

Articles

Vocational Education as General Education

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ABSTRACT

It is argued that vocational education belongs in the common core of school knowledge. Distinction is made between vocational education *for jobs* and vocational education *about work*. It is the latter aspect of the subject that allows the general education claim to be made. The former aspect, it is argued, belongs beyond the secondary school. The resilience of the liberal/vocational divide is reflected upon. So is the “new vocationalism,” which seeks to narrow the divide. The ideas of those who, consistent with Deweyan ideals, have imagined a unitary curriculum that includes vocational knowledge are examined. A three-part rationale for vocational education as general education is then discussed, namely, meaning of work, practical knowledge as knowledge, and situated cognition.

BACKGROUND

In this article I intend to set forth arguments for consideration of vocational education as general education, that is, as education for all. What I have in mind is a unitary curriculum, one that is not hierarchically ordered, and that is devoid of tracks. All students would have equal chances of engaging in a breadth of studies supportive of wide-ranging vocational insight. All would pursue academic subjects; all would learn about the world of work. This call for a unitary curriculum contrasts sharply with the vision of “principled heterogeneity” that Norton Grubb (1996) proclaims with respect to the American version of the “new vocationalism.” But it is in spirit with the Australian version of the new vocationalism wherein the distinction between mental and manual labor is regarded as outmoded, and not a basis upon which social roles should be constructed (see Sedunary 1996). However, where the new vocationalism in Australia draws its inspiration from the changed character of contemporary work, such as the impact of technology, my motivation here holds to the more basic idea of the role of schooling in a democracy.

I am partial to a unitary curriculum because, on the evidence of history, the heterogeneity that inspires Grubb leads inexorably to the hierarchical ordering of school knowledge and to the undemocratic practice of tracking students. I resonate with Chester Finn's (1986) critique of the American version of the new vocationalism, and his insistence that all children should have "the same opportunity to become well-informed voters and responsible parents and citizens, adequately prepared to participate in our society" (p. 234).

In proposing vocational education as general education within a unitary curriculum, I will ultimately offer three arguments that I believe are arguments for all seasons, not just for today's circumstances, namely, (1) a *meaning-of-work* argument; (2) a *practical-knowledge-as-knowledge* argument; and (3) a *situated-cognition* argument. In what follows, I first discuss the resiliency of the liberal/vocational divide. Next I address a nascent movement that purports, under the slogan of a "new vocationalism," to modernize vocational education by narrowing the academic/vocational divide in the curriculum. I then reflect upon and critique this movement. Next I discuss what vocational education could be if Deweyan principles are adhered to, and then examine the meaning of general education in relation to vocational education. I conclude by discussing vocational education as general education and offering some final reflections.

RESILIENCY OF LIBERAL/VOCATIONAL SEPARATION

The practice of dividing the curriculum into academic and vocational aspects, and treating the latter as a default for those deemed to be ill-suited to the former, has been an enduring staple of educational systems and schools across the globe. The partitioning and rationing of the curriculum along these basic lines is an obvious way in which schools fulfill their purpose of social and cultural reproduction (see, e.g., Anyon 1988; Apple 1982; Bourdieu 1971; Eggleston 1977). The vocational option is more likely to be imposed upon poor communities than upon affluent ones—more upon the children of the barrios and the inner cities than those of the suburbs. People who live in poor communities know that schooling holds keys to social mobility. But their lack of voice prevents them from interrogating schools and resisting curricular impositions upon their children. At least in the United States, people who live in middle-class or affluent communities control the schools their children attend and have a say in the curricula they pursue. Children get the curricula their parents wish for, and the curriculum of choice is the academic one.

In the peculiar sociology of the curriculum, vocational knowledge itself is treated in schools and in society at large as low-status knowledge, unlike academic knowledge, which is considered high-status knowledge, and which is accordingly privileged and dispensed. The repercussions of thus apportioning school knowledge are manifested in the occupational hierarchy of the labor force, and ultimately in the class structure of society. Except in

countries where the vocational track leads to technological universities, those who pursue the vocational route thereby effectively forfeit the opportunity to go on to university and then on to high-status jobs.

Unearthing the origins of the vocational/liberal differentiation in British education, Sanderson (1993) acknowledges that its roots "lie deep in the past" (p. 189). Reflecting upon Victorian times, he contends that the essence of liberality was not breadth of curriculum but rather "a contradistinction to 'servile' or 'menial.'" Liberal education was education of prestige, for "free men of independent means," and was different from inferior "instrumental knowledges" which could be acquired *in situ*, at hospitals, the Inns of Court, or the offices of professionals. Thus, status was the wedge that separated the two kinds of knowledge.

Liberal education today no longer has the ornamental character it had in Victorian times, but it still stands in contradistinction to so-called vocational education in determining the status of the work one does. The liberal/vocational divide remains an important screening and sorting mechanism that even countries wishing to upgrade the status of vocational education are reluctant to dismantle. Reflecting upon the ubiquity and resiliency of such differentiation in the educational systems of industrial countries, Michael Young (1993a) contends that "academic/vocational divisions are inescapably embedded in other social divisions. . . . Because it is largely academic routes which provide progression into higher education and thus to jobs with high status and prestige, academic/vocational divisions represent a social or status hierarchy" (p. 213). Young (1993a) points to distinct "academic and vocational routes" (p. 209) in the education systems of Sweden and Finland, where participation in vocational education is high and where reforms aimed at establishing "parity of esteem" on both sides of the curricular divide are underway. Such divisions will persist in these countries and elsewhere, he contends, until industrial economies abandon mental/manual divisions as bases of organizing work.

Dronkers (1993) speaks of "the precarious balance between Dutch general and vocational education" (p. 196). He observes that "the Dutch educational system is a dual track system even in the lower stage of the second level . . . despite all efforts to integrate general and vocational education into one school-community" (p. 199). Looking across Europe, Leclercq (1994) notes that rigidities with respect to the structure of the curriculum persist beyond the period of compulsory schooling, where two "contrasting administrative patterns" (p. 49) are evident, with vocational education taking place "in institutions having slight contact with schools providing general education" (p. 49). Howieson (1993) explains that while the modularization of the vocational curriculum has "helped to blur the lines between the academic and the vocational [tracks]" (p. 180) in Scottish schools, the modules continue to have "secondary role and status" (p. 182) in general secondary schools, and universities are still reluctant to recognize them as valid entry qualification.

