American Education Discourse: Language, Values, and U.S. Federal Policy

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Abstract

In a time of increased federal enforcement of United States Education, education legislation has come to define and construct students in specific ways. The narratives of science and efficiency have come to dominate how education is defined and implemented. From explicit manifestations found in curriculum to implicit assumptions working within the most basic ideas about American education, the predominate paradigm of science and efficiency has come to shape students in limiting and dangerous ways. Acknowledgement and appreciation of the existence of diverse interpretations and the very democratic principles upon which the nation was founded are at stake. A close look at United States federal education policy shows a clear trend: the structure and ethos of the market economy have been transposed onto American schools. Included as consequences of this trend are, 1) the institutionalization of science and efficiency as the only valid means of interpreting what schools do and the people who populate them, 2) the invalidation of any inquiry, pedagogy, or course of study that isn't scientific, and 3) the disappearance of humanitarian perspectives from U.S. education.

It is important to study the predominate interpretive perspectives functioning within United States Education. I argue that the rubric by which the American educational institution operates teaches students to view education as a strictly defined exercise in efficiency and scientism. Analysis of federal curriculum policy since the 1940s shows increasing legislation of education by the federal government has worked to solidify a particular interpretive framework within the American school system. This legislation promotes a singular perspective that precludes other ways of understanding the learning process and those involved. My analysis of U.S. federal education acts and publications fleshes out this function of the discourse and suggests that the predominate discourse working within U.S. education constitutes individuals within a cult of efficient production that orients them to act toward the world in particular ways.

In presenting an argument for the problematic shaping of individuals by scientism and efficiency as they function through U.S. educational discourse, I situate, 1) language as a major constitutive force, 2) U.S. education as functioning within a cult of efficient production, and 3) the consequences of this particular constitutive force as problematic for the 'ways of thinking and being' it promotes *and* for the 'ways of thinking and being' it precludes.

Issues and Practices of Methodology

Language plays a key role in facilitating and limiting possible interpretations of what education can be, and it is imperative that we interrogate the language found in the discourse of America's education system in an attempt to define and understand the particular interpretations and perspectives that currently guide thinking about U.S. education. To this end, public laws of the United States of America that pertain directly to U.S. education constitute the materials that I have collected for analysis. In the following section, I discuss the legislation I have chosen, the reasons for choosing the legislation, where and how it was found, and how I will analyze this legislation. In a section titled, 'Language and Life' I position language as a social force important to the construction of individuals. As I explore the discourse of education found in federal public laws through an interpretive lens that positions perspective within

linguistic choices, the importance of the permanent language found within education legislation becomes an urgent matter for inquiry.

Education Legislation

I use U.S. federal education acts and publications from the last sixty years to illustrate the predominate national discourse of U.S. education. I chose to focus on these specific educational artifacts because the language contained within is institutionalized (already implemented) and permanent and provides the opportunity to apply the methodology to relevant and timely examples of language typical of U.S. education. More than that, however, these particular examples of educational discourse represent the dominant discourse within U.S. education; they are where education is defined, assessed, judged, and policed.

Various sources were used to ascertain which United States public laws related directly to U.S. education including the U.S. Department of Education and National Center for Education Statistic websites (for the summaries of federal involvement in education found therein) as well as sources that surveyed governmental policy throughout the 20th century concerning education[1]. These public laws were chosen because they represent the official discourse concerning education and influenced the course United States Education has taken following the passage of each.

After finding the names and/or public law numbers for federal legislation relating to U.S. education, I chose eight laws to interrogate. This decision was made by first focusing on the more encompassing laws that were either originals or reauthorizations of the omnibus education acts passed every few years to fund the majority of the federal government's education programs. I also included laws concerning the federal government's positioning of certain types of research and development as valid. In addition, a sampling of smaller laws relating to work and education were reviewed.

Searches using the Lexis-Nexis search engine generated, in their entirety, the following laws to be analyzed:

- P.L. 79-586: *Vocational Education Act of 1946* (*George-Barden Act*) (1946)
- P.L. 89-10: *Elementary and Secondary Education Act of 1965*;
- P.L. 98-377: *Education for Economic Security* (1984);
- P.L. 101-589: *Excellence in Math, Science, and Engineering in Education Act of 1990*;
- P.L. 103-227: *Goals 2000: Educate America Act* (1994);
- P.L. 103-382: *Improving America's Schools Act* (1994);
- P.L. 103-239: *School-to-Work Opportunities Act of 1994*; and
- P.L. 107-110: *No Child Left Behind Act of 2001*.

In addition to these laws, included in the analysis is the federal publication concerning education: *A Nation at Risk: The Imperative for Education Reform* (1983), because it has shown to foreshadow federal legislation and, for this reason, has important implications for the direction and policies of U.S. education.

In the following section, I invoke an understanding of language that facilitates an analysis of the particular language found within recent legislation concerning education in the United States. The purpose of analyzing current legislative language concerning U.S. education is to explore the interpretive framework from which such legislation functions as a means of positioning contemporary educational discourse as limiting and undemocratic.

Language and Life

The purpose of this section is to provide a context for the recent policy-making of the federal government concerning U.S. education. The central tenet of my argument includes recognizing language as a fundamental aspect of human growth and learning. In the following section, I position language as a constitutive force that works to influence individuals in implicit and central ways.

Many of us recognize language as important to our lives. Words constitute a substantial portion of our communication when we consider the amount of spoken language and the written forms of communication we engage on a daily basis. However, the role that language plays in our lives is often underemphasized, and the words we use frequently get considered only as vehicles for information. By focusing on the function that language plays as we interact with it, we can consider language to be substantial not just for the information it carries but the role that language plays in building and shaping perspective as we interact in our world.

For those who embrace a notion of language positioning as central to how we learn to interpret our world, the importance of language is clear; because of its pervasive nature and critical position as a communication tool, "it is already the social bond" (Lyotard, 1979, p. 15). Lyotard emphasizes the importance of language in our relations with each other when he writes, "no self is an island; each exists in a fabric of relations that is now more complex and mobile than ever before. Young or old, man or woman, rich or poor, a person is always located at 'nodal points' of specific communication circuits…one is always located at a post through which various kinds of messages pass" (p. 15). Important points that Lyotard makes are that we interact within a web of relations and that language is the means by which our complex relations are negotiated.

