protests in the *Crimson*, which had adopted a liberal view of social issues such as Vietnam, race relations, and demonstrations at Berkeley.

The *Crimson* had also taken on President Pusey personally. As early as 1962 it ran a series of editorials branding him "conservative" and "look[ing] for sanctuary in history and tradition."[28] This characterization overlooked Pusey's progressive support for civil rights, female students, and academic freedom; his defense of the university community was particularly admirable during the McCarthy era. What the students wanted, though, was greater freedom from moral authority and a university platform for challenging "the establishment." Pusey had been slow to relax moral strictures such as parietals, and he resisted the use of campus for political purposes.

Such administrative heel-dragging provided the ostensible reason for the student demonstration that ultimately triggered Pusey's early retirement. In the spring of 1969 the faculty decided, in the face of SDS-led student pressure, to discontinue Harvard's Reserve Officer Training Corps (ROTC) program, which some considered a symbol

of the war in Vietnam. Mercifully for the 345 affected ROTC students, the decision was to take effect after two years, allowing most of them to complete their coursework as planned.[29]

But mercy cut no ice with young student radicals. Citing the ROTC delay, as well as Pusey's relentless expansion of the campus infrastructure, an SDS-led crowd of several hundred demonstrators occupied University Hall, office of the dean of the Faculty of Arts and Sciences; among the group were a handful of junior faculty members. Ejecting the building's occupants, they ransacked files, engaged in minor vandalism, and voted to nonviolently resist attempts at eviction.[30]

The next morning, at five o'clock, Pusey ordered that eviction. Four hundred club-wielding state patrolmen and local police officers cleared the building. Harvard's alumni generally supported the bold move, but the faculty, three-fourths of whom had been appointed since 1960, did not. They voted nearly unanimously to drop criminal charges against the student occupiers, and they protected the junior faculty members from professional sanction.[31] Having lost the support of the faculty and many students, Pusey retired the following year, two years earlier than planned. One year later, in 1971, there would be new presidents at both Harvard and Ricks College.

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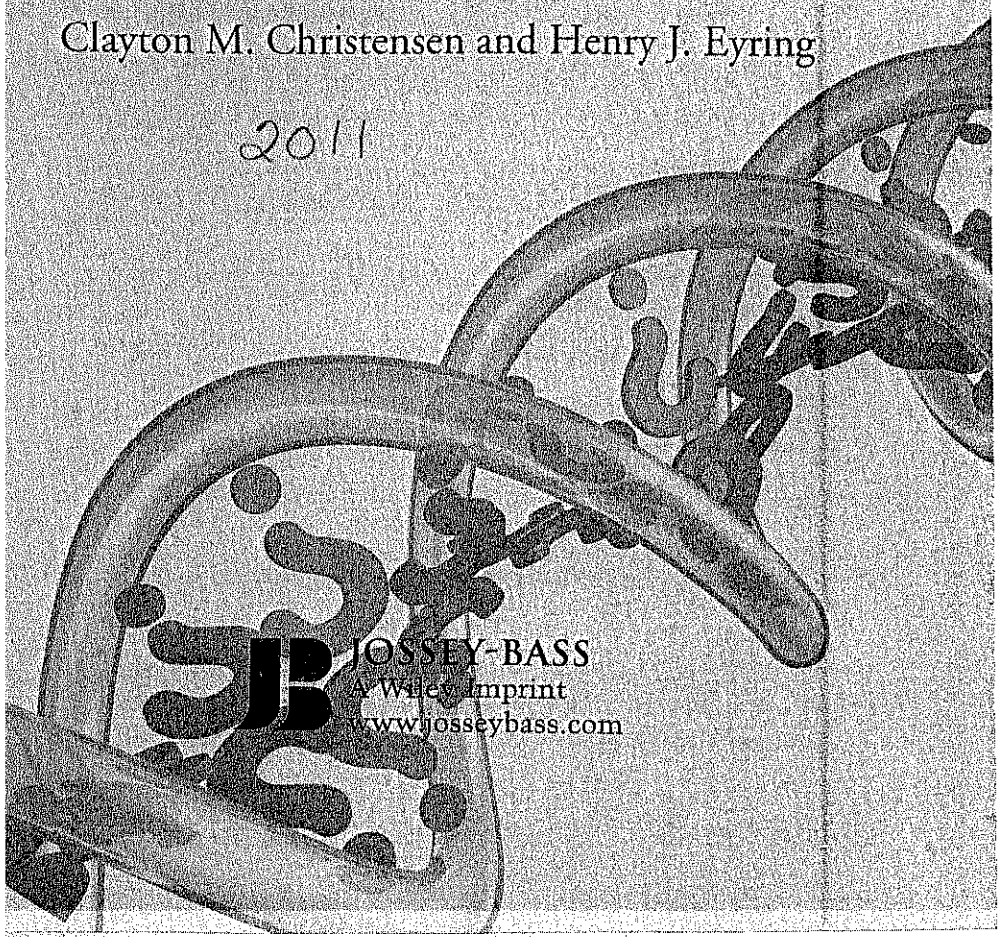

