CURRICULUM FERMENT IN THE 1890S

AT THE HEART OF AMERICA'S EDUCATIONAL SYSTEM IN THE NINETEENTH CENTURY was the teacher. It was the teacher, ill-trained, harassed and underpaid, often immature, who was expected to embody the standard virtues and community values and, at the same time, to mete out stern discipline to the unruly and dull-witted. But, by the 1890s, nineteenth-century society with its reliance on the face-to-face community was clearly in decline, and with the recognition of social change came a radically altered vision of the role of schooling. As cities grew, the schools were no longer the direct instruments of a visible and unified community. Rather, they became an ever more critical mediating institution between the family and a puzzling and impersonal social order, an institution through which the norms and ways of surviving in the new industrial society would be conveyed. Traditional family life was not only in decline; even when it remained stable, it was no longer deemed sufficient to initiate the young into a complex and technological world.

With the change in the social role of the school came a change in the educational center of gravity; it shifted from the tangible presence of the teacher to the remoter knowledge and values incarnate in the curriculum. By the 1890s, the forces that were to struggle for control of the American curriculum were in place, and the early part of the twentieth century became the battleground for that struggle.

Preoccupation with the curriculum did not, of course, appear suddenly full-blown. There had been signs earlier in the nine-
Curriculum Ferment in the 1890s

by 1892, seven more newspapers exceeded that figure (p. 507). A world beyond the immediate community was rapidly becoming visible.

But it was not newspapers alone that were bringing this new consciousness to Americans in the late nineteenth century. Magazines as we know them today began publication around 1882, and, in fact, the circulation of weekly magazines in America exceeded that of newspapers in the period that followed. By 1892, for example, the circulation of Ladies Home Journal had reached an astounding 700,000 (p. 507). Neither should book readership be ignored. Edward Bellamy’s utopian and socialist-leaning novel, Looking Backward, sold over 2 million copies in 1888, giving rise to the growth of organizations dedicated to the realization of Bellamy’s ideas. The printed word, unquestionably, was intruding on the insulation that had characterized American society in an earlier period.

Of at least equal importance to mass circulation journalism was the effect on American social life of the growth of railroads in the late nineteenth century. By 1880, the East and the Midwest had adopted four feet, eight inches as the standard track gauge, but the overwhelming majority of the Southern track lines were five feet, and the Western states had laid very narrow track lines in the early 1880s. By 1883, however, leaders of the railroad industry had created the system of standardized time zones that we use today, and, by the end of that decade, most railroad track in the United States had become standardized.

In 1889, the United States already had 125,000 miles of railroad in operation, whereas Great Britain had only about 20,000 miles and Russia 19,000. As Robert Wiebe (1967) has pointed out, “The primary significance of America’s new railroad complex lay not in the dramatic connections between New York and San Francisco but in the access a Kewane, Illinois, or an Aberdeen, South Dakota, enjoyed to the rest of the nation, and the nation to it” (p. 47). Like mass journalism, railroads were permeating the towns and villages across the United States creating not only new industries and new markets, but changing social attitudes and remaking our sense of what kind of world we were living in.

For a time, that social transformation seemed almost unacknowledged, or, in some cases, attributable to radical influences or other visible enemies. By the 1890s, however, the signs of change were unmistakable, although these signs were sometimes viewed with alarm and sometimes...
with approval. The population of the United States doubled in the last four decades of the nineteenth century due in large measure to the arrival of 14 million immigrants. Cities like Chicago grew enormously over that period, with that city reaching a million in population by 1900, a growth of about tenfold in forty years. Psychologically, the impending arrival of the twentieth century must itself have been one source of reflection and national soul-searching. Underneath the gaiety that, in popular terms, is supposed to have permeated the 1890s, there lay a profound psychic tension that made people wonder what kind of America was in the making. Surely, the panic of 1893 and the severe economic depression that followed were also the occasions for deep concern and reflection. With the society in such a rapid state of flux, it should not be surprising that the matter of what we teach our children in school should also come under scrutiny.

The curriculum status quo in the 1890s was represented by the doctrine of mental discipline and its adherents. Although the roots of mental discipline as a curriculum theory go back at least as far as Plato's notion that the study of geometry was a way to improve general intelligence, its nineteenth-century version was derived most directly from the eighteenth-century German psychologist, Christian Wolff (1740), who laid out a carefully detailed hierarchy of faculties that was presumed to comprise the human mind. Mental disciplinarians built on that psychological theory by alleging that certain subjects had the power to strengthen faculties such as memory, reasoning, will and imagination. Moreover, mental disciplinarians argued, certain ways of teaching these subjects could further invigorate the mind and develop these powers. Just as the muscles of the body could be strengthened through vigorous exercise, so the mental muscles, the faculties, could be trained through properly conceived mental gymnastics. Thus, they were able to elaborate a rather coherent and seemingly plausible way of addressing the persistent problems that had perplexed educators and philosophers for centuries. Such puzzling questions as what we should teach, what rules should we apply to the teaching of subjects, and even questions of balance and integration in the curriculum could be addressed simply, but effectively, through the analogy of mind and body. There was even assumed to be a natural order for the emergence of faculties, and if this order were followed, a defendable sequence in the curriculum could be enunciated. Moreover, the range of faculties presented a basis for defining the scope of the curriculum. Since neglect of

any faculty meant atrophy, it became incumbent on educators to see to it that no imbalances were created in the curriculum by emphasizing subjects that developed some faculties and not others. An ideal education meant all around mental fitness, not just the development of one or two mental muscles.