Partitioning of the curriculum into vocational and academic realms has been a feature of U.S. education since the passage of the Smith-Hughes Act

in 1917. Critics (e.g., Kantor 1986; Kliebard 1990; and Oakes 1985, 1992) have interrogated this way of organizing schools, pointing to underlying ideological, political, and social tensions. Oakes notes that curricular tracking in the United States is race- and class-based, that it starts as early as kindergarten, and that it continues throughout the rest of schooling. Recent evidence suggests that these rigidities persist. The National Assessment of Vocational Education (NAVE) Advisory Panel (1994) found that the students who took predominantly vocational courses in high school were not preparing for college. And in keeping with an age-old stereotype, the poorer the scholastic averages of the students, the more likely they were to enroll in vocational courses. Black and Native American students were more likely than students of other races to take such courses. Of all groups, disabled students were found to have the highest enrollment in vocational education.

These trends are not surprising, taken in historical context, but they have become more pronounced in American schools because federal legislation (the Perkins Act) has specifically targeted communities at the margin as vocational funding priorities, and because in the push for academics during this past decade, vocational course-taking among *nonvocational* students has fallen (NAVE 1994). With vocational education in the high school becoming more than ever before a sociological enclave, and with declining opportunity for the offering of coherent programs, some vocational teachers have begun to feel themselves trapped at the margins of the curriculum, unable to connect their work with the dominant academic culture of their schools (see Little and Threatt 1994).

THE NEW VOCATIONALISM

Though the traditional class and status rigidities that have attended American vocational education endure, recently there has been a resurgence of interest in this form of education, sparked by the pressures of a global economy and commitment to the belief that the curriculum must now be more deliberately connected with work (see, e.g., Aring 1993; Gray 1991; Grubb 1996; Lewis 1991; Rosenstock 1991; Vaughan 1991). With this resurgence has come a reassessment of the nature of contemporary work. It has been argued that Fordist simplicities in the workplace are being replaced by technological, process, and social complexities. It has been further argued that instead of being trained for particular jobs, workers now need to be educated for job flexibility. Because the character of work and jobs has changed, it is felt that traditional job-specific vocational education must be superseded by a *new vocationalism*.

Official U.S. concerns are evident in the widely heralded Secretary's Commission on Achieving Necessary Skills (SCANS) report of 1991, which calls upon schools to provide students with five classes of *competencies* needed by expert workers (in the realms of resources, interpersonal skills, infor-

mation, systems, and technology), along with a three-part *foundation* in basic skills (including the three R's), thinking skills, and personal qualities. Official concerns are also evident in reports comparing U.S. school-to-work structures with those of competitor countries (e.g., U.S. General Accounting Office 1990); in the passage of the Carl Perkins Act of 1990, in which initiatives that sought to "integrate" academic and vocational education were a funding priority; and more recently in the passage of the School-to-Work Opportunities Act of 1994 (United States Congress 1994), which provides funds for state and local initiatives geared to forging links between schools and workplaces.

Grubb (1996) explains that the new vocationalism in the United States has assumed a multiplicity of forms, including raising academic standards to assure competitiveness in the workplace; focusing on new "workplace basics" such as problem solving, "learning to learn," and teamwork; broadening the focus of vocational training through devices such as integration with academics; using occupations to contextualize academic subjects; and offering occupational clusters rather than single vocational disciplines. An intent (and consequence) of the new vocationalism is to blur the boundaries between academic and vocational education.

The new American vocational currents are in sync with similar British efforts since the early 1980s (see the comparison in Lewis 1994), and have counterparts elsewhere in Europe (e.g., Dronkers 1993; Howieson 1993; Leclercq 1994; Parkes 1993; and Young 1993a), and in Australia (e.g., Sedunary 1996). A common theme is the blurring of boundaries between liberal and vocational education to make vocational education more appealing and perhaps more relevant. A feature of the British version of the new vocationalism is the idea of generic, and thus transferable, vocational skills. For example, Proctor (1987) set forth a conception of vocational education based on five "languages," namely, literacy, oracy, graphicacy, numeracy, and physiognomy. Likewise, Coffey (1989) argued that to be more acceptable, vocational education would have to be "more liberal in concept and broader in scope" (p. 361). It could become so by emphasizing skills such as "basic oracy, numeracy and communication ability" (p. 362). Principles of this new vocationalism were embodied in the state-funded Technical Vocational Education Initiative (TVEI), and more recently, in the general National Vocational Qualifications (GNVQs).

Young (1993a) points to reforms in Finland, such as an integrated national board of education and consortia of schools that provide students with opportunities to combine vocational and academic courses. He notes an increase in the proportion of general education courses taken by vocational students in Sweden. Dronkers notes that in the Netherlands the content of vocational education is becoming more general. Sedunary observes that while the new vocationalism (in the form of "key competencies") in Australia frowns upon a past in which the academic curriculum held sway, it still wants to "exploit its legacy of intellectual training" (p. 381). Howieson (1993) notes that national certificate reforms (modu-

larization) in Scotland have helped to blur the lines between academic and vocational education by rejecting specific skills and by specifying five broad clusters of study for all students over age sixteen.

The new vocationalism emerged in the United States in the midst of school reform and academic revival. These are not times for the old vocationalism (see esp. Lewis 1991). Fearing that old stigmas would detract from vocational education at a time when the economy seems to need it most, adherents have rationalized the new vocationalism as a remedy for the ills of the old. In a pivotal work, Kenneth Gray (1991) called for a debate among educators regarding the future of vocational education. "National economic interests" now make vocational education an imperative, he argued, but not in the form of the old job-specific vocational education. Gray felt that "new times require a new definition of vocational education." He expressed partiality to strategies that bring about the integration of academic and vocational education. Integration would help bridge the vocational/academic divide. The primary goal, according to Gray, is "to make the experience of applied vocational education more accessible to academic students at the same time that advanced academic courses are made more accessible to students concentrating in vocational education" (p. 443). He envisions a "greater intermingling of students in both curricular streams" (p. 443). Using arguments reminiscent of those advanced in support of the establishment of comprehensive schools, Gray reasons that such intermingling would "do much to end the stigma now associated with vocational education and to remedy the social isolation of vocational education students" (p. 443).

In a like vein, Aring (1993) cautions that old stigmas are impeding the clear need to think afresh about vocational education. The old narrow-skills version of vocationalism did not work. He calls instead for "a new word, a bigger word, one that recognizes that distinctions such as 'vocational,' 'academic,' and 'technical' belong to the labor market of the last century and will not be valued in the high-performance workplaces of the future" (p. 401).