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Chapter 11

The Weight of the DNA

When Nathan Pusey stepped down hastily from Harvard University's presidency in 1970, the university had an able successor in the wings, a captain capable of riding out sea change. Derek Bok had been dean of the law school for just three years, but he had already distinguished himself as a thoughtful scholar and steady leader. Like Pusey he was a non-Bostonian, born near Philadelphia. Unlike Pusey—and any president in the preceding three hundred years—he had graduated from a college other than Harvard; Bok was a Stanford undergraduate. But he was tailor-made for Harvard in the 1970s, in many ways Pusey's personality foil: worldly, forward looking, invariably diplomatic. Trained in the adversarial system and seasoned by law school administration, he brought much-needed mediation and diplomacy skills to a fractionating university. He also had an approachability that Pusey lacked. Students could see him driving his VW Beetle around Cambridge and engage him on the basketball court.[1] Faculty would come to appreciate his efforts to reason with them in terms they understood.

In fact, the university Bok inherited was not in crisis. The confrontational demonstrations of 1969 were not a harbinger but the last gasp of a pivotal yet aberrational decade. Though Harvard would remain politicized for most of the ensuing decade, the campus soon resumed relatively normal operations. Bok was blessed to inherit one Faculty of

Arts and Sciences (FAS) dean, John Dunlop, and to appoint another, Henry Rosovsky, who proved to be able academic administrators and diplomats. Also, students and employees alike were the wiser for their unpleasant experiences. When, in April 1972, two dozen black students broke into and occupied Massachusetts Hall, site of Bok's office, he let them remain until they willingly dispersed, six days later.[2]

The confrontational demonstrations of 1969 were not a harbinger but the last gasp of a pivotal yet aberrational decade.

The more persistent legacies of the 1960s were an economic hangover and a university community steeped in individualism. Bok adapted to the fiscal realities of high inflation and a moribund stock market by controlling costs, including faculty salaries, while steadily raising tuition. He also added staff to the traditionally lean central operations of the university, freeing up more of his own time for strategic activity. He excelled particularly as a communicator of vision. While presiding over the university over the next twenty years, he would be a prophetic voice not only to Harvard but to higher education as a whole. His advocacy tools included both policy decisions and public missives. It was no longer possible to control Harvard in the managerial sense, but Bok accomplished much among his complex community of scholars, students, and alumni by way of persuasion.[3]

He consistently advocated three main causes: instruction, diversity, and social engagement. Instructional advances made on his watch included a new core curriculum (the "Core") to replace the old General Education. In creating the Core, Bok leaned heavily on his FAS dean, Henry Rosovsky, a respected economist and capable negotiator who helped win widespread support from the faculty.[4] Unlike the Redbook, the major goal of the new Core was not to ensure a common grounding in knowledge and values but rather to impart common capabilities for acquiring knowledge. This was consistent with Bok's view that the way things are taught matters more than what is taught.[5]

[Bok] consistently advocated three main causes: instruction, diversity, and social engagement.

Openness to specialized rather than cross-disciplinary curriculum produced two practical benefits. One was a broad range of Core courses—350, ultimately—created by faculty who drew from their individual disciplines. Another was senior faculty participation. Ninety percent of Core courses were presided over by senior professors who welcomed the opportunity to teach subjects in which they were expert. Bok further promoted high-quality instruction through curriculum committees that set course standards and via tenure decisions that required serious consideration of teaching ability.[6] He also created a university center for teaching innovation; at his retirement in 1991, the university named the center for him.