The most famous document of nineteenth-century mental disciplinarianism was the report of the Yale faculty in 1828, essentially an impassioned defense of traditional education and humanistic values in the face of possible intrusions by the natural sciences and practical subjects. The report recognized two main functions of education, "the discipline and the furniture of the mind." ("Original Papers," 1829, p. 300), that is, strengthening the powers of the mind (what we would today call developing the ability to think) and filling the mind with content (what we would today call the acquisition of knowledge and skills). The authors of the report, Yale President Jeremiah Day and Professor James K. Kingsley, a leading classical scholar, had no doubt that the former was by far the more significant function of education (as we would probably assert today), and, to them, this meant a reaffirmation of the curriculum they had been teaching all along. Greek, Latin and mathematics as well as belles lettres had, after all, in their experience, established their value, whereas some of the newer subjects such as modern foreign languages, were unproven quantities. Thus, there was firm resistance to any tinkering with what appeared to be a sound and proven program of studies. By the end of the nineteenth century, the textbooks being written for the growing number of normal schools in the United States overwhelmingly adopted the mind-as-a-muscle metaphor as the basis for explaining to future teachers what they ought to teach and how they ought to go about it. As that metaphor became firmly established, the implicit injunction to think of the mind as if it were a muscle, began to lose its "as if" quality, and, to many teachers, the mind became quite literally a muscle (Turbayne, 1962).

To a large extent, the belief that the mind was in fact, or at least like, a muscle provided the backdrop for a regime in school of monotonous drill, harsh discipline and mindless verbatim recitation. This may very well have gone on anyway, since the poorly trained and often very young teachers undoubtedly were at a loss to do anything else, but mental discipline provided them with an authoritative justification for continuing to
do it. Anecdotal accounts of school life in the nineteenth and early twentieth centuries attest to the fact that, with few exceptions, schools were joyless and dreary places. In 1913, for example, a factory inspector, Helen M. Todd, decided to find out from the child laborers themselves whether they would prefer to go back to school rather than remain in the squalor of the factories. Todd systematically asked 500 children in these factories whether they would choose to work or go to school if their families were reasonably well-off and they did not have to work. Of the 500, 412 told her, sometimes in graphic terms, that they preferred factory labor to the monotony, humiliation and even sheer cruelty that they experienced in school. These children, it would seem, did not choose the sweatshops of Chicago strictly out of economic necessity. To some extent, the schools around the turn of the century drove them there. With a reevaluation of America’s social institutions in the air, it was no wonder that the doctrine that had become identified with existing conditions in the public schools should come under critical scrutiny.

By the 1890s visible cracks were becoming apparent in the walls of mental discipline. As a theory of curriculum, after all, it represented a curious and not very stable compromise. If, indeed, the mind were really like a muscle and could be strengthened by exercise, why could not we exercise it on a wide variety of different subjects rather than the restricted set that was customarily prescribed? Why even could not a faculty like memory be developed through exercise with nonsense syllables? The psychological theory of faculty psychology had merged with the nineteenth-century version of the liberal arts forming a shaky curricula that served to perpetuate a time-honored literary curriculum. The question emerging in many people’s minds was whether a curriculum that had its origins in the courtly life of Renaissance Europe was appropriate to the demands of the new industrial society. Although the demise of mental discipline is often associated with its failure to survive the test of empirical verification, first by William James (1890, pp. 666–667) and later by several experiments conducted by Edward L. Thorndike (Thorndike & Woodward, 1901: Thorndike, 1924), the collapse of mental discipline and the effort to restructure the schooling that was associated with it was most directly a consequence of a changing social order which brought with it a different conception of what knowledge is of most worth.

Although lags between what knowledge a society values and what knowledge gets embodied in the curriculum of its schools are not uncommon, it is hard to imagine a culture in which the knowledge deemed to be valuable for whatever reason does not find its way into what is taught deliberately to the young of that society. This holds true whether it be knowledge of how to hunt in a society sustained by hunting animals or the study of Latin as a rite of initiation into a special class or sex education in a society where unwanted pregnancies have become a source of national concern. The route between the knowledge a society values and its incorporation into the curriculum becomes infinitely more tortuous, however, when we take into account the fact that different segments in any society will emphasize different forms of knowledge as most valuable for that society. Rarely is there universal agreement as to which resources of a culture are the most worthwhile. The practical knowledge of how to hunt animals must somehow be reconciled with a knowledge of the myths of the tribe; a knowledge of Latin declensions must be weighed against linguistic competence and literary traditions indigenous to the culture; and sex education must be seen against a backdrop of conflicting moral and religious values. Hence, at any given time, we do not find a monolithic supremacy exercised by one interest group, rather we find different interest groups competing for dominance over the curriculum and, at different times, achieving some measure of control depending on local as well as general social conditions. Each of these interest groups, then, represents a force for a different selection of knowledge and values from the culture and, hence, a kind of lobby for a different curriculum.