If a theory of language that contributes to the construction of self/selves is to be explored, perhaps a more nuanced understanding of relational nexuses is needed. Calvin Schrag offers an explanation:

> The role of discourse, as an amalgam of speech and language, has come into prominence, and clearly these developments are directly relevant to our current task of seeking to locate the self within the interstices of discourse. The first profile in the portrait of the self to be examined is that of the self constituted as it lives in and through a maze of speech acts and a plethora of language games, articulating its thoughts and expressing its feelings within the spheres of scientific, moral, artistic, and religious endeavors. Coupled with this first profile is the claim that such a process

> of self-formation is made possible by the resources of discourse itself (1997, p. 19).

In other words, language provides resources that facilitate the constitution of identity within the users of that language. Berger and Luckmann conclude, in *The Social Construction of Reality*, "(t)heories about identity are always embedded in a more general interpretation of reality; they are 'built into' the symbolic universe and its theoretical legitimations, and vary with the character of the latter" (1966, p. 174). The symbolic universe is largely language, and the ways that we are able to consider the self are drawn from the discourse in which it is created. This can be a difficult concept to negotiate, as it takes the relinquishment of a certain measure of self-control over the processes by which our selves are constituted. The root of this difficulty might arise from our position as symbol users whose understandings of self, and understandings of understandings of self, are embedded in the language system we use to communicate.

A more sophisticated interpretation of language might evolve from a few simple queries, "(o)ne might ask the question: 'What does it mean to approach reality through one language rather than another?' Or one might ask: 'What does it mean to be the kind of animal that uses *any* language (to view reality through any kind of highly developed symbol system)?'" (Burke, 1966, p. 22) (emphasis and parenthetical statement in original). These questions highlight how language is often (problematically) viewed as naturally derived from objective referents instead of a set of symbols developed by humans.

Ferdinand de Saussure's *Course in General Linguistics* facilitated a shift in thinking about how language corresponds with 'reality.' He posits that, "the linguistic sign is arbitrary," and the names we assign to ideas, material entities, and other "signifieds," do not correspond to any inherent characteristic of that signified (1959, p. 67). If the words we use are arbitrarily assigned to what ever it is that we are talking about, then we need to consider how we come to use those words as well as what consequences might arise

from using a set of symbols that have no direct correspondence to what we are talking about. Why not use other words? What keeps people using the same words?

For Saussure, and a slew of language theorists to follow, "every means of expression used in society is based, in principle, on collective behavior or – what amounts to the same thing – on convention…that is why language, the most complex and universal of all systems of expression, is also the most characteristic" (1959, p. 68). This interpretation of language and how it functions represents a major facet of the condition in which Americans find themselves: individuals navigating their necessarily fragmented and multifaceted lives within homogenizing meta-narratives; a fruitful point of entry when considering this process of navigation is where and how individuals come in contact with a structured system of language rich with static convention. The importance of attending to language as a means of forwarding perspective becomes that much more crucial when considering the potential of individuals to perceive of and act in the world in ways not represented within the discourses that help to constitute them.

Perhaps a clearer understanding of language and how it functions to constitute individuals will emerge as we consider language to be active. "Ever since I first heard the idea mentioned seriously it impressed me as impossible and even ridiculous that the utterances of men (sic) could be neutral…The condition essential to see is that every use of speech, oral and written, exhibits an attitude, and an attitude implies an act" (Weaver, 1970, p. 221). Interpreting language as an active process that carries with it certain attitudinal directives takes language from the passive realm of, "Sticks and stones can break my bones, but names can never hurt me," to the active realm where names not only hurt but *represent* a certain way of interpreting and acting toward a person, group or idea.

Kenneth Burke has constructed a useful interpretation of language through his approach termed, "'dramatistic,' stressing language as an aspect of 'action,' that is, as 'symbolic action'" (1966, p. 44). Burke highlights language functioning actively to constitute individuals at all times. This is the very nature of language, and "the dramatistic view of language, in terms of 'symbolic action,' is exercised about the necessarily *suasive* nature

of even the most unemotional scientific nomenclatures" (p. 45) (emphasis in original). All language has an attitude within it, and the most useful means by which to define this attitude, or perspective, is to look at the particular language choices made within a discourse.

> We discern situational patterns by means of the particular vocabulary of the cultural group into which we are born. Our minds, as linguistic products, are composed of concepts (verbally molded) which select certain relationships as meaningful. These relationships are not *realities*, they are *interpretations* of reality – hence different frameworks of interpretation will lead to different conclusions as to what reality is (Burke, 1954, p. 35) (emphasis and parenthetical statement in original).

It is difficult to overemphasize the importance of the notion of 'different frameworks of interpretation' functioning to construct different realities. Once we come to this conclusion about language, we must consider that there are *identifiable* frameworks of interpretation found within any discourse (including the discourse of U.S. education) that effectively teach people how to interpret the world in *particular* ways.

The purpose of this paper is to clarify the predominate interpretive perspectives within U.S. education, defined as they are through legislative policy, to show how they construct students in ways that are limiting and undemocratic.

As I employ the method articulated in the following section to interrogate the language of federal education Acts and publications, the resources of the discourse of U.S. education become clearer, and how they function to constitute particular identities becomes a concern. For, "(i)dentity remains unintelligible unless it is located in a world. Any theorizing about identity must therefore occur within the framework of the theoretical interpretations within which it is located" (Berger, 1966, p. 175).

Linguistic Choices, Metaphor, and Perspective

In the previous section, I noted the importance of language in constituting individuals. The interpretive lens (or method) that I use to engage U.S. education incorporates a perspective on language and discourse that emphasizes the role of specific language choices on the forwarding and concretizing of particular perspectives. Ultimately, I analyze the official discourse of U.S. education to position the particular linguistic choices made within federal legislation pertaining to education as representing a particular constitutive force: or perspective. But, just how does language constitute perspective?