On the second front, gender and racial diversity, Harvard made as much progress in Bok's two decades in office as it had in his predecessors' combined century of oversight. The university's soaring prestige produced larger applicant pools, allowing Harvard to recruit minority and female professors and students without lowering standards of merit. No quotas were set for faculty hiring, but a kind of voluntary affirmative action opened doors for blacks and women among the professoriate. Student diversity likewise increased. One of Bok's first moves was to raise the number of female undergraduates by 50 percent; he also oversaw the adoption of gender-blind financial aid policies and concluded a merger agreement with Radcliffe College, Harvard's sister institution.[7]

In addition to promoting diversity, Bok advocated social responsibility and public service, not only in the local community and nation, but worldwide. By the end of his presidency, 60 percent of Harvard College students were engaged in some form of public service.[8] Both undergraduates and students in the professional schools were hearing more in the classroom about ethics and personal conduct. Bok also set Harvard on the road to being more international. He oversaw expansion of the Kennedy School of Government, which increasingly trained

foreign government leaders, and the creation of academic programs and research centers addressing such issues as AIDS, poverty, and international security. By the late 1990s, Harvard would have more foreign visiting scholars than any other university.[9]

Harvard's undergraduates were not, however, majoring in international studies or engaging in more international internships, two Bok proposals that the faculty voted down, along with a plan to expand the college to admit more foreign students.[10] Resistance to these proposals evidenced the challenge that even a seasoned and well-respected president faced in leading Harvard beyond the limits of its established preferences and patterns.

Internal Strains

Despite their wide regard for Bok, the faculty over whom he presided were increasingly distanced from his broad university initiatives. For many, the choice to give little attention to causes beyond their own discipline and department was as much a matter of necessity as of preference. The organizational systems that controlled the faculty's professional lives rewarded—and even required—a self-preservation approach to their work. The fight for survival began in graduate school, where the average time to conferral of a Ph.D. was more than nine years and the failure rate as much as 50 percent (compared with 5 percent in law and medicine). For the lucky survivors, the odds of being hired and ultimately tenured at Harvard were low. With the emphasis on scholarly merit, every hiring search became a global one, designed to bring the most-renowned researcher in each field to Cambridge. In a reversal from the A. Lawrence Lowell days, when being an insider conferred an advantage, an internal candidate might reasonably see his or her past commitment to Harvard as a liability. Across the Faculty of Arts and Sciences, three times as many job offers went to outsiders as to insiders. In the Department of History, no internal candidate received tenure for nearly forty years.[11]

At other schools, the star system of faculty recruitment depended on outsized compensation packages, with sought-after newcomers winning pay and scholarly perks in excess of those enjoyed by many faithful old-timers. Bok successfully defended against such inequality by keeping Harvard professors at least on par with their disciplinary peers at other institutions; to this end, the university significantly increased faculty compensation in the 1980s. But salaries still differed greatly across departments. For example, physical scientists made more than professors in the humanities. And the star system couldn't be entirely resisted; standard pay scales for junior faculty ultimately gave way to individual salary negotiations.[12] Pay differentials inevitably reinforced the primacy of research and publication over other forms of contribution. Because higher pay went to those with stronger research credentials, teaching and administrative service to the institution could be seen as financial and even career-threatening liabilities.

Differences in compensation created tensions not only among the faculty but also between the faculty and the administration. With Harvard now a billion-dollar-a-year operation undergirded by a $5 billion endowment, Bok needed professional executives to help him manage its activities and assets. Given the limited capacity of the university to produce such executives from within, it had to recruit them away from jobs in the for-profit sector. Faculty members who sensed their own greater earning potential in the outside world naturally resented administrative pay packages running into hundreds of thousands dollars per year (or, in the case of endowment fund managers, millions). Sensitive to those feelings and to faculty resentment of management intrusions into their affairs, Bok carefully grew the administration at a rate slower than that of the university as a whole during his second decade in office.[13]

A Voice of Warning

In his final years as president and even more upon retirement, Bok became a prophetic voice not only to Harvard but to the higher

education community as a whole, advocating change in a way reminiscent of his influential predecessor Charles Eliot. The late 1980s and early 1990s saw rising dissatisfaction with the nation's colleges and universities. With the world in political turmoil, the economy flat, and tuition up, many critics asked why higher education seemed to have lost its sense of social responsibility.