In the 1890s, not only do we see the theory of mental discipline starting to unravel as a consequence of increased awareness of a social transformation, but we see beginning to gel the interest groups that were to become the controlling factors in the struggle for the American curriculum in the twentieth century. One immediate impetus for change came as a consequence of a massive new influx of students into secondary schools beginning around 1890. In 1890, only between six and seven percent of the population of youth fourteen to seventeen years old was attending secondary school. By 1900, it was already over eleven percent. and in 1920, about a third of that age-group was enrolled in secondary schools. By 1930, the number had reached almost four and one-half million, over 51
percent of that population. It is difficult to establish precisely what created this sudden interest in secondary education on the part of American youth. To some extent, it may have been related to the growth of the American common school in the three or four decades preceding 1890 which created a new population whose children were ready to enter upon a secondary education. In addition, technological changes, such as the use of the telephone, affected the ability of early adolescents to find employment. (A ready source of jobs, for example, had been as a messenger. A technological unemployment among teenagers, in a sense, left them with nothing better to do than to go to high school [Troen, 1976].) To a large extent, also, clerical jobs requiring higher levels of training were consistently better paying than manual labor in this period making attendance in high school a worthwhile investment. In addition, the clustering of a larger segment of the American population into cities made attendance in high schools simply more convenient. Evidently, the social changes that were becoming increasingly visible in the 1890s were serving to focus new attention on the institution of schooling. Certainly, the dramatic rise in secondary school enrollments could not long go unnoticed. In particular, it raised the question as to whether the curriculum that had been so ardently defended in the Yale report and had remained essentially intact ever since could continue to serve a new population of students and, for all intents and purposes, a new society.

Although the National Education Association’s Committee of Ten was appointed in 1892 originally to deal with another issue, the rather mundane problem of uniform college entrance requirements, their work and their recommendations inevitably were affected by the curricular implications of the growing demand by adolescents and their parents for a secondary school education. The immediate impetus for creating the Committee in the first place was that high school principals had been long bewailing the fact that different colleges were prescribing different entrance requirements and, since about half of the high school graduating classes went on to college (Krug, 1962), it became exceedingly difficult to prepare so many students differently depending on their choice of college. While this in itself was a problem of considerable practical importance, almost inevitably, it became imbedded in broader matters of principle, such as the extent to which a single curriculum, or type of curriculum, would be feasible or desirable in the face, not only of larger numbers of students, but, more importantly, of what was often perceived to be a different type of student.

When Charles W. Eliot, the patrician president of Harvard University, was appointed chairman of the National Education Association’s Committee of Ten, it was recognition of the great influence he had exercised not only in higher education but in elementary and secondary schools as well. Eliot had been active in the National Education Association and was in demand as a speaker for local and regional teacher associations. His appointment also symbolically indicates his leadership, at least for this period, of one of four major interest groups that were to vie for control of the American curriculum in the twentieth century. Eliot, for a time at least, was in the forefront of the humanist interest group which, though largely unseen by professional educators in later periods, continued to exercise a strong measure of control over the American curriculum.

Eliot, a humanist in his general orientation, was also a mental disciplinarian, but, although this commitment affected his thinking on curriculum matters to a large extent, Eliot was not exactly a defender of the status quo in curriculum matters. His reputation as an educational reformer extended beyond his espousal of the elective system at Harvard to his recommendations for reform at the elementary and secondary levels. In an article written in the same year that he was appointed to head the Committee of Ten, for example, Eliot (1892b) argued that "there has been too much reliance on the principle of authority.. . .a little on the progressive and persistent appeal to reason" (p. 425–426) and that "no amount of memorizer study of languages or of the natural sciences and no attainments in arithmetic will protect a man or woman...from succumbing to the first plausible delusion or sophism he or she may encounter" (p. 423). Eliot, essentially, was the champion of the systematic development of reasoning power as the central function of the schools, and he recognized that much of what transpired in schools was simply unrelated to that function. Undoubtedly drawing on his own background as a scientist, Eliot saw reasoning power as a process of observing accurately, making correct records of the observations, classification and categorization, and, finally, making correct inferences from these mental operations. It was with respect to these mental habits that Eliot thought the curriculum should be directed.
adding, however, that the power to express one's thoughts "clearly, concisely, and cogently" (p. 4) is also a critical task of schooling.

Elliot differed from most mental disciplinarians in that he thought that any subject, so long as it were capable of being studied over a sustained period, was potentially a disciplinary subject. This meant that he was not nearly as restrictive as other mental disciplinarians in curriculum matters and was consistent, of course, with his strong commitment to the elective principle at Harvard. That commitment represented a sharp break with a tradition in higher education of rigidly prescribed curricula as exemplified in the Yale curriculum. Elliot's support for electivism in curriculum matters extended as far down as the later elementary grades. In a sense, although Elliot did not emphasize education for the purpose of direct social reform, he remained an optimist with respect to human capabilities. The right selection of subjects along with the right way of teaching them could develop citizens of all classes endowed in accordance with the humanist ideal—with the power of reason, sensitivity to beauty, and high moral character. To those skeptics who pointed to great individual variation in native endowment, Elliot's response, essentially, was that "we Americans habitually underestimate the capacity of pupils at almost every stage of education from the primary school through the university" and that, for example, "the proportion of grammar school children incapable of pursuing geometry, algebra and a foreign language would turn out to be much smaller than we now imagine" (Elliot, 1892a, p. 620–621).

When the Committee of Ten published its report early in 1893, it bore Elliot's unmistakable stamp although, here and there, some compromise was evident. Elliot, for example, had to settle for a choice of four different courses of study in the high school rather than the system of electives that he would have undoubtedly preferred. Here was the measure of uniformity in the high school curriculum that the school administrators had been seeking. Colleges were expected to accept any of the four as a basis of admission. But on the question of dividing the school population according to the criterion of who was going to college and who was not, the Committee was firm and unanimous. There would be no curricular distinction between those students who were preparing for college and those who were preparing for "life," a position entirely consistent with the doctrine of mental discipline, as was the stand taken by the Committee that the subjects should not be taught differently to different population groups. All students, the Committee reasoned, regardless of destination, were entitled to the best ways of teaching the various subjects. What is more, education for life, they maintained, is education for college, and the colleges should accept a good education for life as the proper preparation for the rigors of college studies (National Education Association, 1893).

