

THE PRIORITY OF DEMOCRACY TO EDUCATION RESEARCH

KEVIN MURRAY

B.A., University of New Hampshire, 2008

M.A.T., University of New Hampshire, 2010

University of Colorado Boulder

A thesis submitted to the
Faculty of the Graduate School of the
University of Colorado in partial fulfillment
of the requirement for the degree of
Doctor of Philosophy
School of Education

2017

This dissertation entitled:
The Priority of Democracy to Education Research
Written by Kevin Murray
has been approved for the School of Education

Dr. Kenneth R. Howe, Chair

Dr. Daniel P. Liston

Dr. Michele S. Moses

Dr. Janice Peck

Dr. Terri S. Wilson

Date_____

The final copy of this dissertation has been examined by the signatories, and we find that both the content and the form meet acceptable presentation standards of scholarly work in the above mentioned discipline.

Murray, Kevin (Ph.D., Education)

The Priority of Democracy to Education Research

Dissertation Directed by Professor Kenneth R. Howe

This dissertation comprises three independent but related papers (chapters 2-4), framed by an introduction (chapter 1) and a conclusion (chapter 5). The main theme of the work is that democracy should be seen as foundational to – *prior to* – education research. Drawing on pragmatism and feminist philosophy of science, I make the case that democracy is threaded into the constitutive fabric of good education research and, indeed, of good social science in general. The benefits of democratic values for education research are at once ethical and epistemic. Education research suffers when it is not thoroughly permeated by democratic values. But many education researchers continue to neglect the epistemic significance of democracy for education research. They chase after “pure” education research, insulated from moral and political values, to set education research on absolute foundations. I contend that the hunt for pure education research should be abandoned once and for all: it is unattainable, grounded in a fatally flawed conception of social science, and would prove, in any case, undesirable in democratic society. I argue that neoliberalism, in particular, has powerfully incentivized the quest for pure education research, pushing many education researchers to adopt a prestigious but wrong-headed and anti-democratic model of social science.

CONTENTS

CHAPTER 1. INTRODUCTION	1
Organization of the Work	7
Central Concepts	10
<i>Democracy</i>	10
<i>Pragmatism</i>	12
<i>Feminism and Feminist Philosophy of Science</i>	15
<i>Neoliberalism</i>	18
Bibliography	30
CHAPTER 2. THE EPISTEMOLOGICAL JUSTIFICATION FOR DEMOCRACY IN EDUCATION RESEARCH	33
Values and Education Research	33
<i>Positivism</i>	36
<i>Neopositivism</i>	38
<i>Feminist Pragmatism</i>	44
<i>An Objection to Feminist Pragmatism</i>	52
Democracy and Education Research	56
Neglecting Democracy in Education Research	64
Conclusion	70
Bibliography	72
CHAPTER 3. DEMOCRACY AND THE DEMARCATION PROBLEM IN EDUCATION RESEARCH	75
The Education Science Question	77

Kuhn and the Demarcation Problem.....	81
Neoliberalism and the Demarcation Problem.....	87
<i>Neoliberal Funding Cuts</i>	90
<i>Neoliberal Audit Culture</i>	97
Democracy and Demarcation.....	99
<i>Anti-Democratic Demarcation</i>	104
<i>Is Demarcation Possible in Education Research?</i>	109
Conclusion.....	116
Bibliography.....	119
CHAPTER 4. NEGLECTING DEMOCRACY IN EDUCATION RESEACH AND	
POLICY: SCHOOL REPORT CARD ACCOUNTABILITY SYSTEMS	122
School Report Cards	124
Rationales for School Report Cards.....	126
The Validity of School Report Cards as a Measure of School Quality	130
The Validity of School Report Cards as a Policy Instrument.....	138
The Validity of School Report Cards as a Democratic Assessment	
Framework.....	146
<i>Neglecting Democratic Educational Outcomes</i>	147
<i>Imposing (Neoliberal) Conceptions of Schooling and School</i>	
<i>Quality</i>	151
<i>Presuming “Pure” Conceptions of Schooling and School Quality</i>	158
Conclusion and Recommendations.....	162
Bibliography.....	175

CHAPTER 5. CONCLUSION	180
Bibliography.....	188
BIBLIOGRAPHY	189

TABLES

TABLE 1. State Report Card Accountability Systems.....	165
--	-----

CHAPTER 1. INTRODUCTION

Democracy is not just one form of social life among other workable forms of social life; it is the precondition for the full application of intelligence to the solution of social problems.

Hilary Putnam, *Renewing Philosophy*

It now seems commonplace, even boring, to state that the world has been thoroughly disenchanted. Many citizens in liberal democracy do not see meaning floating, independently, beyond human activity. These citizens do not wait for meaning to reveal itself to them, because they know that it will never come. They find it difficult to imagine the “good life” as submission to some external authority. While another set of citizens will disagree, and seek comfort and answers in that external authority, many of us, most of the time, are comfortable to live in this way: we see our lives, our society and our customs, not as historically fixed, but rather as continually created and refined in conversation with fellow human beings. Richard Rorty captures this sensibility: in liberal democracy, he writes, “social institutions can be viewed as experiments in cooperation rather than as attempts to embody a universal and ahistorical order.”¹ We citizens live together, as harmoniously as we can, and build our lives and our communities along the way. We learn from past human experiments, but no universal scheme for living and living together has been handed down to us.

¹ Richard Rorty, “The Priority of Democracy to Philosophy,” in *Prospects for a Common Morality*, eds. John P. Reeder and Gene Outka (Princeton, NJ: Princeton University Press, 1992), 274.

But, at least in education research, we are tempted to relapse. Many education researchers often do relapse. They are tempted to re-enchant the world with science. They work to set up “pure” science, scientific inquiry said to be free from values, norms, and other contextual ephemera, as a kind of surrogate god. They imagine that, by appealing to this deity, they can discern the true nature of the world, independent of human minds and human values. They imagine that they can discover which educational interventions *really do* work to promote student learning, blocking out the noise of the tiresome, perpetual political struggle over education. It is not difficult to understand why many education researchers feel the siren call of pure science. The democratic terrain where measured deliberation and, too often, unreasonable struggle over education take place is messy. Populated by a disorienting range of competing values and practices, it resists neat categorization in inquiry. Pure science would allow us to skip over the foggy landscape of democracy. It would provide a dose of “metaphysical comfort”²: it would inure us to the creeping dread that all we can have is an endless struggle among limited perspectives, each as blind and as dumb as the next. Those who relapse into the quest for pure education science seek safe harbor and solid ground, wanting to be more than “two drunken sailors supporting each other by leaning back to back.”³

These relapses – attempts to leap over democracy through the invocation of pure science – are the subject of this work. We should resist the temptation to evade

² See: Richard Bernstein, *The New Constellation: The Ethical-Political Horizons of Modernity/Postmodernity* (Cambridge, MA: MIT Press, 1998), 176.

³ The “drunken sailors” argument against coherentism was initially formulated by C.I. Lewis. I have borrowed this language from Susan Haack, *Evidence and Inquiry: A Pragmatist Reconstruction of Epistemology*, 2nd ed. (Amherst, NY: Prometheus Books, 2009), 65-66.

democracy and democratic values in education research. They should not be ignored, or actively purged, in attempt to realize pure science. Indeed, I will argue that democracy is not the kind of thing that *can be* evaded if we are to conduct good education research, or good social science in general. Instead it is necessary for good education research. The relationship between the two is more than coincidence: robust democracy is built into good education research. Education research, and scientific inquiry generally, suffer outside democracy. They cannot reach toward objectivity. Neglecting democracy corrodes education research, leading to a number harms, one of which is that other values, less defensible and less salutary than democratic values, slip into education research undetected. Shoddy research is produced and put to shoddy ends. I will try to uncover some of these values now presumed in education research and suggest that they be replaced with democratic values. I will contend that it is neoliberal values, in particular, that are often covertly promoted when education researchers flee from democracy and chase after pure science, to the detriment of education research.

The benefits of democracy and democratic values in education research are simultaneously ethical and epistemic. The proposition that democracy is an ethical good is widely accepted in education research. Most education researchers stand, more or less consciously, in the proud tradition of John Dewey and Jane Addams: they imagine, and work to realize, a more perfect democracy generated and sustained through public schooling. Many education researchers have embraced democratic forms of inquiry, such

as participatory action research, which demand active collaboration with communities aimed at addressing issues identified by those communities.⁴

The proposition that democracy is an epistemic good, necessary for good social scientific inquiry, has not been so thoroughly explored in education research.⁵ It has been documented elsewhere, especially in pragmatist and feminist philosophy. Hilary Putnam calls it the “epistemological justification for democracy.” He writes: “the need for such fundamental democratic institutions as freedom of thought and freedom of speech follows...from requirements of the scientific procedure in general: the unimpeded flow of information and the freedom to offer and criticize hypotheses.”⁶ Richard Rorty finds a happy convergence between the democratic “open society” and good scientific practice. He writes: “My slogan is that if you take care of freedom, truth takes care of itself... If we take care of political freedom, we get truth as a bonus.”⁷ Good scientific inquiry is most likely to emerge when we are committed, individually and institutionally, to relying on persuasion rather than force, to engaging in robust deliberation in which we take our views to be revisable, and to listening carefully to others.

⁴ See, for example, Ben Kirshner, *Youth Activism in an Era of Education Inequality* (New York: New York University Press, 2015).

⁵ To be sure, a set of philosophers of education has maintained that democracy is an epistemic good in education research. See, for example, Kenneth R. Howe, “What (Epistemic Benefit) Inclusion?,” in *Philosophy of Education 1997*, ed. Susan Laird (Normal, IL: Philosophy of Education Society, 1998). But this view has not yet permeated education research at large and demands amplification and development.

⁶ Hilary Putnam, *Renewing Philosophy* (Cambridge, MA: Harvard University Press, 1992), 188.

⁷ Richard Rorty, “There is a Crisis Coming,” in *Take Care of Freedom and Truth Will Take Care of Itself: Interviews with Richard Rorty*, ed. Eduardo Mendieta (Stanford, CA: Stanford University Press, 2006), 58.

Many of the same education researchers who take democracy to be an ethical good, a good strategy for organizing community life, neglect its epistemic significance. They do not see how democratic values, or any other values, have anything to do with their research. They labor under the illusion of pure science, attempting to eradicate all values from their work, to the detriment of education research.

Consider two examples. The Foundation For Excellence in Education writes: “The sole focus of our work is promoting policies to raise student achievement. We do that by providing model legislation, rule-making expertise, implementation strategies, and public outreach to states seeking to improve K-12 education.”⁸ And the Rhode Island Innovative Policy Lab peppers its website with the following quotes: “Facts do not cease to exist because they are ignored”; “It is a capital mistake to theorize before one has data”; “In God we trust; All others must be data”; “Theories come and go, but fundamental data always remains the same”; “If we have data, let’s look at data. If all we have are opinions, let’s go with mine.”⁹ Both examples suggest that data and evidence, cloistered from political and ethical considerations, can serve as the foundation for pure education science. If we only set aside political and ethical values, they suggest, we can uncover pure conceptions of school quality, educational success, and academic achievement that can be used to promote educational improvement. They hunt for education research where data and evidence will be foundational to democracy and other

⁸ “FAQs,” *Foundation for Excellence in Education*, accessed February 25, 2017, <http://www.excelined.org/faqs/>.

⁹ “People,” *Rhode Island Innovative Policy Lab*, accessed February 25, 2017, <http://riipl.org/people/>.

political considerations. But they have inverted the relationship between democracy and education research.

Drawing on pragmatism and feminist philosophy of science, my task in this work is to synthesize an accessible account of the relationship between education research and democracy, emphasizing that democracy and democratic values are built into good education research. Bringing to bear that account of democracy and education research, I examine a case – school report card accountability systems – where education researchers and education policymakers have relapsed into the quest for pure science, ignoring democracy in education research and education policy. I chart the harms that emerge from the neglect of democratic values, namely, how other less defensible and more destructive values sneak into research and policy and how citizens are alienated from democratic deliberation about public schools. Along the way, I will contend that pragmatism and feminist philosophy of science provide better models for education research than the (positivist or neopositivist) pure science sought by many education researchers.

Though this work is not entirely original, and certain philosophers and philosophers of education will be familiar with this general terrain, I attempt to sustain and push forward the conversation about the relationship between democracy, education, and education research, especially during a neoliberal political and economic moment corrosive to that conversation. Along the way, I attempt to infuse the conversation with new themes. I make the case, in particular, that neoliberalism has been not only ethically, but also epistemically, harmful to education research. Sustained critical attention should be devoted to the methodological consequences of neoliberalism in education research.

I seek to play some part in reminding us that democracy must sit among our prime values, both as citizens and as researchers. Though we might like to believe otherwise, democracy is flimsy. It depends entirely on citizens who act democratically. It exists nowhere beyond the behavior of citizens. Left alone, malnourished, it can wane. As many educators and education researchers have observed, if it is not nurtured by our public schools, it will wither away. No other institution is better situated to promote democratic citizenship. We cannot fail in this task if we seek to realize democracy more robust, more inclusive, and more deliberative than what now exists. I have borrowed, and modified, the title of this work from Richard Rorty. On my view, we should see democracy as foundational to – *prior to* – education research.

Organization of the Work

I divide the rest of this work into three papers followed by a short conclusion. The first two papers involve straightforwardly philosophical work, while the third examines the practical consequences of neglecting democracy in education research and education policy.

In the first paper, I attend to the core of the work: developing an account of the relationship between democracy and education research. Drawing especially on pragmatist and feminist philosophy, and work in philosophy of education, I maintain that values, both political and epistemic, are ineliminable from education research and from social science generally. Against the account of education research and social science developed by positivists and then by neopositivists, I argue that the attempt to purge values from education research is confused and destructive, rooted in a flawed conception of social science. What we can do, however, is to reveal the values now embedded in

education research and, if they cannot be defended, replace them with more salutary values, namely, deliberative democracy and inclusion.

In the second paper, I weigh in on the demarcation problem in education research, in particular as framed on the positivist and neopositivist models. The demarcation problem is the problem of determining the nature of scientific inquiry such that it can be distinguished from pseudo-scientific and non-scientific inquiry. There has been much hand-wringing in education research about the demarcation problem: is education research scientific and, if not, how could it become so? Many education researchers, and public and private organizations, have attempted to uncover those features of inquiry that bestow the status *scientific* and to generalize those features into education research at large. They maintain, typically, that only scientific education research can generate the knowledge needed to drive educational improvement. Only it can discern which educational interventions really do work, filtering out the noise from political struggle over education. Drawing especially on Thomas Kuhn, I contend that many attempts at demarcation in education research relapse, bewitched by the delusion of pure science. They are rooted in a flawed conception of education research, neglecting the priority of democracy to education research. They are corrosive of good education research. And, despite much protest otherwise, I argue that attempts at demarcation must be evaluated in light of political and contextual concerns. They must be evaluated, in particular, in light of the neoliberal background conditions in which they occur. Neoliberalism has powerfully incentivized demarcation. (I will have more to say about neoliberalism below.) One consequence of my argument is that demarcation is not an obvious good in all cases. It should be pursued only carefully and by those who are clear-eyed about its

implications for science in democratic society. On the positivist and neopositivist models, it will prove, in any case, to be an unattainable goal in education research.

In the third paper, I turn to the practical consequences of neglecting democracy and democratic values in education research and policy.¹⁰ Drawing on the account of education research and democracy developed in the first two papers, I examine school report card accountability systems that assign A-F letter grades to schools, which sixteen states have adopted. The premise of school report cards is simple: they make information about school quality available to students, parents, schools, and communities in simple and direct terms, pressuring schools to improve their academic performance. There is good reason to think that many such report cards are technically flawed: they fail to validly measure and represent school quality, and they typically fail to drive the school improvement they promise. There is also good reason to think that they are *democratically* flawed: they fail to measure, and reward or punish, how well schools promote good democratic citizenship. And they most often smuggle in, and present as given, conceptions of schooling and school quality that should be subject to deliberation among citizens. I argue that, in the case of school report cards, education researchers and policymakers have relapsed into the doomed quest for pure science, failing or refusing to recognize the priority of democracy to education research and education policy. They are mired in a flawed conception of education research: they labor under the illusion that some pure, or at least widely uncontroversial, conception of schooling and school quality can be discovered and used to drive educational improvement. But they are mistaken, to

¹⁰ The third paper is a substantial update and revision of previous work done with Ken Howe. I use “we” throughout the paper. See: Kenneth R. Howe and Kevin Murray, *Why School Report Cards Merit a Failing Grade* (Boulder, CO: National Education Policy Center, 2015).

the detriment of education research, education policy, and schooling. It would be better, I will contend, to recognize that democracy is foundational – not corollary or supererogatory – to education research and education policy and, for that reason, to abandon, or at the very least substantially revise, school report cards.

Central Concepts

To conclude this section, I say more about four concepts central to this work: democracy, pragmatism, feminism (and feminist philosophy of science), and neoliberalism. These terms are contested and, over time, each has accumulated a wide range of meanings. For clarity, I state my construal of each term. Along the way, I begin to sound what will be a refrain in this work: neoliberalism should be interrogated and, ultimately, rejected on democratic, pragmatist, and feminist grounds. It has been corrosive of democratic education and democratic education research: it has tended to undermine and crowd out democratic educational aims and, whenever it has shaped methodology, it has undermined good education research.

Democracy

At root, democracy is a system for organizing community life. It demands that society be arranged according to the will of citizens. It maintains that legitimate authority emerges from citizens, together, and not from any external authority. It aims to make the work of producing and reproducing citizens and society “conscious,” aligned with the values and aspirations of citizens as revealed through deliberation, rather than blind or as determined by the elite. But democracy is a contested concept, and different conceptions of democracy have emerged. I endorse a conception of democracy that has come to be called *deliberative democracy*. Broadly, deliberative democracy can be characterized as a

form of government in which free and equal citizens (and their representatives), justify decisions in a process in which they give one another reasons that are mutually acceptable and generally accessible, with the aim of reaching conclusions that are binding in the present on all citizens but open to challenge in the future.¹¹

I borrow this understanding of democracy straightforwardly from Amy Gutmann and Dennis Thompson.

Gutmann and Thompson describe four characteristics of deliberative democracy. The first, the *reason-giving* requirement, demands that citizens and their representatives give reasons for their decisions about the organization of community life. Gutmann and Thompson write: “Most fundamentally, deliberative democracy affirms the need to justify decisions made by citizens and their representatives. Both are expected to justify the laws they would impose on one another.”¹² The reason-giving process mandates that we treat fellow citizens “not merely as objects of legislation, as passive subjects, but as autonomous agents who take part in the governance of their own society.”¹³ Through the giving and taking of reasons, citizens participate actively in governance.

The second characteristic of deliberative democracy is that reasons given must be *accessible* to citizens. Gutmann and Thompson write: “To justify imposing their will on you, your fellow citizens must give reasons that are comprehensible to you. If you seek to impose your will on them, you owe them no less.”¹⁴ Reasons must be accessible in two ways: deliberation about them must be public, and citizens must be able to understand

¹¹ Amy Gutmann and Dennis Thompson, *Why Deliberative Democracy?* (Princeton, NJ: Princeton University Press, 2004), 7.

¹² *Ibid.*, 3.

¹³ *Ibid.*

¹⁴ *Ibid.*, 4.

their content. For example, the reason given for the restriction of women's access to abortion cannot be, say, that a holy book demands that we cease all abortion. Such a reason would not be accessible, in the sense of not being fully comprehensible or applicable, to many of the citizens to whom it is addressed.

The third characteristic of deliberative democracy is that it produces decisions that are *binding*. Citizens do not engage in deliberation for sport. They deliberate in order to reach decisions about how to organize community life. Gutmann and Thompson write: "The deliberative process is not like a talk show or a seminar. The participants do not argue for argument's sake... They intend their discussion to influence a decision the government will make, or a process that will affect how future decisions are made."¹⁵

The fourth characteristic is that deliberation is *dynamic*. All decisions emerging from deliberation are understood to be revisable. Citizens will take decisions to be warranted when they are reached, but they are held open to challenge and revision. Deliberation, as Gutmann and Thompson write, "does not presuppose that the decision at hand will in fact be justified, let alone that a justification today will suffice for an indefinite future. It keeps open the possibility of continuing dialogue, one in which citizens can criticize previous decisions and move ahead on the basis of that criticism."¹⁶

Pragmatism

Pragmatism is an experimental, democratic, and anti-foundationalist philosophical tradition. Beyond this general characterization, little can be said about pragmatism without wading into controversy. It has always been a hotly contested term in philosophy.

¹⁵ Ibid., 5.

¹⁶ Ibid., 6.

There remains unresolved debate about which doctrines and which thinkers count as pragmatist. Richard Bernstein writes: “The history of pragmatism has always – from its ‘origins’ right up to the present – been a conflict of narratives. Despite family resemblances among those who are labeled pragmatists, there have always been sharp – sometimes irreconcilable – differences within this tradition.”¹⁷ The differences among pragmatists have been cast in various forms: left pragmatists and right pragmatists, soft pragmatists and hard pragmatists, neo-pragmatists and new pragmatists, and Jamesian pragmatists and Peircean pragmatists.