I believe, like Chaim Perelman (1963), that "(i)t would be most instructive to follow, through the history of a society or of a particular discipline, the evolution of what, in that society or discipline, is considered to be matter of course, to be normal and reasonable" (p. 157). Michel Foucault worked to develop understanding of constructed normality and made important insights into the development of contemporary thought and policy on sexuality, criminality, and insanity. However, how one goes about doing that is not necessarily clear or obvious.

One aspect of this sort of inquiry that does seem fairly obvious is that much of what's determined to be 'normal and reasonable' can be found in what is said when people talk or write about a particular “anything” (in this case the institution of United States education). Linguistic choices offer us a window into how people think about what they are talking or writing about. This seems like a rather logical assumption. Yet what might not seem logical is how those particular linguistic choices are made.

Remember that we are talking about education as a discipline and speaking about education in ways that link it with efficient production and a scientistic perspective. We must therefore ask how and why we began to talk about education in these ways. The Industrial Revolution demanded workers, and the influx of immigrant children coupled with progressive child-labor laws created schools whose purpose was to prepare their students for work. Vico (2002) reminds us that "(b)ecause it is impossible for [wholly] false ideas to arise, for falsity consists in a confused combination of ideas, no tradition,

however fabulous, can arise which did not at first have some ground of truth" (p. 156). The truth was that factories needed workers, and schools functioned in many ways as sorting machines that prepared students for their eventual labor. As the reorganization of schools occurred around this phenomenon, educators began talking about education in ways that perpetuated the stated purpose of education: social efficiency.

These linguistic choices functioned to link education with the concept of work and the production of goods in factories. Examples of this are: education as training, students engaged in schoolwork and homework, and the creation of vocational education classes. What was once a means of making the lives of students (albeit the wealthy) more rich and engaged by teaching them to read and write, by instructing them about the structures of the earth and plants and animals, and by helping them explore new ways of thinking through math and science, education evolved into a concept, like all others, that Nietzsche (1989) explains, "originates by the equation of the dissimilar" (p. 249).

Whereas before the Industrial Revolution, education was equated with knowledge, wisdom, and traditional notions of liberal education as an activity meant to increase quality-of-life, it quickly became equated with the dissimilar activities and outcomes of the workplace. Because of the discourse of education moving in this direction and creating metaphors of production functioning within the language of schools we should seriously consider Burke's (1969) description of metaphor as "a device for seeing something *in terms* of something else. It brings out the thisness of that, or the thatness of this" (p. 503). The linguistic choice to talk about, and within, education in this selected way creates in schools the same language used in the workplace, and in so doing, imbues schools with the same meanings and ways of understanding as the workplace.

Take for example, this passage from a newspaper article written by current Superintendent of Indianapolis Public Schools, Dr. Eugene White as he welcomes students (and parents) to the 2006-2007 academic year:

> Make sure your child attends school every day. School is your child's version of a job. Turn your student into a world-class employee by setting an early bedtime so he's (sic) refreshed for class work. (2000, p. E1)

Of the eight recommendations offered by Dr. White, the one above represents his initial thrust in how parents can become more involved in their child's "schooling." While such explicit statements representing the purpose that U.S. education has come to serve can be troubling to anyone interested in the more intrinsic qualities education can foster in students, it is perhaps how he finishes the article that is most representative of the predominate interpretive framework that is currently functioning within U.S. education: "Turn your child into a lifelong learner by helping him (sic) to make connections between schoolwork and life" (White, 2006, p. E5). Sometimes we hear the proceeding quote with slightly different terms such as: between school and life, or between the classroom and real-world experiences. Any educator cognizant of the pragmatic function of education would embrace such connections. But, when the terms "schoolwork" and "life" are used, the focus of what should be connected moves from an interplay of life and school to a "training" of how to operate within similar institutions (education and capitalist economy).

Similarly, the evolution of science and its application to the "softer sciences" (of which Education has long been considered one) represents another aspect of the educational discourse that has taken on the "spirit," if you will, of another discipline. Science helped win two world wars and cured many diseases over the course of the 20th century. It has provided the comforts of modern life to millions of people. Yet, science as a discipline represents certain ways of thinking about the world and the people within it that can limit our potential understandings of it/them when used as the *only lens of interpretation*.

We live in a very different time than the early 20th century, and the conditions of society and the individual's role in that society have changed dramatically. But, one of the characteristics of language is that it can calcify and persist in its various forms over time. As Burke (1969) reminds us:

> Language develops by metaphorical extension, in borrowing words from the realm of the corporeal, visible, tangible and applying them by analogy to the realm of the incorporeal, invisible, intangible; then in the course of time, the original corporeal reference is forgotten, and only the incorporeal, metaphorical extension survives (often because the very conditions of living that reminded one of the corporeal reference have so altered that the cross reference no longer exists with near the same apparentness in the "objective situation" itself)" (p. 506) (parenthetical statement in original).

The factories of the Industrial Revolution and the subsequent production boom in the United States no longer dominate its existence, and because of this, the conditions that spurned the discourse of education to adopt metaphors of production and instrumental rationality are no longer viable and 'tangible'. The conditions have changed, and the ways that we talk about and within education don't reflect the conditions that exist in contemporary American society. Vico (2002) calls on us to respond to such inconsistency: "Interpretations as are of a moral, political or historical nature have been assimilated to contemporary customs, governments and deeds, without any reflection upon the fact that, by a necessity of nature, the customs, governments and deeds of the humanity most distant from us must have been very different from our own" (pp. 155-156). There is no doubt that the America of the first half of the 20th century is a different place than our own. Without reflection, however, we are in danger of being imposed upon by customs, government, and an educational system that can't respond to the contemporary needs of people living in a pluralistic, multiply-perspectived, and democratic society.

That the social conditions of American society have changed matters little since the language used to talk about and within education has not. There is an official discourse created within education in which there are certain actively selected and affirmed linguistic choices. These language choices have persisted as a set of metaphors over the course of the 20th century: metaphors that link education with efficient production and scientism. This section teases out some of the consequences of language becoming

calcified and static and the phenomenon that Burke (1969) describes: "For *metaphor* we could substitute *perspective*" (p. 503).