Elliot's report was greeted with much approbation, but also some sharp criticism, mainly on the ground that the Committee had not attuned itself sufficiently to the changing nature of the school population. Undoubtedly, the most powerful of the critics and surely one of the most vocal, was the person who had early on assumed unquestioned leadership of the child-study movement in the United States, G. Stanley Hall. Hall is the pivotal figure in the second of the four interest groups seeking to influence the curriculum at the turn of the century, the developmentalists, who proceeded basically from the assumption that the natural order of development in the child was the most significant and scientifically defensible basis for determining what should be taught. The child-study movement was one outgrowth of the new status accorded science in the latter part of the nineteenth century and consisted, to a large extent, of research that involved the careful observation and recording of children's behavior at various stages of development.

Coincidentally, it was Elliot who had invited Hall to deliver lectures on pedagogy at Harvard in 1880, and that appointment led eventually to Hall's first major research in child-study, an article entitled "The Contents of Children's Minds" (1883). As the title indicates, Hall's study consisted essentially of an inventory of the contents of children's minds. Presumably, if we knew what was already in there, we could proceed much more systematically in determining what ought to be taught in school. Reflecting his own distinctly mystical reverence for rural life (he once claimed that he liked to take off his clothes and roll naked in the fields of his native Massachusetts), Hall tried to discover what children really knew about animals and plants. Did they know what a plough was? Or a spade? Or a hoe? Did a city child really have any notion of what a pond was or the distinction between a river and a brook? Did they know the parts and organs of their own bodies? Could they identify a square or a circle? Hall concluded on the basis of his investigation that teachers assumed too
much about the contents of children's minds—that a lot of Boston's schoolchildren did not know what a cow was or a hill or an island. Although Hall himself often enlivened these cold data with his distinctive penchant for myth and mysticism, his criticism of the position of the Committee of Ten was perceived by many as the voice of science and progress directed against an entrenched establishment barely courageous enough to put forward moderate reforms in the face of a monumental challenge to the efficacy of the existing curriculum.

Hall attributed to various National Education Association committees the growing tendency to count and measure everything educational. "Everything must count and so much for herein lies its educational value," he complained. "There is no more wild, free, vigorous growth of the forest, but everything is in pots or rows like a roocco garden" (Hall, 1905, p. 509b). Such uniformity, according to Hall, was at variance with the natural spontaneity that adolescents presumably exude: "The pupil is in the age of spontaneous variation which at no period of life is so great. He does not want a standardized, overpeptonized mental diet. It palls on his appetite" (p. 509).

When Hall focused specifically on the recommendations of the Committee of Ten, he asserted what he referred to as their "three extraordinary fallacies." The first was that all pupils should be taught in the same way and to the same extent regardless of "probable destination." His charge that this was a "masterpiece of college policy" became the conventional wisdom about the Committee of Ten in the twentieth century. It was here that Hall (1905b) referred to the "great army of incapables, shading down to those who should be in schools for the dullards or subnormal children" (p. 510). The school population, presumably, was so variable as to native endowment that a common curriculum was simply unworkable.

Hall's second objection was to the assertion that all subjects were of equal educational value if taught equally well. He could "recall no fallacy that so completely evicts content and enthrones form" (p. 512). For mental disciplinarians, such as those that comprised the Committee, the form of the subject was what conveyed its disciplinary value; the content was, after all, only the "furniture." Here, Hall was rejecting that fundamental assumption. Finally, Hall saw "only mischief" in the doctrine that "fitting for college is essentially the same as fitting for life" (p. 512). In this last charge, Hall was subtly turning the Committee's recommendation on its head.

They had argued that fitting for life was the same as fitting for college. They felt they had designed an appropriate curriculum for life and were asking colleges to accept that curriculum as the basis for admission. To Hall, however, this was just part of the strategy that the Committee had used to impose college domination on the high school curriculum. In responding to these charges, Eliot reiterated his optimism in the power of human intelligence and reason. He rejected, for example, the notion that there was a "great army of incapables" invading the schools of the 1890s, contending instead that the actual number of "incapables" was "but an insignificant proportion" of the school population. Also, in a statement that has a peculiarly modern ring Eliot foresaw the possibility that a differentiated curriculum could have the effect of determining the social and occupational destinies of students, rather than reflecting their native propensities and capacities: "Thoughtful students of ... Psychology of adolescence will refuse to believe that the American public intends to have its children sorted before their teens into clerks, watchmakers, lithographers, telegraph operators, masons, teamsters, farm laborers, and so forth, and treated differently in their schools according to these prophecies of their appropriate life careers. Who are to make these prophecies?" (Eliot, 1905, pp. 330–331). Here again, however, Hall proved to be more prescient in terms of emerging educational policy than was Eliot. Predicting future destination as the basis for adapting the curriculum to different segments of the school population became a major feature of curriculum planning in the decades ahead.

As the twentieth century progressed, the Committee of Ten became a kind of symbol of the failure of the schools to react sufficiently to social change and the changing school population as well as to the class domination exercised by the college over the high school. The academic subjects that the Committee saw as appropriate for the general education of all students were seen by many later reformers as appropriate only for that segment of the high school population that was destined to go on to college. In fact, subjects like French and algebra came to be called college-entrance subjects, a term practically unknown in the nineteenth century. Even subjects like English became differentiated with standard literary works prescribed for those destined for college, while popular works and "practical" English were provided for the majority. Many of these curriculum changes reflected Hall's perception that the new population of high
school students simply were incapable of pursuing the kind of curriculum that the Committee of Ten advocated.

