The Ed School's Romance with Progressivism

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Progressivism became the natural ideology of education professors in the twentieth century—shaping their language and the language of American education, even though it had little impact on the practice of teacher educators and researchers or on the practice of teachers in schools. And although this ideology represents an approach to issues of teaching and learning in the public schools that is well suited to the needs of education professors, it is antithetical to the aims of the current standards-based reform movement.

The struggle for control of American education in the early twentieth century was between two factions of the movement for progressive education. The administrative progressives won, and they reconstructed the organization and curriculum of American schools in a form that has lasted to the present day. Meanwhile, the pedagogical progressives failed miserably in shaping what is done in schools, but they succeeded in shaping how to talk about schools. Professors in schools of education were caught in the middle of this dispute, and they ended up in an awkwardly compromised position. Their hands were busy, preparing teachers to work within the confines of the educational system established by the administrative progressives and carrying out research to make this system work more effi-

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ciently. But their hearts were with the pedagogues. So they became the high priests of pedagogical progressivism, keeping this faith alive within the halls of the education school and teaching the words of its credo to generations of new educators.

In the lingo of American education today, progressivism means pedagogical progressivism. It means basing instruction on the needs, interests, and developmental stages of the child; teaching students the skills they need to learn any subject, instead of focusing on transmitting a particular subject; promoting discovery and self-directed learning by the student through active engagement; having students work on projects that express student purposes and that integrate the disciplines around socially relevant themes; and promoting values of community, cooperation, tolerance, justice, and democratic equality. In the shorthand of educational jargon, these traits are capsulized in phrases such as "child-centered instruction," "discovery learning," and "learning how to learn." And in the current language of American education schools, a single label captures this entire approach to education: constructivism.

As Lawrence A. Cremin has pointed out, by the 1950s this progressive approach to education had become the dominant language of American education. Within the community of professional educators—that is, class-room teachers and the education professors who train them—progressivism provides the words used to talk about teaching and learning in schools. And within education schools, progressivism is the ruling ideology. It is hard to find anyone in an American education school who does not talk the talk and espouse the principles of the progressive creed.

This situation worries some educational reformers. Progressivism runs directly counter to the main thrust of educational reform efforts in the United States in the early twenty-first century. Reform is moving toward establishing rigorous academic frameworks for the school curriculum, setting performance standards for students, and using high-stakes testing to motivate students to learn the curriculum and teachers to teach it. Education schools and their progressive ideals stand in strong opposition to all of these reform efforts. In addition, reformers are seeking to reduce government regulation of access to teaching, by supporting alternative modes of teacher preparation, while ed schools strongly defend their role as the gatekeepers to the profession. To today's reformers, therefore, with their strong orientation toward standards and deregulation, ed schools look less like the solution than the problem.

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But these reformers should not be so worried—for two reasons. First, this form of progressivism has had an enormous impact on educational rhetoric but very little impact on educational practice. This conclusion was reached by historians of pedagogy, such as Larry Cuban and Arthur Zilversmit, and by contemporary scholars of teaching practice, such as John I. Goodlad and David K. Cohen.² Instruction in American schools is overwhelmingly teacher-centered; classroom management is the teacher's top priority; traditional school subjects dominate the curriculum; textbooks and teacher talk are the primary means of delivering this curriculum; learning consists of recalling what texts and teachers say; and standardized tests measure how much of this students have learned. What signs exist of student-centered instruction and discovery learning tend to be superficial or short-lived. Educators talk progressive, but they do not teach that way. In short, traditional methods of teaching and learning are in control of American education. The pedagogical progressives lost.

Second, reformers should not worry about contemporary progressivism because its primary advocates are lodged in education schools, and nobody takes these institutions seriously. Those teaching in the university think of those in ed schools as being academically weak and narrowly vocational. They see ed school teachers not as peers in the world of higher education but as an embarrassment, who should not be part of a university at all. To them the ed school looks less like a school of medicine than a school of cosmetology. The most prestigious universities often try to limit the ability of the education school to grant degrees or even eliminate the school altogether. I do not have space to explain the historical roots of the education school's lowly status in the United States. But take my word for it: Education schools rank at the very bottom.³ As a result of this, ed school educators have no credibility in making pronouncements about education. They are solidly in the progressive camp ideologically, but they have no ability to promote progressive practices in the schools. In fact, they do not even practice progressivism in their own work, as seen in the way they carry out research and the way they train teachers.

I will not propose ways to resolve the standoff between ed schools and the reform movement. Ed schools are unlikely to convert to the standards ideology and the reform movement is unlikely to convert to ed school progressivism. Each is more apt to seek to make the other irrelevant, as each attempts to bypass instead of transforming the other. And in such a contest, ed schools will continue to lose, as they have always done, because the only

part of education they dominate is the rhetoric, whereas the reformers are aiming to control the core elements of curriculum, testing, and governance. I will explore the nature of the ed school's rhetorical commitment to progressivism and its roots in the history of this beleaguered institution. My hope is that this analysis will be helpful to participants on both sides of the policy divide.

The Roots of the Ed School's Ties with Progressivism

Why do American education professors have such a long-standing and widely shared commitment to the progressive vision? The answer can be found in the convergence between the history of the education school and the history of the child-centered strand of progressivism during the early twentieth century. Historical circumstances drew them together so strongly that they became inseparable. As a result, progressivism became the ideology of the education professor.

Education schools have their own legend about how this happened, which is a stirring tale about a marriage made in heaven, between an ideal that would save education and a stalwart champion that would fight the forces of traditionalism to make this ideal a reality. As is the case with most legends, there is some truth in this account.

But here I want to tell a different story. In this story, the union between pedagogical progressivism and the education school is not the result of mutual attraction but of something more enduring: mutual need. It was not a marriage of the strong but a wedding of the weak. Both were losers in their respective arenas. Child-centered progressivism lost out in the struggle for control of American schools, and the education schools lost out in the struggle for respect in American higher education. They needed each other, with one looking for a safe haven and the other looking for a righteous mission. As a result, education schools came to have a commitment to progressivism that is so deeply rooted that, within these institutions, it is largely beyond challenge. At the same time, however, this progressive vision never came to dominate the practice of teaching and learning in schools—or even to penetrate the practice of teacher educators and researchers within education schools themselves.

How Dewey Lost: A Short History of Progressive Education

To examine the roots of the education school's commitment to a particular form of progressivism, the history of the progressive education movement in the United States in the first half of the twentieth century must be explored. Only then can an understanding be reached about the way that the institution and the ideology fell into each other's arms.

The progressive education movement in the United States was not a single entity but a cluster of overlapping and competing tendencies. All of the historians of this movement agree on this point, although they use different nomenclature. David Tyack talks about administrative and pedagogical progressives; Robert L. Church and Michael W. Sedlak use the terms conservative progressives and liberal progressives; Herbert Kliebard defines three groupings, which he calls social efficiency, child development, and social reconstruction. I will use the administrative and pedagogical labels, which seem to have the most currency, with the understanding that the conservative and social efficiency groups fit more or less within the administrative category and the liberal and social reconstructionist groups fit roughly within the pedagogical, with child development straddling the two.⁵

Over time, the administrative progressives trounced their pedagogical counterparts. Ellen Condliffe Lagemann explains this with admirable precision:

I have often argued to students, only in part to be perverse, that one cannot understand the history of education in the United States during the twentieth century unless one realizes that Edward L. Thorndike won and John Dewey lost. The statement is too simple, of course, but nevertheless more true than untrue and useful for several reasons. First, it suggests that, even if Thorndike and Dewey both spoke and wrote in the "progressive" idiom, the differences of view that separated them were large and significant. Beyond that, it calls attention to differences in the way each man's ideas were received. If Dewey has been revered among some educators and his thought has had influence across a greater range of scholarly domains—philosophy, sociology, politics, and social psychology, among them—Thorndike's thought has been more influential within education. It helped to shape public school practice as well as scholarship about education.

What this means for my purposes here is that the pedagogical progressives had the most impact on educational rhetoric, whereas the administrative progressives had the most impact on the structure and prac-

tice of education in schools. A sign of the intellectual influence exerted by the pedagogical group is that its language has come to define what is now called progressivism. And this language has become the orthodox way for teachers and teacher educators to talk about classroom instruction. At the same time, however, the administrative progressives were most effective in putting their reforms to work in the daily life of schools.

THE TWO FORMS OF PROGRESSIVISM IN THE EARLY TWENTIETH CENTURY. A number of prominent leaders are counted among the pedagogical progressives, including Francis W. Parker, G. Stanley Hall, William H. Kilpatrick, George S. Counts, Harold O. Rugg, and Boyd H. Bode. However, John Dewey was the godfather of this movement. He was not particularly happy to be in this position. During his lifetime, he frequently complained about the misuse of his ideas by many of the pedagogical progressives, and he would not be pleased about many of the things that contemporary education professors espouse in his name. But, for better or for worse, most of the central ideas of the current progressive creed can be traced to his writings.

Perhaps the best way to characterize the central thrust of the pedagogical progressive view of education is to follow the lead of E. D. Hirsch Jr. and point to its essential romanticism. Hirsch sees two romantic beliefs in particular lying at the heart of educational progressivism.

First, Romanticism believed that human nature is innately good, and should therefore be encouraged to take its natural course, unspoiled by the artificial impositions of social prejudice and convention. Second, Romanticism concluded that the child is neither a scaled-down, ignorant version of the adult nor a formless piece of clay in need of molding, rather, the child is a special being in its own right with unique, trustworthy—indeed holy—impulses that should be allowed to develop and run their course.⁷

Closely linked to these beliefs is "the idea that civilization has a corrupting rather than a benign, uplifting, virtue-enhancing effect on the young child." From this perspective, traditional education is not just an ineffective method of instruction but one that is misdirected and damaging, by seeking to impose a fixed body of knowledge on the child at the will of the teacher. The romantic alternative is a naturalistic pedagogy (which arises from the needs, interests, and capacities of the child and responds to the will of the child) and a skill-based curriculum (which focuses on providing the child with the learning skills that can be used to acquire whatever knowledge he or she desires).