Michael Bacon maps the differences among contemporary pragmatists. On the one hand, Bacon identifies *neo-pragmatists* who contend that “objectivity should be thought a matter of securing solidarity among communities of inquirers.”¹⁸ For example, consider Rorty’s definition of pragmatism: “the doctrine that there are no constraints on inquiry save conversational ones – no wholesale constraints derived from the nature of the objects, or of the mind, or of language, but only those retail constraints provided by the remarks of our fellow-inquirers.”¹⁹ For Rorty, truth and justification run together. The best we can do is to secure solidarity among “fellow-inquirers” in the best and most inclusive communities of inquiry we can establish.

¹⁷ Richard Bernstein, “American Pragmatism: The Conflict of Narratives,” in *Rorty and Pragmatism: The Philosopher Responds to His Critics*, ed. Herman J. Saatkamp Jr. (London: Vanderbilt University Press, 1995), 55.

¹⁸ Michael Bacon, *Pragmatism: An Introduction* (Malden, MA: Polity Press, 2012), 27.

¹⁹ Richard Rorty, *Consequences of Pragmatism* (Minneapolis: University of Minnesota Press, 1982), 165.

On the other hand, Bacon identifies *new pragmatists* who argue that Rorty wrongly conflates objectivity with solidarity, abandoning our interest in “getting things right” in inquiry beyond social consensus. For example, Jeffrey Stout writes: “Even though inquiry is best conceived as an essentially social activity, whether what we say is correct in this objective is not to be understood as conforming to social consensus, for all of us could be wrong about the topic being discussed.”²⁰ Against Rorty, the new pragmatists maintain that “it is important to acknowledge the role played by the world in exerting influence over us, thinking this is the only way in which we can understand our practices of justification and inquiry.”²¹

I use the term pragmatist inclusively, preferring where possible to steer away from pragmatist internecine dispute. I take as pragmatist those thinkers who share broad commitment to what Cheryl Misak calls the “three pillars” of pragmatism. The first pillar is “the thought that standards of objectivity come into being and evolve over time, but that being historically situated in this way does nothing to detract from their objectivity.”²² The second pillar is that “knowledge has no certain foundations. All beliefs, no matter how strongly held, are fallible... We are always immersed in a context of inquiry, where the decision to be made is a decision about what to believe from here, not what to believe were we able to start from scratch – from infallible foundations.”²³

²⁰ Jeffrey Stout, “On Our Interest in Getting Things Right,” in *The New Pragmatists*, ed. Cheryl Misak (Oxford: Oxford University Press, 2007), 7-8.

²¹ Michael Bacon, *Pragmatism: An Introduction*, 29.

²² Cheryl Misak, “Introduction,” in *The New Pragmatists*, ed. Cheryl Misak (Oxford, UK: Oxford University Press, 2007), 2.

²³ *Ibid.*, 2-3.

The third pillar of pragmatism is “the commitment to ‘taking a look’ ... to keeping philosophy connected to first-order inquiry, to real examples, to real-life expertise. Peirce’s pragmatic maxim... is that to understand a concept, we need to explore its relationship with practical endeavors.”²⁴ Misak’s pillars are sufficiently narrow to allow us to distinguish pragmatism from other philosophical traditions and sufficiently broad to allow us to avoid pragmatist sectarian conflict.

Feminism and Feminist Philosophy of Science

Feminism and feminist philosophy examine the contemporary gender system. They work to expose how the contemporary gender system manufactures and sustains unequal gender relations, empowering men and limiting women. In particular, they interrogate patriarchy, the system of male dominance and female subordination. Feminists typically maintain that the patriarchal gender system, exploiting basic reproductive differences, *constructs* men and women: males become men and females become women through disciplinary and compulsory gender socialization. Patriarchal gender roles are taken to be confining and regressive, undermining the healthy development of both males and females, but females suffer the great majority of the harms of patriarchy. Some strands of feminism and feminist philosophy aim to achieve gender justice, alleviating inequalities that fall along lines of gender. Other strands contend that power imbalance is internal to gender and seek to abolish the gender system.²⁵

²⁴ Ibid., 4.

²⁵ For an overview of the strands of feminist thought, see Rosemarie Tong, *Feminist Thought: A More Comprehensive Introduction* (Boulder, CO: Westview Press, 2014).

Taking up this project, feminist philosophy of science interrogates how science has been used to promote patriarchy. It examines, in particular, how widespread (sexist) gendered background assumptions often infect science, rendering it incapable of reaching toward objectivity.²⁶ To ward off this threat, it offers alternative models of science that attend carefully to how power and values inevitably enter into scientific practice. Feminist philosophers of science aim to mend science and to safeguard it against assumptions and values that would otherwise corrupt it, internally and externally alike. Indeed, despite very often being labeled “the enemy” of science, Elisabeth Lloyd describes feminist philosophers of science as the real friends of science.²⁷ Unlike those who stumble after pure science, which cannot be attained, they are willing to revise our conception of science in order to improve scientific practice and make it useful in resolving social problems and promoting social harmony.

For example, Sandra Harding and Lorraine Code argue that science has often been contaminated by broadly shared sexist and androcentric assumptions. Both offer new models of scientific practice that can detect and counter such contamination. Harding writes: “The methods and norms in the disciplines are too weak to permit researchers *systematically* to identify and eliminate from the results of research those social values, interests, and agendas that are shared by the entire scientific community or

²⁶ For example, see: Rebecca Jordan-Young, *Brain Storm: The Flaws in the Science of Sex Differences* (Cambridge; MA: Harvard University Press, 2010); Elisabeth Lloyd, *The Case of the Female Orgasm: Bias in the Science of Evolution* (Cambridge, MA: Harvard University Press, 2005).

²⁷ Elisabeth Lloyd, “Science and Anti-Science: Objectivity and Its Real Enemies,” in *Feminism, Science, and the Philosophy of Science*, ed. Lynn Hankinson Nelson and Jack Nelson (New York: Springer, 1996), 217-259.

virtually all of it.”²⁸ She continues: “Objectivity has not been ‘operationalized’ in such a way that scientific method can detect sexist and androcentric assumptions that are the ‘dominant beliefs of the age’ – that is, that are collectively (versus only individually) held.”²⁹ She suggests that we recognize the fundamentally *social* nature of objectivity, where, for example, a commitment to diversity and inclusion would root out widely shared assumptions. At least in social science, grounding inquiry in the experiences of marginalized groups, rather than clutching to the unattainable “view from nowhere,” would allow us to see the operation of power and values in scientific practice.

Code advances a similar argument: in order to strengthen science and render it capable of achieving objectivity, we must abandon the “view from nowhere” that has dominated much of standard Anglo-American epistemology and scientific practice.³⁰ The standard epistemological position has presumed the “*S* knows that *P*” model and has focused almost entirely on the object of knowledge and very little on the subject of knowledge. The subject of knowledge is taken to be neutral and universal, erasing entirely her own subjectivity – her beliefs, values, aspirations, and social position. Code argues that assuming the view from nowhere blinds us to the values and perspectives shared by those dominant groups traditionally included in the community of inquiry.³¹ We should, instead, be “reflexive” as we produce knowledge, attending carefully to the

²⁸ Sandra Harding, “Rethinking Standpoint Epistemology: What is ‘Strong Objectivity?’” in *Feminist Epistemologies*, ed. Linda Alcoff and Elizabeth Potter (New York: Routledge, 1993), 52.

²⁹ Ibid.

³⁰ Lorraine Code, “Taking Subjectivity into Account,” in *Feminist Epistemologies*, ed. Linda Alcoff and Elizabeth Potter (New York: Routledge, 1993), 16.

³¹ Ibid., 19.

subject of knowledge in order to discern how our beliefs and values shape inquiry. Those inquirers who claim value-neutrality, who chase after a pure science, risk producing confused and dangerous knowledge claims that are stamped with “scientific objectivity.”

I draw on feminist philosophy of science because it has refined pragmatism, calling attention especially to the role of power and values in scientific inquiry. For example, feminist philosophy of science can help us to understand the relationship between neoliberalism and social science: as far as neoliberalism has exacerbated economic inequality, and made it harder for poor and working class individuals to enter into social science research communities, it has corroded social science. It has eroded the diversity of perspectives needed for objectivity – that is, needed to reveal widely shared beliefs and aspirations that bias scientific inquiry. Along the way, I attempt to sketch a view that I call, simply, *feminist pragmatism*, which draws on pragmatism and feminist philosophy of science alike in order to call attention to the priority of democracy to education research.

Neoliberalism

Neoliberalism has not typically been treated carefully in education research. In education research and elsewhere, it has often, as Daniel Stedman Jones writes, been “used with lazy imprecision in both popular debate and academic scholarship.”³² It has “become divorced from its complicated and varied origins. It is too often used as a catch-all for the horrors associated with globalization and recurring financial crises.”³³ For this reason, I say more about neoliberalism than about democracy, pragmatism, and feminist

³² Daniel Stedman Jones, *Masters of the Universe: Hayek, Friedman, and the Birth of Neoliberal Politics* (Princeton, NJ: Princeton University Press, 2012), 6.

³³ *Ibid.*, 2.

philosophy of science, which are more widely understood in education research. I chart two approaches to conceptualizing neoliberalism: the critical theoretical approach and the historical approach.

Before delineating these two approaches, I describe William Davies' four-part account of neoliberalism, which serves as a useful starting point.³⁴ First, "neoliberalism is an inventive, constructivist, modernizing force, which aims to produce a new social and political model, and not to recover an old one." Second, "neoliberal policy targets institutions and activities which lie outside of the market, such as universities, households, public administrations and trade unions...to bring them inside the market, through acts of privatization; or to reinvent them in a 'market-like' way; or simply to neutralize or disband them." Third, "neoliberal states are required to produce and reproduce the rules of institutions and individual conduct, in ways that accord with a certain ethical and political vision."³⁵ And, fourth, "this ethical and political vision is dominated by an idea of competitive activity, that is, the production of inequality." Competition and inequality are taken to provide "a non-socialist principle for society in general, through which value and scientific knowledge can best be pursued." On this view, neoliberalism can be said to be a variant of capitalism, that is, a particular conception of how capitalism should be realized. Keynesian capitalism, say, and social democracy are non-neoliberal variants of capitalism.

Critical Theory and Neoliberalism

³⁴ William Davies, "Neoliberalism: A Bibliographic Review," *Theory, Culture, & Society* 31, no. 7/8 (2014): 310.

³⁵ It is this third feature of neoliberalism – its activism in producing individuals and institutions – that distinguishes it from its ancestor *classical liberalism*. I say more about this important distinction below.

The critical theoretical approach to neoliberalism draws on the methods associated with critical theory, including political economy and ideology critique.³⁶ Broadly, critical theorists explore what neoliberal transformation in the social, economic, and ideological landscape has meant for the prospects of human emancipation from the existing unjust social order. They have been especially interested in how neoliberalism has transformed, structurally and ideologically, capitalism and class relations.

Structurally, critical theorists examine how neoliberalism has reconstructed capitalist economic structures and, in turn, relations between the capitalist class and the working class. They typically suggest that neoliberalism has been a concrete, and successful, program for the restoration of elite class power. Whatever the arguments of the neoliberal intellectuals and politicians, neoliberalism has meant, in practice, rising income inequality, decreased union membership, weakened democratic governance, and increased corporate power and monopolization. Neoliberalism has institutionalized, through judicial and legislative action, the conditions necessary for the “proper functioning” of markets – that is, conditions that allow for upward wealth redistribution through the unbridled extraction of wealth from the working class.

Ideologically, critical theorists examine how neoliberalism has reached and maintained dominance despite impoverishing social and economic life for all save the class elite. They tend to suggest that neoliberalism has been an ideological justification – ideology meaning, roughly, *socially necessary false belief* – that has allowed the

³⁶ For examples of the critical theoretical approach to neoliberalism, see: Colin Crouch, *The Strange Non-Death of Neoliberalism* (Cambridge, UK: Polity, 2011); Jamie Peck, *Constructions of Neoliberal Reason* (Oxford, UK: Oxford University Press, 2013); Pierre Dardot and Christian Laval, *The New Way of the World: On Neoliberal Society* (New York: Verso, 2014); William Davies, *The Limits of Neoliberalism: Authority, Sovereignty, and the Logic of Competition* (Los Angeles: SAGE Publications, 2014).

implementation of the neoliberalism without widespread resistance. On this view, neoliberalism conceals what it means, practically, beneath the seductive ideals of human dignity and individual freedom. We have been so mesmerized by the neoliberal utopian vision of individual freedom that we have stood motionless, transfixed, while neoliberalism weakens the social and economic conditions required for substantive human freedom.

David Harvey's *A Brief History of Neoliberalism* exemplifies the critical theoretical approach to neoliberalism. There he writes:

Neoliberalism is in the first instance a theory of political economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets, and fair trade.³⁷

Under neoliberalism, “the role of the state is to create and preserve an institutional framework appropriate to such practices.”³⁸ The state “must also set up the military, defence, police, and legal structures and functions required to secure private property rights and guarantee, by force if need be, the proper functioning of markets.”³⁹ For example, schooling in neoliberal capitalism must cultivate students who have the skills, dispositions, and beliefs required for proper participation in free markets. On this view, schooling must impose neoliberal ideology, the package of beliefs necessary for the continued existence of neoliberal social and economic life, onto students.

³⁷ David Harvey, *A Brief History of Neoliberalism* (Oxford, UK: Oxford University Press, 2005), 2.

³⁸ Ibid.

³⁹ Ibid., 3.

Harvey argues that neoliberalism has been, at once, a utopian vision of human society and a concrete strategy to restore the power of the capitalist class. As a utopian vision, neoliberalism claims to safeguard or even maximize human freedom through spreading the free market into more and more domains of human life. On this view, neoliberal economic freedom is required for individual human freedom. Restricting free markets through, say, central planning undermines human freedom and, worse, creates the conditions for fascism and totalitarianism. Central planning requires central planners with authority over economic life. The free market functions through the aggregation of individual human activity without central authority. For example, Friedrich Hayek writes:

We have progressively abandoned that freedom in economic affairs without which personal and political freedom has never existed in the past. Although we had been warned by some of the greatest political thinkers of the nineteenth century, by Tocqueville and Lord Acton, that socialism means slavery, we have steadily moved in the direction of slavery.⁴⁰

For Harvey, neoliberalism is a *failed* utopian vision. It has diminished, not enhanced, human freedom for all save the class elite. Neoliberalism's claim to preserve individual freedom has been undermined by increased income inequality, monopolization, weakened democratic procedures, and the centralization of corporate power. Drawing on Karl Polanyi, Harvey writes:

The idea of freedom thus degenerates into a mere advocacy of free enterprise, which means the fullness of freedom for those whose income, leisure and security need no enhancing, and a mere pittance of liberty for the people, who may in vain attempt to make use of their democratic rights to gain shelter from the power of the owners of property.⁴¹

⁴⁰ Friedrich Hayek, *The Road to Serfdom: Texts and Documents – The Definitive Edition* (Chicago: University of Chicago Press, 2007), 67.

⁴¹ David Harvey, *A Brief History of Neoliberalism*, 37.

But neoliberalism has been successful in extending elite class power. For Harvey, neoliberalism has succeeded because it serves, at root, as an ideological justification for the renewal of ruling-class power. Neoliberalism invokes especially alluring ideals – for example, human freedom – and uses them to mask that neoliberalism has meant, in practice, further alienation from control over social and economic life for the working class. Seeking only to promote human freedom, many working class people have become complicit with their own marginalization. The very concept *freedom* has been stripped of emancipatory content. Freedom has been conflated with *negative freedom*.⁴² Each invocation of this diminished and vulgar negative freedom can only lead to further immiseration.

Stephanie Allais documents how neoliberalism has functioned, in practice, as a failed utopian vision for securing individual freedom and a successful practical program for restoring elite class power. She writes:

As an ideology, neoliberalism argues for states to do as little as possible. In practice, what could be termed “actually existing neoliberalism” has not focused on doing away with the state, but rather on ensuring that the main role of the state is improving the functioning of markets and creating markets in previously non-market areas of societies.⁴³

⁴² For the standard articulation of the distinction between *negative freedom* and *positive freedom*, see Isaiah Berlin, “Two Concepts of Liberty,” in *Four Essays on Liberty* (Oxford: Oxford University Press, 1971). Negative freedom is *freedom from* constraint. It involves “not being interfered with by others. The wider the area of non-interference the wider my freedom.” Positive freedom is *freedom to* “be the instrument of my own, not of other men’s, acts of will.” It involves being “somebody, not nobody; a doer – deciding, not being decided for, self-directed and not acted upon by external nature of by other men as if I were a thing.” Significantly, positive freedom requires that certain conditions be met, say, that individuals are sufficiently economically secure to be free subjects.

⁴³ Stephanie Allais, “Economics Imperialism, Education Policy, and Education Theory,” *Journal of Education Policy* 27, no. 2 (2011): 259.

Rather than promoting individual human freedom, neoliberalism has entailed “a greater degree of monitoring of certain kinds of behavior and performance, through a range of new ‘accountability mechanisms,’ such as performance indicators, performance appraisals, and other forms of control.”⁴⁴ For example, much recent education reform, guided by neoliberalism, has strengthened rather than weakened state control over administrators, teachers, students, and parents. Against the utopian vision described by the neoliberal intellectuals, “actually existing neoliberalism” has eroded rather than safeguarded individual freedom.

Mark Olssen maintains that neoliberalism, unlike its ancestor classical liberalism, has strengthened rather than weakened state control and monitoring over human life. He writes:

Whereas classical liberalism represents a negative conception of state power in that the individual was to be taken as an object to be freed from the interventions of the state, neo-liberalism has come to represent a positive conception of the state’s role in creating the appropriate market by providing the conditions, laws and institutions necessary for its operation. In classical liberalism the individual is characterized as having an autonomous human nature and can practice freedom. In neo-liberalism the state seeks to create an individual who is an enterprising and competitive entrepreneur.⁴⁵

On this view, unlike classical liberalism, neoliberalism is an active force. It works to create the conditions – social, political, economic, and ideological – needed for what is said to be the proper functioning of free markets. Rather than clearing space for individual self-determination, it seeks to construct individuals with the knowledge, skills, and dispositions needed for proper interaction with markets.

⁴⁴ Ibid.

⁴⁵ Mark Olssen, “In Defense of the Welfare State and of Publicly Provided Education,” *Journal of Education Policy* 11, no. 3 (1996): 340.

History and Neoliberalism

The historical approach to neoliberalism draws on historical methods, especially those associated with intellectual history.⁴⁶ Broadly, historians have been interested in how neoliberalism has become the dominant organizing principle in social, political, and economic life. They have mapped, intellectually and politically, the development and ascendancy of neoliberalism. They have examined carefully the lives and works of a diverse group of neoliberal intellectuals that includes Henry Simons, Frank Knight, Ludwig Von Mises, Friedrich Hayek, and Milton Friedman.

Historical approaches to neoliberalism have varied depending on historical methodology. Intellectual historians have explored the meandering pathway of neoliberalism as an intellectual framework. For example, they have examined the proceedings of the Mont Pelerin Society, historically the most important neoliberal organization, and found substantial disagreement over time among participants about the nature of neoliberalism.⁴⁷ Historians attracted to sociology and political economy have explored the rise of neoliberalism as a political and economic framework. They have examined the material conditions that have shaped the progress of neoliberalism. For example, they have charted the development and funding of the neoliberal think tanks,

⁴⁶ For examples of the historical approach to neoliberalism, see: Philip Mirowski and Dieter Phlewe, *The Road from Mont Pelerin: The Making of the Neoliberal Thought Collective* (Cambridge, MA: Harvard University Press, 2009); Robert Van Horn, Philip Mirowski, and Thomas A. Stapleford, *Building Chicago Economics: New Perspectives on the History of America's Most Powerful Economics Program* (Cambridge, UK: Cambridge University Press, 2011); Andres Burgin, *The Great Persuasion: Reinventing Free Markets since the Depression* (Cambridge, MA: Harvard University Press, 2012); Daniel Stedman Jones, *Masters of the Universe: Hayek, Friedman, and the Birth of Neoliberal Politics* (Princeton, NJ: Princeton University Press, 2012).

⁴⁷ Andres Burgin, *The Great Persuasion*.

including the American Enterprise Institute, the Foundation for Economic Education, and the Institute for Economic Affairs.⁴⁸

For example, consider the account of neoliberalism developed by Daniel Stedman Jones in his work *Masters of the Universe*. Stedman Jones maps three distinct phases in the circuitous history of neoliberalism.⁴⁹

During the first phase, which lasted from the 1920s until 1950, the early neoliberal intellectuals – Friedrich Hayek, Lionel Robbins, and Ludwig Von Mises in Europe and Henry Simons, Jacob Viner, and Frank Knight in the United States – aimed to “reconstruct a neo-liberalism that remained true to the classical liberal commitment to individual liberty.”⁵⁰ Stedman Jones identifies three texts produced during this period that set the foundation for neoliberalism: Ludwig Von Mises’ *Bureaucracy* (1944), Friedrich Hayek’s *The Road to Serfdom* (1944), and Karl Popper’s *The Open Society* (1945).⁵¹ While there were significant differences among the views of Von Mises, Hayek, and Popper, each feared that individual liberty, and classical liberalism broadly, were threatened not only by spreading fascism and totalitarianism, but also by New Deal liberalism, British social democracy, and Keynesian economic theory and policy. Each worked to formulate a vision for human society that would promote individual human freedom and dignity. They converged on the central neoliberal position: among all economic alternatives, the free market most reliably secures individual freedom by

⁴⁸ Daniel Stedman Jones, *Masters of the Universe*.