Actually, however, the recommendations of the Committee of Ten represented a moderate departure from the traditional curriculum of the nineteenth century. The study of Greek was restricted to the Classical course and, even there, the amount of Greek was reduced from the traditional three years to two, and two of the four courses of study, the Modern Languages and the English, had no Latin requirement at all. While the Committee expressed the view that the Classical and the Latin-Scientific curricula were in some sense superior to the Modern Languages and the English, this was because the two former programs were better developed and had more experienced teachers, not because they were intrinsically better. The Committee hoped that the effect of their doctrine of the equivalence of school studies would eventually put modern academic subjects on a par with classical ones, at least in principle if not in actual practice. Where the Committee refused to compromise was in terms of the humanist ideal of a liberal education for all.

In its time the Report of the Committee of Ten engendered so much lively controversy that, by 1895, another committee, unimaginatively called the Committee of Fifteen, was ready to report on the elementary school curriculum. Wearing the mantle of the humanist position this time was America's leading Hegelian, the powerful and articulate United States Commissioner of Education, William Torrey Harris. (Superintendent of Schools William H. Maxwell of Brooklyn, New York, the Chairman of the Committee, divided the fifteen members into three subcommittees of five, each dealing with a different aspect of elementary education. As head of the subcommittee that was to deal with the correlation of studies, Harris was responsible for the curriculum portion of the report.) As a highly regarded superintendent of schools in St. Louis between 1869 and 1880, Harris had the practical experience that lent one sort of credence to his pronouncements; but he also was the editor of the Journal of Speculative Philosophy, the leading organ of American Hegelianism, and his scholarly reputation was considerable as well. Although he had been a member of the Committee of Ten, Harris took pains in his subcommittee report to disassociate himself from the mental discipline position, then beginning to decline (National Education Association, 1895). Instead, Harris tried to articulate a new rationale for a humanistic curriculum, not only in the report itself, but in his many articles and speeches at National Education Association conferences. Harris, perhaps more than Eliot, was sensitive to the social changes that were occurring all around him, but he maintained that a curriculum constructed around the finest resources of Western civilization was still the most appropriate and desirable for America's schools. Whatever may have been the magnitude of the transformation in America's social institutions or the alleged changes in character of the school population, his five "windows of the soul," as he liked to call them—grammar, literature and art, mathematics, geography and history—would remain the means by which the culture of the race would be transmitted to the vast majority of Americans. Somewhat suspicious of the rise of the natural sciences, Harris emerged as the great defender of humanistic studies in the curriculum. Although he embraced certain reform causes such as women's access to higher education, Harris earned a reputation as a conservative in educational policy through his lukewarm reaction to manual training (a cause that was meeting with almost universal approbation among leaders in education), his deep reservations about the virtues of child-study as a basis for determining what to teach (once referring to it as "so much froth") and as an outright opponent of specialized vocational training. In his view, the intrusion of new values by industrial society made it even more imperative that the school become a haven for the tried and true virtues he so deeply cherished. The common school for Harris was a specialized institution with a very distinct function to perform: the passing on of the great Western cultural heritage, leaving other institutions, the family, church and industry to perform theirs.

But, by 1895, the forces of opposition to the traditional humanist curriculum had grown in numbers and organization. At the same National Education Association meeting in Saratoga Springs, New York in 1892 where the Committee of Ten was appointed, a group of American educational leaders, many of whom had studied in Germany and who thought of themselves as scientific in outlook, formed the National Herbart Society. Among them was a shy, thirty-three-year-old faculty member from the University of Michigan, John Dewey. Despite the fact that, like Hall, Dewey disagreed with the American Herbartian position on a number of fundamental matters (although for different reasons), Dewey prob-
ably saw the group as the most promising in terms of effecting change in what had become a stagnant, often repressive, American school system. Three years after its formation, at the 1895 meeting of the National Education Association in Cleveland, Ohio, the Herbartians felt ready for direct confrontation with the person they saw as the embodiment of conservatism and reaction, the United States Commissioner of Education. Although Herbartianism as a movement with a specific identification in American education had a rather short-lived heyday, beginning to decline as early as 1905, Herbartian ideas and reactions to their ideas continued to exercise a profound influence on the American curriculum long after the movement itself faded from existence as a distinct entity.

Leading the attack on Harris was the president of the National Herbart Society, Charles DeGarmo. The details of the rather convoluted criticism of the Committee of Fifteen report are not as important as the daring and the symbolism of the confrontation. Actually, much of the controversy revolved around the fact that Harris, in making his subcommittee Report on the Correlation of Studies in Elementary Education, had used key Herbartian terms, such as correlation and concentration, but not in the prescribed Herbartian manner. When reporting on the five major branches of study, for example, Harris, although he avoided this time using his own standard term for these branches, “the windows of the soul,” clearly was making the case for each separately as an important study and not in their interrelationship to one another, a pivotal point in Herbartian curriculum theory. Harris used the term “correlation” to mean “correlating the pupil with his spiritual and natural environment” (National Education Association, 1895, pp. 40–41), but not to mean the interrelationship among the subjects themselves. When he used the Herbartian concept, “concentration,” he used it only in the everyday sense that the work of the elementary school should be “concentrated” around the five coordinate groups of study that Harris had been advocating for years. Although there were some differences among themselves in their own use of the term, Herbartians usually used “concentration” to refer to the practice of using a particular subject, such as history or literature, as a focal point for all subjects, thereby achieving the unity in the curriculum they sought. Here and there, Harris seemed to go out of his way to attack Herbartian practice, such as their frequent use of Robinson Crusoe as a way of unifying all the studies in the third grade, Harris referring to it as “a shallow and uninteresting kind of correlation” (p. 84).