Two important components of the naturalism inherent in progressive pedagogy, according to Hirsch, are developmentalism and holistic learning. If learning is natural, then teaching needs to adapt itself to the natural developmental capacities of the learner, which requires a careful effort to provide particular subject matters and skills only when they are appropriate for the student's stage of development. Developmentally appropriate practices and curricula are central to the progressive vision. The second key extension of the naturalistic approach to teaching is the idea that learning is most natural when it takes place in holistic form, where multiple domains of skill and knowledge are integrated into thematic units and projects instead of being taught as separate subjects. This thus results in the progressive passion for interdisciplinary studies, thematic units, and the project method.

What held the pedagogical progressives together was a common romantic vision, but the vision that held the administrative progressives together was strictly utilitarian. And whereas the former focused on teaching and learning in the classroom, the latter focused on governance and on the structure and purpose of the curriculum. In addition to Thorndike, highly visible members of this group in the first half of the twentieth century included David Snedden, Ross L. Finney, Edward A. Ross, Leonard Ayres, Charles Ellwood, Charles H. Judd, Ellwood P. Cubberly, Charles C. Peters, W. W. Charters, John F. Bobbitt, Charles Prosser, and, in conjunction with the pedagogical progressives, G. Stanley Hall.

The organizing principle of the diverse reform efforts that arose from the administrative progressives was social efficiency. In one sense, this meant restructuring the governance and organization of schooling to make it run more efficiently, in line with business management practices. In another sense, social efficiency meant reorganizing education to make it more efficient in meeting the needs of economy and society, by preparing students to play effective adult roles in work, family, and community. This utilitarian vision was strikingly different from the romantic perspective of the pedagogical progressives, who wanted school to focus on the learning needs and experiences of students, in the present instead of the future, as children instead of as apprentice adults. It led to the administrative progressives' most distinctive contribution to American education: scientific curriculum making. This notion of curriculum was grounded in differentiation. It started with the developmental differences in students at different points in their social and intellectual growth, as spelled out in the work of psychologists

such as Hall, and with the differences in intellectual ability of students at the same age, as measured by the apparently objective methods of the new intelligence quotient (IQ) testing movement. The idea then was to match these differences in the abilities of individual students with the different mental requirements of the vast array of occupational roles required by a complex industrial society. And the curriculum approach that linked these two came from the enormously influential learning theory of the psychologist Edward L. Thorndike.

According to Thorndike, skills learned in one kind of learning task did not carry over well to other kinds of tasks. This was in direct opposition to nineteenth-century faculty psychology. It also contradicted the psychological theory of the pedagogical progressives, who put primary emphasis on students' learning to learn and saw subject matter as a secondary concern, valuable mostly as a medium for skill acquisition rather than as the substantive focus of learning. Thorndike's view had enormous consequences for the curriculum. It meant that a core curriculum, concentrated in a few academic disciplines, made no sense for schools, especially at the secondary level where students were getting closer to their adult roles. Instead, a vastly expanded array of curriculum options was needed, differentiated both by student abilities and by projected future occupation and focused on the specific knowledge and skills that the student can handle and that the job requires. From this perspective, then, all education was vocational.

The administrative progressives were enormously successful in putting through their agenda in two areas in particular—governance and curriculum. In governance, they succeeded in consolidating small school districts into larger units, centralizing control of schools in the district in the hands of a small elite school board that was buffered from politics, and in lodging daily management of the schools in a bureaucracy staffed with professional administrators.

They assembled their ideas on curriculum in a highly influential report published in 1918—The Cardinal Principles of Secondary Education—and they managed to put most of them into practice in the schools. ¹⁰ One measure of this was their success in transforming traditional disciplinary subjects (such as math, science, history, and English) into a form that was less narrowly academic and more broadly aligned with the diffuse social efficiency aims of Cardinal Principles. The most successful change along these lines was the reconstruction of history as social studies, but other successes included the invention and dissemination of general math and general

science. Other signs of the impact of the social efficiency agenda were the sharp decline in classical languages and the more moderate but still significant drop in modern language enrollments.¹¹

But the biggest impact was in the shift toward a curriculum that was vocational in purpose and differentiated in structure. As David L. Angus and Jeffrey E. Mirel show in their study of high school course enrollments in the twentieth century, most courses that students were taking in the 1930s were still nominally in traditional academic subjects, not in the new vocational, health, and home economics courses.¹² But these academic courses themselves had already undergone transformation into a social efficiency form, such as social studies and general science, and the purpose of the whole curriculum was now increasingly recast as an effort to prepare students for their vocational roles as workers and homemakers, whatever the particular course title. Most important, Angus and Mirel found that the curriculum was increasingly expanded to provide a wide array of academic and nonacademic courses at multiple ability levels, which were intended to meet the needs of students with widely differing occupational trajectories and academic skills. This differentiation of the curriculum, with accompanying segregation of studies by gender and social class, was the most striking and enduring of the consequences of the social efficiency agenda for schools.

The pedagogical progressives did not see all of this as bad news. The two forms of progressivism, for all their differences, had several key elements in common that allowed them to join forces on occasion or at least tolerate each other. One was a shared belief in developmentalism, which led them to call for education that was adapted to the capacities of students at particular stages of intellectual and social growth, although they took off from this basic position in different directions. The administrative progressives combined developmental differences with same-age differences in ability to provide the rationale for a radically differentiated curriculum, whereas the pedagogical progressives used developmentalism as a basis for opposing a standardized curriculum and supporting a learning process shaped by individual student interest and initiative. The strongest bond between the two strands of progressivism, however, was their common dissatisfaction with, and often active hostility toward, the traditional academic curriculum. In their opposition to discipline-based school subjects, the two stood together, although the grounds for their attacks were different. Administrative progressives saw academic subjects as an impediment to the acquisition of the useful knowledge needed to play adult social and economic roles. The pedagogical progressives saw these subjects as an imposition of adult structures of knowledge that would impede student interest and deter self-directed learning.

However, the main thrust of the social efficiency curriculum, with its emphasis on vocational training and differentiated outcomes, was diametrically opposite to the core principles of the pedagogical progressives. It mandated the kind of top-down curriculum that the latter abhorred, imposed on students to serve society's need for particular skills and knowledge, and forcing them to spend their time in schools being socialized for the adult social roles they would later play. This puts priority on learning particular subject matter instead of learning to learn; it elevates the interests of society and of school administrators over the interests of students; it makes the classroom a preparation for adulthood instead of an exploration of childhood; and, in the name of these social benefits, it risks extinguishing the child's engagement in learning and curiosity about the world. It was, in short, the kind of curriculum that Dewey deplored—"externally presented material, conceived and generated in standpoints and attitudes remote from the child, and developed in motives alien to him."

Not only did the social efficiency curriculum threaten the kind of natural learning process treasured by the pedagogical progressives, but it also threatened the values of social justice and egalitarian community that were central to their beliefs. While this curriculum was radical in its challenge to traditional notions of academic education, it was profoundly conservative in its embrace of the existing social order and in its eagerness to prepare students for predetermined positions within that order. It introduced tracking and ability grouping into American schools; it introduced ability testing and guidance as ways of sorting students into the appropriate classes; and it institutionalized the educational reproduction of social inequality by creating a system in which educational differences followed from and in turn reinforced differences in class, gender, and race.

While the administrative progressives enjoyed considerable and enduring success in implementing their program, pedagogical progressives did not. In general, the inroads they made on practice were small and fleeting. Zilversmit summarized his study of school districts in the Chicago area in a way that paralleled the view expressed by Dewey himself looking back on the progressive movement from the perspective of the early 1950s. 15 Zilversmit put it this way: "The ultimate failure was that so much of progressivism's apparent success was rhetorical. While some schools and individual teachers had

heeded Dewey's call for a more child-centered school, most had given only lip service to these ideas while continuing older practices." Schools that adopted progressive teaching with any depth and seriousness were few, and these efforts usually did not last. Private progressive schools popped up, flourished for a while, and then typically reverted to type when the founder died or moved on. Public school systems that took the plunge likewise slipped back to a more traditional academic curriculum over time.

WHY THORNDIKE WON. First, the administrative progressives' reform message appealed to people in power. Business and political leaders were attracted to a mode of educational reform that promised to eliminate waste, to organize and manage schools more efficiently, to tailor instruction to the needs of employers, to Americanize the children of immigrants, and to provide students with the skills and attitudes they would need to perform and to accept their future roles in society. For people who could make these reforms happen, this was the right message at the right time.

Second, the utilitarian quality of the administrative progressive agenda was easier to sell than the romantic vision of the pedagogical counterparts. Administrative progressives were offering a way to make schools work better in serving society's needs, whereas the pedagogical progressives were offering a way to make learning more natural, more intrinsically engaging, more authentic. In a contest between utility and romance, utility is usually going to win. It promises to give people something they need, not merely something they might like.

Third, the administrative progressives argued that their agenda stood on the authority of science. The pedagogical progressives also drew on science in making their claims (for example, Dewey published a book in 1929 called *The Sources of a Science of Education*), but they had a harder time demonstrating the empirical effectiveness of such diffuse notions as child-centered instruction and the project method. Meanwhile the social efficiency leaders adeptly deployed data from a flood of tests and statistics and school surveys to prove the value of their reforms.

Fourth, as Lagemann points out, Dewey lost the battle for the schools in part because he retired early from the field.¹⁷ His direct involvement in schools lasted only eight years, from the founding of the Laboratory School in 1896 until the time he left Chicago and entered the philosophy department at Columbia University in 1904. After that, his work on education was spun out of memory and woven into theory, giving it an abstract and academic air, and these qualities became an enduring legacy for the pedagogical pro-

gressives. In contrast, the administrative progressives were deeply involved in the schools as administrators, policymakers, curriculum developers, and educational researchers. Empirically grounded, personally engaged, and resolutely practical, they enjoyed enormous credibility in promoting their reform agenda. Under these circumstances, it should be no surprise that Dewey's main effect was on educational rhetoric while Thorndike's main effect was on educational practice.