⁴⁹ Ibid., 6-10.

⁵⁰ Ibid., 3.

⁵¹ Ibid., 37-73.

denying any individual or authority centralized authority over economic structures. On their view, there can be no place for central authority in the free market because the market functions through the aggregation of free individual economic activity. While the free market is spontaneous and lively, they saw the bureaucracy that emerges from central planning as dystopian, deadening, and corrosive to individual liberty. They feared, as Von Mises writes, that opponents of the free market, whether Keynesian, communist, or fascist, planned “to transform the world into a gigantic post office. Every man but one subordinate clerk in a bureau, what an alluring utopia!”⁵²

The second phase of neoliberalism, which lasted from roughly 1950 until 1980, began with the formation by Friedrich Hayek of the Mont Pelerin Society in 1947, which allowed for the development of a robust international neoliberal movement. A newly diverse group of neoliberal intellectuals formulated a mature and coherent conception of neoliberalism centered on more confident, and more radical, advocacy of free market reform, deregulation and privatization, and monetarism. They became, in particular, more and more suspicious of any intervention into the free market. For example, Milton Friedman’s polemical *Capitalism and Freedom* “presented the market as the means both to deliver social goods and to deliver the ends, the good life itself.”⁵³ Friedman writes: “there is an intimate connection between economics and politics, that only certain combinations of political and economic arrangements are possible... in particular, a society which is socialist cannot also be democratic, in the sense of guaranteeing

⁵² Ludwig Von Mises, *Bureaucracy* (New Haven, CT: Yale University Press, 1944), 125.

⁵³ Daniel Stedman Jones, *Masters of the Universe*, 8.

individual freedom.”⁵⁴ Here the new neoliberal intellectuals departed from the more measured free market advocacy of their predecessors, including the Chicago economists Jacob Viner, Henry Simons, and Frank Knight, who had argued that government intervention into the market was sometimes necessary to prevent, for example, monopolization. New confidence and coherence among neoliberal intellectuals helped them to begin securing substantial private funding during this period, especially from newly established neoliberal think tanks. Facilitated by Hayek and Friedman, these free market think tanks “grew up to spread and popularize neoliberal ideas so that eventually they seemed the natural alternative to liberal or social democratic policies.”⁵⁵ For example, the Foundation for Economic Education (founded 1946) helped Hayek to establish the Mont Pelerin Society, while the Institute for Economic Affairs (founded 1955) connected neoliberal intellectuals at conferences and events and promoted neoliberal ideas to politicians and the public.

The third phase of neoliberalism, which began in 1980, saw the widespread implementation, and eventual dominance, of neoliberal ideas. The energy crisis, the debt crises, and “stagflation” during the 1970s created the economic, political, and ideological conditions in which neoliberal principles – fiscal discipline and austerity, privatization, deregulation, market reform, and more – seemed reasonable economic alternatives to reigning New Deal and Great Society liberalism and to British social democracy. Neoliberal economic policy was adopted by the International Monetary Fund (IMF), the World Bank (WB), the World Trade Organization (WTO), the European Union (EU), and

⁵⁴ Milton Friedman, *Capitalism and Freedom* (Chicago: University of Chicago Press, 1962), 8.

⁵⁵ Daniel Stedman Jones, *Masters of the Universe*, 153.

in the North American Free Trade Agreement (NAFTA). The infamous “structural adjustment” programs, administered by the IMF and the WB, spread free market economic policy throughout the world. Despite substantial challenge from, for example, the Occupy Movement during the “Great Recession,” the neoliberal framework has proven durable. It remains the dominant organizing principle in social and economic life. Through decades of intellectual and political work, combined with substantial private support, the neoliberal intellectuals succeeded in implementing, and nearly universalizing, their economic and political program.

With these central concepts – democracy, pragmatism, feminist philosophy of science), and neoliberalism – in hand, I turn to heart of the work: synthesizing an account of the relationship between democracy and education research and demonstrating that democracy is foundational to – *prior to* – education research.

Bibliography

- Allais, Stephanie. "Economics Imperialism, Education Policy, and Education Theory." *Journal of Education Policy* 27, no. 2 (2011): 253-274.
- Bacon, Michael. *Pragmatism: An Introduction*. Malden, MA: Polity Press, 2012.
- Berlin, Isaiah. "Two Concepts of Liberty." In *Four Essays on Liberty*, 118-172. Oxford: Oxford University Press, 1971.
- Bernstein, Richard. "American Pragmatism: The Conflict of Narratives." In *Rorty and Pragmatism: The Philosopher Responds to His Critics*, edited by Herman J. Saatkamp Jr., 54-71. London: Vanderbilt University Press, 1995.
- . *The New Constellation: The Ethical-Political Horizons of Modernity/Postmodernity*. Cambridge, MA: MIT Press, 1998.
- Burgin, Andres. *The Great Persuasion: Reinventing Free Markets since the Depression*. Cambridge, MA: Harvard University Press, 2012.
- Code, Lorraine. "Taking Subjectivity into Account." In *Feminist Epistemologies*, edited by Linda Alcoff and Elizabeth Potter, 15-49. New York: Routledge, 1993.
- Crouch, Colin. *The Strange Non-Death of Neoliberalism*. Cambridge, UK: Polity, 2011.
- Dardot, Pierre and Christian Laval. *The New Way of the World: On Neoliberal Society*. New York: Verso, 2014.
- Davies, William. "Neoliberalism: A Bibliographic Review." *Theory, Culture, & Society* 31, no. 7/8 (2014): 309-317.
- . *The Limits of Neoliberalism: Authority, Sovereignty, and the Logic of Competition*. Los Angeles: SAGE Publications, 2014.
- "FAQs." *Foundation for Excellence in Education*. Accessed February 25, 2017.
<http://www.excelined.org/faqs/>.
- Friedman, Milton. *Capitalism and Freedom*. Chicago: University of Chicago Press, 1962.
- Gutmann, Amy and Dennis Thompson. *Why Deliberative Democracy?* Princeton, NJ: Princeton University Press, 2004.
- Haack, Susan. *Evidence and Inquiry: A Pragmatist Reconstruction of Epistemology*, 2nd ed. Amherst, NY: Prometheus Books, 2009.

- Harding, Sandra. "Rethinking Standpoint Epistemology: What is 'Strong Objectivity?'" In *Feminist Epistemologies*, edited by Linda Alcoff and Elizabeth Potter, 49-82. New York: Routledge, 1993.
- Harvey, David. *A Brief History of Neoliberalism*. Oxford, UK: Oxford University Press, 2005.
- Hayek, Friedrich. *The Road to Serfdom: Texts and Documents – The Definitive Edition*. Chicago: University of Chicago Press, 2007.
- Howe, Kenneth R. "What (Epistemic) Benefit Inclusion?" In *Philosophy of Education 1997*, edited by Susan Laird, 89-96. Normal, IL: Philosophy of Education Society, 1998.
- Howe, Kenneth R., and Kevin Murray. *Why School Report Cards Merit a Failing Grade*. Boulder, CO: National Education Policy Center, 2015.
- Jordan-Young, Rebecca. *Brain Storm: The Flaws in the Science of Sex Differences*. Cambridge, MA: Harvard University Press, 2010.
- Kirshner, Ben. *Youth Activism in an Era of Education Inequality*. New York: New York University Press, 2015.
- Lloyd, Elisabeth. "Science and Anti-Science: Objectivity and Its Real Enemies." In *Feminism, Science, and the Philosophy of Science*, edited by Lynn Hankinson Nelson and Jack Nelson, 217-259. New York: Springer, 1996.
- . *The Case of the Female Orgasm: Bias in the Science of Evolution*. Cambridge, MA: Harvard University Press, 2005.
- Mirowski, Phillip, and Dieter Phlewe. *The Road from Mont Pelerin: The Making of the Neoliberal Thought Collective*. Cambridge, MA: Harvard University Press, 2009.
- Misak, Cheryl. "Introduction," In *The New Pragmatists*, edited by Cheryl Misak, 1-6. Oxford, UK: Oxford University Press, 2007.
- Olssen, Mark. "In Defense of the Welfare State and of Publicly Provided Education." *Journal of Education Policy* 11, no. 3 (1996): 337-362.
- Peck, Jamie. *Constructions of Neoliberal Reason*. Oxford, UK: Oxford University Press, 2013.
- "People." *Rhode Island Innovative Policy Lab*. Accessed February 25, 2017. <http://riipl.org/people/>.
- Putnam, Hilary. *Renewing Philosophy*. Cambridge, MA: Harvard University Press, 1992.

- Rorty, Richard. *Consequences of Pragmatism*. Minneapolis: University of Minnesota Press, 1982.
- . “The Priority of Democracy to Philosophy.” In *Prospects for a Common Morality*, edited by John P. Reeder and Gene Outka, 257-282. Princeton, NJ: Princeton University Press, 1992.
- . “There is a Crisis Coming.” In *Take Care of Truth and Freedom Will Take Care of Itself: Interviews with Richard Rorty*, Edited by Eduardo Mendieta, 56-65. Stanford, CA: Stanford University Press, 2006.
- Stedman Jones, Daniel. *Masters of the Universe: Hayek, Friedman, and the Birth of Neoliberal Politics*. Princeton, NJ: Princeton University Press, 2012.
- Stout, Jeffrey. “On Our Interest in Getting Things Right.” In *The New Pragmatists*, edited by Cheryl Misak, 7-31. Oxford: Oxford University Press, 2007.
- Tong, Rosemarie. *Feminist Thought: A More Comprehensive Introduction*. Boulder, CO: Westview Press, 2014.
- Van Horne, Robert, Philip Mirowski, and Thomas A. Stapleford. *Building Chicago Economics: New Perspectives on the History of America’s Most Powerful Economics Program*. Cambridge, UK: Cambridge University Press, 2011.
- Von Mises, Ludwig. *Bureaucracy*. New Haven, CT: Yale University Press, 1944.

CHAPTER 2. THE EPISTEMOLOGICAL JUSTIFICATION FOR DEMOCRACY IN EDUCATION RESEARCH

In this paper, I draw on pragmatist philosophy and feminist philosophy of science in order to synthesize an account of the relationship between democracy and education research. I develop the account in two steps. First, I show that values – moral, political, and epistemic – are ineliminable from education research and from social science generally. Despite the best efforts of those who hunt for “pure” scientific inquiry, insulated from ethical and political considerations, values cannot be purged from education research. Second, I show that democratic values, in particular, are built into good education research. Research that neglects, or attempts to eliminate, democratic values will be flawed and unsuited to guide schooling in democratic society. Taken together, these two steps constitute what Hilary Putnam calls the “epistemological justification for democracy,” which holds that democracy is an epistemic good as well as an ethical good.⁵⁶ This account of democracy and education research reminds us that we should not, however tempted, relapse into the quest for pure education research. Instead we should recognize that democracy is foundational to – *prior to* – education research.

Values and Education Research

I proceed by describing two philosophical positions that deny that values are ineliminable from education research and from social science generally: positivism and neopositivism. They maintain, in different ways, that values can and should be purged from education research. Positivism, associated with the Vienna Circle and philosophers

⁵⁶ Hilary Putnam, *Renewing Philosophy* (Cambridge, MA: Harvard University Press, 1992), 188.

elsewhere such as A.J. Ayer, contends that scientific inquiry can be mechanical and value-neutral, insulated from the political and epistemic values of individual researchers.⁵⁷ Neopositivism, a newer development, admits that epistemic values, such as *accuracy* and *parsimony*, must enter into scientific inquiry. But it maintains, nonetheless, that moral and political values can and should be filtered from education research and social science. Many education researchers, more or less consciously, hold one of these views. Under their sway, they work to achieve pure education research. But both views are flawed, neopositivism being a refinement of the same general empiricist view as earlier positivism. I describe each position and then contrast both with my own view, rooted in pragmatist and feminist philosophy, which recognizes that education research cannot be purified of political and epistemic values. I call this view, simply, *feminist pragmatism*, to acknowledge that feminist philosophers of science have refined pragmatism, especially in calling attention to the role of power and values in scientific inquiry.

To make these views clear, I draw on Helen Longino's distinction between *constitutive values* and *contextual values*.⁵⁸ Constitutive values are those "generated from an understanding of what counts as good explanation, for example, the satisfaction of such criteria as truth, accuracy, simplicity, predictability, and breadth."⁵⁹ Constitutive

⁵⁷ I use the term positivism somewhat broadly, attempting to track how it has appeared in education research.

⁵⁸ Helen Longino, *Science as Social Knowledge* (Princeton, NJ: Princeton University Press, 1990), 4. Philosophers have cast this distinction in various forms: epistemic values and political values, internal values and external values, the context of justification and the context of discovery, and so on. I use Longino's terminology because I lean on her work in this paper.

values enter into scientific practice when, say, researchers generate data through experimentation and then must decide which of many competing hypotheses is best supported by those data. Drawing on the constitutive value *simplicity*, researchers might opt for hypothesis *A* rather than hypothesis *B* on the grounds that *A* posits fewer entities or advances fewer basic principles than *B*.

Contextual values are “personal, social, and cultural values, those group or individual preferences about what ought to be.” Contextual values “belong to the social and cultural environment in which science is done.”⁶⁰ They enter into scientific practice when researchers are motivated in their research design or hypothesis selection by, say, their commitment to egalitarianism or plutocracy. Researchers might prefer hypothesis *A* to hypothesis *B* on the grounds that *A* coheres more fully with their background principles of democratic egalitarianism than *B*.

Two caveats before proceeding to positivism and neopositivism. First, constitutive values and contextual values cannot be cleanly separated. They are inevitably bound up together. To use Putnam’s terms, they are “entangled.”⁶¹ Indeed, feminist pragmatism will blur the distinction between constitutive values and contextual values. Following pragmatism and feminist philosophy of science, it will contend that democratic values, in particular, are at once constitutive and contextual in education research and social science generally. Feminist pragmatism will recognize, for example, that the need for diversity among researchers and the need to collect data from a diversity of

⁵⁹ Ibid.

⁶⁰ Ibid.

⁶¹ Hilary Putnam, *The Collapse of the Fact/Value Dichotomy and Other Essays* (Cambridge, MA: Harvard University Press, 2002).

perspectives are simultaneously constitutive and contextual. While it will be analytically useful to mark a distinction between them in this paper, they cannot be divorced from one another in inquiry, scientific or otherwise. I will have more to say about this below.

Second, I direct this analysis of values in scientific inquiry at social science rather than natural science. While the argument developed here may apply in some fashion to the practice of natural science, I need not move into that contested terrain. I restrict myself to the examination of social science, to which certain strands of education research belong.

Positivism

Positivism maintains that education research, and social science generally, can and should be value-neutral.⁶² On this view, neither constitutive values nor contextual values influence science. Positivists maintain that scientific inquiry, conducted properly, will be autonomous in that it follows mechanical and value-neutral procedures for research design, data collection, verification or falsification of hypotheses, and so on. These procedures eliminate contextual values, such as background economic conditions or researchers' political commitments, from scientific practice. Researchers' preference for, say, democratic egalitarianism will have no bearing on which hypothesis, among the range of possible hypotheses, is said to be confirmed by available evidence.

Constitutive values, such as *simplicity* and *theoretical conservatism*, are eliminated from the scientific practice of individual researchers because the verification

⁶² Positivism has been challenged and refuted in the philosophy of science, especially by a combination of pragmatists and feminist philosophers of science. For example, see: W.V.O. Quine, "Two Dogmas of Empiricism," *The Philosophical Review* 60 (1951): 20-43; Helen Longino, *Science as Social Knowledge*; Hilary Putnam, *The Collapse of the Fact/Value Dichotomy and Other Essays*. But positivism has lingered stubbornly in education research. For critical examination of positivism in education research, see Ken Howe, "Positivist Dogmas, Rhetoric, and the Education Science Question," *Educational Researcher* 38, no. 6 (2009): 428-440.

of hypotheses is a formal and mechanical process.⁶³ For example, researchers do not, individually, draw on the constitutive values *accuracy* and *predictive power* and proceed, guided by those values, to make intuitive value-laden decisions about hypothesis verification. They follow, rather, fixed and absolute criteria for determining, say, that hypothesis *A*, and not hypotheses *B* or *C*, is confirmed by available evidence *E*. Longino summarizes this view: “Whereas one is perhaps sloppy about evidence in everyday contexts, evidential relations in science are clear, fixed, and absolute, independent of further assumptions.”⁶⁴

To be sure, constitutive values are folded into the formal and mechanical procedure for verifying or falsifying hypotheses. That formal procedure would be useless for distinguishing between competing hypotheses if it did not contain within it constitutive values, say, *parsimony* or *explanatory breadth*. But, on the positivist view, these constitutive values function beyond the judgment of individual scientists. Constitutive values are not balanced against one another or contested in hypothesis verification through the non-mechanical judgment of individual scientists, who may deem, say, *simplicity* of greater importance than *predictive accuracy*. For example, the dispute over whether hypothesis *A* or hypothesis *B* is corroborated by available evidence *E* will not be resolved by appeal to the individual scientist’s view that *explanatory breadth* is more fundamental than *simplicity* to hypothesis testing and verification. Those values, and the mechanical procedure for theory verification, are instead “clear, fixed,

⁶³ For example, see Carl Hempel, *Aspects of Scientific Explanation* (New York: The Free Press, 1965), 3-51. Hempel aims to establish “general objective criteria determining whether...a hypothesis *H* may be said to be corroborated by a given body of evidence *E*.”

⁶⁴ Helen Longino, *Science as Social Knowledge*, 45.

and absolute, independent of further assumptions.”⁶⁵ They are applied uniformly by researchers generally. For positivists, social science and education research, conducted properly, are shielded entirely from social, political, economic, and ideological background conditions.

Neopositivism

Neopositivism holds that education research, and social science generally, are permeated by constitutive values but should be free from contextual values.⁶⁶ For neopositivists, like positivists, science conducted properly will be insulated from contextual values, which are taken to corrode the practice and product of scientific inquiry. A commitment to, say, libertarianism should not shape observation, experiment, or hypothesis testing.

Unlike positivists, however, neopositivists argue that constitutive values, such as *parsimony* and *accuracy*, necessarily enter into scientific practice. On this view, evidence generated through experimentation will be inevitably insufficient for determining which hypotheses researchers should endorse. Philosophers have called this view the *underdetermination of theory by evidence*.

Underdetermination emerges, in part, from the failure of inductivism in science. Inductivism can be understood, roughly, as the view that scientific generalizations can be confirmed through the accumulation of observation reports. For example, the inductivist might argue that the generalization *all swans are white* is confirmed by the accumulation

⁶⁵ Ibid.

⁶⁶ For an example of neopositivism in education research, see D.C. Philips and Nicholas C. Burbules, *Postpositivism and Education Research* (Lanham, MD: Rowan and Littlefield, 2000).

of observation reports *that swan is white*. But this view falls to scrutiny. Consider one well-known criticism of inductivism, which finds that it depends on the following argument⁶⁷:

If hypothesis *H* is true, then so is test implication *I*.

I is true.

Therefore, *H* is true.

But this a mode of reasoning is the fallacy affirming the consequent, which is “deductively invalid, that is, its conclusions may be false even if its premises are true.”⁶⁸

For example, consider:

If *H* (all swans are white) is true, then so is *I* (that swan is white).

I (that swan is white) is true.

Therefore, *H* (all swans are white) is true.

All swans are white may be false even when all observation reports to this point *that swan is white* are true. Even when the test implications of a hypothesis have been demonstrated many times through empirical testing, the hypothesis may still be false:

⁶⁷ I borrow this criticism of inductivism from: Carl Hempel, *Philosophy of Natural Science* (Upper Saddle River, NJ: Prentice-Hall, 1966).

⁶⁸ *Ibid.*, 11-18.

If H is true, then so are $I_1, I_2, \dots I_N$.

$I_1, I_2, \dots I_N$ are true.

H is true.

No amount of observation reports that corroborate H can confirm H . It follows that no body of evidence can point mechanically to a unique hypothesis. Any number of hypotheses might fit, equally well, with that body of evidence. Constitutive values must enter into scientific practice in order to guide hypothesis verification or falsification in conditions of underdetermination.

For example, available evidence E does not point uniquely to hypothesis A rather than hypothesis B or C . Indeed evidence E can be said to count as evidence for different, and incompatible, hypotheses. For neopositivists, there can be no formal and mechanical procedure for hypothesis verification or falsification. Researchers must draw on constitutive values such as *simplicity* and *theoretical elegance* as they select which hypothesis, from the sweep of possible hypotheses, can be said to be supported by available evidence.