The reaction to Harris’s report on the part of his battle-ready opponents was fierce. The first to plunge into the fray was Frank McMurry who, along with his brother Charles, were central figures in the Herbartian movement. McMurry used the example of “Egypt” as a way of showing how the various branches of the elementary school curriculum could be correlated around such a concept. Colonel Francis Parker, who had by this time earned a national reputation as an educational reformer, was only a fringe member of the Herbartian group, but he unequivocally made his sympathies clear, comparing Harris’s report to “the play of Hamlet with Hamlet left out” (“Discussion,” 1895, pp. 165). When DeGarmo took the floor, his criticism was also sweeping. He suggested that, contrary to the charge of the Committee, the Committee had not actually dealt with the correlation of studies. Harris, a skilled platform performer, defended himself vigorously, and, in the months that followed the confrontation, the debate continued with almost the same intensity in professional journals. The meeting in Cleveland became, in a sense, the For: Sumter of a war that was to rage for most of the twentieth century. Whatever may have been the merits of the Herbartian criticism, the clash between Harris and the Herbartians marked the beginning of a realignment of the forces that were to battle for control of the American curriculum. The atmosphere at that 1895 meeting was so tense and the sense of drama so great that, thirty-eight years later, DeGarmo, at the age of eighty-five, was moved to write his friend Nicholas Murray Butler, “No scene recurs to me more vividly than on that immortal day in Cleveland, which marked the death of the old order and the birth of the new” (Drost, p. 178).

Another witness to that “immortal day” and critic of Harris’s report was a young pediatrician who, by 1892, had essentially given up medicine to undertake a career as an educational reformer. Joseph Mayer Rice, like Hall, Parker and Dewey, was loosely affiliated with the American Herbartians, having left the country in 1888 to study at the great university centers of pedagogy in Germany. Having observed several school systems in Europe, Rice returned to the United States with a similar purpose in mind. In a tour sponsored by an influential journal, The Forum, Rice
undertook a survey of American elementary education that lasted from January 7 to June 26, 1892. A tireless worker, he travelled through thirty-six cities in that period making careful observations of the schools and classrooms he visited. The result was a series of nine articles, published in The Forum, from October 1892 to June 1893. Those articles created an immediate sensation, and, in 1893, they were collected in book form and published under the title, The Public School System of the United States, thereby reaching an even wider audience.

Rice's sense of outrage is present on almost every page. One passage from his observation of the lowest primary grade in a New York City school conveys his tone as well as his general findings:

Before the lesson began there was passed to each child a little flag, on which had been pasted various forms and colors, such as a square piece of green paper, a triangular piece of red paper, etc. When each child had been supplied, a signal was given by the teacher. Upon receiving the signal, the first child sprang up, gave the name of the geometrical form upon his flag, loudly and rapidly defined the form, mentioned the name of the color, and fell back into his seat to make way for the second child, thus: "A square; a square has four equal sides and four corners; green" (down). Second child (up): "A triangle; a triangle has three sides and three corners; red" (down). Third child (up): "A trapezium; a trapezium has four sides, none of which are parallel, and four corners; yellow" (down). Fourth child (up): "A rhomb; a rhomb has four sides, two sharp corners and two blunt corners; blue." This process was continued until each child in the class had recited. The rate of speed maintained during the recitation was so great that seventy children passed through the process of defining in a very few minutes. (Rice, 1893, p. 34)

If nothing else, Rice's survey conveys the sense of urgency that many reformers felt about what had become a largely lifeless system of schooling. But beyond that, Rice found some school systems, such as the one in Indianapolis, to be better than some others, and Rice was determined to find the secrets of their success. Rice initially shared with the developmentalsists the idea that in scientific data on the child lay the key to the relatively successful classroom techniques as well as to a rational curriculum. But he also attacked superintendents of schools for their lack of knowledge of pedagogy and for the superficial attention they gave to what was really going on in classrooms. School boards, he thought, were also com-

posed of unqualified people, usually political appointees. The public also was the subject of Rice's wrath. But, at least in terms of emphasis, it was the quality of teaching that seemed to Rice to be most responsible for the catastrophic state of American education. Many teachers, he contended, whose incompetence had been generally recognized, continued to teach year after year in the public schools.

Rice's first series of Forum articles met with almost violent public reaction. These articles began to appear, after all, a year before the generally acknowledged beginning of muckraking journalism (Curti, 1951). Teachers and school administrators rushed to their own defense attacking Rice with almost hysterical intensity. Some criticism focused on his own lack of classroom experience (Schneider, 1893), some on his alleged misuse of English (Author, 1895, p. 295), and there was even a hint of anti-Semitism here and there in their replies (Author, 1894, p. 149). Professional educators appeared to be simply unused to such open and unrelenting attack. Theirs had been a life of relative invulnerability within the walls of their schools and classrooms.