Finally, the administrative progressives' focus on the management of schools and the structure of the curriculum gave them an important power advantage over the pedagogical progressives, who focused on teachers and their practice in the classroom. Teachers were in a weak position to effect change in the face of opponents who were school administrators and educational policymakers. This was especially true when the latter had managed to define the administrative and curriculum structures within which teachers had to function. Even teachers who wanted to carry out child-centered instruction in their classrooms found themselves confined within a bureaucratic school system that mandated a differentiated and vocationally oriented curriculum nonconducive to this kind of teaching. Under these circumstances, it is no surprise that teachers were more likely to adopt some rhetoric from pedagogical progressivism and to inject some token activity and movement into their classrooms than they were to implement the full Deweyan agenda.

How the Rhetoric of Pedagogical Progressivism Came to Rest at the Ed School

So how did the triumph of the administrative progressives affect education schools? As Michael B. Katz has argued, academic units focused on education started out with a critical stance toward their subject, but by the 1930s they had evolved into a strictly functional role supporting the existing system of schooling. By this time, schools were organized according to the principles of administrative progressivism. They were professionally managed organizations devoted to the production of socially efficient educational outcomes. They sorted students by academic ability and future job prospects and then provided a stratified curriculum designed to meet these highly divergent needs. The job of education schools was to prepare teachers and administrators who could operate efficiently within this model of schooling and to carry out research that would make the system run more smoothly.

It was a job, to be sure, but it was not much of a mission. Ed schools presented the education professor as a functionary, a cog in the new social efficiency education machine, but this left the professor with nothing to profess. Administrative progressivism promised a cold and scientific kind of educational efficiency. This was cause enough for some professors. Many of the administrative progressives were themselves education professors, particularly those in programs such as administration, educational psychology, and testing. Yet for most of the faculty, especially those involved in curriculum and instruction and teacher education, this was not the kind of cause that made them want to jump out of bed in the morning and race into work.

With their roles thus downscaled and de-skilled, it is easy to understand why the success of administrative progressivism reinforced the education faculty's attraction to pedagogical progressivism. The latter was a vision of education that could get an education professor's blood pumping. Pedagogical progressivism proposed to do much more than just make schools efficient. It called for turning education upside down, by having the purposes and interests of the student drive the curriculum instead of forcing the curriculum onto the student. It offered a way to free schools from artificial constraints and rigid disciplines and unleash the student's natural impulse to learn. It proposed to recreate the classroom as a model democratic community of learners, which could become a way to reduce injustice and enhance democratic equality in the larger society.

Pedagogical progressivism, therefore, may have lost the fight to shape practice in schools and even in education schools. But the vision was still alive, and in the education school it found an ideological safe haven. It offered most education professors the mission they needed to infuse meaning into their newly redefined work as teacher educators and functionaries in the educational machine. They did their teaching and research within the structure defined by Thorndike, but their hearts and minds belonged to Dewey. Not for nothing has Dewey's picture been found on the wall in so many education school offices for so many years.

This rhetorical entrenchment of pedagogical progressivism within the education school posed no serious threat to the accomplishments of the administrative progressives. Early on, the two groups in the progressive movement had in effect divided the territory between themselves, with one taking the ground and the other taking the air: The administrative progressives focused on organization and the pedagogues on rhetoric. As Lagemann suggests, it probably all started when Dewey left the lab school for the phi-

losophy department. The control of the administrative progressives over organization, curriculum, and practice in schools was so secure that they could afford to have faculty members in education schools spouting the creed of child-centered instruction. The professors could teach the language of Dewey to teacher candidates, employ it in decorating their scholarship, and talk it up in their workshops in schools. Teachers, too, could come to talk the talk of pedagogical progressivism, but, like the professors, they also had to work within the differentiated and vocationally oriented structure of schooling created by the administrative progressives, so the consequences for this structure were minimal.

The persistence of a harmlessly rhetorical form of pedagogical progressivism within the education school also proved useful to the newly established administrative progressive order in schools by providing it with much-needed ideological cover. Social efficiency education, when examined closely from the perspective of American traditions of democratic equality and individual opportunity, was not an attractive sight. As a social process, it sorted students into ability groups based in part on social origins, provided them with access only to the knowledge deemed within their ability, and then sent them off to particular positions in the pyramid of jobs based on their academic attainments. As an educational process, it was mechanistic, alienating, and dull, with a dumbed-down curriculum and a disengaging pedagogy. This was a coldly utilitarian and socially reproductive vision of schooling, and the offer it made to students-learn a skill and take your place in the work force—was hard to get excited about and easy to refuse. Into this efficient and heartless environment, the romantic educational vision of the pedagogical progressives introduced welcome elements, such as natural learning, student-centered teaching, interest-based curriculum, and possibilities for personal fulfillment and social improvement. Therefore having education schools imbue student teachers with a commitment to this kind of engaging and optimistic form of teaching and learning helped make the whole prospect of social efficiency education seem a little more palatable.

The Consequences of Ed School Culture: Little Harm, Little Help

In light of the ed school's many failings, critics not surprisingly often identify it as a prime source of the problems with American schools. But I have some good news to report: The ed school is simply too weak to per-

petrate such a crime. Institutionally it is clearly implicated in the work of schools, and rhetorically it provides support for some of the problems in schools, so it cannot claim to be innocent of their failings. But if a fair-minded jury examined the evidence for the charge that the ed school has ruined public education, it would find enough room for doubt to render a verdict of not guilty.

For many critics this charge rests on the ed school's deep attachment to progressive ideas. These ideas are dangerously wrong, they say, and the ed school has done its damage to the schools by forcing these ideas into the classroom through the media of teacher education and educational research. They see this impact occurring in two main areas. Ed school progressivism, they argue, has directly undermined the content of the curriculum in schools, promoting activity and skill training over the acquisition of substantive knowledge; and it has undermined the commonality of the curriculum, promoting differentiated access to knowledge and thus sharply increased social inequality. In exploring this indictment of the ed school, I draw on two prominent books that make this case with vigor, *The Schools We Need and Why We Don't Have Them*, by E. D. Hirsch Jr., and *Left Back: A Century of Failed School Reforms*, by Diane Ravitch.¹⁹

Undermining Academic Content

On the issue of identifying the ed school's role in undermining content, no one has been more effective than Hirsch, who sees the root of the problem in what he calls the formalism and naturalism of the progressive approach to education. His reaction to the progressives' formalism—their love affair with the learning process—is to assert that learning has to be about something, namely the subject matter in the school curriculum.

It is a fallacy, then, to claim that the schools should or could teach all-purpose reading, thinking, and learning skills. But paradoxically, adequate attention to the transmission of broad general knowledge actually does lead to general intellectual skills. The paradox is quite stunning. Our emphasis on formal skills has resulted in students who are deficient in formal skills, whereas an appropriate emphasis on transmitting knowledge results in students who actually possess the skills that are sought by American educators—skills such as critical thinking and learning to learn.²⁰

In response to the progressive vision of a naturalistic pedagogy, Hirsch argues that nothing necessarily natural exists about the kind of learning

children are expected to do in school. Children learn spoken language on their own through informal interaction with family and friends, he acknowledges, but learning to read is something different, because it requires systematic instruction to accomplish it effectively and efficiently. He argues that learning is too important to be left to the discretion of minors, that developmentalism leads to delaying and differentiating students' access to knowledge, and that holistic, project-based instruction fails to establish a solid basis for learning in the individual disciplines.

This critique makes considerable sense to me. Something is dangerous about the way pedagogical progressives emphasize process over content, treating curriculum as an open category to be filled by whatever substantive knowledge is convenient in hopes of teaching students to learn on their own. Hirsch, however, is more effective in explaining the potential damage that progressive ideas might have on the content of the curriculum than in demonstrating that they have had this effect. The problem is in trying to show that the ed school—the sad sack of American higher education—has had the muscle to inflict so much damage. Hirsch acknowledges the weakness of ed schools; in fact, he emphasizes this issue. But he tries to spin the weakness of ed schools into a form of strength. After detailing how education professors are held in low esteem by their colleagues at the university, he argues, "The plight of education schools in the universities is counterbalanced by their enormous importance in the sphere of teacher certification and their huge ideological influence in the nation's schools." 21

He suggests two factors that give ed schools the leverage to suppress academic learning in American classrooms: their structural role in certifying teachers and their ideological dominance in the education community.

THE ED SCHOOL'S CONTROL OF TEACHER CERTIFICATION. Ed schools do occupy the central position in the structure for certifying teachers, which potentially gives them considerable power, and they use this position to try to convert their student teachers to the progressive view of teaching—as an inquiry-based, child-centered, and activity-oriented practice aimed at promoting learning skills rather than at transmitting an academic curriculum. However, several factors severely undercut that power. For one thing, prospective teachers can get into the classroom in several ways without first passing through an ed school teacher education program, which include pursuing one of several different alternative certification programs and getting hired with little or no formal training by means of a temporary, provisional, or emergency license.²²

But the most important factor that belies the ed school's "enormous importance in the sphere of teacher education" is the consistent finding in the research on teacher education that these programs exert remarkably little impact on the way their graduates teach. In a review of the literature on teacher change, Virginia Richardson and Peggy Placier report that teacher education programs are more effective at moving "students to the point of indicating on a short-answer or multiple-choice test that they have acquired academic knowledge about teaching and learning" than at changing their fundamental views about teaching.

What we see expressed in these current studies of teacher education is the difficulty in changing the type of tacit beliefs and understandings that lie buried in a person's being. These cognitions and beliefs drive everyday classroom practice within local contexts.²³

One study after another reported "that students did not change their beliefs and assumptions about good teaching during the course of their teacher education programs." Instead, studies found "that the novices' perspectives tended to solidify rather than change over the course of the student teaching experiences."²⁴ (I explain some of the reasons for this elsewhere.)²⁵

Prospective teachers learn about teaching from a sixteen- or seventeen-year apprenticeship of observation as students, which provides them with a powerful attachment to an image of teaching that several years in a teacher preparation program can do little to change. Compounding this resistance to the teacher ed message is the strong belief among prospective teachers and the public at large that teaching is natural and easy and therefore does not require extensive professional training. Finally, student and novice teachers are quickly drawn into the culture of practice in the schools, which to them represents the compelling practical story about teaching in contrast with the less useful theoretical version they get in the ed school.