Another related problem with the positivist mechanical conception of science (and another source of underdetermination in scientific practice) is the “Quine-Duhem thesis,” which maintains that statements cannot be tested, and verified or falsified, in isolation. Instead, as Quine writes, they “face the tribunal of sense experience not individually but as a corporate body.”⁶⁹ Whenever a hypothesis faces judgment, it stands together with a host of auxiliary assumptions: assumptions about instrumentation and experimentation,

⁶⁹ W.V.O. Quine, “Two Dogmas of Empiricism.”

about the broader “web” of theory in which it is fixed, about epistemology and ontology, and more. Whenever a hypothesis falls to testing, the problem may rest instead with those auxiliary assumptions. Instead of rejecting the hypothesis, auxiliary assumptions may be rejected or revised in its place. Here too constitutive values must enter into scientific practice in order to guide hypothesis verification or falsification in conditions of underdetermination: researchers must draw on constitutive values as they decide whether the hypothesis or some set of auxiliary assumptions should be revised or rejected. There can be no mechanical, value-free, procedure for hypothesis verification in conditions of underdetermination.

Responding to these flaws in positivism, neopositivists recognize the substantial role of what Longino calls *background beliefs and assumptions* in scientific practice.⁷⁰ Evidence – observation reports, say, or states of affairs – counts *as evidence* only in light of background beliefs and assumptions. The evidential relation between evidence *E* and hypothesis *A* is not unique or direct. Instead “a state of affairs will only be taken to be evidence that something else is the case in light of some background belief or assumption asserting a connection between the two.”⁷¹ There can be no theory-independent method for determining what is taken to be evidence for any particular hypothesis. That evidence *E* supports hypothesis *A* is determined, rather, only in light of background assumptions, which include constitutive values and the broader theoretical domain in which researchers work.

⁷⁰ Helen Longino, *Science as Social Knowledge*, 43-48.

⁷¹ *Ibid.*, 44.

Consider an example. An education researcher studies the effect of school discipline practices on student educational outcomes. Suppose that, trained as a psychologist, she draws on a mix of qualitative and quantitative methods to generate data about student experiences and test a range of hypotheses about disciplinary practices in a school district. Suppose further that she collects a set of data: many students of color state that they have been disproportionately targeted by school discipline, and many administrators and teachers, who are predominantly white, have articulated subtle but negative views of students of color. Suppose, finally, that she advances a hypothesis: the behavior of white administrators and white teachers has been shaped by “implicit bias”; they are more likely to discipline students of color than white students because they are subconsciously influenced by widespread and pernicious stereotypes of students of color.

Her data – say, student, teacher, and administrator testimony – will not, *cannot*, point mechanically and uniquely to any particular hypothesis. That data will count as evidence for her hypothesis *only* through her background beliefs and assumptions. Her data must be interpreted through her beliefs and assumptions about human psychology, about how causation should be understood and determined in social science, and about the relative importance of constitutive values. Her data must be interpreted through the methods, instrumentation, and epistemological and ontological commitments of her discipline. The evidential relation between her data and her hypothesis is made possible, in part, by her background belief that human minds are shot through with subconscious beliefs and that those subconscious beliefs can and do shape human behavior. Without

these and other background beliefs and assumptions, as Longino writes, “no state of affairs will be taken as evidence of any other.”⁷²

Neopositivists deny that contextual values should enter into scientific inquiry through background assumptions and beliefs, which, on their view, should be restricted to constitutive values.⁷³ They defend the thesis of the integrity of science, the view “that the internal practices of science – observation and experiment, theory construction, inference – are not influenced by contextual values.”⁷⁴ For example, the neopositivist might well think, say, that neoliberalism has transformed social, political, and economic life, extending free market principles into more and more domains of human life and, consequently, transformed some education researchers’ values from democratic egalitarianism to free market fundamentalism. The neopositivist might well suggest, further, that those neoliberal contextual values shape which questions are deemed worthy of pursuit in education research, fueling, for example, the obsession with measuring student achievement in basically economic terms. And the neopositivist might well endorse the view that policymakers should, guided inevitably by some set of contextual values, determine which research questions are investigated, say, how far some school accountability system promotes job training and career-readiness among students. But these neoliberal transformations should not shape education research or social science

⁷² Ibid.

⁷³ For example, see D.C. Philips and Nicholas C. Burbules, *Postpositivism and Education Research*. Burbules and Phillips maintain that cognitive values, such as dedication to truth and openness in reporting, properly enter into scientific practice but that political values can and should be filtered from scientific inquiry.

⁷⁴ Helen Longino, *Science as Social Knowledge*, 6.

constitutively or internally, *qua* science, if they are conducted properly. While they will linger at the gates, and shape which questions are examined, they should not enter into the scientific machinery of hypothesis testing and verification. The rising income inequality associated with neoliberalism might well be morally wrong. But it will have nothing to do with the internal mechanics of scientific inquiry. Contextual values shaped by neoliberalism will be filtered from scientific practice. Constitutive values are said to be determined by the nature of scientific inquiry, independent from changing background conditions.

Feminist Pragmatism

In opposition to positivism and neopositivism, feminist pragmatism maintains that education research, and social science generally, cannot be insulated from moral, political, or epistemic values. Education research will be permeated, inevitably, by both constitutive and contextual values. Feminist pragmatism notes that the history of science and education research does not support the view that scientific practice has been, or can be, value-neutral.⁷⁵ That scientific inquiry can achieve value-freedom, in either the positivist or neopositivist form, is a destructive myth that obscures the relationship between science and power. Unlike positivists and neopositivists, feminist pragmatists take the quest for pure social science to be wrong-headed from the start. It has always

⁷⁵ Feminists and pragmatists alike have found the ideal of value-free scientific practice to be flawed. For example, see: Elisabeth Lloyd, *The Case of the Female Orgasm: Bias in the Science of Evolution* (Cambridge, MA: Harvard University Press, 2005); Jennifer Terry, "Lesbians under the Medical Gaze: Scientists Search for Remarkable Differences," *Journal of Sex Research* 27, no. 3 (1990): 317-339; Stephen Jay Gould, *The Mismeasure of Man* (New York: W.W. Norton & Company, 1981). For the history of education research in particular, see Ellen Condliffe Lageman, *An Elusive Science: The Troubling History of Education Research* (Chicago: The University of Chicago Press, 2000).

been grounded on a flawed picture of the human epistemic situation, neglecting what Putnam calls the “entanglement” of facts and values⁷⁶ and Quine’s similar argument about the “pale grey” mixture of convention and fact.⁷⁷ And it ignores what is perhaps the central lesson from feminist philosophy of science: at least in education research and social science, objectivity is fundamentally *social*, to be secured through communities of inquiry arranged according to democratic contextual values. Positivists have been unwilling to revise their view of social science, and neopositivists have not adequately modified their view to square with available historical and philosophical evidence. Pragmatists and feminist philosophers of science have argued that a new view of science is needed that accounts for the value-laden nature of scientific practice, in particular, and of human inquiry more generally. They have worked to forge this new conception of scientific inquiry.

In pragmatist and feminist hands, a very different view of social science emerges. The fundamental question of social science is no longer whether or not social science can be modeled on (a positivist conception of) the natural sciences. Pure social science cannot be attained. Instead social science will be concerned with the challenge of what Brian Fay calls *perspectivism*, the view that “we cannot see ‘directly’ into anything, least of all Reality. All seeing is seeing from a particular perspective.”⁷⁸ Perspectivism has been

⁷⁶ Hilary Putnam, *The Collapse of the Fact/Value Distinction*.

⁷⁷ W.V.O. Quine, “Carnap and Logical Truth,” in *Logic and Language: Studies Dedicated to Professor Rudolf Carnap on the Occasion of his Seventieth Birthday*, eds. B.H. Kazemier and D. Vuysje (New York: Springer Science and Business Media Dordrecht, 1962), 63. See also: W.V.O. Quine, “The Two Dogmas of Empiricism.”

⁷⁸ Brian Fay, *Contemporary Philosophy of Social Science* (Malden, MA: Blackwell Publishers, 1996), 2.

widely accepted and poses problems for social science. What can we know about the social world? Can we understand others? If so, from *whose* perspective do we understand them? Are the knowledge claims of the social sciences more than political assertions? Are they inevitably trapped within the psychological and cultural horizons of those who make them? A radical form of perspectivism collapses into relativism, conceiving of social science as an ongoing struggle between limited perspectives, with only power to declare the winner. Pragmatism and feminist philosophy of science accept the basic premise of perspectivism – that all knowledge and knowers are inevitably “situated” – but maintain that relativism need not follow. Pragmatism and feminist philosophy of science aim to steer social science between positivism and the radical form of perspectivism. The new question of social science, Fay writes, will be “whether understanding others – particularly others who are different – is possible, and if so, what such understanding involves.”⁷⁹ Pragmatism and feminist philosophy of science aim to produce social science that is useful, resolving social problems and promoting social harmony, rather than pursuing narrowly epistemic concerns, as in positivism, or collapsing into pernicious relativism, as in radical perspectivism.

Drawing on pragmatism and feminist philosophy of science, feminist pragmatism maintains that contextual values are ineliminable from social science. Some set of contextual values will be presumed in education research and in social science generally. All social science that pretends otherwise will cloak the set of values that has been presumed and will be flawed internally and externally alike, incapable of reaching toward objectivity and functioning as a tool of control and manipulation. The feminist pragmatist

⁷⁹ Ibid., 5.

does not work to eliminate values from inquiry, taking that project to be barren and dangerous. Instead, the feminist pragmatist works to critically examine the contextual values inevitably presumed in social science and ensure they are defensible values. Indeed, feminist pragmatism holds that certain contextual values, namely democratic values, will be a source of strength in education research and social science, a prerequisite for good inquiry.

Against neopositivism, feminist pragmatism insists that contextual values shape education research and social science. It is not only that contextual values will shape science *externally*, shaping which questions are taken to be scientifically significant, worthy of investigation, given background conditions. It is also that contextual values will shape science *internally*. Even the internal mechanics of education research cannot be insulated from contextual values. Indeed, they should not be so insulated if we are to have good social science. As I will argue below, democratic contextual values will be a requirement for good education research and good social science: they enable the social conditions in which objectivity can be secured. To be sure, not all contextual values are salutary for social science, and we should remain vigilant against those that threaten it. But the desire to purge contextual values from education research and social science is futile and corrosive of good inquiry. Laboring under the illusion of pure social science increases the likelihood that undesirable values will enter into scientific practice, undetected, and corrupt it. And these observations presume that contextual values and constitutive values can be untangled. But a neat distinction will prove impossible: again, a commitment to diversity and inclusion, rooted in democracy, will be simultaneously contextual and constitutive, making any sharp distinction dubious at best.

For example, Elizabeth Anderson writes: “The content of our practical interests helps determine what dimensions of empirical adequacy are demanded of science. This is not surprising if we keep in mind that theories do more than represent facts – they organize them for our use.”⁸⁰ The feminist pragmatist will ask: What practical interests, and associated contextual values, drive education research? How have practical interests and contextual values organized facts for use? How have those practical interests shaped, constitutively, education research and social science?

Similar to Anderson, Phillip Kitcher suggests that contextual values will inevitably shape what he calls *scientific significance*.⁸¹ Kitcher observes that science does not aim to generate any new truth whatever. Instead, scientific inquiry is intended to establish truths that are said to be scientifically significant. But what does it mean for a truth to be called scientifically significant? Why are some truths called significant, warranting additional investigation, while others are called insignificant?

Kitcher critically examines the view, advanced by the “scientific faithful,” that inquiry is directed toward the production of new knowledge for itself. He calls this view *epistemic significance*. On this view, whether a question is deemed scientifically significant will be unrelated to its *practical significance*. Scientific significance is bestowed upon those truths that align with the epistemic aims of science, and not upon those truths that satisfy some practical interest. Kitcher maps four common proposals for the epistemic goals of science: (1) achieving objective understanding through scientific

⁸⁰ Elizabeth Anderson, “Knowledge, Human Interests, and Objectivity in Feminist Epistemology,” *Philosophical Topics* 23, no. 2 (1995): 30.

⁸¹ Phillip Kitcher, *Science, Truth, and Democracy* (Oxford, UK: Oxford University Press, 2003).

explanation, (2) identifying the laws of nature, (3) converging upon a unified picture of nature, and (4) discovering the fundamental causal processes in nature. Epistemic significance is insulated from contextual values because “the achievement of epistemically significant truth is valuable in principle.”⁸² The goals of scientific inquiry are taken to be independent of fleeting practical interests.

But this conception of epistemic significance fails: science and scientific significance cannot be divorced from contextual values or from practical interests. Scientific significance is not conferred on some truths and withheld from others through some purely epistemic process disconnected from our practical interests. Rather we are interested, depending on our context, needs, and aspirations, in some questions and not others. We flag certain phenomena for inquiry and not others given our practical interests. Our desires, values, and interests shape the phenomena we investigate and the methods we use to examine those phenomena. Epistemic significance cannot be untangled from practical significance. Kitcher writes:

All kinds of considerations, including moral, social, and political ideals, figure in judgments about scientific significance... Inquiries that appeal to us today, and that we characterize as epistemically significant, sometimes do so because of the practical projects our predecessors pursued in the past. With our eyes focused on the present, it's easy to deny that these inquiries are in any way connected with broader values. A longer view would reveal that the questions we pose, the apparatus we employ, the categories that frame our investigations, even the objects we probe, are as they are because of the moral, social, and political ideals of our predecessors.⁸³

While Kitcher does not write about social science in particular, his argument that scientific significance cannot be divorced from practical interest applies to it all the more.

⁸² Ibid., 64.

⁸³ Ibid., 86.

Applied to social science, we can see that it is not only that contextual values shape scientific practice *externally*, influencing which questions are deemed scientifically significant. We can also see that contextual values shape social science *internally* because they influence how the very concepts that must be presumed in social science – concepts like *well-being*, *happiness*, *crime*, *discipline*, and *achievement* – are cashed out. And the very distinction between the internal and external contexts of social science is blurred by pragmatism and feminist philosophy of science.

Indeed, Ken Howe argues that these concepts, some set of which must be presumed in social science, are *two-edged*. Two-edged concepts “have both descriptive and evaluative dimensions.”⁸⁴ Howe analyzes the concept *achievement*. Unlike what he calls pure descriptive concepts, like numbers, “achievement carries a positive valence... it is used to make value-laden descriptions.” On Howe’s view, “because such two-edged concepts are routinely (and unavoidably) incorporated into the descriptive vocabulary of social research, so, too, are the values of researchers, policy makers, and program designers participating in, sponsoring, or using such research.”⁸⁵

With these arguments in hand, consider another example. Suppose that an education researcher studies the effect of some educational intervention on student achievement. Following Longino, we have seen that data collected during the study – say, test scores or student and teacher testimony – cannot count *as evidence* bracketed from the background beliefs and assumptions of that education researcher. For the feminist pragmatist, these background beliefs and assumptions are permeated, inevitably, by

⁸⁴ Ken Howe, “Positivist Dogmas, Rhetoric, and the Education Science Question,” 430.

⁸⁵ Ibid.

contextual values. In this case, the researcher must bring to bear the concept *student achievement*, loaded with normative content, in order to observe, collect data, and make inferences about the educational intervention under study. Otherwise the study cannot get off the ground.

As a two-edged concept, the researcher's conception of student achievement will be shot through with contextual values. Suppose that she takes the proper function of schooling to be vocational career training. The very behaviors and outcomes that are taken to count as achievement will be shaped by that view of schooling. The educational intervention under study will be said to boost student achievement if, for example, it better prepares students for career-oriented internships. But suppose, instead, that the researcher takes the proper function of schooling to be cultivating democratic citizenship in students. Again, the very behaviors and outcomes that are taken to count as achievement will be shaped by that view of schooling. Now, the educational intervention under study will be said to boost student achievement if, for example, it better prepares them to engage in deliberation with diverse citizens or to participate in democratic social movement. In each case, the set of behaviors and outcomes that are taken to count as achievement will change in accordance with contextual values, including a host of political, ethical, and educational commitments. There can be no pure conception of student achievement, insulated from contextual values. Like the other entities studied in social science, student achievement is not "well-behaved." Instead, it is "just the continuous possibility of the activity" named by its concept.⁸⁶ It depends on human beings taking an instance of behavior to count as student achievement, and their taking

⁸⁶ John Searle, *The Construction of Social Reality* (New York: The Free Press, 1995), 36

some instance of behavior to be achievement will be filtered through their contextual values. The central question of the study – “did the educational intervention under investigation work to promote student achievement?” – cannot be answered without the presumption of some set of contextual values.

The impact of the inevitably value-laden conception of student achievement will trickle down into scientific practice. The researcher’s methods for observation and data collection will depend, in part, on her conception of student achievement. She will choose to examine certain individuals and sites and not others. She will take certain behavior and outcomes to count as achievement and not others. She will draw on some observational and inferential methods and not others. Her description and interpretation of data will be filtered through the contextual values bound up with her conception of achievement. Again, the feminist pragmatist will acknowledge that education research, and social science generally, cannot be insulated from political and epistemic values. Education research cannot get off the ground without presuming some set of contextual values. The question is not whether contextual values will enter into education research, but rather whether those values that do are ethically and epistemically salutary for education research.

An Objection to Feminist Pragmatism

Before proceeding to the second step of my argument – demonstrating that democratic values, in particular, are built into to good education research – I tackle one objection to pragmatism and feminist philosophy of science. Critics have charged that the feminist pragmatist conception of social science must lapse into hopeless relativism. But this accusation falls to scrutiny. In some cases, it follows from a crude understanding of

pragmatism and feminist philosophy of science. In others, it is issued by those who cannot find in feminist pragmatism the “metaphysical comfort”⁸⁷ they seek from science set upon thoroughly mind-independent foundations, insulated from contextual ephemera. These critics refuse to acknowledge the actual epistemic situation of human beings. The allegation that feminist pragmatism collapses into relativism because it acknowledges that values enter into social science, and that standards of objectivity and justification are historically situated, holds water only from an implausible epistemic position – that we can achieve pure science. Feminist pragmatists find this view irredeemably flawed. The timeworn and barren desire to achieve pure science should be abandoned in favor of attending to our actual epistemic situation. Feminist pragmatists find little reason to mourn for an epistemic position that we have never occupied. But relativism does not follow. The position from which the accusation of relativism is launched is incoherent.

Putnam argues that we should “accept the position we are fated to occupy in any case, the position of beings who cannot have a view of the world that does not reflect our interests and values, but who are, for all that, committed to regarding some views of the world – and, for that matter, some interests and values – as better than others.”⁸⁸ He continues:

This may mean giving up a certain metaphysical picture of objectivity, but it does not mean giving up the idea that there are what Dewey called ‘objective resolutions of problematical situations’ – objective resolutions to problems which are *situated* in place, at a time, as opposed to an ‘absolute’ answer to ‘perspective independent’ questions. And that is objectivity enough.⁸⁹

⁸⁷ See: Richard Bernstein, *The New Constellation: The Ethical-Political Horizons of Modernity/Postmodernity* (Cambridge, MA: MIT Press, 1998), 176.

⁸⁸ Hilary Putnam, *Realism with a Human Face* (Cambridge, MA: Harvard University Press, 1990), 178.

Such situated objectivity, forged through careful human conversation, is enough – must be enough – because it is all that we can have. We resolve the “problematical situations” that confront us without recourse to ultimate values or answers. Rooted in time and place and guided by the best available methods, we call some views better than others. This practice of naming some views better than others does not lack force or tumble into relativism. Instead it operates with all the force available to us given our epistemic situation. There is nothing more that we can do. Our standards of objectivity, as Cheryl Misak writes, “come into being and evolve over time, but that being historically situated in this way does not detract from their objectivity.”⁹⁰ She continues: “The trail of the human serpent is over everything, as [William] James said, but this does not toss us into a sea of post-modern arbitrariness.”⁹¹ We cannot have an ahistorical, fixed conception of objectivity. There are no standards of objectivity to be found outside of human conversation and, even if there were, we could not access them, rooted as we are inside human experience. But it does not follow, as the critics of pragmatism and feminist philosophy of science often charge, that we must lapse into relativism. Objectivity is a thoroughly *human* concept – we use it to accomplish certain aims in practice. We use it to adjudicate in inquiry, to sort between warranted and unwarranted propositions, and we act accordingly. We use it to determine which inquiry we should trust and which we should not. That we have no absolute, transcendent conception of objectivity does not

⁸⁹ Ibid.

⁹⁰ Cheryl Misak, “Introduction,” in *The New Pragmatists*, ed. Cheryl Misak (Oxford, UK: Oxford University Press, 2007), 2.

⁹¹ Ibid.

stop it from serving these purposes. Giving up the desire for that ahistorical conception of objectivity, as wrong-headed from the start, allows us to see that we lose nothing – save the “metaphysical comfort” desired by some – when we admit that objectivity is historical, rooted in time and place.