As a theorist concerned with symbolic systems, Burke offers useful ways of thinking about the symbolic nature of language and the ways in which humans, as symbol using creatures, are limited and defined by a closed system of symbolic communication. He reminds us that, "(e)ven if any given terminology (discourse) is a *reflection* of reality, by its very nature as a terminology it must be a *selection* of reality; and to this extent it must also function as a *deflection* of reality" (Burke, 1968, p. 45) (emphasis in original). Our language, by its very structure, frames the ways that we are able to think about a given subject by the linguistic choices made through the discourse. Language sets up terministic screens that work, in many ways, like blinders influencing us to conceptualize a subject in one way.

Because, "any nomenclature necessarily directs the attention into some channels rather than others," language has a tendency to become calcified (p. 45). If the discourse of education has become calcified, and our ways of talking about education inherently influence the ways we think about education, there exists a very problematic dynamic keeping us from thinking differently about education. For, as Burke notes:

> Not only does the nature of our terms affect the nature of our observations, in the sense that the terms direct the *at*tention to one field rather than to another. Also, *many of the 'observations' are but implications of the particular terminology in terms of which the observations are made.* In brief, much that we take as observations about 'reality' may be but the spinning out of possibilities implicit in our particular choice of terms (p. 46) (emphasis in original).

As the possibilities of thinking differently about education are 'spun out' by the linguistic choices that reify the discourse, the danger exists that we become blinded to, or screened from other ways of thinking about education. When the language doesn't reflect

contemporary situations, this works to keep us from talking and thinking about what matters most for students in a democratic society.

It is important to note that science itself is not necessarily the problem. What we need to be most wary of is when scientism, or the teleological manifestation of an irrational *method*, functions as science without the rigors that science, as a method of inquiry, requires for valid knowledge construction. The rigors of science can be described in this way:

> The ideal of scientific organization is, therefore, that every conception and statement shall be of such a kind as to follow from others and to lead to others. Conceptions and propositions mutually imply and support one another. This double relation of "leading to and confirming" is what is meant by the terms logical and rational…The more one emphasizes organization as a mark of science, then, the more he (sic) is committed to a recognition of the primacy of method in the definition of science. For method defines the kind of organization in virtue of which science is science. (Dewey, 1966, 190-191)

Scientism, or the name we can give science that ignores Dewey's 'double relation,' can rear its ugly head in at least two ways: 1) when the method becomes "lazy" and doesn't retain rigor thereby loosing the epistemological force germinated within the rational connections between steps of the inquiry process, or 2) when science becomes political. The second situation often implies the first but isn't required for the scientist to fall into the trap of scientistic assumptiveness.

Regardless of whether or not scientific inquiry becomes compromised for political reasons, scientism functions paradigmatically and accesses a long tradition of science by piggybacking upon its successes and its instantiation in our thought processes. In so doing, scientistic results impose dogmatic conclusions upon the topic of study. It is important to note that even 'good' science itself is not devoid of values:

> Science may have *any* kind of value, depending upon the situation into which it enters as a means. To some the value of science may be military; it may be an instrument in strengthening means of offense or defense; it may be technological, a tool for engineering; or it may be commercial. (240) (emphasis in original)

Recognizing that science has a value (or values) is the first step toward understanding what scientism is and how it functions. It's not useful to think of scientism as the complete and total bastardization of science. Instead, scientism can be regarded as representing the tendency within the positivist framework that constitutes (the vast majority of) science to move in the direction of fundamentalism (teleology). This tendency can be guarded against through a constant acknowledgement, by the inquirer, of the values and interests inherent in any scientific undertaking.

One might ask, "All methods are interested and value-laden, so what makes science different from other modes of inquiry?" What makes science different is the cultural authority that science, as a discipline and mode of inquiry, holds within our current society. Because of this position, science has the potential to reach and affect more people than any other form of inquiry, currently. This means that scientism, or the most teleological form of science, by association, is given authority even as it represents a problematic method. This is a dangerous situation, as Dewey notes:

> Men (sic) still want the crutch of dogma, of beliefs fixed by authority, to relieve them of the trouble of thinking and the responsibility of directing their activity by thought. They tend to confine their own thinking to a consideration of which one among the rival systems of dogma they will accept. (339)

Dewey believed that the experimental method was the means by which dogma would be eradicated. However, what wasn't clear a century ago is the scope of the hegemonic force that science came to hold in the 21st century.

If we begin thinking about production metaphors and the increasing emphasis on scientistic methods of inquiry in education as reified discourses imposed upon U.S. education through certain linguistic choices made within federal education laws, we can reflect on whether or not they apply in a constructive way to schools and education as a whole as we envision them to exist in our pluralistic, democratic society. And, we should heed Nietzsche (1989) as he warns that "(t)ruths are illusions about which it has been forgotten that they *are* illusions, worn-out metaphors…man (sic) forgets that this is his situation; so he lies in the designated manner unconsciously…and precisely *by this unconsciousness*, by this forgetting, he arrives at his sense of truth" (p. 250) (emphasis in original).

The task at hand is to identify the theoretical perspectives undergirding the predominate discourse of U.S. education that we might consider the possibilities for particular selves being constituted. What might these selves look like? What might they *not* look like? How does the discourse of U.S. education constitute individuals in particular ways according to these underlying theoretical perspectives?

In the following sections, I apply the notion of metaphor as perspective to interrogate official education discourse. I engage a language-as-constitutive heuristic to interrogate the language choices made concerning U.S. education. The purpose of this is to highlight the predominate perspective(s) functioning within the language choices and how those perspectives construct students to interpret the social and physical world in limited and concrete ways that work counter to America's democratic creed.

Impact of Federal Policy Perspective on Students

This section encompasses federal education policy (from the previous list) as it relates to students. I trace, over the course of the last six decades (the time frame in which federal education policy shifted from emphasizing access to legislative enforcement), the emergence of efficiency and scientism as the overarching perspectives functioning to shape and constitute students, teachers, and curriculum within United States Education.