So, contrary to Hirsch's claim, the ed school's structural position as the conduit for teacher preparation and certification has not given it the kind of power that would be required to divert schools from academic learning to the progressive focus on learning to learn. But what about its ideological position as the mother church of the progressive creed?

THE ED SCHOOL'S CONTROL OF EDUCATIONAL RHETORIC. Here Hirsch is on stronger ground. The primary accomplishment of the ed school's pedagogical progressives in the first half of the twentieth century was to gain

hegemony over educational discourse in the United States. About this point there does not seem to be much disagreement.

Looking closely at most of the claims people make about the dominance of ed school progressivism over American education, the strongest evidence is found in rhetoric instead of practice. For example, Jeanne S. Chall, in The Academic Achievement Challenge, mounts a book-length attack on progressivism for undermining academic achievement in schools. This book provides a useful analysis of the central differences between progressive and traditional ideas about pedagogy and curriculum, but it never demonstrates that the former established itself in school practice at the expense of the latter. In chapter 7, "Student-Centered Education: From Theory to Practice," Chall seeks to address this issue directly. She begins by noting that "some researchers have found that progressive education was not as widely implemented in practice as was thought earlier," citing in particular the work of John I. Goodlad and Larry Cuban.²⁷ She then goes on to say, "And yet, it would seem that most schools were influenced in some ways by progressive education. This influence was reflected by their accepting certain concepts and beliefs from progressive education without necessarily implementing the broader program."28

This is hardly a strong claim about the impact of progressivism on practice, is it? She talks about how "it would seem" progressivism had an impact "in some ways," especially given that the impact was primarily on "accepting certain concepts and beliefs" rather than "implementing the broader program." In the rest of the chapter she does little to show the effect of theory on practice, presenting instead a series of examples that for the most part demonstrate the way educators talk about schooling, using progressive ideas such as "readiness," "naturalness," and "the whole child."

Consider other examples. From within the ed school community, John Goodlad's 1983 study of more than one thousand classrooms in thirty-eight elementary and secondary schools in all regions of the United States presents a detailed portrait of teaching that fits the traditional model much better than the progressive model.²⁹ Or a recent study by the Manhattan Institute purports to show the impact of progressive ideas on teacher's practice (the title is *What Do Teachers Teach?*), but it is based on a survey of teacher beliefs about teaching, not their practices, and thus it confirms only the familiar point that teachers talk about what they do in the language of progressivism.³⁰

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Differentiating Access to Knowledge

In *Left Back*, historian Diane Ravitch argues, parallel to Hirsch, that, over the course of the twentieth century, ed school progressivism undermined the academic content of the curriculum in American schools. But she emphasizes another related aspect of its negative impact on learning—the way progressivism produced a differentiated access to knowledge and thereby destroyed the democratic promise inherent in public education.

As enrollments in school increased in the early twentieth century, there was a decided split between those who believed that a liberal education (that is, an academic curriculum) should be given to all students and those who wanted such studies taught only to the college-bound elite. The latter group, based primarily in the schools of education, identified itself with the new progressive education movement and dominated the education profession in its formative years.³¹

Curriculum in American schools is differentiated, especially at the secondary level; on that point there is wide agreement. Students are exposed to different kinds of knowledge, and this differentiation takes three forms: tracking within schools, ability grouping within classrooms, and tracking between schools. Ravitch's concern about this differentiated curriculum, similar to the concern expressed by Hirsch in the bestseller *Cultural Literacy*, is that it prevents students from acquiring the common body of knowledge that they need to function effectively as citizens in a democracy.³² The problem with ed school progressivism, she argues, is not only that it undercuts the academic curriculum in general in favor of vocational and student-initiated studies, but also that it limits access to this rich resource to only a few of the most privileged students in the top tracks and at the best schools. For the less privileged students, the curriculum becomes diffused, dumbed down, vocationalized, and socially limiting.

This is a familiar argument in the research literature in education, but it has usually come from the political left. An entire body of work known as social reproduction theory emerged in the 1960s, which argued that schooling serves to reproduce social inequality by sorting students according to their social origins, tracking them into stratified classes that gave them access to different levels of knowledge, and then channeling them into jobs at different levels in the stratified occupational structure, with the result that students from the various social classes and ethnic groups end up in positions similar to the ones occupied by their parents.³³

The difference in *Left Back* is that Ravitch does not present the pattern of stratified learning and stratified social outcomes as the result of the basic inequality in the structure of American society, but instead as the result of misguided curriculum ideas promulgated by ed school progressives. On this point we disagree. She portrays the whole progressive movement as the cause of the problem, whereas I lay the blame primarily on the administrative progressives. In the struggle for the control of the progressive movement, the administrative progressives succeeded in exerting the greatest impact on practice, while the pedagogical progressives had the greatest impact on rhetoric.

Administrative Progressives Did It

Curriculum differentiation arises from two central principles of the administrative progressives—developmentalism and social efficiency. According to the developmental approach, education can be effective only if it is tailored to the developmental needs of the individual student. From this perspective, a common academic curriculum is counterproductive, because it fails to take into account what kind of learning students will be able to accomplish in light of their cognitive capabilities at a given point. Pitching the curriculum too fast or too slow, too high or too low for a particular student will produce frustration and failure instead of learning. Therefore, a student's level of learning must be assessed through systematic testing and then that student should be assigned to the appropriate curriculum. And as a practical matter, given that individualized instruction is unrealistic in a classroom of twenty-five or thirty students, this means assigning each student to an appropriate ability group or tracked class along with other students who are at approximately the same developmental level.

The principle of social efficiency operates at two levels in the administrative progressive approach to curriculum. At the societal level, social efficiency means that schools need to produce graduates who are capable of filling the full array of occupational positions in a complex social structure if the society is going to function efficiently. Because different jobs require substantially different kinds of knowledge and skill, schools need to differentiate the curriculum in a way that approximately matches the differential knowledge requirements of these jobs. Under these circumstances a common academic curriculum is dysfunctional, both because the commonality of learning fails to meet the needs of a differentiated society and because the

academic nature of learning fails to prepare students for the practical demands of work. At the school level, social efficiency means that schools need to organize themselves in a manner that allows them to manage this complex instructional task efficiently. A heterogeneous collection of students needs to be assigned into grades by age and then assigned into ability groups and tracks by development level. To do this, a system of testing and a stratified array of course options, whose number and distribution are a function of the capabilities of the students and the capacities of the staff, are required. Because this system embeds ability in track level more than grade level, and because students tend to stay in the same track during their school careers, social promotion must be instituted keep students moving through the grades and out the door.

The administrative progressives' devotion to developmentalism and social efficiency led not only to a curriculum that was differentiated but also to one whose academic content was substantially lower than before. If school subjects have to be adjusted to the capacities of students and to the requirements of the job market, and if most students have modest capacities and most jobs have modest skill requirements, then only a few classes need provide a rigorous academic content for the college-bound elite, while most students need classes that are less academic, less demanding, and better suited to their modest future roles in society. This is a straightforward prescription for diluting academic content. As a result, the administrative progressives were responsible for turning the meat of academic subjects into meatloaf, with such inventions as social studies, general science, and home economics. The recommendations of the Cardinal Principles report, the canonical statement of the administrative progressive view of the curriculum, defined the seven goals of education as almost everything but academic learning-including "health," "command of fundamental processes," "worthy home membership," "vocation," "citizenship," "worthy use of leisure," and "ethical character." The report was explicit on the centrality of vocational studies and the marginality of the academic.

The range of such curriculums should be as wide as the school can offer effectively. The basis of differentiation should be, in the broad sense of the term, vocational, thus justifying the names commonly given, such as agricultural, business, clerical, industrial, fine-arts, and household-arts curriculums. Provision should be made also for those having distinctively academic interests and needs.³⁵

Therefore, on the charge that ed school progressives ruined schools by eradicating academic content, I say they tried but failed. On the charge that

they ruined schools by differentiating the curriculum, I say, flat out, they did not do it. In fact, they were philosophically opposed to this effort. The real culprits in both cases were the administrative progressives, who had motive and opportunity, and whose guilt is well supported by the evidence.

Ed Schools Did Not Even Do It to Themselves

Although the rhetoric of ed schools is unrelentingly progressive, their practice is not. At these institutions both the production of research and the preparation of teachers take place under a veneer of pedagogical progressivism, but in each case the internal machinery supports the operation of the social efficiency structure of schooling, with one supplying its technology and the other its technicians.

First, consider the practice of research. At the end of her authoritative history of American educational research, Ellen Condliffe Lagernann concludes that this research took an early direction whose legacy for education is "deeply troubling."

To look at the history of education research is to discover a field that was really quite shapeless circa 1890 and quite well shaped by roughly 1920. By that date, research in education had become more technical than liberal. It was more narrowly instrumental than genuinely investigatory in an open-ended, playful way.³⁶

What emerged from this foundation was the tradition of research on teacher effectiveness that became the dominant form of educational research in the twentieth century, as Alan R. Tom and Lee S. Shulman show in their respective surveys of the subject.³⁷

By the end of the century, this type of work was under fire from other researchers, who advanced alternative forms of research that were less prescriptive and more interpretive and that fostered a pedagogy that was more progressive. But a good case can be made that the instrumental approach is still alive and well and continues to occupy a strong position in the field. In his review of the research literature, Robert E. Floden finds considerable "evidence that research on teaching effects is vital and highly regarded." A key reason for that is that many policymakers and funding agencies are now asking researchers for more evidence regarding effects on student learning. The No Child Left Behind Act (P.L. 107-110), signed into federal law in 2002, included language mandating scientifically based research to support programs with proven effectiveness, which led to the establishment of

guidelines for authoritative research about effective methods in the Education Department's What Works Clearinghouse and which also quickly prompted the education research community to come up with its own defense in *Scientific Research in Education*.⁴¹

This is a good case of how structural imperatives trump rhetorical commitments for educational researchers. Ed professors may prefer the progressive approach to teaching and learning, but all of the mandates and incentives from policymakers, school administrators, and funding agencies line up behind a demand for research that shows "what works"—in particular what techniques and curricula demonstrably raise the scores of students in tests of academic achievement.⁴² Throughout the twentieth century, progressive-minded researchers have dutifully lined up to play a supporting role in this effort.