Naomi Scheman provides pointed criticism of those who maintain that science can achieve value-freedom. She writes: “Like snake oil salesmen, they purvey a quack remedy for a real problem. And like most quack remedies, this one is worse than useless: worse, because in purporting to be the real thing, it effectively diverts us from pursuing an effective remedy for what actually ails us.”⁹² There is a “real problem” to be addressed: we must remain vigilant and safeguard social science from destructive and indefensible values that would undermine it, rendering it incapable of attaining objectivity. But the stubborn defenders of value-free science and their “quack remedy” – purging values from social science and attaining purity – are little help in that endeavor. That remedy is useless and, in any case, impossible. But it is worse than useless: chasing after pure science, they are ill-equipped to detect and counter the real threats to objectivity. They fail or refuse to acknowledge the connection between science and values. Consequently, they cannot see or counter the threats to objectivity that confront us in practice. For example, they are unable to detect and eliminate widely shared background assumptions that might well infect the product of scientific inquiry. Useful objectivity emerges only through taking seriously the inexorable relationship between social science and values.

⁹² Naomi Scheman, “Epistemology Resuscitated: Objectivity as Trustworthiness,” in *Engendering Rationalities*, ed. Nancy Tuana and Sandra Morgen (Albany, NY: State University of New York Press, 2001), 36.

Democracy and Education Research

Education research, and social science generally, cannot be purified of values. Some set of values, moral, political, and epistemic, will be presumed in education research. Though education research cannot be made pure, insulated from contextual ephemera, we should not allow any set of values whatever to infiltrate education research. I turn now to the second step of my argument: further sketching feminist pragmatism, I maintain that it is democratic values, in particular, that enable good education research, sound and suitable for guiding schooling in democratic society. I present accounts from pragmatist and feminist philosophy of science that maintain that democracy and democratic values are built into good social science and, by extension, good education research. The general lesson from pragmatism and feminist philosophy of science is clear: at least in social science, objectivity is fundamentally *social*, to be secured through communities of inquiry arranged according to democratic values. No matter their virtue and training, individual researchers cannot detect all of their cognitive biases and background assumptions. Elizabeth Anderson writes: “Even if no individual can transcend her cognitive biases and limitations, collectively we may do so, provided our social practices of inquiry stand us in relations of cognitive authority that enable us to correct or balance our individual biases.”⁹³ Our social practices of inquiry must be thoroughly democratic, constituting a robust “intellectual democracy.”⁹⁴ I say more about these arguments below.

⁹³ Elizabeth Anderson, “The Democratic University: The Role of Justice in the Production of Knowledge,” *Social Philosophy and Policy* 12, no. 2 (1995): 191.

⁹⁴ Alison M. Jaggar, *Just Methods* (Boulder, CO: Paradigm Publishers, 2014): 415.

The central commitment of feminist philosophy of science is the view that knowers and knowledge are “situated.” All knowers are entangled in “webs” of beliefs, values, aspirations, and assumptions from which they cannot get free. They cannot stand outside those webs, insulating inquiry from their values and beliefs. These webs will be shaped by the social positions of knowers, where they stand amidst social and economic dynamics: depending on our “standpoint,” we will each bring epistemic resources and epistemic deficiencies to inquiry. All knowledge, as Sandra Harding observes, is “constituted in historically distinctive ways – for example, as part of androcentric and Eurocentric cultural projects or as part of feminist and antiracist projects.”⁹⁵ Knowers and knowledge cannot be pure. There can be no “view of infinite vision” that would allow us to transcend our limitations and biases.⁹⁶ Individually, at least, our inquiry will be shot through with our beliefs and assumptions. And the situated nature of knowers and knowledge is the reason that democratic values, in particular, are required for good social science: while those biases and limitations cannot be overcome individually, they can be rooted out and addressed collectively, in communities arranged according to democratic values.

Indeed, feminist philosophers of science have proposed methods, rooted in democracy, for addressing the inevitable limitations and biases of individual researchers. For example, Lorraine Code maintains that in order to strengthen science and render it capable of achieving objectivity, we must abandon the “view from nowhere” that has

⁹⁵ Sandra Harding, *Science and Social Inequality* (Chicago: University of Illinois Press, 2006), 83.

⁹⁶ Donna Haraway, “Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective,” *Feminist Studies* 14, no. 3 (1988): 582.

dominated much of standard Anglo-American epistemology and scientific practice.⁹⁷

This standard epistemological position has presumed the “*S* knows that *P*” model and has focused almost entirely on the object of knowledge and very little on the subject of knowledge. The subject of knowledge is taken to be neutral and universal, erasing entirely her own subjectivity – her beliefs, values, aspirations, and social position. Code suggests that assuming the view from nowhere blinds us to the values and perspectives shared by those dominant groups traditionally included in the community of inquiry.⁹⁸ According to Code, we should be “reflexive” as we produce knowledge, attending carefully to the subject of knowledge in order to discern how our beliefs and values shape inquiry. We must thoroughly interrogate our social position, values, and aspirations. And we must be committed to inclusion: we can only root out widely shared background assumptions if we include a diverse mixture of researchers from a wide range of perspectives and social positions. Those inquirers who claim value-neutrality, who chase after pure science, risk producing flawed and dangerous knowledge claims that come to be stamped with “scientific objectivity.”

Similarly, Helen Longino maintains that objectivity is fundamentally *social*. It is, she contends, “a characteristic of a community’s practice of science rather than of an individual’s.”⁹⁹ Again, it cannot be attained by individual researchers working in isolation. No individual researcher will be able to root out all of her own background beliefs and assumptions. Rather, it is attributed, by degrees, to those propositions that

⁹⁷ Lorraine Code, “Taking Subjectivity into Account,” in *Feminist Epistemologies*, ed. Linda Alcoff and Elizabeth Potter (New York: Routledge, 1993), 16.

⁹⁸ *Ibid.*, 19.

⁹⁹ Helen Longino, *Science as Social Knowledge*, 74.

withstand decontaminating “transformative criticism,” which is a thoroughly social activity.¹⁰⁰ Transformative criticism is, in particular, a *democratic* social activity: it can only be achieved in robustly democratic communities. It can take place only in “intellectual democracies.”¹⁰¹ Longino describes four criteria needed for achieving transformative criticism, each rooted in democracy:

(1) There must be recognized avenues for the criticism of evidence, of methods, and of assumptions and reasoning; (2) there must exist shared standards that critics can invoke; (3) the community as a whole must be responsive to such criticism; (4) intellectual authority must be shared equally among qualified practitioners.¹⁰²

Like Code, Longino proposes methods and standards that can be used to safeguard scientific practice, to render it capable of achieving objectivity given the situated nature of knowers and knowledge.

Naomi Scheman also maintains that democratic values strengthen, rather than compromise, scientific objectivity. Scheman finds a happy union between certain democratic values and the social conditions that secure objectivity in science. She writes: “If you want truth, fight for justice.”¹⁰³ What is the relationship between truth and justice? Social institutions worthy of rational trust – that is, *just* social institutions – allow for objectivity. Without trustworthy social conditions, we cannot assemble the “pieces of the perspectival puzzle” needed for moving toward objective knowledge.¹⁰⁴ When

¹⁰⁰ Ibid., 76.

¹⁰¹ Alison M. Jaggar, *Just Methods*, 415.

¹⁰² Helen Longino, *Science as Social Knowledge*, 76.

¹⁰³ Naomi Scheman, “Epistemology Resuscitated,” 38.

¹⁰⁴ Ibid., 41.

individuals and groups are excluded from science, we lose access to perspectives that would allow us to detect, and eliminate, widely shared background assumptions that undermine objectivity. A robust moral commitment to democratic values, and especially inclusion, in scientific communities enables objectivity. Running afoul of democratic values – exclusion, silencing, segregation, and other harms – are at once epistemic failures and ethical failures. A commitment to inclusion and listening counts as an epistemic virtue as well as an ethical virtue. Scheman writes: “in the absence of good grounds for trust, the critical work of striving toward objectivity cannot (and *should* not) go on.”¹⁰⁵

Pragmatists make similar arguments about the fundamentally social character of objectivity and inquiry. They too hold that social science cannot be shielded from values and that knowledge is inevitably situated. They emphasize, in particular, the practical nature of scientific knowledge: we generate scientific knowledge to meet human need, to help humans live together more harmoniously. They too maintain that it is only through democracy and democratic social conditions that objectivity can be secured.

For example, Richard Rorty provides a pragmatist account of the relationship between democracy and scientific inquiry. He writes: “My slogan is that if you take care of freedom, truth takes care of itself... If we take care of political freedom, we get truth as a bonus.”¹⁰⁶ Rorty finds a happy convergence between democratic values – namely, those that constitute the democratic “open society” – and objectivity. Objectivity in

¹⁰⁵ Ibid.

¹⁰⁶ Richard Rorty, “There is a Crisis Coming,” in *Take Care of Freedom and Truth Will Take Care of Itself: Interviews with Richard Rorty*, ed. Eduardo Mendieta (Stanford, CA: Stanford University Press, 2006), 58.

scientific inquiry is most likely to emerge when we are committed, individually and institutionally, to relying on persuasion rather than force, to engaging in substantive deliberation in which we take our views to be revisable, and to listening carefully to others.

Rorty writes: “All we can do to increase our chances of finding truth is to keep conditions of inquiry free.”¹⁰⁷ There is no special scientific rationality or scientific method, beyond democratic values, that scientists draw on to secure objectivity. He writes: “On this [pragmatist] view, there is no reason to praise scientists for being more ‘objective’ or ‘logical’ or ‘methodical’ or ‘devoted to truth’ than other people.”¹⁰⁸ Science has been tremendously successful because scientists have organized their interactions and their institutions according to democratic values. He continues:

But there is plenty of reason to praise the institutions they have developed and within which they work, and to use these as models for the rest of culture. For these institutions give concreteness and detail to the idea of “unforced agreement.” Reference to such institutions fleshes out the idea of a “free and open encounter” – the sort of encounter in which truth cannot fail to win.¹⁰⁹

Far from undermining scientific practice, democratic values, a breed of contextual values, enable the freedom in which “truth will take care of itself.”

Putnam also notes that democracy is simultaneously an ethical good and an epistemic good. As noted above, he calls this the “epistemological justification for democracy.” He finds that “democracy is not just one form of social life among other

¹⁰⁷ Richard Rorty, “Response to Conant,” in *Rorty and His Critics*, ed. Robert Brandom (Malden, MA: Blackwell Publishing, 2000), 342-343.

¹⁰⁸ Richard Rorty, *Objectivity, Truth, Relativism* (Cambridge, UK: Cambridge University Press, 1991), 39.

¹⁰⁹ Ibid.

workable forms of social life; it is the precondition for the full application of intelligence to social problems.”¹¹⁰ Without democracy, we cannot have good inquiry, and we will be unable to set the full intelligence of citizens on social problems. Like Longino and Rorty, he notes that democracy is necessary for good science. He writes: “The need for such fundamental democratic institutions as freedom of thought and freedom of speech...follows from requirements of scientific procedure in general: the unimpeded flow of information and the freedom to offer and to criticize hypotheses.”¹¹¹ Non-democratic social conditions will compromise objectivity. And, following Dewey, he observes that, as things stand, elites too often dominate inquiry. They are limited by their privileged social position. They are “situated” and can bring only a narrow set of epistemic resources to inquiry. Elites “cannot solve social problems. Experts belong to a privileged class... They are an elite, and as an elite they are accustomed to telling others what to do to solve their social problems.”¹¹² Only through a thorough-going commitment to democracy – to realizing “a society which develops the capacities of all its men and women to think for themselves, to participate in the design and testing of social policies, and to judge results”¹¹³ – can we achieve good inquiry suited to guide and improve social life in democratic society.

Following these arguments, feminist pragmatism maintains that objectivity in social science is *social* and *procedural*. On this view, objectivity does not result from

¹¹⁰ Hilary Putnam, *Renewing Philosophy*, p. 180.

¹¹¹ *Ibid.*, 188.

¹¹² *Ibid.*, 198.

¹¹³ *Ibid.*, 199.

insulating social science from moral, political, and epistemic values. Indeed, the attempt to achieve pure science weakens education research and social science. Instead, objectivity is secured through following certain procedures that govern scientific inquiry and scientific communities. These procedures must be guided by democratic values, which are at once constitutive and contextual, ethical and epistemic. As noted above, for example, a normative commitment to diversity and inclusion – democratic values – is required for detecting widely shared background assumptions that corrode objectivity. Consider, for example, a community of affluent researchers investigating the educational experiences and outcomes of poor and working class students. Given their shared class position and shared background assumptions, they might well misunderstand the behavior of such students and produce research that is biased and manipulative. The inclusion of poor and working class researchers would help to guard against threats to objectivity. It would detect widely shared beliefs and values and expose inquiry to what Longino calls “transformative criticism.” It would help to address Putnam’s concern that elites will dominate inquiry and render it manipulative and authoritarian. It would enable the “reflexivity” that Code describes. And it would, as Scheman writes, allow us to gather up the pieces of the “perspectival puzzle” required for objectivity. Feminist pragmatism sees no conflict between social science, objectivity, and political commitment to democracy. Indeed, the relationship between social science and democracy is symbiotic: *only through* democratic values can social science achieve objectivity.

Return to the education researcher studying the effect of some educational intervention on student achievement. Her research – the knowledge generated and, very likely, the uses to which it is put – will be flawed unless they are animated by democratic

values. Suppose again that the researcher believes that the legitimate function of schooling is vocational career training. She believes that schooling should sort students into different job training programs according to ability. As we have seen, the conception of student achievement used in the research will be colored by this belief. Under this conception, some set of behaviors and outcomes will be taken to count as achievement while others will not. If the concept *student achievement* used in the research is not subject to “transformative criticism” in a diverse community of inquiry, values will sneak in undetected and without scrutiny. If *student achievement* is not subject to such criticism, it might well be infected by undesirable background beliefs and assumptions. In this case, the conception of student achievement spawned by the vocational view of schooling will not be seen clearly, as but one conception of achievement among a host of competing alternatives, or criticized. It will be foisted upon citizens. As far as the research neglects democracy, it will be biased and manipulative. Attending to democracy and democratic values would remedy these problems. There can be no pure concept *student achievement*, insulated from values, and there can be no pure education research. Only through democratic values, in particular, can education research toward objectivity and legitimately guide schooling in democratic society.

Neglecting Democracy in Education Research

These concerns are not merely abstract. There are many examples, in education research and elsewhere, of democracy being neglected to the detriment of scientific inquiry.¹¹⁴ In some cases, the product of inquiry is flawed, unable to reach toward

¹¹⁴ For a recent example outside of education research, see Rebecca Jordan-Young, *Brain Storm: The Flaws in the Science of Sex Differences* (Cambridge, MA: Harvard University Press, 2010).

objectivity. In others, inquiry becomes dangerous, upholding classist, racist, or sexist views and consequent unjust social conditions. To conclude, I consider one well-known example of neglecting democracy in education research: Lisa Delpit's searing criticism of the progressive movement in education, including the breed of education research generated by that movement.¹¹⁵

As an education researcher and teacher educator, Delpit entered into the timeworn conflict between process-oriented education, which is typically taken to be "progressive," and skills-based education, which is typically taken to be "conservative." Process-oriented education aims at goals like "fluency" and "creativity," commonly allowing students to develop at their own pace. Proponents typically take skills-based education to be educationally, and perhaps politically, repressive, inhibiting the full development of children as it subjects them to sets of deadening drills. Skills-based education aims at the development of a set of particular skills, aimed at developing proficiency in a set of specified tasks. Proponents typically accuse process-oriented education of being hollow, neglecting the abilities that students will need to navigate society. Process-oriented education is orthodox for many, or even most, education researchers and teacher educators, even if they have not, in the main, been successful in spreading their educational vision to schools at large.

While sympathetic to the educational and political aims of process-oriented progressive education, Delpit found it flawed: because it did not include, and indeed often alienated, teachers and education researchers of color, it proved deeply flawed,

¹¹⁵ See especially: Lisa Delpit, "Skills and other Dilemmas of a Progressive Black Educator," *Harvard Educational Review* 56, no. 4 (1986): 379-385; Lisa Delpit, *Other People's Children: Cultural Conflict in the Classroom* (New York: The New Press, 1995).

unsuited for helping students of color and poor students flourish in a society that is very often constructed against them. Against the progressive orthodoxy, Delpit argues that process-oriented and skills-based education must be mixed, especially for students of color and poor students. It is insufficient and unethical to provide them skills without a creative and critical stance. Delpit writes: “a ‘skilled’ minority person who is not also capable of critical analysis becomes the trainable, low-level functionary of the dominant society, simply the grease that keeps the institutions which orchestrate his or her oppression running smoothly.”¹¹⁶ But, against the common wisdom of progressive education, it is also insufficient and unethical to cultivate in them a creative and critical stance without also providing the skills needed to navigate society in its present form. She writes: “a critical thinker who lacks the ‘skills’ demanded by empowers and institutions of higher learning can aspire to financial and social status only within the disenfranchised underworld.”¹¹⁷ While learning to criticize the “culture of power,” students must be given access to the skills demanded by it. A truly progressive education, Delpit writes, “must insist on ‘skills’ *within the context* of critical and creative thinking.”¹¹⁸ Delpit’s diagnosis is that progressive education, to this point, has been dominated by white education researchers and teacher educators. They have been blinded to the needs and aspirations of teachers and students of color by their shared social position, by their widely shared background beliefs and assumptions.

¹¹⁶ Lisa Delpit, *Other People’s Children*, 19.

¹¹⁷ Ibid.

¹¹⁸ Ibid.

Delpit also notes that white champions of progressive education did not respond to her or to her argument with democratic virtue. They often failed to listen carefully, responding with outright hostility rather than willingness to revise their beliefs in light of new evidence and new perspectives. For example, she describes an incident at a conference where she spoke: “Amidst an undercurrent of whispered disapproval, one white woman rose to say that I was lying to suggest that black teachers weren’t happy: I was just trying to stir up trouble where no existed.”¹¹⁹ Further, “one renowned white literacy expert recently accused me of joining the educational far right with what he perceived as my critiques of his educational agenda.”¹²⁰ Delpit notes that white progressive educators “across the country were incensed. Despite my attempts to say that we must not abandon the very good ideas of the process approach, but must be open to modification based on the voices of parents and educators of color, they perceived me as unequivocally attacking their work.”¹²¹

What the feminist pragmatist will have to say about this case will now be clear: by neglecting democracy and democratic values, education researchers produced work that was flawed, manipulative, and dismissive of teachers and students of color. An insufficient commitment to diversity and inclusion in communities of inquiry rendered research limited, incapable of collecting the pieces of the “perspectival puzzle” required for objectivity. Unable to detect widely shared beliefs and values, researchers were unable to expose inquiry to “transformative criticism.” And, when these problems were

¹¹⁹ Ibid., 7-8.

¹²⁰ Ibid., 8.

¹²¹ Ibid., 7.

revealed, many researchers and teacher educators responded not with democratic virtue but rather with narrow-minded illiberalism.

White progressive education researchers could not filter undesirable (and in some cases racist) contextual values, associated with their racial and economic position, from their research. Their conceptions of the phenomena under study – education, student achievement, school quality, teaching, learning, and more – were shot through with those contextual values. That they could not expose their widely shared background assumptions was not an individual failing: no matter how skilled or vigilant, no researcher can detect such contextual values in isolation or in communities not thoroughly permeated by democratic values. This case amplifies the message of feminist pragmatism: while we cannot insulate education research or social science from values, contextual or constitutive, we can root them out and replace them with defensible values if we are committed to democracy, individually and collectively.

None of these points are lost on Delpit. Aligned with (and perhaps motivated by) pragmatist and feminist philosophy, she writes:

It is time to look closely at elements of our educational system, particularly those elements we consider progressive; time to see whether there is minority involvement and support, and if not, ask why not; time to reassess what we are doing in public schools and universities to include other voices, other experiences, time to seek the diversity in our educational movements that we talk about seeking in our classrooms.¹²²

Put in other words, it is time to thoroughly suffuse education research with democracy, and especially the democratic commitment to diversity and inclusion. It is time to enable the transformative criticism that would allow education researchers, in this case progressive education researchers, to root out their widely shared (racial and racist)

¹²² Ibid., 20.

background assumptions and beliefs. Many, if not most, education researchers recognize that inclusion and diversity are ethically good, demanded by our best conception of justice. It is time to recognize more widely that they are also epistemically good, required for good education research. In social science *qua* social science, they are not corollary or supererogatory – they are foundational to, *prior to*, social science.

Many education researchers have learned from Delpit and now embrace the view of education research she embodies. They are more sensitive to the effects of power and social position on research, with respect to both the internal mechanics of research and how research is used. They are more alive to the need for democracy and democratic values in education research. They work in and with communities, in schools and beyond, to meet social need and address social conflict.¹²³

But the neopositivist view of education research, and its quest to insulate education research from ethical and political values, still holds substantial sway.¹²⁴ Researchers under the spell of neopositivism typically have good intentions: they commonly hold that they can, and should, bracket political and ethical values from their research. Inserting their own values and aspirations into inquiry would, after all, be anti-democratic. Instead, contextual value questions – say, “what are the legitimate goals of

¹²³ For example, see: Ben Kirshner, *Youth Activism in an Era of Education Inequality* (New York: New York University Press, 2015).