By engaging the federal education laws and reports through the heuristic described in the previous section, I submit the notion that they promote strict and limited ways of interpreting and understanding the social and physical world. In particular, I discuss the consequences that such a limited perspective can have for students as they negotiate the multiply-perspectived, agonistic nature of democratic citizenry.

Since recent federal acts and reports define education in very specific ways (that work to exclude other ways of defining education), an explicit discussion of how this happens should necessarily include the impact such discourse might have on each major facet of the institutionally educative experience: students, teachers, and curriculum. The focus of this paper is students, but we should keep an eye toward how education discourses impact both teachers and curriculum.

At this point, it may seem needless to argue for the purview federal policy has over U. S. education. However, I'd hate to lose sight of just how important these governmental decisions and positions are for the people most affected by them: students. Education in America has changed drastically in the last decade. Arts and music programs are being cut across the country, and less time is being devoted to physical exercise[2]. More and more food void of nutritional value is being served in the nation's schools to the point that the Institute of Medicine recommended higher standards[3]. Public schools throughout the democratic landscape of America are being closed as the "school choice" program pulls crucial funds from "failing" schools and gives it to others[4]. Faith-based organizations, for the first time in modern American history, have been encouraged to explicitly contribute to public education[5]. Science and technology are the harbingers of a new era of social efficiency and schooling.

What does all this mean for students of America's schools? This section looks at the very direction that U. S. education is taking students by closely examining the ways in which students are defined, encouraged to act, and required to learn by federal education policy. As a general rule, this section progresses chronologically through the federal education policies.

When the *Vocational Education Act of 1946* (heretofore referred to as PL 79-586) was rationalized by Congress by noting that, "Numerous large wholesale and retail organizations in this country are repeatedly requesting a further development of vocational training for (distributive occupations)," we gain insight into the direction the federal government guided students engaged in U. S. education (p. 5). This way of conceiving the purpose of schools clearly positions education to function in a socially efficient way.

When a nation's educational institution takes its cue from business and industry as to how it should educate its students, it positions itself as a means by which to train future employees. I'll submit that a certain measure of future preparation for work is a useful and pragmatic aspect of U. S. education. However, I'll also submit that it is only one of many purposes education should serve for students.

Kliebard (2002) reminds us that, "the types of curriculum recommended by (the 1916 and 1918 federal committees on education) sought to match courses of study with the probable destinations or classifications of secondary-school students." And, this manner of education amounted to a "form of social predestination" (p. 45). This means that students coming into the junior or senior high school would most likely find themselves in classes limiting their opportunities upon graduation. Compounding the problem of student pre-destination was that poor students, students of color, women, and other underrepresented groups of students were judged by these categories and given curricular tracks that would severely limit not only what they might do for work but how much money they could expect to make doing it.

Seeing education as preparation for work problematically overemphasizes the end of education: the goal of graduation and subsequent goals of college acceptance or job acquisition. However, just as problematic is what is actually happening *during* a student's education that is overemphasized by thinking about education in this way. If students' schooling is their "job," then the activities they engage in must be viewed as the

work they do, and the outcomes of these engagements – the material and epistemological results – can really only be seen as products of this work. What is clearly underemphasized within this discourse is any concern with how students feel, the level of respect on which they interact with their peers and anyone else they may encounter, or the meaning they are able to make when exposed to different ways of thinking about individuals, society and themselves. Additionally, the discourse of education that emphasizes production metaphors for a way of conceptualizing schooling delegitimizes the *process* of education.

In what seems to be a logical progression of work/school relationships, the *Vocational Education Act of 1946* also determined that any industrial-plant training programs incorporated into a vocational education program "must be bona fide vocational training programs and not a device to utilize the services of vocational trainees for private profit." It seems almost *irresponsible* for the federal government to put students into a position in which they could be used and abused as profit generators instead of pupils. It makes me ponder whether or not we would need similar clauses for hypothetical legislation regarding Artistic Education or Civic Education. What does it say about the prevailing ethic of efficient production within industry and business that we have to guard students from being abused by it?; Even as we push them into it?

The paradox represented by the potential for student abuse coupled with the desire to train students within a system that holds such great potential for abuse – not just of "human resources" but other resources as well – identifies one location at which U. S. education and the prevailing ethic of capitalism collide and collude. Weber (1998) notes that: "capitalism is identical with the pursuit of profit, and forever renewed profit, by means of continuous, rational, capitalist enterprise" (p. 17). Working from this definition of capitalism, it isn't required that students' activities earn a profit for the industry to gain from the exchange. The capitalist enterprises that offer school/work programs are pursuing profit by training students who will become future employees whose activities will earn a profit.

A federal law concerning vocational education might seem like a natural place to find social efficient ideas and language. And, were there federal laws pertaining to how American culture could be enriched through more emphasis upon the role that music, art, physical activity, multiple literacies, history or social studies play in the future lives of students, a critique of my artifact-selection might bear fruit. However, when we think about the purpose that public education can serve students in their lives beyond formal schooling, we are encouraged to think only about what an education can do for students' abilities to earn: not how it can enrich all aspects of their lives.

That there exist federal education laws pertaining to vocational education and the omission of laws pertaining to the encouragement of other purposes of education only provides us one way of thinking about the direction U. S. education began taking in the post-WWII era. By looking at the most comprehensive educational law to date, the *Elementary and Secondary Education Act of 1965* (heretofore referred to as PL 89-10), we begin to see that efficiency, as a foundational principle, has worked its way into general education policy.

In a statement given shortly before the publication of PL 89-10 (and included in the text of the law), the President noted, "This bill has a simple purpose: To improve the education of young Americans. It will help them master the mysteries of their world and learn the skills of work." He states further, as he laments the nearly 54 million people that had not finished high school, "This is a shocking waste of human resources," and, "Education is the most economical investment in our Nation's future" (pp. 3-4).

It is important to note the explicit directions that are made in federal law pertaining to education, but it is equally crucial to note how those directions are worded. What language is used? What imagery is used? What metaphors are used to help readers understand what the legislation says and means? What other means of making sense of the world are employed as lenses to understand the federal goals for students as indicated in federal law?