Bok took the issue head-on in his 1988–1989 annual report. He cited a 50 percent decline in public confidence in higher education and referenced a host of critical books, many authored by academics. These missives bore titles such as *The Closing of the American Mind: How Higher Education has Failed Democracy and Impoverished the Souls of Today's Students.*[14] Though Bok decried "flamboyant rhetoric" and "assertions of fact that are flatly wrong," he also warned against "los[ing] sight of the elements of truth in most of the criticisms, truths that even successful universities need to ponder for their own improvement."[15]

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Among those elements of truth, he felt, were valid concerns about undergraduate instruction. On the one hand, Harvard undergraduates gave the vast majority of their courses passing or better grades. Seventy percent rated the Core "superb," "excellent," or "good," and 80 percent gave those marks to their elective courses and tutorials. But Bok felt the results could have been better. The tendency of senior faculty to avoid undergraduate courses represented one lost opportunity. So did a culture of tolerance for poor teaching, which was rarely confronted. The problem stemmed not only from collegial deference but also from a lack of data on instructional quality. Without broadly accepted measures of what it meant to teach well, subpar performance was hard to address.[16]

Another university challenge was divided attention and, in some cases, divided loyalty. What Clark Kerr, legendary architect of the California higher education system, called the multiversity placed a host of burdens on its faculty: teaching; publishing original research; writing grant proposals and student recommendations; serving on curriculum, hiring, and tenure committees; managing programs; hosting visitors; traveling to other campuses and to academic conferences.[17] In addition to these essential functions, Harvard increasingly sponsored worthy activities that presented potential distractions from its primary mission. For example, many faculty members participated in professional programs sponsored by individual schools and departments; by 1990, 60,000 business executives, newly elected politicians, high school students, and other nontraditional learners were served by such programs. Other university-sponsored programs provided training and expert advice to governmental bodies, foreign universities, and business corporations.[18]

Harvard also gave its faculty one business day per week for outside activities. Many devoted this day to university-related work, such as research, or to public service. Others, though, used it for paid consulting activities that bore little or no relation to scholarship or teaching. Travel became both an educational and a financial drain on the university. There was a Princeton quip that Harvard's professors were like the Strategic Air Command—one-third of them airborne at all times. Expressing regret for the need to impose external control, Bok in 1990 recommended that deans require faculty members to formally account for all of these outside activities.[19]

With so much entanglement in the world beyond the campus, a degree of commercial and even mercenary behavior inevitably crept in. It helped that Harvard was more conservative than many universities in its guidelines for faculty participation in the financial upside of their research discoveries; those who wanted to get rich tended to leave for the private sector. But, thanks to the one-day-per-week policy, it was still possible to lead a kind of economic double life. The university's general counsel, for instance, was surprised by a law school faculty

member's response to his request for an opinion on a legal matter. The law professor refused to help on the grounds that the university couldn't afford his standard billing rate.[20]

In addition to calling for better teaching and a tighter focus on the central mission of the university, Bok raised a voice of warning about what he termed "imposed political orthodoxy." He deplored the pressure placed on graduate students and junior faculty to conform to the views of the senior faculty who controlled their professional fates. Students faced a similar risk: to disagree with a professor's opinion was to put one's grade in jeopardy. Bok noted the irony that academic freedom, once threatened by forces external to the university, now faced its most serious risks from within.[21]

In fact, the increase in Harvard's racial and gender diversity had not been matched by an increase in social and political tolerance. As political science department member James Q. Wilson noted in 1972, "the list of subjects that cannot be publicly discussed [at Harvard] in a free and open forum has grown steadily."[22] Bok, to his credit, resisted pressure to adopt a code of speech narrower than the First Amendment, as had been done at some universities, where political correctness became enshrined in formal policy. But he could do little to help the junior scholar trying to advance an unpopular thesis or the student whose expressions of personal values at odds with the class norm resulted in ridicule.

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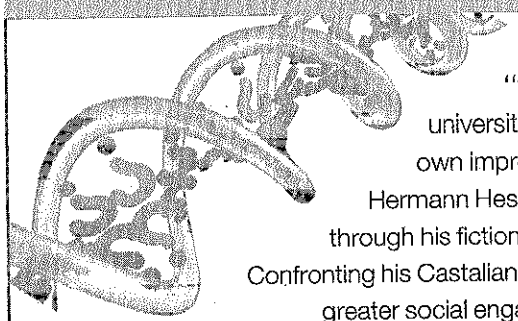
Nor could Bok do much to stop infighting among faculty members who attacked one another over competing scholarly theories. "Critical studies" proved particularly divisive. Especially in literature and law, a new, more diverse generation of faculty questioned the intellectual underpinnings of past scholarship in their fields. These

scholars challenged the great books and the legal precedents of Western civilization as products of politics—attempts by wealthy, white males to dominate less powerful classes and cultures. Bok's law school became a battleground between the "Crits" and traditional "Legal Realists," who sparred over their polar ideologies throughout his presidency.[23]