¹²⁴ For one prominent example, see the “What Works Clearinghouse” (WWC): <https://ies.ed.gov/ncee/wwc/>. The WWC claims to identify “what works” to promote school improvement and student achievement. But there is no discussion of how “what works” has been conceptualized or what set of contextual values has been presumed. It is rooted in neopositivism: there is little or no discussion of what conceptions of schooling, school quality, teaching, and learning are at play, as if they can be insulated from contextual values.

schooling in democratic society?” and “what is a legitimate conception of school quality?” – should be relegated to policy makers, who are democratically accountable to citizens. Education research should seek only to answer technical questions using their technical expertise, which will be governed only by epistemic values and not contaminated by political considerations. They seek only to produce technical knowledge – how far does educational intervention *X* promote educational outcome *Y*? – to be given to policymakers for use in deliberation.

But this strategy backfires and neglects the foundational role of democratic values in education research. As we have seen, contextual values cannot be bracketed from social science. Education research cannot be insulated political and ethical considerations. Whatever the educational question under study, education researchers will presume *some* set of “two-edged” concepts – for example, *education*, *student achievement*, and *school quality* – that will be loaded with ethical and political considerations. Failing to disclose that these concepts, and education research generally, are shot through with contextual values will bias deliberation among policymakers and citizens, silently promoting those values. Instead of revealing the contextual values that inevitably permeate education research, it masks them, shielding them from deliberation and criticism. This strategy backslides into the quest for pure education science, with anti-democratic consequences. In this way, neopositivist education research too often functions as a tool of manipulation and control, pressuring citizens to conform to presumed values rather than incorporating them into deliberation. It should be rejected and replaced by a feminist pragmatist model of education research.

Conclusion

I have attempted to synthesize an account of the relationship between democracy and education research in two steps. First, I argued that values, moral, political and epistemic, are ineliminable from education research. Education research, and social science generally, cannot be pure. Some set of values will be presumed in inquiry. Second, I maintained that democratic values, in particular, are built into good education research. We should not want any set of values whatever to enter education research. Instead, we should want democratic values, which enable objectivity and make education research suitable for guiding schooling in democratic society. Taken together, these two steps constitute the “epistemological justification for democracy” in education research: for education research, democracy is an epistemic good as well as an ethical good. Along the way I have tried to sketch feminist pragmatism, a fusion of pragmatist philosophy and feminist philosophy of science, which emphasizes the priority of democracy to education research. Such a feminist pragmatist view of education research should, once and for all, displace lingering positivist and neopositivist models of education research.

Bibliography

- Anderson, Elizabeth. "The Democratic University: The Role of Justice in the Production of Knowledge." *Social Philosophy and Policy* 12, no. 2 (1995): 186-219.
- . "Knowledge, Human Interests, and Objectivity in Feminist Epistemology." *Philosophical Topics* 23, no. 2 (1995): 27-58.
- Bernstein, Richard. *The New Constellation: The Ethical-Political Horizons of Modernity/Postmodernity*. Cambridge, MA: MIT Press, 1998.
- Code, Lorraine. "Taking Subjectivity into Account." In *Feminist Epistemologies*, edited by Linda Alcoff and Elizabeth Potter, 15-49. New York: Routledge, 1993.
- Delpit, Lisa. *Other People's Children: Cultural Conflict in the Classroom*. New York: The New Press, 1995.
- . "Skills and other Dilemmas of a Progressive Black Educator." *Harvard Educational Review* 56, no. 4 (1986): 379-385.
- Fay, Brian. *Contemporary Philosophy of Social Science*. Malden, MA: Blackwell Publishers, 1996.
- Gould, Stephen Jay. *The Mismeasure of Man*. New York: W.W. Norton & Company, 1981.
- Haraway, Donna. "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective." *Feminist Studies* 14, no. 3 (1988): 575-599.
- Harding, Sandra. *Science and Social Inequality*. Chicago: University of Illinois Press, 2006.
- Hempel, Carl. *Aspects of Scientific Explanation*. New York: The Free Press, 1965.
- . *Philosophy of Natural Science*. Upper Saddle River, NJ: Prentice-Hall, 1966.
- Howe, Ken. "Positivist Dogmas, Rhetoric, and the Education Science Question." *Educational Researcher* 38, no. 6 (2009): 428-440.
- Jaggar, Alison. *Just Methods*. Boulder, CO: Paradigm Publishers, 2014.
- Jordan-Young, Rebecca. *Brain Storm: The Flaws in the Science of Sex Differences*. Cambridge, MA: Harvard University Press, 2010.
- Kirshner, Ben. *Youth Activism in an Era of Education Inequality*. New York: New York

- University Press, 2015.
- Kitcher, Phillip. *Science in a Democratic Society*. New York: Prometheus Books, 2011.
- Lagemann, Ellen Condliffe. *An Elusive Science: The Troubling History of Education Research*. Chicago: The University of Chicago Press, 2000.
- Lloyd, Elisabeth. *The Case of the Female Orgasm: Bias in the Science of Evolution*. Cambridge, MA: Harvard University Press, 2005.
- Longino, Helen. *Science as Social Knowledge*. Princeton, NJ: Princeton University Press, 1990.
- Misak, Cheryl. "Introduction," In *The New Pragmatists*, edited by Cheryl Misak, 1-6. Oxford, UK: Oxford University Press, 2007.
- Philips, D.C., and Nicholas C. Burbules. *Postpositivism and Education Research*. Lanham, MD: Rowan and Littlefield, 2000.
- Putnam, Hillary. *The Collapse of the Fact/Value Dichotomy and Other Essays*. Cambridge, MA: Harvard University Press, 2004.
- . *Realism with a Human Face*. Cambridge, MA: Harvard University Press, 1990.
- . *Renewing Philosophy*. Cambridge, MA: Harvard University Press, 1992.
- Quine, W.V.O. "Carnap and Logical Truth." In *Logic and Language: Studies Dedicated to Professor Rudolf Carnap on the Occasion of his Seventieth Birthday*, edited by B.H. Kazemier and D. Vuysje, 39-63. New York: Springer Science and Business Media Dordrecht, 1962.
- . "Two Dogmas of Empiricism." *The Philosophical Review* 60 (1951): 20-43.
- Rorty, Richard. *Objectivity, Truth, Relativism*. Cambridge, UK: Cambridge University Press, 1991.
- . "Response to Conant." In *Rorty and His Critics*, edited by Robert Brandom, 342-250. Malden, MA: Blackwell Publishing, 2000.
- . "There is a Crisis Coming." In *Take Care of Freedom and Truth Will Take Care of Itself: Interviews with Richard Rorty*, Edited by Eduardo Mendieta, 56-65. Stanford, CA: Stanford University Press, 2006.
- Scheman, Naomi. "Epistemology Resuscitated: Objectivity as Trustworthiness." In

Engendering Rationalities, edited by Nancy Tuana and Sandra Morgen, 23-52.
Albany, NY: State University of New York Press, 2001.

Searle, John. *The Construction of Social Reality*. New York: The Free Press, 1995.

Terry, Jennifer. "Lesbians under the Medical Gaze: Scientists Search for Remarkable Differences." *Journal of Sex Research* 27, no. 3 (1990): 317-339.

CHAPTER 3. DEMOCRACY AND THE DEMARCATION PROBLEM IN EDUCATION RESEARCH

In this paper, I weigh in on the demarcation problem in education research. The demarcation problem is the problem of determining the nature of scientific inquiry such that it can be distinguished from pseudo-scientific and non-scientific inquiry. There has been much hand-wringing in education research about the demarcation problem: is education research scientific and, if not, how could it become so? Many education researchers, and public and private organizations, have attempted to uncover those features of inquiry that bestow the status *scientific* and to generalize those features into education research at large.¹²⁵ They maintain, typically, that only scientific education research can generate the knowledge needed to drive educational improvement. Only it can discern which educational interventions really do work, filtering out the noise from political struggle over education.¹²⁶

Drawing on pragmatism and feminist philosophy of science, I contend that many existing attempts at demarcation are corrosive of good education research, grounded as they are in a fatally flawed and anti-democratic conception of social science. They seek to achieve “pure” education research, insulated from moral and political values. I will argue that the pure education research often sought through demarcation is undesirable in

¹²⁵ For example, see: National Research Council, *Scientific Research in Education* (Washington, D.C.: National Academy Press, 2002). See also the Education Sciences Reform Act of 2002, which advanced a definition of scientific education research and scientifically valid education evaluation: <http://www2.ed.gov/policy/rschstat/leg/PL107-279.pdf>.

¹²⁶ For example, see: Robert Slavin, “Evidence-Based Education Policies: Transforming Educational Practice and Research,” *Educational Researcher* 31, no. 7 (2002): 14-21.

democratic society and, in any case, unattainable for education research in particular and for social science in general. I will argue further that, despite much protest that demarcation is motivated by narrowly epistemic considerations (e.g., the desire to achieve more rigorous education research), any attempt at demarcation must be evaluated in light of moral, political, and economic concerns. Demarcation must be evaluated, in particular, in light of the *neoliberal* background conditions in which it occurs.

Neoliberalism has powerfully incentivized demarcation, pushing education researchers to adopt prestigious but faulty models of education research. One consequence of my argument is that demarcation is not an obvious good in all cases. It should be pursued only carefully and by those who are clear-eyed about its implications for science in democratic society. And, again, it will prove to be an unattainable goal for education research, at least as often framed by its proponents.

Throughout this paper, I use “demarcation” to refer to attempts to render education research *scientific* on either the positivist or neopositivist model of social science. These models hold that education research, and social science in general, can and should be insulated from moral and political values. They often contend that education research can become scientific by modeling itself after (a positivist or neopositivist construal of) the natural sciences. It is this positivist and neopositivist demarcation that I interrogate in this paper, finding it undesirable in democratic society and, in any case, unattainable. But positivism and neopositivism are not, of course, the only models of social science. We should not cede the concept *social science* to positivism and neopositivism, but instead develop better views of social scientific practice that are better suited for democratic society. I will argue that pragmatism and feminist philosophy of

science provide alternative models of social science that should displace positivism and neopositivism, especially in that they are sensitive to the foundational role of democratic values in education research. On these models, education research could become legitimately scientific, and demarcation need not be anti-democratic.

The Education Science Question

Before proceeding, I sketch an account of the demarcation problem in education research developed by Ken Howe. I lean on Howe's account in this paper, which fits neatly into pragmatism and feminist philosophy of science. Howe calls the demarcation problem the "education science question," the question of whether, and how, education research should become scientific. He demonstrates how attempted demarcation has often run afoul of democracy. Howe describes what he calls the "new scientific orthodoxy," the dominant vision of science, and consequently demarcation, embedded in education research.¹²⁷ He advances two main lines of criticism of the new scientific orthodoxy. I describe the first only briefly before moving onto the second, which informs the argument I develop in this paper.

First, Howe maintains that the new scientific orthodoxy is flawed because it adopts a basically positivist conception of social science. For example, animated by the positivist "fact/value distinction," the new orthodoxy attempts to achieve pure education research, insulated from moral and political values. But the fact/value distinction, and

¹²⁷ Kenneth R. Howe, "Positivist Dogmas, Rhetoric, and the Education Science Question," *Educational Researcher* 38, no. 6 (2009): 428-440. On Howe's view, the new scientific orthodoxy has unfolded in a series of prominent reports on the education science question. For example, see National Research Council, *Scientific Research in Education*; National Research Council, *Advancing Scientific Research in Education* (Washington, D.C.: National Academy Press, 2004).

positivism generally, have been roundly defeated in philosophy. They are unsuited to serve as the foundation for education research.

Second, Howe argues that the new orthodoxy undermines democratic deliberation about which conception of science should be adopted in education research. The new orthodoxy, Howe writes,

assumes that... the line of demarcation between science and other intellectual endeavors is unproblematic and then identifies the kinds of education research that fall on the science side... [It] assumes a kind of essentialism, in which, reminiscent of Plato, identifying instances of scientific education research amounts to looking for a sufficient resemblance to a preexisting stable Idea.¹²⁸

But, as Howe notes, the concept *science* is itself a “two-edged” concept: it is simultaneously descriptive and normative. It describes, but also endorses and prescribes, particular forms of inquiry. It describes, and also renounces, other forms of inquiry. There can be no pure conception of science, insulated from normative considerations. Like the concepts *achievement* and *success*, any conception of science will be shot through with a blend of epistemic and practical concerns. The positivist conception of science fails to recognize the two-edged nature of *science*. It presumes a view of science in education research rather than subjecting it to deliberation among researchers and citizens. Though it should be produced and refined through conversation, it is said to exist beyond deliberation rather than forged in human conversation. In this way, the new orthodoxy “tacitly elevates *science* above the rhetorical fray that characterizes disputes about what ought to be and then ascribes this status to *education science* as well.”¹²⁹

Demarcation violates democratic values: it becomes a mechanical, anti-democratic

¹²⁸ Ibid., 433.

¹²⁹ Ibid., 435.

process in which forms of education research are evaluated to see how far they conform to a presumed conception of science.

For Howe, the problem is not only that the new orthodoxy smuggles a view of science into education research without democratic deliberation. It is also that the smuggled positivist view of science grants legitimacy and authority to particular approaches to education research, to particular conceptions of schooling, and to associated moral and political values. Howe writes: “Being able to claim the mantle of science brings advantages such as prestige, credibility, support, and influence.”¹³⁰ Certain research programs, and the values and aspirations embedded within them, are favored and provided funding and other forms of support, while others are not. And, significantly, these advantages are bestowed or withheld without robust democratic consideration of how we should conceptualize education research and the proper aims of schooling in democratic society. In this way, the positivist conception of science cloaks particular values, allowing them to enter into and be promoted by education research without criticism from researchers and citizens.

To illustrate Howe’s argument, consider Elizabeth St. Pierre’s critical evaluation of the National Research Council’s *Scientific Research in Education* (SRE), which set out a view of scientific research in education.¹³¹ A well-known attempt at demarcation in education research, it has spawned much controversy. Among other concerns, St. Pierre contends that conception of science delineated in the report dismisses and minimizes qualitative methods while valorizing quantitative methods. Rather than developing a

¹³⁰ Ibid., 437.

¹³¹ St. Pierre is rooted in postmodernism, which often clashes with pragmatism and feminist philosophy of science, but her criticism of SRE is nonetheless revealing.

substantive vision of how qualitative methods might augment our attempts to understand and fashion solutions to educational problems, the report subsumes qualitative methods into the quantitative epistemological paradigm: it follows from the report's conception of science as randomized, replicable, generalizable, and predictive that much (or all) qualitative research must fall outside the scope of science. Here St. Pierre finds what she takes to be the dangerous view that one epistemology governs all of science. The very methodological diversity that the report claims to champion is "assimilated into the Same... through a rather brutal dialectical synthesis."¹³²

St. Pierre argues further that "this theoretical move, like all theoretical moves, has very real, material effects on both educational research and on educational researchers."¹³³ SRE holds that the accumulation of scientific knowledge is advanced when researchers work with common variables using a common conceptual frame. St. Pierre contends that only a single form of science – positivism – will be advanced through this common conceptual frame. This implicit positivist epistemological vision dangerously narrows the knowledge produced by education researchers and, consequently, the visions they generate for how we might construct and reconstruct the structures of education. Significantly, it promotes and rewards only the positivist conception of scientific education research and associated moral and political values.

¹³² Elizabeth St. Pierre, "'Science' Rejects Postmodernism," *Educational Research* 31, no. 8: 26. Here St. Pierre is at odds with pragmatism and (much) feminist philosophy of science, which take the problem not to be that there is one epistemology governing all inquiry, but rather that the single epistemological paradigm described in the SRE report wrongly excludes perspectives and researcher methods.

¹³³ Ibid.

St. Pierre critical evaluation of SRE illuminates Howe's arguments about the education science question. It is not only that the "new orthodox" view of science advanced in the SRE is flawed, set on collapsed philosophical foundations. A further problem is that the conception of science delineated by SRE is taken to exist above the "rhetorical fray." Here demarcation becomes anti-democratic: it becomes a procedure for determining which instances of education research fit into a conception of social science which is taken as given. As Howe writes, SRE and the new orthodoxy assume "a kind of essentialism" about science, supposing that a stable and widely uncontroversial conception of science can be discovered and used in demarcation. And, because it is "two-edged," that view of science brings with it a set of normative components: a view of the proper conception and function of education research, a view of the proper function of schooling in democratic society, and more. These views are foisted on researcher and on citizens rather than subject to deliberation. In this case, demarcation is manipulative and authoritarian; it runs afoul of democratic values.

Kuhn and the Demarcation Problem

To repeat, the demarcation problem is the problem of determining the nature of scientific theory such that it can be distinguished from pseudo-scientific or non-scientific theory. For example, many philosophers and scientists have shared the intuition that astrology is pseudo-scientific while astronomy is scientific. But what are those characteristics of scientific theory that allow us to make a distinction between astrology and astronomy? To discover those characteristics would be to solve the demarcation problem.

I draw on Thomas Kuhn to examine demarcation in education research. Kuhn falls, with some friction, in the terrain of pragmatism and feminist philosophy of science. Kuhn dissolves the demarcation problem, at least as traditionally framed.¹³⁴ Typically, philosophers have suggested that there must be some special scientific method or scientific rationality that explains the success of science. Consider, for example, the spectacular success of the Galilean framework as measured against the Aristotelian framework. Richard Rorty writes:

Galileo and his followers discovered, and subsequent centuries have amply confirmed, that you get much better predictions by thinking of things as masses of particles blindly bumping each other than by thinking of them as Aristotle thought of them – animistically, ideologically, and anthropomorphically. They also discovered that you get a better handle on the universe by thinking of it as infinite and cold and comfortless than by thinking of it as finite, homey, planned, and relevant to human concerns.¹³⁵

On the standard view, there must be some special scientific method or scientific rationality, possessed by Galileo but not by Aristotle, that can be uncovered and used to demarcate science from non-science.

Kuhn denies the existence of such a special method or rationality. Instead, Kuhn contends that those disciplines we call scientific, by convention, are marked by comprehensive intersubjective agreement about epistemological and ontological commitments, methods, instrumentation, problems deemed worthy of investigation, and standards of success and failure for evaluating proposed solutions to those problems. On Kuhn's terms, these disciplines are said to function as *normal science* under a *paradigm*.

¹³⁴ See: Thomas Kuhn, "Logic of Discovery or Psychology of Research?" in *Criticism and the Growth of Knowledge*, eds. Imre Lakatos and Alan Musgrave (London: Cambridge University Press, 1970).

¹³⁵ Richard Rorty, *Consequences of Pragmatism* (Minneapolis: University of Minnesota, 1982), 191.

Rorty neatly summarizes this view: there is no general “epistemological moral” to be learned about the nature of science or rationality from Galileo’s success.¹³⁶

Disciplines not characterized by intersubjective agreement do not function as normal science. They do not possess a paradigm. Some of these disciplines, such as fledgling science, are *pre-paradigmatic*. Practitioners have good reason to think that they will, and should, come to broad agreement. Other disciplines without a paradigm, such as philosophy, are *non-paradigmatic*. Practitioners have good reason to think that they will not, or should not, come to broad agreement. (I will maintain that education research is a breed of non-paradigmatic inquiry and, further, *should not* be paradigmatic, at least on the positivist or neopositivist view.) Whether or not some discipline can be called scientific becomes, in part, a social question, in the sense that it is general agreement among practitioners of a discipline that explains much of the apparent difference between, say, astronomy and philosophy.

A paradigm exists when members of some community of inquiry share broad agreement about methods, instrumentation, ontological and epistemological views, problems worthy of investigation, standards that determine success and failure, legitimate experiments and textbooks, and the education of new researchers.¹³⁷ For example, consider the theory of special relativity in physics. Physicists who operate under this paradigm share, broadly, a conceptual language to describe what physical phenomena exist, methods for interacting with those phenomena, and epistemological views about

¹³⁶ Ibid.

¹³⁷ Thomas Kuhn, *The Structure of Scientific Revolutions* (Chicago: University of Chicago Press, 1962).

what those methods reveal about physical phenomena. Physics education, organized around these shared commitments, perpetuates the paradigm.

For Kuhn, the existence of a paradigm is a necessary condition for normal science. Kuhn calls normal science a “puzzle-solving activity,” where researchers attempt to complete the jigsaw puzzle established in their discipline. A paradigm is required to generate the puzzle, to guarantee that solutions can be found, and to determine which moves count as success and as failure. Without the widespread agreement required for the paradigm, there is no clearly defined puzzle. In pre-paradigmatic and non-paradigmatic inquiry, members of the community of inquiry do not share the broad commitments needed to specify, let alone solve, a puzzle.

Under normal science, researchers work to assemble the puzzle established by the paradigm. The puzzle, and the paradigm generally, are rarely questioned. Indeed, they must be accepted for the scientific community in question to conduct normal science: “making more accurate measurements of constants, looking for entities and processes that the paradigm tells us must exist, extending the paradigm to new areas and types of phenomena, reconciling the paradigm with recalcitrant data, and the removing conceptual difficulties that afflict even the most successful paradigms.”¹³⁸ For this reason Kuhn calls normal science “dogmatic.”