Unrepentant, Rice undertook a second survey of American schools in the spring of 1893. Although he expressed interest in those school systems that were in the process of experimenting with new curricula, in fact, he focused almost entirely on gathering data on the achievement of third-graders in reading and arithmetic. Rice was seeking comparative data that would indicate why some schools and teachers were more successful than others in these subjects. In this respect, Rice is the acknowledged father of comparative methodology in educational research, a fact recognized by Leonard Ayres as early as 1918 (Engelhart & Thomas, 1966, p. 141). In particular, Rice's work in the teaching of spelling, which he began in 1895, was a monumental effort, involving initially some 16,000 pupils, designed to discover superior techniques of teaching spelling. When that test failed to accomplish that intention, apparently because some teachers in administering the test gave away answers through their careful enunciation, Rice indomitably undertook another comparative study involving 13,000 more pupils, this time supervising the administration of each test himself. After all that work, Rice could only conclude that the amount of time spent in drill on spelling appeared unrelated to achievement on the part of the students, but the secret of how spelling should be taught remained a mystery.
When Rice's new series of *Forum* articles was collected into one volume in 1912, that book was entitled, significantly, *Scientific Management in Education*. Although there were still vestiges of Rice's concern for the child in the school environs, the major thrust of Rice's work had shifted from the monotony and mindlessness of school life to the themes of standardization and efficiency in the curriculum. Rice's genuine dismay and disgust on what was going on in American schools in the 1890s had evolved into a grim determination that teachers and administrators must be made to do the right thing. Supervision, for example, would take the form of seeing to it that the achievement of students reached a clearly defined standard (p. xvi), and school administration, generally, ought to be governed, Rice claimed, by "a scientific system of pedagogical management [that] would demand fundamentally the measurement of results in the light of fixed standards" (p. xiv). Such an interpretation of science applied to education and curriculum represented a fundamental departure from science in the interest of discovering the developmental stages through which a child passes. "The child's capital," Rice declared, "is represented by time; and whether certain results are to be lauded or condemned depends upon the amount of time expended in obtaining them" (p. 9). It is the job of the teacher to see to it that "this capital . . . be expended on sound economical principles, i. e., without waste" (p. 9). Educational reform, Rice argued, revolved around a clear articulation of definite goals (pp. 24–25) and on finding the techniques of measurement that would reveal whether those results have been realized.

In slow but perceptible stages, Rice's position had evolved from outraged humanitarian to a zealot for the elimination of waste in the curriculum through the application of the kind of scientific management techniques that presumably had been so successful in industry. Almost against his will, Rice became the principal forerunner of the third of the major curriculum interest groups that was to appear just before the turn of the century: the social efficiency educators. Although the social ideas that were to characterize that group in the twentieth century are difficult to detect in Rice, Rice unquestionably reflected the version of science and the techniques of curriculum-making that were to become the trademark of that movement. Although it was a reform movement in most senses of that term, it proceeded from fundamentally different assumptions and pointed in different directions from the developmentalist interest group. With Hall and the developmentalists, Rice and his ideological heirs found common cause against the humanistic position that Eliot and Harris, for example, tried to articulate, but the social efficiency educators and the developmentalists ultimately were as far apart from one another as they were from their common enemy. Their bitter battles would be reflected in their professional writings, in their open debates at professional meetings, and in colleges and universities as curriculum issues and problems gained academic respectability and were formalized into courses and degree programs.

Far from the center of National Education Association proceedings and the hallowed halls of academe where the battle lines for the American curriculum were being drawn, there labored a relatively obscure, largely self-taught, government botanist and geologist whose ideas were to emerge as the major challenge to what was rapidly becoming the established dogma in social theory. By 1883, Lester Frank Ward had somehow found the time in the midst of his paleobotanical work for the United States Geological Survey to produce a two-volume tome, *Dynamic Sociology*. Although himself strongly influenced by Darwinian theory, Ward took almost the opposite position on its application to society from that of the doyen of the new sociology, Herbert Spencer. Spencer's enormously successful lecture tour in the United States in 1882 and his widely read works in such journals as *Popular Science Monthly* had spread the message of Social Darwinism, and his disciples, such as William Graham Sumner at Yale, were promoting his ideas in American universities. Basically, they argued that the laws that Darwin had enunciated in terms of natural selection had their parallel in the social realm. Survival of the fittest, in other words, was a law, not only of the jungle, but of civilization, and the unequal distribution of wealth and power was simply the evidence of that law's validity.

By contrast, Ward's (1883) position was that, in the social realm, "there is no alternative but to renounce all effort and to trust to the slow laws of cosmical evolution" (p. 153). The laissez-faire position that the Social Darwinists had advocated was, in Ward's view, a corruption of Darwinian theory because human beings had developed the power to intervene intelligently in whatever were the blind forces of nature, and in that power lay the course of social progress. Civilization, he argued, was not achieved by letting cosmic natural forces take their course, but by the
power of intelligent action to change things for the better. For Ward, “if any moral progress is ever too [sic] be made other than that which would naturally be brought about by the secular influence of cosmical laws, it must be the result of an intellectual direction of the forces of human nature into channels of human advantage” (p. 216). In many respects, Ward foreshadowed in his 1883 work significant elements of John Dewey’s educational philosophy.

Critical to social progress in Ward’s mind was a properly constructed and fairly distributed system of education. Ward liked to use the metaphor of legacy in connection with education, and he argued in Dynamic Sociology that social inequality was fundamentally a product of a maldistribution of the social inheritance. Like Eliot, Ward expressed great optimism about the power of human intelligence, asserting without equivocation that native endowment was equally distributed across social class lines as well as gender, and whatever the differences that could be observed in the human condition, they were directly attributable to that maldistribution. Unlike Eliot and the other humanists generally, however, Ward saw education as a direct and potent instrument of social progress.