THE RISK OF SCHOLARLY DISENGAGEMENT



Bok's warnings about "truths that even successful universities need to ponder for their own improvement" echoed those of Hermann Hesse spoken fifty years earlier through his fictional scholar, Joseph Knecht. Confronting his Castalian colleagues on the need for greater social engagement, Knecht declared:

> The average Castalian may regard the man of the outside world, the man who is not a scholar, without contempt, envy, or malice, but he does not regard him as a brother, does not see him as his employer, does not in the least feel that he shares responsibility for what is going on outside in the world. The purpose of his life seems to him to be the cultivation of the scholarly disciplines for their own sake . . .
>
> Granted that every one of us brothers of the Order knows that our supreme and most sacred task consists in preserving the intellectual foundation of our country and our world. That foundation has proved to be a moral element of the highest efficacy, for it is nothing less than the sense of truth—on which justice is based, as well as so much else. But if we examine our real feelings, most of us would have to admit that we don't regard the welfare of the world, the preservation of intellectual honesty and purity outside as well as inside our tidy Province, as the chief thing.[24]

Genetic Constraints

Bok's exhortations were laudable and not without effect. But by the time he assumed the presidency, in 1971, most of the things he lamented twenty years later were already beyond his control, natural and all but immutable products of the university's DNA and the bigger-and-better tendency. Instruction, for example, had been structurally at risk ever since Eliot returned from Germany with his vision of having everything at its best. When Eliot overlaid the German-inspired graduate schools and specialized scholarship on the English-style college, the curriculum inevitably began to narrow and faculty interest in undergraduate instruction to wane. The academic freedom championed by Lowell in some cases had the unintended effect of reinforcing these trends; there was a temptation to see the teaching of undergraduates as a fetter on scholarly freedom. The tendency to neglect teaching grew exponentially when merit-conscious James Conant introduced up-or-out tenure, based foremost on scholarship. Teaching took still more hits with the externally funded research and outside consulting activities Conant pioneered. All roads seemed to lead away from the undergraduate classroom.

These teaching-related problems, as well as the spread and splintering of the multiversity, were exacerbated by Pusey's introduction of big-time fundraising to the system. The new money flowed disproportionately to academic specialists in commercially relevant fields. Competition for financial resources increased among both individual faculty members and departments. In this intensely competitive scholarly system, to be student centered was to cede personal and institutional advantage.

By Bok's time, some scholars considered undergraduate education a diversion from a research university's central mission. That view could be seen in a story Bok told in his 1986 book *Higher Learning.* He reported getting some advice as Harvard's newly appointed president from an experienced man who "headed an academic institution of

considerable reputation." This man asked rhetorically, "While you are still in your honeymoon period and people are reluctant to be critical, why not announce your intention to do away with Harvard College?" Doing so, this man reasoned, would

> acknowledge that teaching undergraduates has become an anachronism in the modern university. Professors are equipped to do research and to train their graduate students to do research. Teaching introductory economics to freshmen or European history to sophomores is a waste of talented scholars who should have no responsibilities to divert them from what they do uniquely well.[25]

As far-fetched as this proposal might sound, given that undergraduates comprised a third of Harvard's student body, Bok's presidential peer had a telling point. Like other research universities, Harvard operates two fundamentally different enterprises under a single corporate roof. The resources and activities required to produce world-class scholarly research bear little resemblance to those necessary for teaching undergraduates at an affordable cost. The same faculty can, if so directed, perform both functions. But a first-rate scholar is a tremendously expensive teacher. Moreover, the departmentalization of the university, though it serves the needs of scholars well, tends to produce narrow curriculum; it also leads to high coordination costs in extra-departmental activities, such as the creation of general education programs. Absent countervailing investments in residential houses, tutors, and specially funded curriculum development projects such as those Harvard makes, the result is an undergraduate learning experience of a quality not justified by its high cost.