Reflection upon the New Vocationalism

So a new vocationalism is emerging in the United States, as elsewhere in the industrialized world, in response to economic motives. To change old perceptions, countries have been resorting to approaches intended to raise the level of prestige attending vocational education to that of academic education. Prestige concerns are evident in Aring (1993) and Gray (1991). And they are evident in the quest of European countries to establish "parity of esteem" between academic and vocational subjects (see, e.g., Howieson 1993; Parkes 1993; Young 1993a). But the jury is still out on whether parity of esteem between vocational and academic education can indeed be made possible under the terms of the new vocationalism. For example, in the Scottish case, Howieson (1993) comes to the frank conclusion that "the experience of modularisation in Scotland has been that a modular ap-

proach . . . can help to blur the distinctions between an academic and vocational curriculum but that the question of parity is another matter" (p. 186). The universities took convincing. Howieson explains that Scottish advocates of modularization have come to the view that "if parity is to be achieved, any new system must be a unified one in which *academic and vocational elements are integrated within a single award*" (p. 186; emphasis added).

Likewise, Young (1993a) notes that general education in upper secondary schools in the Nordic countries has a high status, which vocational education will not soon equal. The two forms of education remain divided, despite high participation rates in vocational education. In Young's view, for the barriers to be overcome, the vocational/academic divide would have to be reconceptualized as a historical legacy that has outlived its usefulness, one that has to be replaced by an alternative model of "*an undivided education system*" (p. 213; emphasis added). Young (1993b) pursues this train of thought as he reflects upon the persistence of the academic/vocational divide in postcompulsory schooling in the United Kingdom—the new vocationalism notwithstanding. His envisioned curriculum would allow breadth and flexibility, and would strive for connections between specialist and applied studies.

On the U.S. scene, while the integration of academic and vocational education has offered glimpses of new possibilities for altering the sociology of the curriculum, tracking persists (see, e.g., Grubb et al. 1991, p. 10). Curriculum integration remains almost wholly a vocationalist preoccupation. It has not been internalized by the academic mainstream or by the public. As in Europe, much of the propaganda attending integration holds up the goal of supposed parity of esteem between the vocational and academic tracks. For example, adherents now argue that two-year vocational colleges are comparable to four-year colleges (e.g., Gray 1996) in terms of their graduates' future earnings. They call pragmatically for schools to cater deliberately to the needs of the "non-college-bound," as they do now for the "college-bound." Defiantly, they assert that being non-college-bound is hardly a dreadful fate.

Validation of the non-college-bound as an educational class has risen to the level of orthodoxy in the discourse on the new vocationalism. Apart from isolated dissenting opinions such as those of Ray and Mickelson (1993) and Hartoonian and Van Scotter (1996), the idea that the curriculum should be differentiated in terms of whether or not one is college-bound has become standard fare. A prototypic argument is provided by Gray (1996) under the title "The Baccalaureate Game: Is It Right for All Teens?" Gray argues that it is not, and that there are good, economically sound, two-year vocational alternatives to four-year college, alternatives yielding high-wage technical and nonprofessional jobs.

In sync with Gray, Grubb (1996) argues that the new vocationalism offers options in the curriculum that are "separate but equal." These options "replace a unitary conception of the high school with a kind of 'principled heterogeneity' that is suited to a variety of interests" (p. 540). They offer "a

relatively egalitarian way to respond to diversity in all its forms, including the diversity of interests now stifled in the college-prep curriculum" (p. 545). This is high-sounding rhetoric, little more than propaganda, since college education offers the best chances in the U.S. economy today. A recent *Time* magazine feature shows college graduates to be least prone to unemployment (Greenwald 1997). For all its seeming sophistication, the new American vocationalism does little to alter the basic sociology of the curriculum.

One of the best examples of the new American vocationalism at work is the Southern Regional Education Board's (SREB) state consortium of pilot schools, known as "high schools that work." Gene Bottoms (1992), primary architect of the consortium, reported that eighty-seven schools in nineteen states were involved in this project, with at least threefold expansion expected within short years. Curricular reform strategies adopted by participating schools include "revising vocational programs to reinforce higher order concepts in communications, math, and science," and "revising academic courses to teach essential concepts from the college preparatory curriculum through an applied process" (p. 26). But it becomes clear that the reform takes curricular tracking as a given. Notes Bottoms:

The *outcome* goal of this academic-vocational integration is to improve the reading, mathematics, science, technical and problem-solving competencies of *vocational students* [italics added]. More specifically, the aim is to close dramatically the achievement gap between students pursuing a vocational major and those completing a college preparatory program of study. This goal is measurable and achievable if schools hold to it. (p. 70)

Bottoms laments the practice of poor and minority children being labeled and placed in vocational tracks and taught a watered-down academic curriculum. The SREB approach is clearly one way to seek to redress this unholy practice, but another way is simply to do away with tracks. Admittedly, that is easier said than done, requiring as it does the transformation of the society. Still, what hope is there for squarely coming to terms with the meaning of a divided curriculum if we persist with the fiction that though there remains a divide, the consequences of being on either side of it could be the same?

Imagining a Deweyan Utopia

While the new vocationalism has been the basis of a conversation that has explored the liberal possibilities of vocational knowledge, it has often done so on the basis of contested conceptions of the nature of modern workplaces, and without consideration of the sociological bases of the liberal/vocational divide. It is not settled, for example, whether technology in the workplace leads to the need for more education or less (e.g., Rifkin 1995). But technical solutions such as integrating academic and vocational education could leave us with the fundamental tensions of curriculum distri-

bution far from settled. Here Dewey's conception of the role of schooling in a democracy becomes pivotal.

Drawing on their shared belief in Deweyan democratic principles, a small group of critical theorists have been directly interrogating the role of vocational education in a democracy. They have been calling for vocational education curricula that have liberatory qualities, to the extent of not being motivated solely by economic considerations. They want vocational students to be taught so that they demand workplace justice. They see the new vocationalism as an opportunity for empowering future workers, essentially by radicalizing the curriculum. They have been calling for vocational pedagogy that empowers students to be risk-takers rather than mere passive instruments of the economy (see, e.g., Gregson 1994; Kincheloe 1995; Lakes 1994; Rehm 1994).

This is an important stream of discourse, with whose basic postmodern instincts I am sympathetic. But while I, like the critical theorists, hold to the Deweyan democratic ideal, I believe that they are asking vocational teachers to bear too heavy a burden. It is not vocational teachers, but whole schools and society-at-large that must see to it that education is dispensed democratically. The schools and society must assure all students *the right to learn* (see Darling-Hammond [1996] on the struggle of many Americans, especially the dispossessed, for the right to learn). Darling-Hammond argues that the implications of democratic education are that all people are thereby enabled "to find and act on who they are, what their passions, gifts and talents may be, what they care about, and how they want to make a contribution to each other and the world" (p. 5). Whether employing the new vocationalism or the old one, I do not believe that we can arrive at that ideal via differentiated curricula.

