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Abstract
By its emphasis on arbitrary standards and misleading systems of accountability, the No Child Left Behind Act has had deleterious effects on classroom practice, teacher education, and even educational research. The new constraints on educational research, driven by a logic of randomized field tests, are part of a larger and more invidious international managerialism that subordinates individual biographies to state-based bureaucratic control.

Comments
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Reflections on the Field

Scientifically Debased Research on Learning, 1854–2006

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By its emphasis on arbitrary standards and misleading systems of accountability, the No Child Left Behind Act has had deleterious effects on classroom practice, teacher education, and even educational research. The new constraints on educational research, driven by a logic of randomized field tests, are part of a larger and more invidious international managerialism that subordinates individual biographies to state-based bureaucratic control. [accoundebility, quantentative and squalortative research, generalizutility]

—It is enough for our purposes to note that
the word "science" has a wide range.

—John Dewey, 1929

Scene 1: In the New Guinea Highlands, 50 years ago, a Dani tribe buried spears, amulets, and sexually potent rubbing stones in pits to make way for an approaching Christianity and a few steel axes. In a likely exaggeration, some Dani claimed they could no longer use traditional knowledge; their embodied know-how had been reorganized by new priorities to the point that they even disdained their own dark skin (O'Brien and Ploeg 1964).

Revitalization movement: a common sense–defying reorganization of a traditional culture confronting stressful change in a fast-paced modern market backed by military might and missionary promise (Wallace 1956). Imagine culture shock, but at home. In response to postcontact degradations, some cultures, like the Dani, retire their usual standards of comportment and prestige for dreams of a better world. Revitalization movements realign basic values and cognitive pathways, alter what counts as knowledge, and rarely lead to good. Participants get caught between world and word, between direct oppression and fantasized rewards. When the world does not deliver, revitalization decays into depression and retaliation.

Scene 2: By the Potomac River, five years ago, educational researchers gathered their most static ideas of learning and research to institutionalize standards of assessment and accountability. In a definite exaggeration, they insisted that conceptions of knowledge had to be standardized, evaluations limited to predefined connections between arbitrary questions and answers on tests, and research on learning reduced to reified randomized experiments.

Devitalization movement: a common sense–mystifying reform, similar but opposite to revitalization. Instead of developing across three stages—from contact and

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conflict, through great change and foolish promise, to deep disappointment—a devitalization movement, like No Child Left Behind (NCLB), goes directly from conflict to disappointment without engaging change. Devitalization represses productive change, and the common sense that helped create a problem becomes more reinforced than defied. No new wisdom can enter the system. Those with received knowledge as probed by standard questions remain "in the know." Those with less access remain "in the No," as in No Access to resources, mobility, and displays of commodified (good to own, buy, and sell) knowledge.

In this article, we present three devitalization movements from 150 years of educational policy. Taken from a novel (1854), a letter (1936), and a reform initiative (2001), they are barely comparable, and, worse, we present each one excised from the details of its historical context. They nonetheless illustrate a vision for achieving progress in education through increased control and standardization, a form of rational bureaucratic authority Max Weber (1958) described as central to modernity. We aim only to illustrate, through juxtaposition, how images available to policymakers can confuse regress for progress. NCLB's effort to engineer quality education through scientific management reflects how advanced capitalist states have sought to control learning through rationalization, as if to depoliticize education, and politically so. After the three cases, we explore the managerial impulse behind NCLB and its affiliated repressions and call for more nuanced research into how children grow into adulthood and citizenship. We have strong opinions on what counts as problems, methods, and findings in learning research but refuse to enter—and seek to disrupt—the usual quantitative versus qualitative arguments that obscure the enormity of the problems faced by those who would fix education.