Again, Kuhn dissolves the demarcation problem, as traditionally framed. Consider astronomy, which is typically said to be scientific, and moral philosophy, which is typically said to be non-scientific. Astronomers possess a paradigm. Under conditions of normal science, they work to assemble the puzzle established by their paradigm. They

¹³⁸ Martin Curd, J.A. Cover, and Christopher Pincock, *Philosophy of Science: The Central Issues* (New York: W.W. Norton & Company, 2013), 188.

agree, generally, about methods, instrumentation, the education of new astronomers, and so on. Their paradigm has predicted the existence of certain physical phenomena – say, the cosmic microwave background – and they have worked dutifully to generate knowledge about those phenomena. Astronomy, then, is often said to be scientific.

Moral philosophers do not possess a paradigm. They have not reached sufficient agreement to produce the puzzle that would allow for normal science. They have not reached comprehensive agreement about some of the most fundamental aspects of ethics. While they are often interested in the same moral questions and problems, they often disagree about methods and about how particular acts should be judged. Methodologically, for example, they disagree at times about the relative importance of “intention” and “consequence” in their moral evaluation of some act: how far should acts be judged by the intention of the actor and how far should they be judged by the consequences of the act? They also disagree, for example, about whether “rights,” not to be violated in moral calculation, should be ascribed to human and non-human beings. In part for these reasons, they often disagree in their moral evaluation of particular acts: for example, they often disagree about when, if ever, it is right to participate in war or when, if ever, it is right to eat the flesh of animals. Unlike astronomy, moral philosophers do not have sufficient agreement to function as normal science. And, as I will argue below, there is good reason to think that for at least some non-paradigmatic disciplines, like education research and philosophy, normal science will prove an unattainable goal and, in any case, one that is undesirable in democratic society.

Again, on Kuhn’s view, the demarcation problem is, in part, sociological, in the sense that it is general agreement among practitioners of a discipline that explains some

part of the apparent difference between astronomy and moral philosophy, and not only the possession of some special scientific method or scientific rationality. Moral philosophers and astronomers alike follow a method, if method is understood as

obeying the normal conventions of your discipline, not fudging the data too much, not letting your hopes and fears influence your conclusions unless those hopes and fears are shared by all those who are in the same line of work, being open to refutation by experience, not blocking the road of inquiry.¹³⁹

It is the possibility and desirability of consensus, rather than a special method or rationality, that explains much of the difference between astronomy and moral philosophy.

To be clear, it is not *only* agreement that explains the difference between science and non-science. The demarcation question is not only sociological. Consider, for example, astrology. Surely there is some degree of agreement about questions and methods among astrologers. They attend conventions and discuss similar problems and accept solutions to those problems. In this case, a key difference between astronomy and astrology is the *quality* of their inquiry and how far they obey a “method,” as cashed out above. A major flaw with astrology, for example, is that it is not “falsifiable” or, at least, it has not been taken to be falsified by practitioners even after the repeated and regular failure of their predictions.¹⁴⁰ Astrology seems to be able to explain anything whatever, because practitioners are prone to “introducing *ad hoc* some auxiliary assumption, or by

¹³⁹ Richard Rorty, *Consequences of Pragmatism*, 194-195.

¹⁴⁰ To be sure, there are philosophical problems with falsification. See, namely, the “Quine-Duhem” thesis, which maintains that statements cannot be tested, and falsified or not, in isolation. As Quine writes: they “face the tribunal of sense experience not individually but as a corporate body.” But falsification remains analytically useful in this case.

reinterpreting the theory *ad hoc* in such a way that it escapes refutation.”¹⁴¹ When astrologers encounter phenomena that are inconsistent with their theory, they do not take it to be refuted. Instead, come what may, they revise the theory *ad hoc* in order to maintain it. They practice, as Karl Popper writes, “a typical soothsayer’s trick”: they “predict things so vaguely that the predictions can hardly fail...that they become irrefutable.”¹⁴²

So the demarcation problem cannot be only sociological, explained by consensus alone. But Kuhn does allow us to see that the line between epistemology and sociology is blurry: the demarcation problem is simultaneously sociological and epistemological or, perhaps better, a bright line between the two cannot be drawn. At least, against the standard view, it is clear that the demarcation problem is not narrowly epistemological.

I return to Kuhn later. Kuhn will help to reveal that demarcation in education research has been anti-democratic, neglecting the foundational role of democracy in education research. First, I make the case that attempts at demarcation must be evaluated in light of political and contextual concerns. They must be evaluated, in particular, in light of the neoliberal background conditions in which they occur. Neoliberalism has powerfully incentivized the pursuit of demarcation.

Neoliberalism and the Demarcation Problem

In this section, I contend that demarcation in education research must be understood in light of neoliberal background conditions. Otherwise, any attempt to

¹⁴¹ Karl Popper, *Conjectures and Refutations: The Growth of Scientific Knowledge* (New York: Routledge & Kegan Paul, 1963; reprint, New York: Routledge, 2004), 48.

¹⁴² Ibid., 49.

evaluate demarcation will remain partial at best, blind to how demarcation has been driven not only by narrowly epistemic concerns, but also by political and contextual considerations. My main theme will be that neoliberalism has powerfully incentivized demarcation, pressuring education researchers to draw on prestigious but flawed methods that are said to be scientific, according to positivist or neopositivist conceptions of science. I will argue that neoliberal dynamics have funneled education researchers toward positivist and neopositivist models of scientific education research, shaping not only which questions are deemed worthy of investigation, but also the methodological commitments of education researchers. This has happened in (at least) two ways: the neoliberal imperative to cut funding for higher education and research, except for programs and research said to be scientific, and the “neoliberal audit culture” that has intruded more and more into education research. Before describing each below, I say more about neoliberalism, which has too often been “used with lazy imprecision in both popular debate and academic scholarship.”¹⁴³

For almost forty years, neoliberalism has been the ascendant political and economic framework, remaking political and economic life. It has shaped education research and education researchers alike. The core of neoliberalism is the conviction that the market should be spread to more and more domains of human life. For the neoliberal, the market is the best and most efficient mechanism for producing and distributing goods. It is seen, further, as happily compatible with individual human freedom.¹⁴⁴ The

¹⁴³ Daniel Stedman Jones, *Masters of the Universe: Hayek, Friedman, and the Birth of Neoliberal Politics* (Princeton, NJ: Princeton University Press, 2012), 6.

neoliberal, as William Davies writes, “targets institutions and activities which lie *outside* of the market, such as universities, households, public administrations and trade unions... in order to bring them inside the market through acts of privatization.”¹⁴⁵ Only through the extension of the market can efficiency and individual freedom be achieved.

Daniel-Stedman Jones usefully maps three distinct phases in the development of neoliberalism. During the first phase, which lasted from the 1920s until 1950, the early neoliberal intellectuals aimed to “reconstruct a *neo*-liberalism that remained true to the classical liberal commitment to individual liberty.”¹⁴⁶ The neoliberal intellectuals feared that individual liberty, and classical liberalism broadly, were threatened not only by spreading fascism and totalitarianism, but also by New Deal liberalism, British social democracy, and Keynesian economic theory and policy. They converged on the central neoliberal position: among all economic alternatives, the free market most reliably secures individual freedom by denying any individual or group centralized authority over economic structures.

The second phase of neoliberalism, which lasted from roughly 1950 until 1980, saw the development of a robust international neoliberal movement. The neoliberal intellectuals formulated a mature and coherent conception of neoliberalism centered on more radical advocacy of free market reform, deregulation and privatization, and

¹⁴⁴ For an example of such an argument, see: Friedrich Hayek, *The Road to Serfdom: Texts and Documents – The Definitive Edition* (Chicago: University of Chicago Press, 2007).

¹⁴⁵ William Davies, “Neoliberalism: A Bibliographic Review,” *Theory, Culture, & Society* 31, no. 7/8 (2014): 310.

¹⁴⁶ Daniel Stedman Jones, *Masters of the Universe* (Princeton, NJ: Princeton University Press, 2012) 3.

monetarism. They became, in particular, more and more suspicious of *any* intervention into the free market. For example, Milton Friedman's *Capitalism and Freedom* "presented the market as the means both to deliver social goods and to deliver the ends, the good life itself."¹⁴⁷ Friedman writes: "there is an intimate connection between economics and politics, that only certain combinations of political and economic arrangements are possible... in particular, a society which is socialist cannot also be democratic, in the sense of guaranteeing individual freedom."¹⁴⁸

The third phase of neoliberalism, which began in 1980, saw the widespread implementation, and eventual dominance, of neoliberal ideas. The energy crisis, the debt crises, and "stagflation" during the 1970s created the economic, political, and ideological conditions in which neoliberal principles – fiscal discipline and austerity, privatization, deregulation, market reform, and more – seemed reasonable economic alternatives to reigning New Deal and Great Society liberalism and British social democracy. Neoliberal economic policy was adopted by the International Monetary Fund (IMF), the World Bank (WB), the World Trade Organization (WTO), the European Union (EU), and in the North American Free Trade Agreement (NAFTA). The infamous "structural adjustment" programs, administered by the IMF and the WB, spread free market economic policy throughout the world. Despite substantial challenge, especially recently during the "Great Recession," the neoliberal framework has proven durable. It remains the dominant organizing principle in social and economic life.

Neoliberal Funding Cuts

¹⁴⁷ Ibid., 8.

¹⁴⁸ Milton Friedman, *Capitalism and Freedom* (Chicago: University of Chicago Press, 1962), 8.

The first way that neoliberalism has incentivized demarcation in education research is through funding cuts for higher education and research. While neoliberalism has driven a general reduction in funding for higher education and education research, researchers who use what are said to be scientific methods to study science, technology, engineering, and mathematics (STEM) have been rewarded with continued funding and prestige. Education researchers have been pressured to adopt scientific methods to study scientifically-based activities, on the positivist or neopositivist model of science. STEM and STEM education, and education researchers that study them using scientific methods, have existed happily under neoliberalism because they have been revealed as profitable by the markets that neoliberalism has worked to generalize. Others have existed anxiously. I describe this argument below.

Higher education, the primary provider of education researchers, has not been immune to neoliberal integration into the market. On the neoliberal view, colleges and universities should be subject to “market accountability.” Like other businesses, they should compete against one another for clients (students) who make decisions about which institutions they will attend. Only high-performing institutions will, and should, survive. Colleges and universities should not be given public funding, especially from citizens who do not attend those institutions. Public funding would undermine the market competition that guarantees quality higher education and, worse, threaten to undermine individual freedom as wealth is taken, forcibly, from some and given to others.¹⁴⁹ If

¹⁴⁹ Wisconsin governor Scott Walker exemplifies the neoliberal approach to higher education. For example, see: Valerie Strauss, “What Scott Walker is about to do to Wisconsin’s Public Schools,” *Washington Post* (Washington D.C.), July 8, 2015, <http://www.washingtonpost.com/blogs/answer-sheet/wp/2015/07/08/what-gov-scott-walker-is-about-to-do-to-wisconsins-public-schools/>.

public funding is provided, it should be managed by private entities that will prove more efficient and more responsive to market dynamics. Under neoliberalism, declining public funding for colleges and universities has meant rising tuition, decreased affordability for working class and poor students, and reduced funding for research, which has, I argue below, influenced education research and education researchers alike.

According to the Center on Budget Policy and Priorities, forty-eight states now spend less on higher education than they did before the recent recession.¹⁵⁰ Average state per pupil funding is \$2,026 or 23% less than before the recession. Four-year public college tuition has risen \$1,936 or 28%, adjusted for inflation, since the 2007-2008 school year. The National Science Board has also documented the decline in public funding: “during the period from 1992 to 2010, state appropriations as a percentage of public research universities’ total revenue fell by 15 percentage points from 38 percent in 1992 to an average of 23 percent in 2010.”¹⁵¹ After increasing 4.8 percent per year from 2000 to 2009, federal funding for academic research and development has become flat, increasing by 0.8 percent.¹⁵²

Declining public funding for higher education has meant, in turn, less funding for academic research and development. For example, humanities and social science programs have been scaled back, or eliminated outright, at many colleges and

¹⁵⁰ Michael Mitchell, Vincent Palacios, and Michael Leachman, *States are Still Funding Higher Education Below Pre-Recession Levels* (Washington, D.C.: Center on Budget and Policy Priorities, 2014).

¹⁵¹ The National Science Board, *Diminishing Funding and Rising Expectations: Trends and Challenges for Public Research Universities* (Arlington, VA: National Science Board, 2012), 9.

¹⁵² *Ibid.*, 14.

universities, including enclaves in education research that are not said to be scientific or are not immediately profitable.¹⁵³ On the neoliberal view, these programs are not profitable and should, through market accountability, be allowed to perish. The neoliberal approach to higher education is articulated clearly by Peter Cohan. He writes:

The solution could be as simple as eliminating the departments that offer majors that employers do not value... If colleges cut those humanities departments, their costs would drop because they could stop paying teachers and administrators in those departments and slash the related overhead.¹⁵⁴

The market signals, through employer demand and labor statistics, which programs are needed in the existing economic structure and which are not. On this view, colleges and universities should prune themselves in accordance with these market signals, promoting programs that generate profit and eliminating programs that do not. Faculty members and students in programs deemed unprofitable have existed anxiously under neoliberalism.

To be clear, the neoliberal will not object directly to the humanities or social sciences. Such disciplines might well prove valuable in a number of ways: literature and philosophy, for example, might well make for better people with a broader appreciation for the range of human intellectual achievement. But the neoliberal will insist that those

¹⁵³ For one recent example, see testimony from Robert Stufflebeam, chair of the Philosophy Department at the University of New Orleans: “I’m the chair of the only remaining Department of Philosophy at a public university in the state of Louisiana... Under our current governor, nearly a billion dollars has been cut from higher education in the past 8 years. Higher education here is bracing for another—and potentially fatal—cut of between \$200M-\$600M. If anything like that happens, a great many more programs than philosophy will surely be eliminated... With the relentless promotion of STEM programs and the notion that Liberal Arts majors make no money after graduation, Philosophy is not merely being attacked, it is being targeted.” See: <http://dailynous.com/2015/04/06/a-philosophy-departments-impressive-fight-for-survival/>.

¹⁵⁴ Peter Cohan, “To Boost College Prospects, Cut Humanities Programs,” *Forbes* (Jersey City, NJ), May 29, 2012, <http://www.forbes.com/sites/petercohan/2012/05/29/to-boost-post-college-prospects-cut-humanities-departments/>.

disciplines not be “artificially” sustained if they cannot survive on the market. For the neoliberal, such tinkering with the market would be practically and ethically concerning, undermining the potential of the market to safeguard individual freedom and promote efficiency in the production and distribution of goods.

In education research, there has been no waning of enthusiasm and support for STEM programs. Under neoliberalism, market signals reveal that STEM education is profitable and essential for the continued flourishing of the existing economic structure. For example, the National Science and Technology Committee produced a five-year strategic plan that indicates that STEM education will receive additional federal funding and attention. The Federal Department of Education has invested \$80 million to create 100,000 new STEM educators and \$35 million to launch the new STEM Education Master Teacher Corps. The Department of Education’s \$4.3 billion “Race to the Top” competition included priority focus on improving STEM achievement and developing rigorous STEM curriculum. The National Science Foundation (NSF) received \$123 million to improve undergraduate retention in STEM fields and \$325 to expand its graduate fellowship programs. The Smithsonian Institution received \$25 million to construct new informal STEM education material.¹⁵⁵ The Department of Education’s “Future Ready” initiative, which helps school districts to align technology and digital learning plans to best practices, indicates continued federal commitment to STEM

¹⁵⁵ National Science and Technology Council, *Federal Science, Technology, Engineering, and Mathematics (STEM) Education 5-Year Strategic Plan* (Washington, D.C.: National Science and Technology Council, 2013).

education.¹⁵⁶ STEM and STEM education, and education researchers that study them, have existed happily under neoliberalism.

To be sure, neoliberalism is not the only social force that might account for declining public funding for higher education and increased funding for STEM education. The set of views that has been called *vocationalism* might well explain some part of these transformations. Broadly, vocationalism maintains that schooling ought to serve economic ends.¹⁵⁷ For example, the vocationalist might maintain that schooling should work to train individuals to take up those economic positions – say, engineering – needed for competition in the global marketplace. Both neoliberalism and vocationalism promote STEM and STEM education. Neoliberalism promotes STEM and STEM education *indirectly* through a commitment to extending the market. Vocationalism promotes STEM and STEM education *directly*, on the grounds that STEM and STEM education are economically productive. The vocationalist is enamored with STEM and STEM education directly. They enhance economic productivity and prosperity. The neoliberal has no necessary desire to emphasize STEM education. Rather the increased focus on and funding of STEM education is a consequence of the neoliberal extension of the market. STEM and STEM education are selected through marketplace activity.

Neoliberalism and vocationalism are bound up. While vocationalism might well exist outside of neoliberal capitalism, neoliberalism encourages vocationalism. We can imagine vocationalism flourishing in, say, a non-market totalitarian society. The political

¹⁵⁶ See: <http://www.futurereadyschools.org/>.

¹⁵⁷ David Labaree has usefully charted vocationalism in American schooling. For example, see: David Labaree, *Someone Has to Fail The Zero-Sum Game of Public Schooling* (Cambridge: Harvard University Press, 2010); David Labaree, “Consuming the Public School,” *Educational Theory* 61, no. 4 (2011).

elite in such a society might well decide that schooling should be directed toward economic ends, say, increasing the productive capacity of farmlands. But neoliberal capitalism is fertile soil for vocationalism. The neoliberal extension of the market into more and more domains of human life pressures schooling toward vocationalism. The market accountability fostered by neoliberalism promotes schooling that adopts economic ends and undermines schooling that does not.

Given that STEM and STEM education have survived, and flourished in, the neoliberal drive to cut funding, education researchers have felt intense pressure to attain the status *scientific* in two ways. First, education researchers have been pressured to study what are said to be scientifically-based activities such as STEM and STEM education. They find more funding and more prestige when they investigate, say, engineering education rather than humanities education or education for democratic citizenship. Second, education researchers have been pressured to draw on what are said to be scientific methods. They find more funding and more prestige when they take up, say, quantitative methods to investigate computer science curriculum rather than using philosophical tools to examine normative questions embedded in schooling. The neoliberal drive to cut funding, and allow programs and universities to succeed or perish on the market, has shaped education research not only *externally*, pressuring education researchers to study scientifically-based activities, but also *internally*, pressuring education researchers to draw on methods said to be scientific on positivist or neopositivist models. Education researchers who refuse to study scientifically-based activities using scientific methods risk not finding faculty positions and losing funding and status.

Neoliberal Audit Culture

The second way that neoliberalism has incentivized demarcation in education research is through the punitive “audit culture” it has spawned, which has shaped the landscape of education research and pressured education researchers to adopt scientific methods and to study scientifically-based activities. Colin Leys describes audit culture. On his view, we have witnessed a rapid

proliferation of *auditing*, i.e., the use of business derived concepts of independent supervision to measure and evaluate performance by public agencies and public employees, from civil servants and school teachers to university lecturers and doctors: environmental audit, value for money audit, management audit, forensic audit, data audit, intellectual property audit, medical audit, teaching audit and technology audit emerged and, to varying degrees, acquired institutional stability and acceptance... very few people have been left untouched by these developments.¹⁵⁸

Audit culture has entered into higher education. Benchmarks, and especially benchmarks set according to the neoliberal desire for efficiency and profitably, are established. More and more aspects of academic life are measured against those benchmarks. Those benchmarks are used to “audit,” and punish, researchers who do not meet them – say, those researchers who do not secure sufficient grant funding. Researchers who adopt scientific methods to study scientifically-based activities are rewarded. They have an easier time meeting those benchmarks and avoiding punitive auditing. Researchers are pushed toward methods that are said to be scientific.

The same dynamic exists in education research, where the punitive audit has become more and more commonplace. Education researchers are subject more and more

¹⁵⁸ Colin Leys, *Market-Driven Politics: Neoliberal Democracy and the Public Interest* (New York: Verso, 2003), 70. See also Michael W. Apple, “Education, Markets, and an Audit Culture,” *Critical Quarterly* 42, nos. 1-2 (2005) for illuminating investigation into audit culture in education and education research.

to conceptions of schooling, school quality, and education research used in auditing that come from the managerial vocabulary of neoliberalism. Forms of education research that are efficient and profitable, useful on the market, are promoted and rewarded. Others are punished. Audit culture has disciplined education researchers into producing work aligned with neoliberalism, especially work that is said to be scientific. Leys notes that audit culture has entered into education through harsh accountability practices. He writes: “Inspection agencies were charged with ‘naming and shaming’ ‘failing’ individual teachers, schools... Private firms were invited to take over and run ‘failing institutions.’”¹⁵⁹ This “naming and shaming” trickles up into education research: researchers willing to manufacture and refine accountability systems, using methods that are said to be scientific, are rewarded. Audit culture has incentivized demarcation.

To be clear, positivism and neopositivism need not, in principle, be connected with neoliberalism. Both positivism and neopositivism were forged before the ascendancy of neoliberalism during the late 1970s and early 1980s. Positivism was a prominent model of social science in the education research community before it was recast by neoliberalism. The influence of positivism lingers stubbornly in education research, and neopositivism remains a popular model for those who chase after demarcation.¹⁶⁰ A swath of the education research community has long since internalized these views of social science. But positivism, neopositivism, and neoliberalism have been connected in practice. Through neoliberal audit culture and the neoliberal imperative to cut funding save for education research said to be scientific, neoliberalism has funneled

¹⁵⁹ Ibid.