To approach the Deweyan ideal we must come to view vocational knowledge as valid school knowledge (e.g., Lewis 1993), belonging not at the fringes but nearer the core of the school curriculum. Dewey (1916, p. 368) contended in *Democracy and Education* that industrial occupations had come increasingly to embody the content of science, and this presented opportunities for understanding how knowledge was constructed. It was possible for schools to contrive industrial conditions (by incorporating machines and industrial processes in the curriculum) so that students could thereby cultivate insight. "Vocation" had to be conceived broadly, as an organizer of many facets of our lives, not just our work lives. He wrote: "The dominant vocation of all human beings at all times is living—intellectual and moral growth" (p. 362). Vocational education, as he conceived it, was not some peculiar kind of education that had to be constructed separate and apart from the cultural side of the curriculum. He called for an essential unity in the curriculum, informed by an elegant epistemology that took lived human experience as its inspiration. Hyland (1993) laments the absence of Dewey's "spirit of vocationalism" (p. 96) in official British proposals for post-sixteen reform. What draws him to Dewey's ideas on vocational preparation is the fact that they are "on all fours with general education for life in society" evidenced by "links Dewey makes between vocational prep-

aration and effective citizenship" (p. 96). Notes Hyland: "Dewey reminds us just how important it is to remove the damaging prejudices and dualisms which currently bedevil the education system" (p. 96).

The values that draw Hyland to Dewey are in spirit with those that draw American critical theorists (cited above) to him. But there is an important difference, observable in Hyland's *class consciousness*, and hence in his epistemological commitment to the principles of a unitary curriculum. What the American critical theorists bring to the table is *political consciousness*. They appear to accept a separate vocational curriculum, once vocational teachers understand that it is their duty to radicalize the curriculum, with the goal of empowering their students.

But there are other American adherents whose reading of Dewey has led them, like Hyland, to call for the abandonment of curricular tracking as the basis of organizing high schools, and for a curriculum that accounts equally for vocational knowledge as for other forms of knowledge (e.g., Beck 1990a, 1990b, 1991; Beck, Copa, and Pease 1991; Copa and Pease 1992; Goodlad 1984; Silberman 1982).

Silberman's contribution to the discourse is important because it came early, well before the emergence of the new vocationalism in the United States. His arguments were fashioned out of epistemologic, not economic, insight. He contended that vocational education is comprised of both intrinsic and instrumental aspects. According to him,

To evaluate vocational education from an intrinsic perspective, one must ask what immediate benefits are obtained by students in such programs compared with students in purely academic programs. In the intrinsic perspective, income and future placement are secondary concerns; human development and personal satisfaction with the experiences provided in the program are primary. (p. 310)

Silberman then set forth five dimensions of human development that could be augmented by emphasizing intrinsic qualities of the subject, namely, acquiring "a sense of personal competence," enjoying the opportunity for "aesthetic expression," acquiring a sense of integrity, learning interpersonal skills and the value of "cooperativeness" (through teamwork and the development of interpersonal skills), and developing a sense of altruism (through completing vocational projects that provide community service or help to improve community life).

Significantly, he addressed the need to remedy what he deemed "the equity issue" that attends the subject, that is, the "bifurcation" between vocational and college-preparatory subjects, and the tracking of the disadvantaged into the former. Silberman felt that vocational education should come to be for "*all* learners and should not be stigmatized as the exclusive preserve of special groups" (p. 312). This latter statement is the key. It turns on the issue "Who should get vocational education?"

Also early on, John Goodlad (1984) resonated with Silberman's curricular vision for the American high school in his *A Place Called School*. In this work, Goodlad addressed democratic concerns with respect to the pres-

ence of vocational education in the curriculum. He argued that vocational education should be made to conform to general education principles. Railing against traditional job-specific vocationalism, and the overrepresentation of the underclass in vocational courses, he asserted:

General education is the best preparation for effective functioning and responsible citizenship. I further believe that vocational education, including guiding work experience, is an essential, not merely an elective, part of general education—and here I go beyond many of vocational education's strongest advocates. This means that *vocational education is for all students, not just an alternative to academic studies* [emphasis added] for the less academically oriented. I want the college bound students to include vocational studies too, just as I want to be sure that students not going to college secure a balanced program in academic subjects. . . . The issue is not whether our young people should be prepared for jobs. . . . The issue, rather, is what kind of education contributes most to economic competence and satisfaction in work and life. (p. 147)

The basic curricular beliefs articulated by Silberman and Goodlad found more comprehensive expression in the vocationalist thoughts of Robert Beck. To understand Beck, one must recognize his guiding belief that vocational knowledge is valid school knowledge. Aware of status difficulties in the curriculum, and in society, Beck, like European advocates, calls for parity of esteem on both sides of the liberal/vocational divide. He imagines a school free of curricular tracking, in which vocational knowledge is combined in a synthesis with other kinds of knowledge, absent the traditional sociological biases. With "parity of esteem" being the disposition of the practitioners, vocational and academic teachers would meet on their own terms to "collaborate" and thereby to negotiate the curriculum. The result would be a reformed general education curriculum.

In *Polytechnical Education: A Step*, the first of four companion works, Beck (1990a) expressed fascination with the tight connection between "social-production" and academic work in the Soviet polytechnic curriculum, and to the consequent degree of respectability accorded vocational subjects. In a second work, *General Education: Vocational and Academic Collaboration*, Beck (1990b) explored and illustrated practical ways in which vocational subjects, including agricultural education, business and marketing, home economics, and industrial technology education, could provide contexts for the teaching of other subject matter such as mathematics, social studies, and science. In the third work, *Vocational Preparation and General Education*, Beck (1991) examined the historical context of school knowledge as he explored the feasibility of collaboration between academic and vocational teachers. He affirmed a commitment to the idea of general education that was in sync with Dewey. He argued that general education was a concomitant of democracy. It had to be "truly general in its clientele" (p. 70). Noted Beck, "It is the educated citizen that is our end and aim" (p. 70).

In *An Uncommon Education: Interaction and Innovation*, written with Copa and Pease, Beck (Beck, Copa, and Pease 1991) proposed an "enriched" general education in which academic and vocational education would be

synthesized. Vocational education would be broadened beyond technical skills. "Problem areas of vocational life" were set forth as a content organizer for the curriculum, with emphasis on work and family-life contexts. Examples of problem areas included "managing vocational life," "rights and responsibilities in vocational life," and "technology in vocational life" (Beck, Copa, and Pease 1991, p. 35).

Copa and Pease (1992) extended Beck's ideas in their *New Designs for the Comprehensive High School*. In this work, they challenged educational reformers to "envision a school with a renaissance character" that would yield outcomes "that prepare young people for the challenges and opportunities they now or will face in their family, work, and community lives" (p. 2). This connection between work, family, and community suggests that the ends of vocational education must transcend mere job skills, and instead reach out to other vital areas of a person's life. Such a holistic view of what vocation must mean is in sympathy with Dewey's vocationalism.