Like the teaching challenges, the politicization of the university that concerned Bok was also a product of steady evolution. It went all the way back to John Leverett's time, the early 1700s, when Harvard threw off the intellectual shackles of Puritanism. Hard-headed rationality allowed Hollis Professor of Mathematics and Natural Philosophy John

Winthrop to discover the true, natural causes of earthquakes. Such open-mindedness was and is essential to the advancement of science. But the realization that past scholars had attributed too much to divine design produced a skeptical reaction, a groundswell that through the succeeding centuries called into question not only the existence of God but of what Conant would describe as absolute values. Nathan Pusey, speaking at Harvard's divinity school, described the scholarly over-reaction: "Fearing to be victimized we are inclined not to believe at all."[26]

The gradual loss of shared values proved especially costly in the humanities, where knowledge advances via scholarly dialogue rather than the repeatable experiments of the natural sciences. In some academic departments, critically deconstructing the work of past scholars took precedence over contributing to the coherent advance of the discipline. Though there were broader social and intellectual forces at work, publication-based up-or-out tenure and the academic star system created a personal upside to deconstructive scholarship, which offered the advantage of novelty and thus publishability.[27] The growing importance the university placed on diversity also played a part. To the extent that diversity of viewpoints became prized above objectivity and the search for disciplinary consensus, it ceased to be an educational asset. The price of skeptical individualism was intellectually divided departments that failed to speak coherently either to students or to the world at large.[28] By the 1990s neither Bok nor any of his peers had the power to turn this tide by mere exhortation.

What was truly genetically constrained, though, was the university's cost. The billion-dollar operating budget was one way to measure Harvard's growing financial appetite. Another was undergraduate tuition, which rose from $2,800 to $14,860

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during Bok's twenty years.[29] That fivefold increase, which occurred during a period when the stock market rose by just three times, provoked questions and criticism. Bok pointed out that Harvard's tuition covered less than the full cost of education and that need-blind aid reduced the actual price paid by many students. He also noted that, notwithstanding the high cost of enrollment, applicant demand was steady and few graduates complained about the return on their investment of a Harvard education.[30]

But there was little hope for containing tuition increases. Harvard's $5 billion endowment helped close the gap between what it cost to educate a student and what the student paid. Still, by the end of Bok's presidency, tuition covered just 20 percent of the university's $1 billion-plus operating budget, a slightly lower percentage than when he took office.[31] Absent a spike in giving or in endowment investment returns, rising costs would require regular increases in tuition, the one fully controllable source of revenue.

The cost problem had genetic roots. It was one thing to have all at its best in Eliot's day, when academic disciplines were relatively few and the competition for faculty and students was limited to a handful of institutions in the northeastern United States. But as the frontiers of knowledge expanded and the competition to be "the best" took on global dimensions, the price of Eliot's vision skyrocketed. The growth in new obligations was largely beyond the university president's control. Entrepreneurial faculty regularly proposed new programs, often with support from specially cultivated donors. The administration faced three equally unpalatable choices: disappoint the faculty and their donors; leave the quality of the new programs to fate; or prepare to fund the new commitments at the level required to maintain the university's reputation. A university president who hoped to stay in the saddle said yes and then sought to raise new money.

The world's best faculty and students wanted increasingly more from Harvard. The Ivy Agreement spared the university the cost of multimillion-dollar coaching contracts and hundred-million-dollar sports complexes. But super-star faculty recruits required top-of-market

pay packages, and even nonathlete prospective students expected comfortable living quarters, workout facilities, and activity centers.

Buildings of all types became more expensive. Much of the cost increase was driven by new information technology, yet that technology did little to increase the instructional productivity of the faculty. Classes were still taught mostly face to face, with student–faculty ratios little changed from those of Eliot's day. The buildings continued to sit largely idle through the long summer break introduced in early 1800s.

The bigger-and-better tendencies in the institution reinforced one another, in a kind of inflationary spiral. New academic programs, for example, predictably led to requests for new faculty, who needed new facilities in which to work. The upward cost pressure was reinforced not only by formal systems, such as salary scales, but by informal traditions. A newly tenured professor could expect not only an increase in pay but also preferences in teaching assignments and office selection. If that professor lacked a doctoral degree from Harvard, one was automatically conferred with the grant of tenure. The genetic preference for "the best" suffused Harvard's culture.

Public criticism of Harvard's cost of attendance would fade with the bull market of the 1990s. But the problems of instruction, faculty division and distraction, and politicization that Bok identified would continue to plague his successors. And, when the financial markets swooned in 2008, the cost problem would return with a force few imagined.