Disruption 1: We situate evidence-based research driven by randomized field tests less as a way of doing science and more as a technocratic support for a commodification of the mind. NCLB debases both democracy and science as part of a global call for political rationalities (and why not?) and the new managerialism (here is why not!). Measurement of apparent quality is now a central focus for governance systems. Officials speaking for consumers hold public-sector workers like teachers and researchers accountable for measures regardless of how the externally imposed standards articulate with locally emergent professional values, knowledge, and performance. The rhetoric and measurement of effectiveness and efficiency dominate reform efforts as well. Results-based accountability is a taken-for-granted political resource. Claims to imperical[1] evidence offer less a post-test evaluation of programs and policies than an active technology of governance; the promise of scientific evidence helps arrange who gets access: success for some and results-debased accoundebility for others. The science of assessment—make that accessment—shapes the conduct of the strategically savvy. Its taken-for-granted logics and rationales must be mastered in gaining degrees, in training to produce, consume, and enforce technocratically required—and often useless—knowledge.

Disruption 2: Despite the negative consequences of living by test results, we treat scientifically debased research as rhetorically amusing. In a more democratic society, it would be funny that educators would measure all children within an inch of their academic lives. The managerial shift in focus from kids and teachers working for a collective good to teachers arranging career lines for the economically best-connected kids is misguided enough to be laughable. Although quantitative and qualitative research both deserve barbs, quantitative work catches more of our wrath, because its virtues have

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been championed by administration biases. Quantitative tests of aptitude and achievement have given U.S. education a way to sort children by race and social class, just like the old days, but without the words "race" and "class" front and center. Academic researchers and news media report the correlations, and the system works as if it were only about cognition and not about how kids from different races and social classes perform differently on mostly meaningless tasks ripped from real-world work contexts. Funny how it has worked out this way! The laughter hopefully invites a vision of reform.

Responses to the three devitalization movements show a trend—from laughter, through snicker, to reluctant acceptance—not because they have been decreasingly amusing but because they have increasingly articulated with social forces that repress laughter as much as they repress productive intelligence. The joys of tending to children have decayed into worries about their careers (starting in preschool!). This is a product of state forces promising progress but pushing regress in a divided society. Claims for rational planning, managerial expertise, record keeping, and an isolating individualism have shifted the social context of most every behavior (Hall 2005; Harvey 2005; Rose 1999; Urciuoli 2005). The modern state keeps track of its citizens and their accessments. Not everyone is the better for it.

Devitalization 1: In 1854, Charles Dickens created a classroom to recognize, laugh at, and dismiss. His imitation of teachers limiting children to just the facts, set by a "board of facts," invoked a pedagogical bad dream. To make the case for facts, M'Choakumchild and Gradgrind asked students to define a horse. A child who worked at the circus knew horses well and fancied them on wallpaper. The adults wanted no part of her knowledge or her fancy. They wanted facts:

> "You are to be in all things regulated and governed," said the gentleman, "by fact. We hope to have, before long, a board of fact, composed of commissioners of fact, who will force the people to be a people of fact, and of nothing but fact. You must discard the word Fancy altogether. You have nothing to do with it. You are not to have, in any object of use or ornament, what would be a contradiction in fact. You don't walk upon flowers in fact; you cannot be allowed to walk upon flowers in carpets. . . . You never meet with quadrupeds going up and down walls; you must not have quadrupeds represented upon walls. You must use," said the gentleman, "for all these purposes, combinations and modifications (in primary colours) of mathematical figures which are susceptible of proof and demonstration. This is the new discovery. This is fact." [Dickens 1990:11]

One boy knew dictionary facts: "Quadruped, graminivorous. Forty teeth . . . Hoofs hard, but requiring to be shod with iron," useless knowledge but for special occasions, best perhaps for an examination by commissioners of acknowledged facts, what James Joyce called an "exanimation," an exam to take the life out of a person (1939:143). Beyond the humor, most everyone in the novel is crushed by real facts, by the contradictions obscured by the board of facts. Dickens used Gradgrind's classroom to critique the political economy of nineteenth-century England. In mocking the facts, he was critiquing "the vogue for statistics and figures which was even then being used to abstract and atomize the suffering of the urban poor . . . the horrors of a childhood unalleviated by Fancy could be aligned to the horrors experienced by the urban poor and by the working people of the great industrial cities" (Ackroyd 1990:689).

Devitalization 2: In 1936, Harvard President James Conant called for a Supreme Court of Knowledge to supervise the separation of good knowledge from bad. We can snicker now, but Conant was serious when he wrote to four scholars: philosopher

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John Dewey, Chinese philosopher–statesman Hu Shih, French Thomist Etienne Gilson, and Polish–British anthropologist Bronislaw Malinowski—asking them to oversee "scientific intelligence to the end that civilization shall use wisdom gained through centuries of experience to attain rightful dominion over destructive worldly forces" (Dewey 1988).