When students are defined as resources, they are positioned as commodities to be used (and used up). The United States of America is currently grappling with, and is in great part the cause of, the uncertain future that looms regarding our unsustainable use of other resources. What do we risk by talking about students in this way? We risk treating students as merely workers to be shaped in whatever way is most economically beneficial to political agendas and business interests. Talking about students as resources and education as 'investment' pulls the potentially enriching activity of formal schooling and the people it serves into the markets of capitalist economy. When we start talking about students in this way, we not only conceive of them as objects to be manipulated and used (for profit), but we align our schools and what happens within them with the manner in which corporations operate.

In the United States, the 1980s were a time of close association between the business ethic and the educational charge. With the passage of the *Education for Economic Security Act* in 1984, there was an explicit definition of education through the business lens. However, it seems important to note that during this decade there was no other prominent education legislation. There were not any Education Acts for Community Security nor for Social Security. There was not legislation concerned with Democratic Security nor with Cultural Security nor with any other subject. Economic Security was pursued rigorously from the ever increasingly influential federal perspective.

Once the ball began rolling in this direction – U.S. education as an efficient mechanism for the production of qualified employees – we see a coupling of efficiency with that of science and technology: the areas in which the potential to capitalize through a market-based interpretation of Americans and education is greatest. One factor that facilitated U.S. education coming to operate within the predominate perspectives of efficient production and scientism was, *A Nation at Risk*. This federal report, commissioned by then-President Reagan, begins, "Our Nation is at risk. Our once unchallenged preeminence in commerce, industry, science, and technological innovation in being overtaken by competitors throughout the world" (1983, p. 5). These two simple sentences reflect the choice to focus on both efficiency and science (scientism is actually

a better word because it reflects more closely how science functions in U.S. education policy: the "spirit" of science without its honest application to problems). As U.S. education has come to function more and more like a corporation employing the paradigmatic concept of efficient production, it has incorporated the teaching of science (and its application to electronics [i.e. technology]) into this paradigm as the foremost subject worth studying. The two are intertwined.

All subjects taught in school – including, but not limited to, Art, English, Social Studies, and Music – are incorporated into the prevailing perspective of efficiency within U.S. education thereby manifesting them specifically according to the lens of the "cost/benefit analysis." Present in our schools is a paradigm of efficient production through which subject areas are shaped or, worse, discarded. What are the impacts this can have on students in a structured learning environment? What does the predominate perspective noted above 'do' to students? What opportunities are present for learning? In what directions are students led? What possibilities are open to young men and women as they emerge from their schooling experience? How has their structured educational environment affected them? How might they come to view the world around them, their society, and the people who populate it?

After a list of thirteen 'indicators' which measure American decline, *A Nation at Risk*, proceeds to discuss current factors that highlight the importance of needed change:

> These deficiencies come at a time when the demand for highly skilled *workers* in new fields is accelerating rapidly. For example: Computers and computer controlled equipment are penetrating every aspect of our lives – homes, *factories* and *offices*; One estimate indicates that by the turn of the century millions of *jobs* will involve laser technology and robotics; Technology is radically transforming a host of other *occupations*…(italics mine) (p. 10)

A discussion of jobs and occupations didn't follow closely on the heels of discussions about how said deficiencies impacted students' quality of life, contributions to

democratic citizenry, connections with relatives and friends, capacities for continued education and learning, or any other aspect of the lives of Americans beyond the workplace. In fact, there was no discussion about these important aspects of each American's life. They were not discussed. They were not selected. They began to lose their importance and currency. They are becoming irrelevant. The only concern of the National Commission on Excellence in Education, in 1983, seems to have been ways to suit U.S. education to fit the needs of America's market economy.

In a section titled, "The Tools at Hand," *A Nation at Risk*, reads: "It is our conviction that the essential raw materials needed to reform our educational system are waiting to be mobilized through effective leadership: (One of which is) the traditional belief that paying for education is an investment in ever-renewable human resources that are more durable and flexible than capital plant and equipment" (p. 15-16): followed by, "It is essential…for government at all levels to affirm its responsibility for nurturing the Nation's intellectual capital" (p. 17). The metaphorical use of the main terms of capital markets is consequential. When we utilize the sense-making schemas of one system – the efficient markets of our capital economy – within another – U.S. Education – we make our education more like our markets, and we hegemonize, within our educational institution, the foundational perspectives upon which efficient markets function: currency exchange for a commodity, the application of capital to either the securities and exchange markets or other forms of investment, the mouth-watering prospect of an ever-renewable resource by which an industry or service might be driven, and the culling of durable and flexible resources and capital that increase the efficiency of an operation.

I use hegemony as a verb in the preceding paragraph for a specific reason. Gramsci (2003) notes that hegemony functions not only through:

1) the "spontaneous" consent given by the great masses of the population to the general direction imposed on social life by the dominant fundamental group; this consent is "historically" caused by the prestige which the dominant group enjoys because of its position and function in the world of production,

but also by,

> 2) the apparatus of state coercive power which "legally" enforces discipline on those groups who do not "consent" either actively or passively. (p. 12)

Education legislation is the manifestation of state power, in this example of hegemony, and through policy, the disciplining of students as capital to be used for profit is enforced.

Beginning with the *Excellence in Mathematics, Science and Engineering Education Act of 1990* (heretofore referred to as PL 101-589), science and efficiency become explicitly tied. The first section of the legislation (Findings and Objectives) reads: "science and mathematics are cornerstones of America's efforts to compete in the global marketplace and improve our standard of living and quality of life," and "the achievement of universal scientific and mathematical literacy by all Americans is the essential goal of all efforts to strengthen American competitiveness" (p. 4). Up to this point, the legislation enacted concerning U.S. education has not made a clear connection between the success of efficient market economy and knowledge of science and mathematics. There has certainly been both implicit (through language and metaphor use) and explicit coordination between efficient production and schools before PL 101-589, but until this piece of legislation, no direct link has been made connecting the purpose of schools with *both* efficient production and an increasing epistemological surge in science and mathematics.