A similar pattern is evident in the practice of teacher preparation. The university education school, in its formative phase in the early twentieth century, adapted itself organizationally to the emerging structure of professional roles in the school systems created by the administrative progressives. In so doing, it traded critical distance for lasting functionality. As Michael Katz suggested, education professors could have treated their field as a discipline, establishing for themselves a role in generating innovative ideas about education and in providing independent criticism of the way things are done in schools.⁴³ But this would have meant ceding the main work of preparing educational practitioners to the teachers colleges, thus permanently confining university ed schools to the margins of the burgeoning educational enterprise. So, instead, the education faculty adopted the model of the professional school, organized around the production of practitioners for the socially efficient school system, a strategy that opened up large and lasting opportunities for creating faculty positions and attracting research dollars. This gave ed schools a sizable, visible, and enduring role in the vast arena of public education, but it locked them firmly in place within the existing educational structure. Their critical stance toward education was reduced to a pedagogical progressivism that necessarily remained primarily rhetorical, while they focused their instructional efforts on preparing students to work in the real world of schools.

Thus in the preparation of teachers as well in the production of research, structural realities triumphed over rhetorical ideals for the American ed school. Education professors may prefer to produce teachers who will carry

out the progressive ideal of student-centered, integrated, and inquiry-based learning, but they have accommodated themselves, however reluctantly, to the role pushed on them, which is to prepare teachers who will fit into the existing pattern of teacher-centered, differentiated, and curriculum-driven instruction in schools.

Ed Schools Are Easy to Blame but the Fault Lies Elsewhere

Ed schools are an obvious and easy target for anyone who wants to place blame for problems with American education. They are obvious because they are so clearly in the middle of things, preparing teachers and producing research, purveying the talk that educators talk. They are easy because their social standing is so low, because their progressive rhetoric is so close to self-parody, and because their weakness leaves them in no position to fight back effectively.

The problem with this situation is that blaming ed schools for these problems is simply wrong. Education professors love to talk like John Dewey, but, like everyone else in education, they walk in the path of Edward Thorndike. If their progressive rhetoric were faithfully put into practice in American classrooms, the impact on teaching and learning might be negative in significant ways. I agree with critics that the progressive emphasis on classroom process over curriculum content and on discovery by students over instruction by teachers could be harmful to teaching and learning. But these critics can relax. The impact has been minimal. The mistake that critics have made is in taking education professors at their word instead of watching them in action, in listening to teachers talk about their practice instead of observing what they do in the classroom.

Comment by E. D. Hirsch

David F. Labaree's historical analysis of progressivism belongs in the tradition of Larry Cuban, Arthur Zilversmit, and, most recently, Ellen Condliffe Lagemann. That tradition readily concedes that romantic progressivism has permeated education schools to the point of intellectual monopoly, but, according to these historians of education, romantic progressivism has never taken over the public schools as a method of teaching. As proof of this they

show that a considerable amount of whole class instruction is still going on, that students' seats are still arranged in rows, and that students are still asked to complete exercises in workbooks. I am inclined to concede this point, as I think all educator historians probably should, given the believable observational reports, most recently from Jay Matthews. I have always assumed that this claim of progressive apologetics was probably right in a narrow sense.

At the same time, I have long thought that this narrow point is almost completely irrelevant to the most important historical influence of progressivism, which is less its influence on pedagogy than its influence in diluting and fragmenting the elementary curriculum to a truly harmful and indefensible degree.

One of the troublesome features of the discipline of history is that, although it may carry the trappings of punctilious scholarship, its interpretation of the potentially infinite data is not something that can be given by the data themselves. The data supporting one historical interpretation are never the same as the data supporting another. Thus, without declining into facile postmodernism, one can accept the disconcerting, long-conceded point recently made once again by Arthur Schlesinger Jr. when reviewing a new biography of Andrew Jackson: History is an unending conflict of conversations. Regarding the conversation about the influence of progressivism, this history clearly is very different when looked at through one filter than it is when looked at through another.

Cuban's book, which founded the tradition in which Labaree now writes, is entitled *How Teachers Taught*. Cuban's point, like Labaree's, was that teachers are on the whole still teaching the same way they did in 1890. Hence progressivism, despite all the complaints leveled at it, has had negligible real effects in the schools.

But turn a different filter on the data, and consider a somewhat different topic about the history of American elementary schools, namely what teachers taught. This is a curiously understudied historical topic. Some data on the topic in the form of preserved tests from earlier days, and earlier textbooks, suggest that elementary students in the public schools received a demanding and coherent set of learnings. But this is, as I say, a neglected topic, and I believe it is hugely significant that Cuban, and Labaree, and the dominant tradition of ed school–generated history have disregarded the subject of what teachers taught.

The resulting focus on pedagogy and the resulting neglect of content in historical studies themselves may be owing to the progressivist sympathies of the historians, who seem to assume, in concord with the ideas of progressivism, that the specific content of the elementary curriculum is not of central historical or educational importance.

But I believe most people would think that the subject has high historical significance. Granted that a golden age of American education has never existed, was there nonetheless a time during the pre-progressive era when a typical public school determined specifically what content children should learn in first grade, second grade, third grade, and so on, so that the content of one grade could build on the previous one in a cumulative, nonrepetitive way? To those outside of the progressive dispensation, this would seem to be a significant historical question. And I believe and predict that when historians get around to studying this question in depth the answer will prove to be, "Yes, there was a time when the elementary school curriculum was specific, cumulative, and nonrepetitive."

By contrast, this has certainly not been the case in recent decades, under the dominant progressive dispensation. I know that at first hand, because for the past decade I have been visiting schools that wish to adopt the Core Knowledge curriculum, and until the recent advent of the state standards movement, those schools have had no difficulty adopting it while still following their vague district guidelines. This strange fact first caused the Core Knowledge movement to come to national notice. A reporter from the Wall Street Journal had heard about a public school in Florida that had decided to adopt the Core Knowledge curriculum. On the scene, the reporter asked the principal what curriculum the Core Knowledge curriculum had replaced. When the principal said that it had not replaced anything, that the school was still following the local guidelines and teaching Core Knowledge at the same time, the reporter, a hard-headed investigative type, pressed further. "Look, it had to replace something," he repeatedly said. "No," persisted the principal, "we're still following the district guidelines, we're just putting in some definite content."

What the principal said was true, and under the progressive dispensation it has been true until recently in nearly every district in the nation. There has been essentially no elementary curriculum in the ordinary meaning of the term. The district guidelines typically said: "The student will learn about distant lands and customs." "The student will practice critical thinking." Into such rubrics almost any content could be fit, with the result that the actual curriculum received by students has often consisted of numbing repetitions of lessons about the rain forest and *Charlotte's Web* and glaring gaps where

there should have been instruction about photosynthesis and the American Revolution.

Labaree and Lageman want to blame all this on the so-called administrative progressives fathered by Edward L. Thorndike instead of the romantic progressives fathered by John Dewey. But, in a telling passage in Labaree's paper, he discusses the implications of Thorndike's ideas. Thorndike had exploded the notion that studying hard subjects such as Latin disciplined the mind, enabling it to tackle other, unfamiliar hard subjects. No, according to Thorndike, transfer of skill from one subject matter or discipline to another is not evident, and this finding is still strongly supported today. And what are the curricular implications of Thorndike's argument? Many cognitive psychologists would say that his finding supports the idea of a broad general early education in the humanities, arts, and sciences, precisely because skills are not transferred, and nobody can predict what specific line of endeavor a student will later pursue. But, as Labaree points out, this inference was not drawn by either the administrative or the romantic progressives. The administrative types thought that what children should study would be determined by their intelligence quotients (IQs) or their parents' station in life. The romantic types thought that what children should study would be determined by their individual temperaments and stages of development. Both left content up for grabs. Labaree makes an important admission: This general tendency against defining any curriculum was agreeable to both parties—both the administrators whom he blames and the romantics whom he exculpates by suggesting they had no influence. But this is a crucial concession regarding the influence of both kinds of progressivism, because the abandonment of a common democratic elementary curriculum whether in the name of social pseudoscience or in the name of romantic individualism was the most crucial change that the movement wrought.

But that point about content aside, I think it is wrong to suggest that progressivism had no significant effect upon pedagogy. Three familiar examples from recent decades prove this point. First, the whole language method of teaching reading was disastrous. Reading pedagogy belongs to the sphere of pedagogical method. The whole language method, the grandchild of the whole word method sponsored by William H. Kilpatrick and other progressives in the 1920s, is an idea that must be laid at the feet of the ed schools. Ed schools indoctrinated teachers in the virtues of this method of teaching reading. Not only that, ed schools, with their characteristic intol-

erance of dissent, directed heavy scorn against those who, like my former ed school colleague Connie Juel, dared to suggest that the scholarship went the other way. A gentle person, she was upset constantly to be called derisively a "phonicator." The whole language movement was a child of the ed schools, hatched and nurtured there, successfully pressed upon future teachers, and still, miraculously, widely advocated there.

Second, teaching critical thinking skills was advocated at the expense of definite content. This pedagogical idea has been adopted by both administrative and romantic progressives. That such abstract methods should be attributed to the tradition of Thorndike is paradoxical, because the idea of transferable critical thinking skills contradicts his central and most important finding, namely that there are few abstract, transferable thinking skills. Modern psychology has upheld his finding, but that has done little to dampen the persistent and influential promulgation of this idea to fledgling teachers in ed schools.

Other examples would include the anti-procedural pedagogy for teaching mathematics and the anti-grammar pedagogy for teaching writing. These pedagogies have been born and bred in ed schools. They were not the independent inventions of teachers.