Copa and Pease adopted a multilane highway as the metaphor for the approach to student learning in their envisioned new school. Lanes on the highway represent different contexts for learning. They noted:

Undergirding the "roadbed of learning lanes" is a highly unified and reinforced foundation of vocational and academic education. Solid academic and modern vocational education in a closely integrated and interactive format are a *part of the common education for all students* with this conception of the learning process. (p. 34; emphasis added)

Pilot schools built on "new designs" principles suggest a willingness on the part of some communities to break out of the traditional mold of structuring schools (see National Center for Research in Vocational Education 1994, 1994–1995). Data from these schools should provide insights into the efficacy of schools structured on unitary curricular principles.

GENERAL EDUCATION AND VOCATIONAL EDUCATION

It has been suggested that to be brought in line with democratic principles, vocational education should be recast as general education. Thus, what I mean by "general education" needs to be explored briefly, if only to determine the legitimacy of vocational education's claim as an instance of it. Miller's (1988) conception of general education, offered in his *The Meaning of General Education*, provides a useful springboard for the discussion. I have chosen Miller because of the historical perspective he brings to the issue. Miller traces the origins of a "general education paradigm" to the earliest decades of this century. One force contributing to this paradigm had been democratic pressures on classical or liberal education. The issue here was whether education was to be designed for an elite or designed for all. He contends that a major area of tension in defining general education has been the changed conception of how democracy must be viewed.

Founders of the general education movement viewed democracy as a process. For them, individuals in the community interacted, solved problems, and created culture. There was “unity of ends and means.” By the postwar years, however, democracy had come to be viewed as an institution to be preserved. General education came to dwell more on the past than on the present and the future. The general education paradigm had been altered, regressing toward liberal education.

Miller then set forth his own conception of general education, premised on the notion “education for and by democracy.” Noted Miller:

An education for and by democracy is, by definition, student centered and future-oriented. It is concerned more with processes—the skills of inquiry, hypothesizing, and problem-solving—and with values and attitudes than with specific areas of knowledge. It is concerned with the immediate realities of everyday life rather than with abstractions. And it is value in its own right, rather than preparation for something else. (p. 188)

Miller expresses two critical curricular values here, first, the idea of education being inherently a democratic process, which leads to democratic outcomes, and second, the idea that there are general powers of mind (see, e.g., Dearden 1980) that require curricular content that transcends specific subjects.

As I indicated above, the new vocationalism in the United States has assumed the generic approaches of which Miller speaks as its curricular signature (see discussions in Lewis 1991, 1995). This generic-skills approach has also been a feature of the new vocationalism in Britain, provoking contentious debate (see esp. Holt 1987). Generic vocational curricula are being viewed as the answer to employer calls for schools to deliver versatile workforce entrants. But while this operational aspect of Miller’s conception of the general education curriculum is being met, his democratic aspect is not being met. Who gets the new vocational curriculum and why remains problematic.

When Miller speaks of democracy as a process, and for a negotiated common curriculum, he is in tune with Dewey’s view of the role of the school. In his *Democracy and Education*, John Dewey (1916) characterized democracy as “primarily a mode of associated living, of conjoint communicated experience” (p. 101). The forces of modernization had engendered “the widening of the area of shared concerns, and the liberation of a greater diversity of personal capacities which characterize a democracy” (p. 101). The problem for education, in its processes and outcomes, was to assure that all members of society come to share a common core of values. Said Dewey:

In order to have a large number of values in common, all members of the group must have an equitable opportunity to receive and to take from others. There must be a large variety of shared undertakings and experiences. Otherwise, the influences which educate some into masters, educate others into slaves. And the expe-

rience of each party loses meaning when the free interchange of varying modes of life-experience is arrested. (p. 98)

Dewey devoted special attention to vocational education, whose early American advocates had a view of what it meant to participate in a democracy that was philosophically different from his. For example, David Snedden, primary ideologue of the movement that led to the passage of the Smith-Hughes Act, had drawn the distinction between that education which made one a producer (vocational education) and that which made one a consumer (liberal education) (Snedden 1914). Producers contributed to the democracy by adding value to the economy. Consumers clearly did not.

In their *Vocational Education in a Democracy*, Charles Prosser (primary drafter of the Smith-Hughes Act) and C.R. Allen wrote: "Vocational education will be effective in proportion as the specific training for forming right habits or doing and thinking are repeated to the point that these habits become fixed to the degree necessary for gainful employment" (Prosser and Allen 1925). These conceptions of vocational education by primary advocates of its inclusion in the secondary school curriculum did not square with Dewey's democratic ideal. Dewey held a broad conception of "vocation." Vocation was not something narrowly practical and confined to occupations. In his view, narrow training, conceived in terms of the employer rather than the individual, was inherently undemocratic. "The only adequate training for occupations was *through* occupations" (p. 362). The dominant vocations at all times were "intellectual and moral growth." Preparation for vocations had to be "indirect" in keeping with the pupil's evolving self-discovery of aptitudes and capacities. Dewey was not for that type of vocational education aimed at inculcating industrial habits. What he wished for was an approach that would help future workers to interrogate, and eventually to effect change in, workplace conditions.

As Miller points out, by the post-World War II years, Dewey's view of general education appeared to be yielding ground somewhat to a version that was more retrospective in conception, harkening back to heritage, and to liberal traditions. The Harvard University Committee on the Objectives of a General Education in a Free Society (1945) spoke of the need for a "unifying purpose" and "common belief" in the curriculum. Common heritage, rather than Dewey's "conjoint communicated experience," was the guiding idea. Democracy was not something to be contested, but rather something to be preserved.

Unlike Dewey, the Harvard University Committee appeared reconciled to the view that specialization could be an outcome of education. Professing to "attach no odium to vocational instruction" (p. 52), they argued that "the aim of education should be to prepare an individual to become an expert both in some vocation or art and in the general art of the free man and citizen. Thus the two kinds of education once given separately to different social classes must be given together to all alike" (p. 54).

The Harvard Committee agreed that "both kinds of education—special as well as general—contribute to the task of implementing the pervasive

forces of our culture” (p. 54). But they distinguished between “sterile specialism,” which “hugs accepted knowledge,” and the kind of specialism that was “knowledge in action” advancing into new and applied fields. “Education and the Human Being” was proposed as a realm of school knowledge that could provide a framework for thinking about the vocational curriculum. The Harvard Committee explained it thus:

Any treatment of American society should acquaint students with many sides of the conditions which they will have to face. Yet some students will need more detailed information about the requirements and possibilities of various kinds of work. . . .

Beyond the knowledge of future work, the student needs an experience in actual work. Clearly the school itself cannot be expected to provide this experience in any formal way. *Yet it is beneficial for all*, even more so for those who expect to enter business or one of the professions than for those who will engage in some form of manual or craft work. (Harvard Committee 1945, p. 175; emphasis added).