Dewey was a strange choice for Conant's Court. He had long been railing against arrogant wisdom, and he critiqued the role of expertise in a democracy:

> No government by experts in which the masses do not have the chance to inform the experts as to their needs can be anything but an oligarchy managed in the interests of the few. And the enlightenment must proceed in ways, which force the administrative specialists to take account of the needs. The world has suffered more from leaders and authorities than from the masses. [1927:208]

Knowledge for Dewey is less a commodity whose quality can be legislated or regulated than a culmination of what people in a democracy can accomplish with each other:

> We lie, as Emerson said, in the lap of an immense intelligence. But that intelligence is dormant and its communications are broken, inarticulate and faint until it possesses the local community as its medium. [1927:219]

Dewey's response to Conant: We are not ready for a Court of Knowledge. Such certainty will never be available. Instead he offered a subversive alternative: a gathering of "leading scientists, writers, and intellectuals generally" to protect new ideas from "injudicious attacks from reactionaries" (1988:129). Conant trumped Dewey when, ten years later, he imposed standardized knowledge by sending his assistant, Henry Chauncey, to ETS to push tests like the SAT for measures of academic promise (Lemann 1999:58). The Supreme Aptitude Test both conformed to and confirmed more obviously political ways of dividing a population into halves. "Quadruped" and "graminivorous" became candidate test items, no closer than in Dickens to a knowledge of horses, no more promising than in Dickens of life-enhancing outcomes.

Devitalization 3: In 2001, the Bush administration gathered near universal support for NCLB. What a good idea, to leave no child left behind, and what a revolting development that its main effect has been to record just who is being left behind according to increasingly constrained versions of knowledge measured on high-stakes tests. Criticism has exposed how NCLB eviscerates curriculum and teaching in classrooms. Equal constraints now narrow teacher education (Varenne this issue), educational research (Schoenfeld 2006), and university curricula (Urciuoli 2005). In this article, we focus on the invidious assault on what counts as research. The current devitalization is serious enough that professors of education call for "scientifically based research" on what works in school, another good idea, if only it were not a way of making things worse. NCLB limits inquiry into efficacy to standardized tests, leaving children as eunuchs of analysis. Responses to curricular treatments determine the futures of children. This is not funny. It is enshrined in law. It cannot be sidestepped. NCLB limits conditions for acquiring and using knowledge. It limits any reform of schools and their hopelessly linked outcomes: skills for some, inequalities for the rest. Research should offer a degree of freedom from easily assigning minority and poor children to failure. By defining child and test as problem and solution, NCLB has devitalized the

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egalitarian and democratic function of learning. For those with strategic resources for doing well in school, NCLB should be called No Child of Mine Left Behind.

Coming soon to your local school of education: increasingly contentious arguments over the nature and nurture of data, most of the arguments carried on, and on, inside a misconceptual abyss between quantitative and qualitative methods. We offer a better phrasing:

> Quantentative: a probabilistic approach that, by definition and means of operationalization, allows conclusions through approximations that are necessarily tentative, often convincingly so, sometimes not, either way with results often useful to those in power. When elites take the public pulse, quantitative findings are sought out, failures are sorted out, and numbers, from Lewis Terman to Arthur Jensen, from Chauncey's ETS to NCLB, take on more life than they should, and deathly so. Variables are sometimes names for the biases of groups in power. Correlations come easily for named things from the same semantic tree; rarely more than partially descriptive and always nuanced inside semantic patterns, they allow unchecked bias and earn significance by how much they correlate with each other. The world is a well-organized place at multiple levels. To the spirit of Francis Galton—if you doubt it, count it—we can add a second mantra for systematic inquiry: if you can count it, doubt it.
>
> Squalortative: a down and dirty approach that, by inclination, allows intimations by illustration and demonstration, sometimes compellingly, sometimes not, either way with results rarely useful to those in power. Squalitative studies offer no more inherent protection from misperception and ideological bias than careful—iteratively counted and doubted—quantentative studies. Squalortative devotion to complexities of context, levels of analysis, and contradiction is promising, but does not insure a disruption of established vocabulary serving established elites. The main advantage of squalortative work: it gets ignored enough to be harmless. The issue is not quantentative versus squalitative, but how they are used.