Finally, the most important pedagogical influence of all is the derogation of mere fact and the consequent failure to insist upon subject matter knowledge by teachers. This is an ed school sin of omission, not commission, and therefore could easily be overlooked by apologetic historians. But the illeducation of teachers, their lack of general knowledge, must be the gravest influence that the ed schools have exercised on the schools. Among the few reliable findings in educational research is the correlation of student gains in achievement and skill with the subject matter knowledge of their teachers. The influence of progressivism in perpetuating teacher ignorance should not be omitted from the historical account, nor should it be forgiven.

While conceding some of the shortcomings of romantic progressivism, Labaree seems content to say that ed schools have, after all, been fairly harmless. He seems willing to leave the matter there. He agrees that conformist pressure exists in ed schools for all faculty to adhere to the dominant progressivist ideology, yet he does not call for a new, more vigorous culture of debate and dissent or of self-criticism.

His most astonishing concession is that ed schools make essentially no difference. He says that teachers teach the same way whether they go to ed school or not. Why, then, send teachers to ed school, when they might be

learning history or math—to the future benefit of their students? So the defense of ed schools has come to this. Do not pick on them. They are harmless. They do not do much good, but neither do they do much harm. I wonder if this may be the last gasp of public self-defense of ed schools. It conflicts with the standard defense that ed schools ensure teacher quality. Accepting Labaree's arguments would mean throwing that dubious defense away. If they are as impotent and ineffectual as he insists, why, then, have ed schools at all and why should states require future teachers to gain degrees from them?

But, in fact, ideas are not so harmless as Labaree avers. The ideas with which teachers are forced to be indoctrinated to teach are a mixture of false-hoods and half-truths that have had the historical effect of depressing student achievement and widening the gap between advantaged and disadvantaged children. John Maynard Keynes was right when he said that "soon or late, it is ideas, not vested interests, which are dangerous for good or evil."

Comment by Barbara Beatty

David F. Labaree is brave to be so critical of education schools. He comes from the ed school world, and while he tries to get ed schools off the hook for some of the many things for which they have been blamed, he admits that ed schools have little to show for themselves. The best he can say is that they have done little harm, faint praise indeed. This will win him no friends among his colleagues, and his exoneration of the ed school on grounds of incompetence will not endear him to its critics, as E. D. Hirsch Jr.'s remarks suggest.

I teach in an education department in a liberal arts college, so this is my world, too. But it does not feel quite the same, which is one of my main critiques of Labareee's provocative piece. Teacher education programs are not all alike, whether they are located in an ed school or department of education, and this variation matters.

I am grateful for the comments of Linda Eisenmann, Ken Hawes, Patricia Graham, and Geoff Tegnell and other members of the Boston-area history of education study group and of David F. Labaree and other participants at the Brookings conference on education policy, held in May 2003.

Nor did the rhetoric of pedagogical progressivism win out in ed schools as decisively as Labaree argues. Many contenders have appeared for the hearts and minds of teacher educators, many from outside of ed schools. And ed schools may, and might, have had more impact on teachers than Labaree argues, in both helpful and harmful ways. So, depending on one's view of what is educationally desirable, critics such as Hirsch and Diane Ravitch and others who say that ed schools have impeded the movement toward higher standards and achievement may be partly right.⁴⁴ But ed schools also deserve some credit for moving the standards movement along and for some other things as well.

Labaree's basic argument is that ed schools should not be blamed for dumbing down the academic curriculum, because pedagogical progressives who espoused child-centered education were too weak to have had much impact on schools. Instead, a second group of bad administrative progressives did the damage. This assumes that all ed schools were the same, that the ideas of ed school progressives fit neatly into these two types, that pedagogical progressives dominated ed school rhetoric, and that these were the only main actors in teacher education. I think the story is more complex.

First, following the Carnegie classification of institutions of higher education, big differences exist among ed schools and departments in first-, second-, and third-tier public and private colleges and universities. These institutions attract different calibers of students and faculty, have more or less students majoring in education, and are more or less dependent on the tuition of teacher education enrollments, which affects the status of teacher education programs within the institution. Urban, suburban, and rural location, religious affiliation, and the race, gender, and social class background of the student body can matter significantly, too, and many other variables give institutions distinct character, as I know Labaree knows. To discuss ed schools as a uniform archetype ignores this variation and its historical origins.⁴⁵

Progressivism also comes in many varieties, as Labaree knows. I am not sure that the typologies that historians use when discussing progressive education generally fit as well for teacher education, because it was so influenced by psychology, which has a different history. When psychology evolved at the end of the nineteenth century it rapidly "colonized" teacher education. This happened because teachers turned to psychologists for help, because many believed that a science of education could be created, because education had a weak knowledge base and low status, as Labaree

correctly emphasizes, and because psychologists needed jobs. In 1898 Harvard University psychology professor Hugo Münsterberg wrote to Columbia University Psychology Department chair James McKeen Cattell, "My elementary psychology course has ... 360 students—what will this country do with all these psychologists?"⁴⁷ The answer was that many of them would work in teacher education programs. Almost three quarters of the recipients of doctorates in psychology from Clark University in the 1890s, where G. Stanley Hall was president, found work in teachers colleges, training schools, or child study departments. Hall, John Dewey, Edward L. Thorndike, and many if not most of the prominent progressives involved in education were psychologists by training, as were so many other theorists whose ideas have influenced teacher education.

It seems unfair to make ed schools bear full responsibility for the effects of ideas that came from psychology, though educators adapted and used these theories selectively. Nor should ed schools be blamed for the consequences of depending on psychology, when psychology is written into most teacher certification regulations. The Massachusetts Regulations for Teacher Licensure, for instance, require "knowledge of human development to identify learning activities appropriate to the specific discipline, age, and range of materials being taught." Federal education policy relies more heavily than ever on appeals to scientifically based, psychologically derived knowledge about education. But this knowledge is difficult to leverage, because psychology has its own research agendas and is often taught to teachers by psychologists who come from psychology departments, not ed schools.

Another important effect of this colonization is that, because psychology was pluralistic from its inception, many different, often conflicting types of psychology competed for teacher educators' and teachers' attention. Sociology, anthropology, and other fields also invaded ed schools. The result has been a lack of consensus, what former Harvard Graduate School of Education dean Patrica Albjerg Graham has called a "cacophony" of constantly changing views.⁵⁰

These "plural worlds of educational research," to borrow Ellen Condliffe Lagemann's phrase, overlapped within ed schools, such as Teachers College, where student teachers might be reading Dewey while also taking courses with Thorndike.⁵¹ Diverse strains of psychology replicated and recombined through hiring patterns in ed schools and departments throughout the country. Influenced by the senior psychologists under whom they trained, successive generations brought their varying allegiances with them to the ed

schools and departments where they worked.⁵² The rhetoric of teacher education programs and theories that teachers were taught about teaching and learning could differ considerably depending on the varieties of psychology represented on the faculty.⁵³

As these strains of psychology evolved, spawned hybrids, and new psychologies emerged, they became encrusted in teacher education. Because this was a cumulative, not an empirical, process, theories piled up, creating a wildly eclectic mixture from which teacher educators and teachers could pick and choose. Over the course of the thirty years that I have been involved in teacher education, I have taught student teachers about Ivan Pavlov's schedules of reinforcement, Sigmund Freud's mechanisms of defense, B. F. Skinner's behavior modification, Jean Piaget's stages of development, and more. Most educational psychology texts contain remnants of these different views, along with newer ideas from cognitive psychology. As these psychologies have accreted, they have taken up more space in the teacher education curriculum, space that arguably might be used for other, more productive purposes.

I am not lumping these theories together intellectually, but given that all of these psychologies ended up in ed schools, why should ed schools as institutions be blamed for some of the ideas they harbored and not others? Deweyan pedagogical progressivism was undoubtedly preached in many ed schools and became much more pervasive after it coalesced with Piagetian developmentalism and other views in the 1980s to form constructivism. But Thorndike's rhetoric was also very influential in ed schools and in the grade schools and high schools themselves.

I disagree with Hirsch, however, who says that Thorndike, like the pedagogical progressives, was lax about defining curricula. In fact, Thorndike developed a carefully sequenced arithmetic series, *The Thorndike Arithmetics*, which became standard texts in many American elementary schools, and similar curricula were developed in reading and other subjects.⁵⁴ The kind of coherent, common, content, the loss of which Hirsch bemoans, was created by some progressives.

But it was not taught democratically. Labaree, Hirsch, and Ravitch are right that Thorndike and the administrative progressives advocated a social efficiency curriculum, which tracked all but a few elite students into low-level vocational courses. "It is wasteful," Thorndike wrote in1903, "to attempt to create and folly to pretend to create capacities and interests which are assumed or denied to an individual before he is born." This comes

from his text *Educational Psychology*, which was used in many teacher education programs. Here the long arm of the psychological debate about the heritability of intelligence reached deeply into ed schools and grade schools and high schools.

Thorndike was also the father of subject-specific, standardized achievement tests, which are one of the main levers for raising academic achievement in American schools today. Lagemann and Labaree are right that Thorndike was responsible for much of why American education is the way it is, increasingly standardized and test-driven. ⁵⁶ So, depending on one's views, ed schools deserve credit for advancing this mechanism of education reform. Thorndike's ideas have had great impact, and it may not have been all bad. But standardized testing is a double-edged sword, which highlights individual differences in ability, some of which may be difficult to diminish and provides a rationale for curriculum differentiation and tracking, at the same time that it provides a yardstick and prod for academic progress.

I will not belabor the point about the lack of child-centered, progressive pedagogy in schools, which Hirsch concedes. But as to derogating facts, Thorndike was all about facts. As he wrote at the end of his last book, "facts no matter how uninspiring" were more useful for improving society than anything else.⁵⁷

I agree with Labaree that this reliance on standardized curriculum, testing, and potentially boring facts was also responsible for some dumbing down. As David Tyack documents, the "one best system" of standardization, at least at the school and district level, was in place in most urban school systems for years, and Thorndike's rhetoric, curricula, and methods certainly had plenty of time to take effect. 58 Suffice it to say that the legacy of the progressives was complicated, contradictory, and mixed and will continue to be the source of historical debate.