Dynamic Sociology did not go unnoticed. Albion Small, for example, Dewey’s respected colleague at the University of Chicago, declared several years after its publication that, “All things considered, I would rather have written Dynamic Sociology than any other book ever published in America (Commager, 1967, pp. xxvii). Nevertheless, on the first of January 1892, Ward resolved to embark on another ambitious project, and within about three months, The Psychic Factors of Civilization was nearly complete. Published in 1893, Psychic Factors became recognized as the most significant among Ward’s voluminous writings. In it, Ward reiterated his attacks on “survival of the fittest” as a doctrine that had any application to the social world and welcomed intervention, particularly by government, in human affairs. The trouble with governmental intervention as it now exists, declared Ward, was that it was controlled by the wrong groups. The right sort of intervention would be accomplished once the influence of partisan pressure groups were eliminated and practical and humanitarian approaches to social problems were substituted.

Ward’s commitment to egalitarianism was unequivocal. “The denizens of the slums,” he said in Psychic Factors, “are not inferior in talent to the graduates of Harvard College” (p. 290). “Criminals,” he argued, “are the geniuses of the slums. Society has forced them into this field, and they are making the best use they can of their native abilities” (p. 290). The key to progress and the great undertaking that lay before us was the proper distribution of cultural capital through a vitalized system of education.

In his Psychic Factors, as well as in his other works, Ward reveals himself, not only as the prophet of the welfare state in the twentieth century, but as the principal forerunner of the fourth and last of the major interest groups that were to battle for control of the curriculum in the decades ahead, the social meliorists. By the 1890s, Ward had already laid down the main outlines of the arguments that were to put education at the center of any movement toward a just society. To be sure, Ward’s position on education was often taken to be a particularly American obsession. Spencer, for example, when asked to comment on America’s future, declared, “It is a frequent delusion that education is a universal remedy for political evils” (Commager, 1967, p. xxxvii). Whether a practical faith or a popular delusion, it was a belief that Dewey and many American educators came to share in the twentieth century. Ward himself noted that the most perceptive review of Psychic Factors was Dewey’s, and Dewey certainly believed that in education lay the key to social progress. While the possibility exists, of course, that Americans share an inordinate faith in the power of education to correct social evils and promote social justice, inordinate or not, it became a powerful force in the shaping of curriculum policy in the years ahead.

When the twentieth century finally arrived, the four major forces that were to determine the course of the new American curriculum had already emerged. First, there were the humanists, the guardians of an ancient tradition tied to the power of reason and the finest elements of the Western cultural heritage. Although, in later years, the leaders of this interest group remained for the most part outside the professional education community, they exerted a powerful influence through their standing in the academic world and among intellectuals generally. To them fell the task of reinterpreting and thereby preserving as best as they could their revered traditions and values in the face of rapid social change.

Arrayed against this group were three different kinds of reformers, each representing a different conception of what knowledge should be embod-
ied in the curriculum and to what ends the curriculum should be directed. Hall and the others in the child-study movement led the drive for a curriculum reformed along the lines of a natural order of development in the child. Although frequently infused with romantic ideas about childhood, the developmentalists pursued with great dedication their sense that the curriculum riddle could be solved with ever more accurate scientific data, not only with respect to the different stages of child and adolescent development, but on the nature of learning. From such knowledge, a curriculum in harmony with the child’s real interests, needs and learning patterns could be derived. The curriculum could then become the means by which the natural power within the child could be unharnessed.

The second group of reformers, the social efficiency educators, were also imbued with the power of science, but their priorities lay with creating a coolly efficient, smoothly running society. The Rice exposés, begun in 1892, and impelled by genuine humanitarian motives, turned out to be a portent of a veritable orgy of efficiency that was to dominate American thinking generally in the decades ahead. In fact, efficiency, in later years, became the overwhelming criterion of success in curriculum matters. By applying the standardized techniques of industry to the business of schooling, waste could be eliminated and the curriculum, as seen by such later exponents of social efficiency as David Snedden and Ross Finney, could be made more directly functional to the adult life-roles that America’s future citizens would occupy. People had to be controlled for their own good, but especially for the good of society as a whole. Theirs was an apocalyptic vision. Society as we know it was flying apart, and the school with a scientifically constructed curriculum at its core could forestall and even prevent that calamity. That vision included a sense that the new technological society needed a far greater specialization of skills and, therefore, a far greater differentiation in the curriculum than had heretofore prevailed.

Finally, there were the social meliorists as represented by one of their great early figures, Lester Frank Ward. Ward was the forerunner of the interest group that saw the schools as a major, perhaps the principal, force for social change and social justice. The corruption and vice in the cities, the inequalities of race and gender, and the abuse of privilege and power could all be addressed by a curriculum that focused directly on those very issues, thereby raising a new generation equipped to deal effectively with those abuses. Change was not, as the Social Darwinists proclaimed, the inevitable consequence of forces beyond our control; the power to change things for the better lay in our hands and in the social institutions that we create. Times indeed had changed, but, according to the social meliorists, the new social conditions did not demand an obsessional fixation on the child and on child psychology; nor did the solution lie in simply ironing out the inefficiencies in the existing social order. The answer lay in the power of the schools to create a new social vision.

The twentieth century became the arena where these four versions of what knowledge is of most worth and of the central functions of schooling were presented and argued. No single interest group ever gained absolute supremacy, although general social and economic trends, periodic and fragile alliances between groups, the national mood, and local conditions and personalities affected the ability of these groups to influence school practice as the twentieth century progressed. In the end, what became the American curriculum was not the result of any decisive victory by any of the contending parties, but a loose, largely unarticulated, and not very tidy compromise.