The Harvard Committee was hinting here at the possibility of vocational education for all, but it was also agreeing with the premise that children had different destinations, some therefore requiring more detailed labor market knowledge than others in the school years. It was tolerating specific education for some.

The condition that prompted much of the Harvard Committee’s deliberations over vocational education—curricular tracking—remained to challenge future reformers. In his *Paideia Proposal*, in which a new vision of the American secondary curriculum was articulated, Adler (1984) railed against curricular tracking thus: “At the very heart of a multitrack system of public schooling lies an abominable discrimination. The system aims at different goals for different groups of children” (p. 15). The lower tracks of schooling led to a dead end, not yielding “the result that public schools of a democratic society should seek, first and foremost, for all its children—Preparation to go on learning.” As remedy, Adler proposed a system of public schooling that had “the same objectives for all without exception” (p. 15), with a program of liberal and general education that would be “completely required” with the exception of a second language. This was a qualitatively different proposal to that set forth by the Harvard Committee in that it did not subscribe to the connection of school knowledge and predestination.

In a companion document, *The Paideia Program*, disposition to vocational education was set forth thus:

The Paideia Curriculum does not include vocational *training* for a well considered reason. The first twelve years of schooling is the inappropriate time—and school is the inappropriate place—for learning marketable skills. The time for learning these technical skills is after basic education has been completed. (Adler 1984, p. 154; emphasis added)

This stance has merit to the extent that it frowns on tracking and early specialization. Reminiscent of Dewey, Adler went on to argue that “the only appropriate ‘career education’ is *learning how to learn*, so that one can

quickly prepare for new jobs and career opportunities as they come along" (Adler 1984, p. 157). Preparation for a specific occupation was not a purpose of schooling. Adler proposed that before the twelfth grade all students should be exposed to "manual arts" (i.e., industrial arts, or technology education) and to some sort of work and study experience. According to Adler and his colleagues, "What is fundamental is that young people come to understand through experience both the necessity for work, and its responsibilities—the attitudes, habits, constraints and satisfactions inseparable from employment" (p. 159). This was a conception of vocational education *about* work rather than *for* work. It is a notion that greatly informs the basic thesis of this article.

In *Cultural Literacy and the Idea of General Education*, in which the implications of Hirsch's (1987) version of a common fund of cultural knowledge were examined, Purves (1988) and Westbury (1988) offered conceptions of general education that were partial to the inclusion of vocational education. Purves envisioned a curriculum that would meet "the functional needs of the students and the workplace." It would include "the fine arts, physical education, and the practical and technical arts." Westbury (1988, p. 185) suggested that as it does with respect to "knowing about knowing," the general education curriculum should reflect "knowing about doing." Contrarily, Kliebard (1988) expressed reservations about a vocational role in the general curriculum. There was sufficient instrumental intrusion in the curriculum as it was, he protested. Liberal education had to be the basis of general education. Vocational education was specific education, and specificity was "the great enemy of a liberal education" (Kliebard 1988, p. 48). Kliebard's stance here is in sympathy with academic rationalists (e.g., Hirst 1972; Bailey 1988) whose commitment is to a curriculum conceived in Platonist terms, that is, to forms of knowledge characterized by discipline structure, to the primacy of pure over applied knowledge, and to a liberal/vocational divide.

In this section of the article I have tried to come to grips with what is meant by general education, and to address where vocational education ought to be located relative to such education. It appears that minimum components for consideration as general education include a negotiated common core of experiences, goals that are broadly conceived and that do not lead to narrow specialisms, student-centeredness, and access to all. The discussion above has shown that over time, some scholars have been drawn to such a conception of vocational education (witness Beck, Silberman, Goodlad, Adler, and Hyland, among others). Also discussed above was Howieson's call for the unification of vocational and academic education in Scotland under a single system, and a similar suggestion by Michael Young with respect to the Nordic countries for an undivided education system. In the next section of this article I join with those authors who have called for vocational education in the context of general education. In doing so, I am implicitly rejecting the new vocationalism as it is played out in the United States, on the grounds that in terms of its social consequences it is no different from the old vocationalism. I am drawn to what

appears, at least on paper, to be the egalitarian character of the Australian version of the new vocationalism.

VOCATIONAL EDUCATION AS GENERAL EDUCATION

What, then, must be the case for including vocational education in a core of school knowledge to which all must be exposed? And what might such a conception of vocational education look like in the concrete? In addressing the former of these two questions first, I propose that vocational education can be conceived of in two basic ways, (1) as education *for jobs*, and (2) as education *about work*. These are not mutually exclusive ways of viewing the subject, but each is suggestive of a peculiar disposition to the curriculum. Education *for jobs* connotes a direct link between the curriculum and actual jobs in the labor market. If one intends to become an electronic technician, then the curriculum takes a sample of such jobs as its point of departure. Job and task analyses are the tools employed to derive content. This form of vocational education probably belongs at the postsecondary level.

On the other hand, education *about work* tries to be broadly educative. Rather than addressing the specifics of a particular job, the curriculum ranges over important facets of work life. Of course, one important way to learn about work is to actually work at various jobs. This could be done via partnership with industry, under the supervision of the school. The jobs would be chosen primarily for their illustrative power, and not necessarily because they have direct bearing on students' future occupations or careers. I will contend that in the context of the elementary and secondary school, vocational education should rarely extend beyond education *about work*. Exceptions might be warranted in any field where children show early giftedness, especially where careers are dependent on early starts (such as the playing of musical instruments). But in such cases, too, children would need to be roundly educated.

There are compelling reasons for conceiving of primary and secondary school vocational education as education for work, perhaps the main one being the vocational immaturity of school-age children. During the school years children must be so educated that they can change their minds—as they are prone to—about the careers they wish to pursue in adult life, without penalty. Another reason is that the range of jobs for which schools typically seek to prepare students directly is narrow (e.g., commercial areas such as typing, and bookkeeping; traditional trades such as welding and woodworking; home economics occupations such as apparel making and food preparation), and has remained somewhat constant relative to the explosion of new jobs in contemporary labor markets.

A Three-Part Rationale

I offer now a three-part rationale suggestive of the direction that the vocational curriculum in the school years should assume, namely, (1) a *meaning-*

of-work argument that is premised on the inseparability of work, being, and existence; (2) a *practical-knowledge-as-knowledge* argument that says that the world of work yields knowledge that can validly claim space in the curriculum—relevant knowledge that aids in personal growth and citizenship development; and (3) a *situated-cognition* argument that asserts that work can provide authentic context for making the various forms of school knowledge more meaningful. Each of these three arguments is briefly articulated next.