It is important to note what is manifested in PL 101-589. In an era of increasing emphasis on the socially efficient purpose of education, we see assumed within education law the foundational perspective of efficiency. This "starting point" is assumed naturally within the discourse of the document (which is not surprising considering the privileged discursive position efficiency metaphors have held in education law since at least 1946). However, a new layer of perspective-building discourse comes to the foreground during the 1990s. As the hegemonic force behind efficient production gains momentum, woven

into the narrative of competition is the emerging medium in which American competitiveness (read: success in a global market economy) can proceed unabated: science. At this moment in history, efficiency and science are coming ever closer to synonymous meaning.

PL 101-589 further reads, "Congress declares that it shall be a national objective to: encourage American students to pursue careers in mathematics, science, and engineering, have American students rank first in the world in mathematics and science, and substantially increase the number of graduates with degrees in mathematics, science and engineering" (p. 4). Just as a soccer player's *goal* might be to score a tally during a match, the language choice in PL 101-589 seems to indicate the same sort of pun, or ironic play on words: the national *objective* is to pursue science. It might prove useful to consider how the language choice found in this education law promotes a particular perspective. If we are pursuing objectives, we are acting within a social science paradigm in which the scientific method drives epistemological and ontological concerns. If we choose to talk about education in the language of markets and science, then education will come to look and act like markets and science.

In 1994, with the passage of *Goals 2000: Educate America Act* (heretofore referred to as PL 103-227), the present version of U.S. education began to take shape. The purpose of the legislation, noted in the act's opening line, is "To improve learning and teaching by providing a national framework for education reform" (p. 1). The means by which the federal government intended to do this also is noted in the opening paragraph: "to promote the development and adoption of a voluntary national system of skill standards and certifications" (p. 1). A hallmark of efficiency is a reduction of layers of bureaucracy; this allows for a quicker and more encompassing effort in response to changes, perceived or otherwise. By providing a "national framework," and the means by which the national framework would take hold (national system of standards), the federal government is efficiencizing U.S. education.

Goodman (2006) notes that the push for standardization and, "high-stakes competency tests have significantly narrowed the range of potential curriculum and instruction strategies that might be explored by a school or teacher" (p. 46). A result of top down efficiencizing is a reduction in the scope of education and a focusing upon particular aspects of education that both derive from and serve the interests through which they are defined.

The coupling of the foundational perspectives of efficiency and science within U.S. education is evident in the first section of PL 103-227, "National Education Goals": "By the year 2000, United States students will be first in the world in mathematics and science achievement," and "every major American business will be involved in strengthening the connection between education and work" (pp. 7-8). These two statements appear only lines apart from each other in the text of the law and denote a synonymous relationship between education for work and the type of work students will eventually be trained for: science.

Now, we know what the desired workplace skills are – math and science – but how to best facilitate the teaching and learning of these skills becomes an important facet of PL 103-227 and ensuing education legislation. One way to increase the efficacy of U.S. education in this regard is that: "businesses should be encouraged to provide information and guidance to schools based on the needs of area businesses for properly educated graduates in general and on the need for particular workplace skills that the schools may provide" (p. 29). It seems quite clear that the purpose of education, as defined in this wide-ranging legislation, is to serve business interests. A more detailed examination of the next line belies bias toward viewing learning as a commodity: "(businesses should be encouraged) to continue the lifelong learning process throughout the employment years of an individual" (p. 29). The notion of the "lifelong learner" conjures images of curiosity and inquiry often drawing from a romantic notion of education that encompasses an individual's existence. As a teacher, I've struggled with the seemingly paradoxical relationship between education as a commodity and education as a pursuit,

and I reject the line of argument that equates 'lifelong' with the time period of an individual's life in which he or she is economically viable.

Just as disturbing is what is contained in *Improving America's Schools Act of 1994* (PL 103-382). It is important to note the ways in which this legislation defines students. In a section of the law titled, "Workers Technology Skill Development," we find several examples of the assumption of science and efficiency functioning to clearly construct particular types of "students":

> In an increasingly competitive world economy, the companies and nations that lead in the rapid development, commercialization, and application of new and advanced technologies, and in the competitively priced production of goods and services, will lead in economic growth; while the United States remains the world leader in science and invention, it has not done well in rapidly making the transition from achievement in its research laboratories to high-quality, competitively priced production of goods and services; (and) in working with the private sector to promote the technological leadership and economic growth of the United States, the Federal Government has a responsibility to ensure that Federal technology programs help the United States to remain competitive. (P. 493-494)

The rest of the law sets about to facilitate business interests in schools through the implementation of science and math as applied to technology. The aspect of this law that is perhaps most pernicious is that it is impossible to differentiate between a "worker" and a "student". The language of the law reads "worker" as applying to all students, and nothing in the legislation conotes that there are any other kinds of people that schools help to foster.

The role of the student became more limited with the passage of the, *School-To-Work Opportunities Act of 1994* (PL 103-239). This law represents a very explicit move on the part of the federal government to cater to business interests by incorporating business into schools. Note the particular language choices in the beginning of the law:

> The purposes of this act are: to facilitate the creation of a universal, high-quality school-to-work transition system that enables youths in the United States to identify and navigate paths to productive and progressively more rewarding roles in the workplace; (and) to promote the formation of local partnerships between elementary and secondary schools and local businesses as an investment in future workplace productivity and competitiveness" (pp. 3-4).

Remember that this isn't language tucked into the deep crevasses of education legislation. The statement above is the purpose of the act. Looking to construct a universal program (hallmark of efficiency) that would enable the youths of America (i.e. American *students*) to lead productive and competitive lives (business ethic of efficient production), PL 103-239 set in motion a new push for vocational education.