And I differ with Hirsch that ed schools should bear the full burden for teachers' lack of general knowledge. Along with psychologists, a broader group of academic actors are implicated in the outcomes of teacher education. If teachers do not know enough subject matter to teach academically challenging content, ed schools should not solely take the blame. Ed schools can and should be criticized for not requiring the equivalent of at least a double major in education and an academic subject, or a minor in education and major in arts and sciences. But ed school professors do not teach these content courses. Arts and sciences professors do, and they have been notoriously

difficult to engage in the work of teacher preparation. Many of the elite liberal arts colleges and universities from which alternative teacher certification programs hope to draw candidates do not have distribution requirements, and they do not require students who may become teachers to take a mathematics course, for instance. The kind of survey courses that give prospective teachers a broad sweep of the content they need to cover state curriculum requirements has also gone out of style, especially at elite institutions.

As Sandra Stotsky argues in her paper, state certification requirements can stipulate that student teachers acquire this general knowledge, as Massachusetts's new regulations do. But it is neither realistically possible nor necessarily desirable to get control over the specific content of courses in the arts and sciences, especially at elite institutions. As Stotsky notes, some professors will argue that this violates their academic freedom. A large part of the attraction of being a college professor is the opportunity to teach content in which one is intellectually interested. This autonomy is a main reason that smart, highly educated people will work for relatively low pay. Having the freedom to choose courses based on intrinsic interest is also a large part of the attraction and promise of a liberal arts education for students. As with psychology, getting more leverage on the content of courses in the arts and sciences is going to be difficult.

I want to end with the example of the education of a teacher. Geoff Tegnell, who teaches eighth-grade social studies and English in Brookline, Massachusetts, got a bachelor's degree and a master's degree in European history from Wesleyan College. He then got a master of arts in teaching from Suffolk University in Boston, where he went to get certified, and a doctorate in the history of education from the Harvard Graduate School of Education. As Richard Ingersoll's paper documents, Tegnell is not a typical teacher. He has very strong subject matter preparation in his field and high verbal ability, the other characteristic that most researchers agree is correlated with teacher quality. But in some ways this makes Tegnell's perspective more useful, as it is harder to dismiss. When I asked him if his teacher preparation at Suffolk, which is not elite like the other institutions he attended, had been helpful, he said yes, and more than twenty years later he was able to recall what he had been taught in remarkable detail.

Like most teachers, Tegnell's teacher education consisted of a mixture of courses. He studied educational and developmental psychology; the teaching of reading; classroom methods, including assessment and classroom

management; and subject-specific methods in social studies. He also student taught. When he mentioned theorists, they were mostly what Labaree might call modern pedagogical progressives, such as Carl Rogers, Piaget, and Lawrence Kohlberg. But Tegnell also mentioned learning Benjamin Bloom's famous taxonomy of educational objectives and studying standardized tests and measurement. These are all psychologists, from psychology's many strains.

When I asked Tegnell how his teacher training had affected his teaching, he described numerous ways. The student teachers I have worked with say this, too, though such evidence is anecdotal. Education researchers are having difficulty finding evidence of lasting effects, which supports Labaree. Tegnell said that the skills he had learned, along with the support of a good principal and some good in-service programs, "quite literally saved my teaching career!" He added that he thought that teachers without sufficient pedagogical preparation were more likely to quit during their first few years, something that data on graduates of some alternative certification programs support. 62

The multiple messages of Tegnell's training were apparent when he talked about his teaching. Like other teachers, Tegnell uses many vocabularies. Drawing upon his subject matter knowledge, he employs disciplinary language from history and English to talk about curriculum content. He uses terminology from his education methods courses, which tends to be progressive and student-centered, to talk about his pedagogy, though he says he does plenty of lecturing. He uses technical terms from educational psychology when he talks about his students' test scores, which he says all teachers know in their heads. He sounds like a sociologist or anthropologist when he describes the cultural and socioeconomic backgrounds of the students he teaches at Brookline's most diverse school, which has a substantial population of racial and linguistic minorities and students from low-income families. And when a student does not progress as much as Tegnell hopes, he sometimes uses language from developmental psychology, saying that the student was not "developmentally ready" to reason analytically at that level. Tegnell is also aware that some of his students do not work hard enough, and he lets them and their parents know this.

A potential downside to these different idioms is that they may cancel each other out. Pedagogy can obscure content, low test scores and socioeconomic data can limit expectations, and lack of developmental readiness and appropriateness can serve as excuses for not finding out why students are having difficulty, for not holding them to higher standards, and for not challenging them with more sophisticated subject matter.

So what are some of the policy implications of this complexity? Labaree's cautionary tale explains much about the current standoff between the child-centered constructivism of many teacher education programs today and the high-stakes testing advocated by many in the standards movement, which is now mandated by much state and federal education policy. Historians should be cautious about drawing direct connections between history and policy. 63 With this caveat, I think that the eclecticism of psychological influences and lack of consensus within and among ed schools can be healthy, as along as student teachers are introduced to a full range of methods. Teachers need to be able to pull ideas from many sources, and principals should be able to hire teachers with different views, to complement the mix in a school. The current convergence around constructivism may be problematic, however, as Hirsch argues, if student teachers are not also taught how to teach phonics and encouraged to try direct teaching methods in mathematics and other subjects. Teacher educators and policymakers need to move beyond these teaching wars and make sure that all student teachers are exposed to the breadth of pedagogical research and practice a wide range of teaching methods.

As to policies to promote stronger subject matter knowledge, here college and university presidents need to become more involved. Until top administrators at the top institutions that enroll the top students communicate the crisis in subject matter preparation to deans and department chairs, arts and science faculty are not likely to do much about it. As Labaree argues, ed schools and departments do not have enough status to press the issue. And teacher educators are busy working with schools, where even more should be done. Reinstituting some distribution requirements and survey courses would help. Getting more arts and science faculty engaged in teacher education, as advisers, as co-teachers of courses about how to teach disciplinary content, and as co-supervisors of student teachers would help. Giving them outside and institutional support for clinical fellowships to do pedagogical research and spend time in schools would help. Subsidizing scholarships and forgivable loans and fifth-year programs to encourage more highly qualified students to go into teaching and for graduates to return for coursework toward certification would help. Staffing ed schools and departments so that student teachers can learn in smallish groups would help, too, although it

would be expensive, and probably resisted, as ed school tuitions often subsidize other more costly, prestigious departments.

I do not think that doing away with ed schools, turning teacher education over to the disciplines, and making elementary education some kind of second-class field, as Stotsky suggests, is the answer, although it may work in a few institutions. Most arts and science faculty do not have the time or know-how to make connections with schools, though some senior faculty well past tenure may want to take on more of this responsibility and should be encouraged to do so, by deans and by education faculty. Most clinical adjunct faculty have low status and thus little ability to bridge the chasm between the world of academia and the school. Tegnell was adamant that doing away with ed schools was a bad idea, and his response relates to the many vocabularies teachers use. "Abolish ed school, and we will erode the common culture on which collaboration among guidance, instructional, specialist, and administration collaboration is founded." 64

But Tegnell agreed with me that the most difficult problem is teachers' lack of access to subject matter knowledge. He described a large new federal grant that he had helped get from Teaching American History, through which sixty teachers from different towns in Massachusetts will meet over the course of three summers with senior historians to read primary sources and design new lessons. More in-depth collaboration such as this around subject matter needs to happen at the undergraduate and graduate level and after, in colleges, universities, and schools. Student teachers, teachers, teacher educators, psychologists, and other arts and science faculty need to work together on such projects. Distributing responsibility for teacher education more widely and getting the many actors involved to focus on specific academic content, along with strategies for teaching that content, would be a step toward helping attract more of "the teachers we need."

Notes

^{1.} Lawrence A. Cremin, The Transformation of the School: Progressivism in American Education, 1876–1957 (Vintage, 1961), p. 328.

^{2.} Larry Cuban, *How Teachers Taught: Constancy and Change in American Classrooms, 1890–1980*, 2d ed. (New York: Teachers College Press, 1993); David K. Cohen, "A Revolution in One Classroom: The Case of Mrs. Oublier," *Educational Evaluation and Policy Analysis*, vol. 12 (1990), pp. 311–29; John I. Goodlad, *A Place Called School* (McGraw-Hill, 1983); and

Arthur Zilversmit, Changing Schools: Progressive Education Theory and Practice, 1930–1960 (University of Chicago Press, 1993).

- 3. David F. Labaree, "The Trouble with Ed Schools," *Educational Foundations*, vol. 14 (1996), pp. 1–19; and David F. Labaree, *The Trouble with Ed Schools* (Yale University Press, forthcoming 2004).
- 4. David Tyack, *The One Best System* (Harvard University Press, 1974); Robert L. Church and Michael W. Sedlak, *Education in the United States* (New York: Free Press, 1976); and Herbert Kliebard, *The Struggle for the American Curriculum*, 1893–1958 (New York: Routledge, 1986)
- 5. See, for example, John L. Rury, Education and Social Change: Themes in the History of American Education (Mahwah, N.J.: Lawrence Erlbaum, 2002).
- 6. Ellen Condliffe Lagemann, "The Plural Worlds of Educational Research," History of Education Quarterly, vol. 29, no. 2 (1989), p. 185-214.
- 7. E. D. Hirsch Jr., The Schools We Need and Why We Don't Have Them (Doubleday, 1996), p. 74.
 - 8. Hirsch, The Schools We Need and Why We Don't Have Them, p. 75.
- 9. Striking similarities exist between the faculty psychology that supported learning of traditional academic subjects and the skill-oriented learning theory of the pedagogical progressives, which is ironic because faculty psychology was the grounding for the classical curriculum that the pedagogical and administrative progressives so strongly opposed.
- 10. Commission on Reorganization of Secondary Education, Cardinal Principles of Secondary Education, Bulletin 35 (Department of Interior, Bureau of Education, 1918).
- 11. Edward A. Krug, *The American High School, 1880–1920* (University of Wisconsin Press, 1964); and Edward A. Krug, *The American High School, 1920–1941* (University of Wisconsin Press, 1972).
- 12. David L. Angus and Jeffrey E. Mirel, *The Failed Promise of the American High School,* 1890–1995 (New York: Teachers College Press, 1999).
- 13. John Dewey, "The Child and the Curriculum," in Philip W. Jackson, ed., *The School and Society and the Child and the Curriculum* (University of Chicago Press, 1902/1990), p. 205.
- 14. Cremin, The Transformation of the School; Church and Sedlak, Education in the United States; Diane Ravitch, Left Back: A Century of Failed School Reforms (Simon and Schuster, 2000); and Rury, Education and Social Change.
- 15. John Dewey, "Introduction," in Elsie Ripley Clapp, ed., *The Uses of Resources in Education* (New York: Harper and Brothers, 1952), pp. vii-xi.
 - 16. Zilversmit, Changing Schools, p. 168.
 - 17. Lagemann, "The Plural Worlds of Educational Research."
- 18. Michael B. Katz, "From Theory to Survey in Graduate Schools of Education," *Journal of Higher Education*, vol. 36 (1966), pp. 325–34.
 - 19. Hirsch, The Schools We Need and Why We Don't Have Them; and Ravitch, Left Back.
 - 20. Hirsch, The Schools We Need and Why We Don't Have Them, p. 219.
 - 21. Hirsch, The Schools We Need and Why We Don't Have Them, pp. 115-16.
- 22. According to one report, more than one quarter of teachers are not fully licensed. See National Commission on Teaching and America's Future, What Matters Most: Teaching for America's Future (New York: 1996), p. 15.
- 23. Virginia Richardson and Peggy Placier, "Teacher Change," in Virginia Richardson, ed., *Handbook of Research on Teaching*, 4th ed. (Washington: American Educational Research Association, 2002), pp. 905–47, especially p. 915.
 - 24. Richardson and Placier, "Teacher Change," p. 915.