The meaning-of-work argument. Since work is so central to identity formation in adult life, and to existence, it should on those accounts be a part of schooling. Mary Warnock (1977) provides one of the more compelling discussions of this topic. She contends that *work* (along with *virtue* and *imagination*) is part of the good life, and hence should be a pillar of education. This is as far as anyone has gone in establishing a philosophical basis for vocational education within the educational mainstream. Her advocacy stems from the view that work is “a proof of human freedom” and that “the desire to work and to earn is therefore . . . part of the desire to be free” (p. 146). Thus, there is virtue even in bad work, Warnock suggests. Where Dewey’s fear was that vocational education could restrict the opportunity for democratic participation, Warnock speaks of a greater fear: not to be able to work at all. It is *work* that is liberating, then, not the curriculum per se. But if work as an end of education is liberating, then the means to that end (whatever its coloration) must also have been. Instrumental education could thus be liberal education. There would thus be no need for tracking. Here, it is Warnock’s view that “some pupils will not go as far as others. But they must not be allowed to hold up their colleagues. *Their curriculum will be the same.* It will simply be that they do not proceed so far along it” (p. 151; emphasis added).

We can also come to an appreciation of vocational education as general education through the ideas of Booker T. Washington, whose context was post-Emancipation America, and whose ironic educational mission was to use work as the basis of a curriculum that had as its goal the preparation of ex-slaves for a life of freedom. Work, indeed, was to be the proof of their freedom. Since it was the only education that the American South would allow ex-slaves, Washington’s stance was that vocational education would have to be interpreted broadly: it would have to be general. And he was convinced that it could be. Like Warnock, he held that there was virtue in work per se. In his *Working with the Hands* (1904), the first chapter of which he titled “Moral Values of Hand Work,” Washington observed that ex-slaves had emerged out of the Civil War with the view that “freedom from slavery brought with it freedom from hard work . . . that education of the head would bring even more sweeping emancipation from work with hands” (p. 4). But going against this grain, he sought to infuse the supposed liberating power of handwork as the guiding ethic of Tuskegee Institute, the school he founded. Students were to construct many of the buildings at Tuskegee, out of bricks they themselves had manufactured at the school.

Washington espoused the connection between mental life and handwork, observing that “the distinction involved in the words ‘education’ and ‘training,’ is largely theoretical. My experience convinces me that training to some productive trade, be it wagon-building or farming, educates” (p. 82).

The ideas of Warnock and Washington, though separated in time from current discourses on the new vocationalism, remain relevant and suggestive of the possibility of an enduring rationale for including vocational education (conceived as education for work) in the general education curriculum. For both, a curriculum geared to work must necessarily be liberal in its undertaking. More recently, Copa and Bentley (1992) have resonated with this basic disposition by offering vocational well-being as an important component of human development, as important as physical, spiritual, or social well-being, and by suggesting a vocational curriculum for all that transcends traditional liberal/vocational divisions.

But while as a general philosophical principle one can support the idea that work per se is educative and a concomitant of freedom, this does not alter the fact that there is good and bad work, and that life probably has more meaning if the work one performs is good. It ought thus to be a purpose of schools to teach students the difference between good and bad work, and the consequences in life that accrue from the kind of work that becomes one’s lot. Here I join with critical theorists who suggest that the vocational curriculum must help students to interrogate work and work life—to examine and critique gendered work, or race- and class-based apportioning of work. While it is true that *somebody* has to perform bad work, schools should not be a party to any process that works out the arrangement of bad work based upon arbitrary criteria such as race, class, and gender. Schools must help students come to terms with the meaning of work, and the importance of working, *within the context of a common curriculum for all*, not from opposite sides of the curriculum.

To focus the curriculum on what work would mean for students in their adult lives is made complex by the subjective nature of the idea (see, e.g., Tausky 1995). But there is good evidence, thanks to the first international Meaning of Work (MOW) study (see England and Whitely 1990), that shows a connection between level of education, occupation, and vocational well-being. Schools cannot back away from a role here. The MOW study identified eight meaning-of-work patterns: apathetic workers, alienated workers, economic workers, high rights and duty economic workers, technobureaucratic workers, duty-oriented social contribution workers, work-centered expressive workers, and work-centered and balanced workers (England and Whitely 1990, p. 74). *Alienated workers* tend to be of about average level of education for the labor force. Their jobs tend to be repetitious, offering very limited autonomy, low job satisfaction, and low work commitment. They work in low-quality clerical, services, and construction jobs. By contrast, *work-centered expressive workers*, among whom those with postsecondary education were overrepresented, tended to have high work autonomy, high satisfaction, and high work commitment. They tended to be overrepresented among managers and supervisors.

The MOW data illustrate that vocation includes but extends beyond economic considerations. Beyond pay, the kinds of jobs people hold—how much autonomy they have, how much responsibility they have—tend to influence their job satisfaction, their work values, their work commitment, and, ultimately, their sense of worth.

The practical-knowledge-as-knowledge argument. A second basic justification for vocational education in the general education curriculum is that the knowledge engendered by work and work life is a valid form of school learning. This is an epistemological argument, consistent with that of some of the vocationalist advocates whose ideas I have discussed above, especially Silberman and Beck. It reaches back to the thought of Whitehead (1929), who recognized “technical culture” as one of three bases of school knowledge, and who felt that it should be “conceived in a liberal spirit” (p. 70). It is also consistent with Gordon Bell’s (1980) contention that industrial knowledge could be valid knowledge, once it conformed to certain liberal tenets. Usefulness per se could not invalidate the epistemologic claims of this form of knowledge. I resonate with Hodkinson’s (1991) view that knowledge per se is neutral, and agree with him that whether content is academic or vocationalist depends on the *intentions* of the teacher and the learner. Is there any point to refuting that mathematics, a quintessential academic subject, might be one of the more *vocational* subjects in the curriculum? Few employers would disagree with this.

The “vocational knowledge as knowledge” argument is a difficult argument in light of traditional conceptions of what constitutes valid knowledge (see Lewis 1993), and is made doubly so because of the existence of a received view of what constitutes vocational education. That view has been restrictive, concentrated as it has been on work in its economic aspects, to the exclusion of other aspects. By the received conception, vocational education produces welders, secretaries, auto mechanics, and so on. It is education *for jobs*. But were the perimeter of vocational education to be extended from jobs to work, one would find that what there is to be known expands accordingly. There is room here not just for technical skill, but for other skills, such as how to write a job application letter, or how to understand and evaluate the provisions of a piece of legislation relating to the workplace. Work is important enough for a place to be found in the curriculum that focuses on the multiple forms of knowledge that it engenders.