Emerging out of PL 103-239, are new developments concerning the closeness with which U.S. education and the business ethic of efficient production function. The means by which business interests are represented, both in how we talk about education and how we "do" education, have developed over a long period of time and have come to include a variety of methods. Recent additions to the new vocational education can be found in PL 103-239, like this statement regarding the Connecting Activities Component of the law which, "provides, with respect to each student, a school site mentor to act as a liaison among the student and the employer, school, teacher, school administrator, and parent of the student" (p. 9). Coupled with the mentor figure is another component of the legislation which includes: "career awareness and career exploration and counseling, beginning at the earliest possible age, but not later than 7th grade, in order to help students who may be interested to identify, and select, their interests, goals, and career majors" (p. 9). I'm not sure what is more detrimental to the development of thoughtful citizens: forcing 12-year-old kids to decide what job they'll work for the rest of their lives or inviting business people into American schools and positioning them as go-betweens for students and their relationships with the school, their teachers, and their parents!

It seems problematic when business interests are given such a prominent position in the learning and development of children. Not only are the perfect manifestations of the ethic of efficient production (successful businesses) invited to shape children at such an early and impressionable age – and one, I'll submit, that is much too early to make such an important and consequential decision – but business interests are also invited to play a large role in the school. I wonder how schools would look and feel – and what types of students they'd graduate – if there were in-school liaisons, invested with the same purview and influence, whose positions it were to facilitate the incorporation into the lives of students the arts, the humanities, the tenets of physical fitness, nutrition, or a whole host of other purposes of education.

In addition to creating a workforce, the business-interested policies of the federal government move a step beyond simply creating workers. One of the Mandatory Activities listed in PL 103-239, is the inclusion of, "instruction in general workplace competencies, including instruction and activities related to developing positive work attitudes" (p. 9). Not only is there explicit instruction in U.S. education as to when a student should decide on a job (no later than the age of 12) and what job that student should decide upon (whatever is needed most by business), but there is now explicit instruction in how a student should feel about such work. It does give me pause when I consider the reasons for needing to teach students to feel positively about working.

While PL 103-239 makes clear the imbued nature of the business ethic within U.S. education, the *No Child Left Behind Act of 2001* (PL 107-110), provides us with opportunities to see both efficient production and science explicitly promoted in the legislation and implicitly assumed as the epistemological and ontological basis of U.S. education. One purpose of the legislation can be accomplished by, "promoting schoolwide reform and ensuring the access of children to effective, scientifically based instructional strategies and challenging academic content" (p. 15). The list of purposes from PL 107-110 did not include instructional strategies of the non-scientifically based variety. There is no concern for or validation of instructional strategies that are derived from any of the other myriad ways in which people teach, learn and inquire: just science.

Science is the only valid means by which to determine 1) what to teach, 2) how to teach, and 3) how to assess what is taught and how it is taught.

The clear functioning of the scientific paradigm within U.S. education comes into focus as we move into the body of the legislation. PL 107-110, in a section titled, "Academic Assessments," notes:

> such assessments shall produce individual student interpretive, descriptive, and diagnostic reports, consistent with clause (iii […such assessments are valid and reliable, and (are) consistent with relevant, nationally recognized professional and technical standards]) that allow parents, teachers, and principals to understand and address the specific academic needs of students. (p. 25-26)

While this passage seems to begin on a unique and humanitarian note with the use of the descriptor "interpretive," we can see, from revisiting clause iii, that these interpretations and descriptions must be valid, reliable, and consistent with relevant, nationally recognized standards. This, of course, requires these interpretations and descriptions to be scientifically-based, as these descriptors (valid, reliable, etc…) are hallmarks of the scientific mode of inquiry and aren't applicable to other forms of inquiry one might engage to serve the needs of students. What kind of student can have each and every one of her academic needs both determined by and satisfied through science? What kind of person will she become? What means will she employ to make sense of the world around her? Will she be able to make sense of the world around her only through the lens of science? What is lacking or missing from students' educations when the only interpretive lens they are taught to utilize is that of science?

Almost to the halfway point of PL 107-110, some 400 or so pages into the legislation, we find the section, *Excellence in Economic Education*. The objectives of this legislation are: "to increase students' knowledge of, and achievement in, economics to enable the students to become more productive citizens; (and) to leverage and expand private and public support for economic education partnerships at national, State, and local levels"

(p. 424). Again, the relationship between business and education is so close that they are difficult to separate from each other. The cult of efficient production can only grow stronger, and impact young students more wholly, the more it becomes instantiated within the educational system; teaching market law as prerequisite to democratic citizenry is a (excuse the word choice) productive way to infuse the business ethic unproblematically into U.S. education curriculum. Beyond that, another move to increase the 'leverage,' or foothold, businesses and their ethics have in American schools seems to represent an almost single-minded purpose for our schools: teach students to work, exclusively.

Also included in PL 107-110 is authorization to, "offer students a broad array of additional services, such as…character education programs that are designed to reinforce and compliment the regular academic program" (p. 341). Character education works to promote the acquisition of certain attitudes and dispositions that communities come to agree upon as beneficial to individuals and larger social groups. Character education also has become a popular curricular choice among American school districts. It seems that education officials acknowledge and appreciate the fact that people learn how to "be" through their schooling. So, it shouldn't come as a stretch to accept the position that students learn how to "be" from schools and what they teach. But, what might not be considered regularly is how being inundated with science and efficiency, both at the explicit curricular level and the implicit epistemological level, teaches students to think about and act in their society and world in particular ways: ways that emerge from a *strictly* scientific and capitalist perspective.

The selected way of interpreting knowledge and experience within U.S. education is strictly scientific and occupational. Students are paying the price. Other ways of interpreting knowledge, the learning process, living as a citizen, understanding the individual's role in society, and a slew of other life-long and important aspects of every American's life, are deflected by U.S. education. Students are missing out on crucial perspectives by which they might learn the importance that competing and equally viable interpretations hold in an agonistic democracy.

Reflected within the language of education, most notably within education legislation, and in what students are taught, is the complimentary influence of science and efficiency. It would be a difficult force to resist were it simply efficient production that defined the educational process, but when efficiency and science come together within U.S. education – as they have in industry and the markets – the force becomes nearly impossible to resist. Compounding the situation is the lack of alternative ways of thinking about goods, services, and people. Because of this confluence of factors, students lose opportunities to engage aspects of education, such as those concerned with the lived experience and humanitarian issues. Instead, students are inundated with science and efficiency to an exclusionary degree.

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