25. Labaree, *The Trouble with Ed Schools*, chap. 3; and David F. Labaree, "On the Nature of Teaching and Teacher Education: Difficult Practices That Look Easy," *Journal of Teacher Education*, vol. 51 (2000), pp. 228–33.

- 26. Dan C. Lortie, Schoolteacher: A Sociological Study (University of Chicago Press, 1975).
- 27. John I. Goodlad, A Place Called School (McGraw-Hill, 1983); and Cuban, How Teachers Taught.
- 28. Jeanne S. Chall, The Academic Achievement Challenge: What Really Works in the Classroom? (New York: Guilford, 2000), p. 114.
 - 29. Goodlad, A Place Called School, pp. 123-24.
- 30. Christopher Barnes, What Do Teachers Teach? A Survey of America's Fourth and Eighth Grade Teachers (Manhattan Institute, 2002).
 - 31. Ravitch, Left Back, pp. 14-15.
- 32. E. D. Hirsch Jr., Cultural Literacy: What Every American Needs to Know (Vintage, 1988).
- 33. Samuel Bowles and Herbert Gintis, Schooling in Capitalist America (Basic Books, 1976); Jeannie Oakes, Keeping Track: How Schools Structure Inequality (Yale University Press, 1985); and Jean Anyon, "Social Class and School Knowledge," Curriculum Inquiry, vol. 11 (1981), pp. 3–42.
- 34. Commission on Reorganization of Secondary Education, Cardinal Principles of Secondary Education, pp. 10–16.
- 35. Commission on Reorganization of Secondary Education, Cardinal Principles of Secondary Education, p. 22.
- 36. Ellen Condliffe Lagemann, An Elusive Science: The Troubling History of Educational Research (University of Chicago Press, 2000), p. 236.
- 37. Alan R. Tom, *Teaching as a Moral Craft* (New York: Longman, 1984); and Lee S. Shulman, "Paradigms and Research Programs in the Study of Teaching: A Contemporary Perspective," in Merlin C. Wittrock, ed., *Handbook of Research on Teaching*, 3d ed. (Macmillan, 1986), pp. 3–36.
- 38. David Hamilton and Erica McWilliam, "Ex-centric Voices That Frame Research on Teaching," in Virginia Richardson, ed., *Handbook of Research on Teaching*, 4th ed. (Washington: American Educational Research Association, 2001), pp. 17–43.
- 39. Robert E. Floden, "Research on Effects of Teaching: A Continuing Model for Research on Teaching," in Virginia Richardson, ed., *Handbook of Research on Teaching*, 4th ed. (Washington: American Educational Research Association, 2001), p. 13.
 - 40. Floden, "Research on Effects of Teaching," pp. 13-14.
- 41. Department of Education, What Works Clearinghouse [w-w-c.org [May 2003]); and National Research Council, *Scientific Research in Education*, ed. Richard J. Shavelson and Lisa Towne, Committee on Scientific Principles for Education Research (Washington: National Academy Press, 2002).
- 42. What Works is the title of a booklet summarizing research about teaching and learning that was widely distributed by the Department of Education in 1986. See Department of Education, What Works: Research about Teaching and Learning (Government Printing Office, 1986). A website, the What Works Clearinghouse (w-w-c.org), was established by the department in 2002 for the purpose of promoting science-based standards for evaluation educational research.
 - 43. Katz, "From Theory to Survey in Graduate Schools of Education."
- 44. See Hirsch, The Schools We Need and Why We Don't Have Them; and Ravitch, Left Back.

- 45. David F. Labaree uses the term *archetype* in the book manuscript from which his paper is drawn, *The Trouble with Ed Schools*. For an overview of some of these differences, see John I. Goodlad, Roger Soder, and Kenneth A. Sirotnik, eds., *Places Where Teachers Are Taught* (San Francisco, Calif.: Jossey-Bass, 1990).
- 46. The concept of colonization came from a personal conversation with Sheldon H. White. My understanding of the history of psychology and its influence on education is greatly influenced by White's work. See, for instance, Sheldon H. White, "Developmental Psychology in a World of Designed Institutions," in Willem Koops and Michael Zuckerman, eds., Beyond the Century of the Child: Cultural History and Developmental Psychology (University of Pennsylvania Press, 2003), pp. 204–25.
- 47. Hugo Munsterberg to James McKeen Cattell, February 25, 1898, Hugo Munsterberg Papers, Boston Public Library, in Jo Anne Brown, *The Definition of a Profession: The Authority of Metaphor in the History of Intelligence Testing, 1890–1930* (Princeton University Press, 1992), p. 65.
- 48. John M. O'Donnell, *The Origins of Behaviorism: American Psychology, 1879–1920* (New York University Press, 1985), p. 154.
- 49. Commonwealth of Massachusetts Department of Education, "603 CMR 7.00 Regulations for Educator Licensure and Preparation Program Approval, Draft Regulations with Changes Incorporated, October 28, 2002," p. 39.
- 50. Patricia Albjerg Graham, "Schools: Cacophony about Practice, Silence about Purpose," *Daedalus*, vol. 113, no. 4 (1984), pp. 29–57. Many others have described the stew of ideas that have been imported into education. See, especially, Cremin, *The Transformation of the School*; and Kliebard, *The Struggle for the American Curriculum*. On the pluralism of psychology, see Sheldon H. White, "Three Visions of a Psychology of Education," in L. T. Landesman, ed., *Culture, Schooling, and Psychological Development* (Norwood, N.J.: Ablex), pp. 1–38. Lagemann uses the term *cacophony* as well in *An Elusive Science*, p. 99.
- 51. Ellen Condliffe Lagemann, "The Plural Worlds of Education Research," History of Education Quarterly, vol. 29, no. 2 (1989), pp. 185-214.
- 52. On the history of these psychological allegiances, see, among others, Edward G. Boring, A History of Experimental Psychology, 2d ed. (Englewood Cliffs, N.J.: Prentice-Hall, 1950); Brown, The Definition of a Profession; Kurt Danziger, Constructing the Subject: The Historical Origins of Psychological Research (New York: Cambridge University Press, 1990); and O'Donnell, Origins of Behaviorism.
- 53. Barbara Beatty, "Rethinking the Role of Psychology," in David Olson and Nancy Torrance, eds., *The Handbook of Education and Human Development* (Oxford, England: Blackwell, 1996), pp. 100–16.
- 54. Edward L. Thorndike, *The Thorndike Arithmetics*, *Books 1–3* (Chicago: Rand-McNally, 1917)
- 55. Edward L.Thorndike, *Educational Psychology* (New York: Lemcke and Buechner, 1903), p. 44. See also Barbara Beatty, "From Laws of Learning to a Science of Values: Efficiency and Morality in Thorndike's Educational Psychology," *American Psychologist*, vol. 53, no. 10 (October 1998), pp. 1145–52.
 - 56. Lagemann, "The Plural Worlds of Educational Research," p. 185.
- 57. Edward L. Thorndike, *Human Nature and the Social Order* (Macmillan, 1940), p. 963. On the continuity of teacher-centered didacticism, see Cuban, *How Teachers Taught*; and David Tyack and Larry Cuban, *Tinkering toward Utopia: A Century of Public School Reforms* (Harvard University Press, 1995).
 - 58. Tyack, The One Best System.

59. See, among others, Richard Murnane and others, Who Will Teach? Policies That Matter (Harvard University Press, 1991).

- 60. Information about Geoff Tegnell throughout comes from personal talk with author, May 12, 2003; e-mail correspondence with author, May 16-17, 2003; and telephone conversation with author, May 18, 2003.
- 61. See Jennifer Rice King, Teacher Quality: Understanding the Effectiveness of Teacher Attributes (Washington: Economic Policy Institute, 2003); and Education Commission of the States, Eight Questions on Teacher Preparation: What Does the Research Say? (Washington: 2003).
- 62. Graduates of Teach for America and other alternative certification programs may not stay in teaching long because they tend to be placed in underserved schools with difficult students, where there is also high turnover of graduates of regular teacher certification programs.
- 63. For different views, see Diane Ravitch and Maris A. Vinovskis, *Learning from the Past: What History Teaches Us about School Reform* (Johns Hopkins University Press, 1995); and Maris A. Vinovskis, *History and Educational Policymaking* (Yale University Press, 1999).
 - 64. Geoffrey Tegnell, e-mail to author, May 17, 2003.