At workaday best, quantentative and squalitative identify each other's limitations. At more likely worst, the arguments continue, no one wins, class divisions are replicated in school measures, quantomacho testers confuse tentative results with bottom-line certitude in a condemnation of children below the bottom line, and squalitative researchers whimper defensively that kids are more able than tests reveal. A more thorough laughter could be directed at the conditions that have pitted quantitative and qualitative against each other.[2] At less likely best, the arguments disappear, better questions emerge, and the American condemn nation rebuilds education for equal opportunity. A better question asks how to change schools enough to apply research leading to equality, and a better outcome reveals that kids are as likely smarter than schools allow and locates them in the immense intelligence, said Emerson, said Dewey, available in local communities.

The state's definition of empirical as scientistic dominates educational policy studies (but not studies of global warming or war zone exit strategies). Kenji Hakuta, as Chair of the National Educational Research Policy and Priorities Board, claims educational research suffers a lack of respect, because it follows "democratic and craft principles rather than scientific principles" (2002:135). He recommends a science that avoids complexities, intricacies, and interpretations:

> The dilemma is that life certainly is complex, and academics like to document and paint it in all its intricacies, but policies are not made to be responsive to every detail but to general trends. Add to that the academic proclivity to layer interpretations on the observations . . . and we must be aware of our suspect status. [2002:135]

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At best, policy studies borrow from both theory and practice for mutual gain. At worst, they eschew both sides, ignore complexities, intricacies, and interpretations, and play into current biases: science, yes, but only if it trumps democracy at home or trumpets it abroad. Science called for by NCLB is science at its worst: the cold standard of divide, rank, and conquer. Whatever correlations it delivers, its generalizutility is that it separates a seeming best from the rest and adds numerical legitimacy to gaps between the haves and the have-nots. Devitalization runs a thin line between making a peace with the devil and being a piece of the devil.

The Department of Education has placed its bets on evidence-based standards in decision making. In 2002, it awarded an $18,500,000 contract to create a What Works Clearinghouse (WWC) "to provide educators, policy makers, researchers, and the public with a central and trusted source of scientific evidence of what works in education" (WWC 2005). As described on its website:

> The WWC aims to promote informed education decision making through a set of easily accessible databases and user-friendly reports that provide education consumers with ongoing, high-quality reviews of the effectiveness of replicable educational interventions (programs, products, practices, and policies) that intend to improve student outcomes.

Supported by a technology of tests and static procedures, WWC claims the expertise to enable quality programs, enhance instructional practices, and offer more choices for parents driving their children to do better than others. The new politics of knowledge devitalize education and silence new theory and practice by enforcing narrow criteria of scientific rigor and educational relevance. Only a "half-way empiricism," said William James (1967:134), pours experience into preset categories. A fuller empiricism wallows in intricacies and interpretations while seeking knowledge that celebrates new possibilities for people arranging their lives with each other.

Entrepreneurial models claim to make government more transparent, responsive, efficient, accountable, and cost effective. A knowledge of "what works" promises to improve public sector services and to render governance more democratic. The entrepreneurial shift, however, entails newly oppressive configurations of power, expertise, and regimes of regulation and control. The discourse of NCLB and WWC define the terms of debate and keep claims to full citizenship from those without testable knowledge. Education for a common good cannot prosper if policy is controlled by arbitrary measures of outcome and the partial logic of calculation. NCLB is a celebration of conformity. It limits researchers and devitalizes what can be learned. We end, as we began, with John Dewey:

> To suppose that scientific findings decide the value of educational undertakings is to reverse the real case. Actual activities in *educating* test the worth of the results of scientific results. [1929:33]

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Notes

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1. A few words are intentionally misspelled.
2. Anthropologists have generally avoided the argument. At their best, they count what and when they can and find other ways rigorous and responsible to capture more nuanced matters: ignored social processes, unexamined assumptions, and unintended implications.

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