A situated-cognition argument. A third rationale for the inclusion of vocational education in the general education curriculum is that it facilitates cognition by its situated, contextualized, nature. Here vocational education becomes interwoven into other school processes. This is substantially what Beck (1991) sought to illustrate when he examined the curricular possibilities that domains such as business and marketing education, agricultural education, and home economics education presented.

Vocational subjects facilitate learning by making otherwise difficult concepts reachable to students. One example already set forth above is that of

writing a job application letter. Such a learning task could be made even more authentic in a class that indeed has jobs for which students must apply. For example, the class could form itself into a company that aims at manufacturing some product during the school term.

Many aspects of mathematics are better understood in the context of electrical circuitry, or in a machine shop class, than in the abstract. A student who wishes to know what fuse rating is needed to protect a circuit from overload must use principles of substitution learned in algebra to establish balance between voltage, current, and resistance. To set a lathe to run at the proper speed for the size of the material on hand, the student finds use for the relationship between diameter, circumference, and π .

Moreover, vocational classes can teach about the world through work. For example a building-construction class that actually builds a house from start to finish can learn about the hiring process, the need for safety practices and laws, the minimum wage, zoning laws, borrowing money, the role of unions, project management, and working as a team. There are opportunities here for writing letters of application, estimating cost, managing money, and conducting transactions with adult members of the community (bankers, city council members, etc.). In their "school-based enterprise" approach to vocational education, Stern, Stone, Hopkins, McMillion, and Crain (1993) report that the productive activity in classroom enterprises they observed provided the practical context for different kinds of learning, including problem solving, teamwork, learning through work, participating in organizational redesign, and time management.

The possibilities of vocational education described here now find validity in a discourse that views context (or situatedness) and social learning as important bases of cognition (see, e.g., Brown, Collins, and Duguid 1989; Forman, Minick, and Stone 1993; Resnick 1987; Cognition and Technology Group at Vanderbilt 1990; Rogoff 1990; Lave 1988; Lave and Wenger 1991). It is true that there are attendant contentions, such as the problem of transfer of learning from context-bound, domain-specific situations (see, e.g., Perkins and Salomon 1989). Also, situatedness per se does not yield new learning. But contentions aside, vocational education by its very nature can be the basis of contextual learning in ways that are more natural than other places in the curriculum.

The Curriculum

What would a vocational education curriculum premised on the idea "education *about work*" look like? The possibilities are boundless. From the epistemologic and situated-cognition arguments offered above, it can be seen that both content and process approaches to the vocational curriculum are possible. These possibilities allow for flexibility in the curricular offerings. Trouble-shooting a stalled automobile is vocational education, but so is a term paper on job discrimination. It was not a goal of this article to set forth a coherent curricular framework; I simply want to offer a sample of what the components of such a curriculum might be. As such I

would propose that five sample components of the vocational curriculum in the school years might be (1) actual work experience, (2) contrived or simulated work experience, (3) study of employment trends, (4) community projects, and (5) entrepreneurship.

Work experience. All students should have actual work experience in real jobs during the school years, arranged through the auspices of schools. Such “co-op” arrangements with industry have been a part of traditional vocational education in the United States for decades, but it is not required of all (United States General Accounting Office 1991). The experience in industry would constitute a course of study, with clear goals to be accomplished by the students. Students could use some of the time working on actual jobs. They can be involved in job shadowing. They can observe and interview exemplary adult workers. They can talk to management or to union leaders. Other components of the experience might include journal keeping, reflection, and report writing. The rationale here is that learning out of school differs from learning at school (see, e.g., Resnick 1987). Students learn to apply school knowledge while they get firsthand glimpses of what the real world holds in store for them when they eventually enter the labor market, this time on their own. There is some evidence that work experience while at school can lead to positive school-related attitudes and behaviors, such as reduced tardiness, fewer days absent, and increased academic performance (see, e.g., Mortimer, Shanahan, and Ryu 1993).

Contrived experiences. A second important component of the curriculum could be *contrived or simulated work experiences in school vocational laboratories, and in other areas of school life* (such as the school cafeteria, school newspaper, etc.). Here, away from the heat of actual work experience, workplace situations can be simulated for the benefit of students. They see much more of the whole than when they are at an actual work site. This was the approach to vocational education favored by John Dewey (see Dewey 1916). Students could be organized into production teams. They could be taught real skills sufficient to allow them to be productive members of such teams. They can learn about planning, decision making, teamwork, conflict resolution, and so on (see Stern et al. [1993] on the school-based-enterprises approach to vocational education).

Employment trends. A third component of the curriculum could be the study of employment trends. Students could be provided labor-force data indicative of growing and declining industries, regional occupational trends, and the like. Such information would be useful in helping them to see which jobs are becoming obsolete, and which are expanding. They would become better informed to make decisions with respect to plans after school.

Community projects. A fourth component of the vocational curriculum could be community projects that shift the focus from economic work to

social work. Such work could include volunteerism. Students could be involved in projects related to senior citizens or to small children. They could be involved in environmental projects, such as cleaning up riverbanks. They would learn to see work in a broader sense than has been possible under traditional vocationalism.

Entrepreneurship. A fifth component of the curriculum could be entrepreneurship. Students would be provided with the information actually needed to start a small business if they so desired, upon graduation. They could be required to start simulated companies as part of a class. Such experiences can help them understand and evaluate whether this is an option they should consider upon graduating.

The curricular components set forth here are a suggested sample only, intended to convey the possibilities. They show that vocational education does not have to be narrowly constricted, that is, premised on specific preparation for a single job. It can be conceived in ways that allow for the fullest development of students, in keeping with democratic principles. It can be education for citizenship.

CONCLUSION

To accept vocational education as general education requires us to abandon our pretensions regarding the role of schooling in contemporary society. Schools and universities do play a central role as purveyors of the culture, but they are also conduits to jobs and to opportunity. The life of leisure that liberal education promises comes only *after* graduates have found jobs. To discard vocational education on the ground of its utility is to impose upon it a stringency that we do not impose upon academic education. Thus, the utilitarian explanation for the rejection of vocational education as general education is untenable. We must look to other reasons for the disfavor that this type of education suffers; these reasons are embedded in the sociology of knowledge and in the sociology of occupations. It is a matter of whose knowledge do we wish to privilege and validate in the curriculum: that engendered by white-collar work? Or that by blue-collar work?

So long as the tight connection between curriculum, race, ethnicity, class, and opportunity remains, vocational education will continue to be tied to blue-collar work only, and schools will go on pretending that what they purvey in the academic curriculum is somehow transcendent, even though much of it is the knowledge that employers crave. I have suggested here that class barriers in schools and in the curriculum need to be broken down. In place of the liberal/vocational divide, I have suggested a conception of vocational education that can be dispensed within the framework of a unitary curriculum.

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