¹⁶⁰ See Kenneth R. Howe, “Positivist Dogmas, Rhetoric, and the Education Science Question.”

education researchers toward positivist and neopositivist models of scientific education research. In this way, neoliberalism has shaped education research not only *externally*, influencing which questions are said to be worth investigation, but also *internally*, influencing which methods are used and taken to be legitimate. Demarcation, in education research and elsewhere, cannot be a narrowly epistemic phenomenon. It must be evaluated in light of political, economic, and other contextual concerns and, in particular, in light of the neoliberal background conditions in which it occurs.

Democracy and Demarcation

I return to Kuhn to make the case that attempts at demarcation in education research, on the positivist or neopositivist model, are anti-democratic. On Kuhn's terms, education research is non-paradigmatic. It has not attained the status *scientific* because education researchers have not reached comprehensive agreement about methods, instrumentation, approved textbooks and experiments, the education of new researchers, how causation should be understood in social science, and more. Without such broad agreement, education research does not function as normal science. (And I will argue later that it cannot, and *should not*, function as normal science, out of respect for the democratic values which are foundational to good inquiry.) They share no jigsaw puzzle. They tend to disagree about what educational problems are significant and what "moves" in inquiry would count as solutions to those problems. They clash repeatedly about whether educational questions can be best answered by quantitative, qualitative, or philosophical methods.

Consider, for example, one current rift among education researchers, which has existed at least since No Child Left Behind's mania for assessment and accountability,

and which has continued apace in the post-NCLB era.¹⁶¹ One set of education researchers take creating and refining accountability systems for schools and teachers, rooted in standardized testing, to be the most important aim of education research. They seek to specify a widely uncontroversial view of schooling, school quality, and educational success. They seek to assess how far particular teachers, schools, and districts promote that view of school quality and educational quality. To do so, they typically use statistical methods and accept the epistemological and methodological commitments bound up with those methods. They believe, typically, that various accountability strategies based on those assessments can drive school improvement. They commonly hold that teacher-effects and school-effects account for enough of student and school performance that such accountability strategies are viable. And they might accept, or at least not struggle against, the view that schooling is properly aimed at maximizing content knowledge.

Another set of education researchers takes that endeavor to be irredeemably flawed, grounded in an undesirable view of schooling and society and a confused view of the causes of student and school performance. They are typically more accepting of a broad range of methods, welcoming, for example, qualitative work, which they believe can complement and improve narrowly quantitative work. They typically hold, subsequently, a different set of epistemological and methodological commitments. They are often skeptical of standard accountability strategies, maintaining that much of student and school performance is explained by dynamics beyond schools, including poverty and

¹⁶¹ One example of this rift in action is the debate over National Research Council, *Scientific Research in Education*. See especially Michael J. Feuer, Lisa Towne, and Richard J. Shavelson, "Scientific Culture and Educational Research," *Educational Researcher* 31, no. 8 (2002): 4-14; Fred Erickson and Kris Gutierrez, "Culture, Rigor, and Science in Educational Research," *Educational Researcher* 31, no. 8 (2002): 21-24.

income inequality. They might well be skeptical of those standard accountability strategies more generally, maintaining that they exemplify a “technocratic,” rather than democratic, approach to education and education research. And, more broadly, they typically question the view that schooling is properly aimed at maximizing content knowledge, holding that there are other legitimate aims for schooling, such as promoting democratic citizenship. While this is a rough sketch of one fault line in education research, it helps to reveal the significant and continued disagreements among education researchers that prevent it from functioning as normal science.

Significantly, education researchers do not widely share a view of the proper function of schooling in democratic society. Many education researchers take the legitimate function of schooling to be reforming, or even transforming, society such that it becomes more democratic and more egalitarian.¹⁶² Other education researchers maintain that schooling should invite students to experience the finest art, music, literature, architecture, philosophy, and science produced by humans, such that they can be unchained from the present moment and evaluate and revise their current views in dialogue with the finest human achievements.¹⁶³ Education research cannot function as normal science when education researchers disagree, often fiercely, about the nature of the phenomena under investigation. Normal scientific education research would require general agreement about the nature and function of schooling in democratic society. It would require a paradigm. Education researchers can engage in normal science to solve

¹⁶² For example, see: Megan Boler, “Teaching for Hope: The Ethics of Shattering Worldviews,” in *Teaching, Learning, Loving: Reclaiming Passion in Educational Practice*, ed. Daniel P. Liston and James W. Garrison (New York: Routledge, 2004).

¹⁶³ For example, see: Mark Edmundson, *Why Read?* (New York: Bloomsbury, 2005).

the jigsaw puzzle only after they come to agreement about the puzzle itself and how it can be solved.

Many education researchers, policymakers, and politicians take the non-paradigmatic state of education research to be lamentable. They take it to be an embarrassment that should be remedied as quickly as possible, especially if education research is to attain the status and prestige of the natural sciences. They have, consequently, attempted demarcation in education research, on the positivist or neopositivist model, in order to flee from that non-paradigmatic status. For example, Robert Slavin calls for a “scientific revolution” in education research. That revolution, modeled on medical and agricultural research, would spark “progressive, systematic improvement over time.”¹⁶⁴ Despite the great promise of such a revolution, Slavin writes, “education research has failed to embrace this dynamic, and as a result, education moves from fad to fad. Educational practice does change over time, but the change process more resembles the pendulum swing of taste characteristic of art or fashion (think hemlines) rather than the progressive improvements characteristic of science and technology.” Slavin seems to have in mind normal scientific education research in possession of a paradigm. Such education research would be cumulative, progressing whenever new knowledge is added to the steady scientific edifice.

I argue that the move to push education research to function as normal science is wrong-headed for two reasons: it is anti-democratic and, in any case, will prove unattainable, rooted in a flawed conception of education research and social science generally. We should not flee from the fact that education research is not marked by the

¹⁶⁴ Robert Slavin, “Evidence-Based Education Policies,” 14-21.

same general agreement among researchers and does not, consequently, function as normal science. Instead, we should *embrace* this position, out of respect for the democratic values required for good inquiry.

To be clear, the call to embrace the non-paradigmatic status of education research does not mean that we need, or should, embrace any vision of education research and educational practice whatever. To square with democracy and democratic values, education research must recognize what will prove to be *permanent disagreement* about education and education research. In democratic society, disagreement about the proper function of education will never resolve into the agreement necessary for normal science. Education and education research will always be marked by a host of competing perspectives and desires, all responding to changing social conditions over time. The anti-democratic consequence of demarcation (on positivist or neopositivist model) is suppressing that deliberation, maintaining that we should work toward, or even that have achieved, the widespread agreement required for normal science. But it does not follow from remaining sensitive to permanent disagreement that we cannot distinguish between better and worse models of education research and educational practice. Indeed, democracy itself imposes certain limits on education and education research: to sustain democracy and democratic values, which are at once ethically and epistemically salutary, any legitimate conception of education and education research should promote education for active democratic participation, itself arranged according to democratic values. There can be no legitimate conception of education and education research that fall outside these boundaries. Democracy will not tolerate any view whatever. This may be said to be

a rough sketch of a paradigm for education research, but one very different from proposed positivist and neopositivist models.

Anti-Democratic Demarcation

I turn first to the anti-democratic consequences of demarcation, on the positivist or neopositivist model, in education research. Proponents of demarcation have attempted to provide education research a paradigm, through force or fiat, so that it can operate as normal science. These attempts at demarcation are anti-democratic. They alienate us from democratic deliberation about education and education research, as citizens and as researchers, because they declare wrongly that we should strive for, or even that we have achieved, normal science. Education research is necessarily political, shot through with values, because education is necessarily political. Education is always aimed at some end: it works to create some kind of society and to cultivate some kind of citizen. Stipulating that education research has become paradigmatic alienates us from the ethical and political questions embedded inevitably in education. Especially given the central role of schooling in the production of citizens and society, these questions should not be resolved beyond democratic deliberation. Embracing the non-paradigmatic status of education research recognizes that, in democratic society, we would need to engage in robust democratic deliberation in order to come to the general agreement needed for scientific education research.¹⁶⁵ Any legitimate paradigm in education research, which would inevitably include some conception of the proper function of schooling in democratic

¹⁶⁵ For discussion of the role of science in democratic society, see: Phillip Kitcher, *Science in a Democratic Society* (New York: Prometheus Books, 2011); Phillip Kitcher, *Science, Truth, and Democracy* (Oxford: Oxford University Press, 2001).

society, would need to emerge from dialogue among researchers and citizens. But this will prove impossible in democratic society in any case.

Return to Slavin's call for a "scientific revolution" in education research, which would push education research to function on the model of agricultural research. Slavin bemoans that educational practice, unlike agricultural practice, "resembles the pendulum swing of taste characteristic of art or fashion." But education is a different kind of endeavor than agriculture. In agricultural research, the proper aim of agricultural activity is typically uncontroversial and shared by practitioners and researchers: to produce food for consumption and, whenever possible, to increase the efficiency and sustainability of food production. Agricultural research can be legitimately paradigmatic. At least in principle, there can be sufficient agreement to generate the jigsaw puzzle to be assembled by agricultural researchers. But education research cannot be legitimately paradigmatic. There is no such agreement about the proper function of education, how it should be studied, the nature of causation in social science, and more.

Any attempt at demarcation that is not reached through deliberation among citizens and researchers will be anti-democratic. It will smuggle in answers to the political and ethical questions embedded in education and education research without dialogue. That transformations in educational activity do not perfectly resemble agricultural research, and instead share some similarity with fashion, should not be surprising or lamentable: it reflects that researchers' and citizens' views of the proper function of education will change over time in response to social, political, and economic conditions. To be clear, educational practice does not, and should not, resemble changing fashion. Educational change is, and should be, grounded in more than subjective

preference and marketing. Educational change should be guided by continuing conversation among researchers and citizens, all attempting to come to consensus about the appropriate function of schooling in democratic society. But education research and practice should not and cannot be made to resemble agriculture research and practice, in part because the concept *education*, along with a host of other concepts that must be presumed in education research, will be inevitably shot through with the values, beliefs, and aspirations of citizens.

To sharpen this argument, consider two “domains” of questions in education research. We might inquire into how far educational intervention X promotes educational outcome Y . Call this the *technical domain*. The technical domain is the province of education researchers who possess the technical skills needed to answer technical questions. It is the domain, for example, of the statistician who draws on propensity score matching in order to estimate the effects of class size reduction in a school district. We might also inquire into how far educational outcome Y conforms to the demands of robust democratic society. Call this the *normative domain*. The normative domain is the jurisdiction of democratic citizens generally. Questions that fall in the normative domain should be subject to continued deliberation among researchers and citizens.

All education research in the technical domain must assume some set of answers to questions within the normative domain. The jigsaw puzzle needed for scientific education research is generated only through comprehensive agreement in both domains. The same statistician working in the technical domain to examine the effects of class size reduction must presume some view of education, achievement, and educational success in order to render her research coherent. Attempts at demarcation, imposing normal

science, risk suppressing democratic dialogue over the normative domain, say, about whether or not the presupposed vision of schooling is the kind of thing that we should want in democratic society. They skip over the normative domain and proceed to the technical domain, having presumed answers within the normative domain, rather than exposing them to the deliberation and “transformative criticism” needed for good inquiry in democratic society. Slavin’s call for scientific revolution would have us suppress deliberation over questions in the normative domain in order to make education research resemble agricultural research.

The standard response from such researchers will be that they *should* skip over the normative domain. They can, and should, bracket political and ethical values from their research. To insert their own values and aspirations into inquiry would be anti-democratic. Instead, contextual value questions – say, “what are the legitimate goals of schooling in democratic society?” and “what is a legitimate conception of school quality?” – are relegated to policy makers, who are democratically accountable to citizens. Education research should seek only to answer technical questions using their technical expertise, which will be governed only by epistemic values and not contaminated by political considerations. They seek only to produce technical knowledge – how far does educational intervention *X* promote educational outcome *Y* – to be given to policymakers who will use that knowledge in deliberation.¹⁶⁶

¹⁶⁶ For a well-known defense of this view, and one connected to neoliberalism, see Milton Friedman, *Essays in Positive Economics* (Chicago: University of Chicago Press, 1953), 2. Friedman maintains that positive economics, as distinct from normative economics, “is in principle independent of any particular ethical position or normative judgments... [It] can be an ‘objective’ science, in precisely the same sense as any of the physical sciences.” He contends that political and ethical values can, and should, be filtered from positive economics.

But this view is flawed. While education researchers should, out of respect for democracy, remain vigilant about covertly embedding their values into inquiry, this strategy backfires. As we have seen, contextual values cannot be bracketed from social science. Education research cannot be insulated from political and ethical considerations. Whatever the educational question under study, education researchers will presume *some* set of “two-edged” concepts – for example, *education*, *educational success*, and *school quality* – that will be loaded with normative components. Failing to disclose that answers to question within the technical domain will be shot through with political values will bias deliberation among policymakers and citizens, silently promoting those views. Instead of revealing the contextual values that inevitably permeate education research, it masks them, shielding them from deliberation and criticism. This strategy backslides into the quest for a pure education science, insulated from moral and political values, with anti-democratic consequences.¹⁶⁷

Demarcation that results from anything other than sustained deliberation among citizens and researchers will be anti-democratic. Otherwise demarcation alienates researchers and citizens from deliberation. By force or fiat, it imposes a paradigm and, consequently, imposes the political and epistemic views embedded there. In such a case, we leap over the normative domain, and democracy with it, and proceed immediately to the technical domain. We would do better not to impose normal science onto education. In this way, we would better conform to the demands of robust democracy.

¹⁶⁷ A number of philosophers of education have made this argument. For example, see: Gert Biesta, “Why ‘What Works’ Won’t Work: Evidence-Based Practice and the Democratic Deficit in Educational Research,” *Educational Theory* 57, no. 1 (2007): 1-22. For a broader overview of the role of values in social research, see: Ernest House and Kenneth R. Howe, *Values in Evaluation and Social Research* (Thousand Oaks, CA: SAGE Publications, 1999).

Is Demarcation Possible in Education Research?

I turn to my second argument: *even if* demarcation in education research did not run afoul of democracy, it will prove an unattainable goal for education research, rooted in a flawed conception of education research and social science generally. Education research resolving into normal science is unimaginable in democratic society, wrong-headed from the start. Education researchers, at least in this country, live in a democratic society, where we come together as citizens and as researchers to deliberate about educational questions. Gert Biesta notes, rightly, that “a democratic society is precisely one in which the purpose of education is not given but is a constant topic for discussion and deliberation.”¹⁶⁸ Beyond the general requirement for education in democratic society to sustain democracy itself, there can be no fixed function of education, but only a succession of educational aims that emerge from deliberation among citizens.

Researchers and citizens may reach temporary agreement about this or that educational question. But there is little reason to suspect that they will reach the sweeping agreement about education and education research needed to achieve normal science. Only in the totalitarian society can we imagine comprehensive agreement among education researchers, let alone citizens generally, about schooling. In democracy, questions about education will (and *should*) remain “alive,” sensitive to the values and aspirations of citizens, rather than settled once and for all. In education research at large, we can have no paradigm and, consequently, no normal science. The phenomena we study, and the methods we use to study them, are shot through with normative components. The “descriptive vocabulary” of education research is always already an

¹⁶⁸ Gert Biesta, “Why ‘What Works’ Won’t Work,” 17-18.

“evaluative vocabulary.”¹⁶⁹ Only in anti-democratic ignorance of the inevitable political and ethical dimensions of education and education research, and only by rendering implicit values beyond examination, could we forge a paradigm.

This is the case in education research. It may well be the case in social science generally. As a strand of social science, education research is marked by *permanent disagreement* that cannot resolve into a paradigm. Education research cannot resolve into normal science. Permanent disagreement is threaded into the constitutive fabric of education research. It cannot be leapt over to achieve normal science, at least not without anti-democratic consequences. Indeed, education research *should be* marked by permanent disagreement in democratic society. Permanent disagreement differs from the *transient disagreement* characteristic of disciplines like physics, which resolves into normal science after physicists come to general agreement about their endeavor. Particles do not have the normative components that inevitably permeate concepts like *schooling*, *achievement*, *educational success*, and *school quality*. They enter into inquiry in very different ways. Any legitimate conception of education research would recognize that permanent disagreement is, indeed, a permanent feature of education research. Waiting for education research function as normal science is futile and distracting.

In any case, education research, like all social science, cannot function on the model of natural science imagined by advocates of positivist or neopositivist demarcation and scientific education research. They need some new conception of science if demarcation is even to get off the ground. Many philosophers have made this

¹⁶⁹ For arguments along these lines, see Richard Rorty, *Consequences of Pragmatism*, 194-195; Kenneth R. Howe, “Positivist Dogmas, Rhetoric, and the Education Science Question.”

argument.¹⁷⁰ Here I briefly sketch John Searle's argument that the quest to model social science on natural science is thoroughly wrong-headed.

On the standard view, a main feature of the natural sciences is that they are "law-like." Natural science proceeds by generating laws, universal generalizations about the behavior of phenomena. To explain some phenomenon is to show how that phenomenon follows from a set of scientific laws. And to predict some phenomenon is to use the relevant laws, and the details about the case at hand, to deduce what will happen to that phenomenon. This works, in part, because the entities studied by the natural sciences are "well-behaved." They behave regularly, such that scientific laws can be generated to explain them and to predict their behavior. And, importantly, this works in part because laws at one level of explanation can be matched neatly with laws at other levels of explanation. A set of laws at one level can be reduced to, or "grounded in," a set of laws at a different level. Searle gives us an example from nutrition science: it is a law that "caloric intake equals caloric output, plus or minus fat deposit."¹⁷¹ Most of us know, Searle says, that if we eat too much and do not exercise enough, we will gain weight. This law can be grounded in more basic laws about the behavior of particles. While the grounding is very complex, and may not yet be fully understood, "other things being equal, when you eat a lot, the molecules will be blowing in exactly the right direction to make you fat."¹⁷²

¹⁷⁰ For example, see: Ian Hacking, "The Looping Effects of Human Kinds," in *Causal Cognition: A Multi-Disciplinary Debate*, eds. Dan Sperber, David Premack, and Ann James Premack (New York: Oxford University Press, 1995).

¹⁷¹ John Searle, *Minds, Brains, and Science* (Cambridge, MA: Harvard University Press, 1984), 76-77

But there is a “radical discontinuity” between natural science and social science. The entities studied in the social sciences are not “well-behaved.” Instead, they are “just the continuous possibility of the activity” named by their concepts.¹⁷³ Social scientists are not guaranteed the regularity enjoyed by natural scientists. And, importantly, the entities studied in social science – revolution, war, marriage, and property, for example – cannot be reduced to, grounded in, more basic laws about the movement of particles. To be sure, like “caloric intake equals caloric output,” revolution and marriage are constituted by particles. Molecules blow in a certain direction during revolutions and during marriages. But the crucial difference is that “for a large number of social and psychological phenomena the concept that names the phenomenon is itself a constituent of the phenomenon.”¹⁷⁴ A particle remains a particle even if no human thinks so. But a marriage is dependent on humans taking it to be a marriage. Searle writes: “In order for society to count as a marriage ceremony or a trade union, or property or money or even a war or revolution people involved have to have certain appropriate thoughts. In general, they have to think that’s what it is.”¹⁷⁵ Social phenomena are marked by “self-referentiality”: *money*, for example, refers to whatever humans think of and use as money. Crucially, social phenomena set no limit whatever on what can count as their physical realization. Money can take many, perhaps infinitely many, different forms. There can be no stable collection of particles that constitutes money in all cases. There cannot be systematic

¹⁷² Ibid., 77.

¹⁷³ John Searle, *The Construction of Social Reality* (New York: The Free Press, 1995), 36

¹⁷⁴ John Searle, *Minds, Brains, and Science*, 78.

¹⁷⁵ Ibid.

connections between social entities and the physical entities that comprise them. And so, unlike in natural science, we cannot build up an edifice of laws that can apply, categorically, to the social phenomena they seek to explain and predict.

As Searle writes: “we need to abandon once and for all the idea that the social sciences are like physics before Newton, and that what we are waiting for is a set of Newtonian laws of mind and society.”¹⁷⁶ So *even if* demarcation were not anti-democratic, and *even if* it could be attained in democratic society, it remains unattainable, at least as proposed by those who chase after an education research on the model of the natural sciences.

Two caveats before I conclude. First, permanent disagreement and the consequent lack of normal science do nothing whatever to reduce the value of education research or social science generally. Education research is non-paradigmatic. It does not function as normal science. It cannot function as normal science given its ineliminable normative components, over which we will and should continue to disagree in democratic society. Education researchers, and citizens in general, will continue to have fundamental disagreements about how we should school understand school and about the legitimate aims of schooling in democratic society. But this does nothing whatever to reduce the value of education research. That we cannot have normal science should not cause us to despair or to be embarrassed of our work, imagining that it is impoverished relative to the natural sciences. Rather, we should *embrace* our non-paradigmatic status, and get to work doing what we can, animated by democracy, to address educational and other problems. Education research is vital in the intelligent conduct of schooling in democratic society –

¹⁷⁶ Ibid., 75.

it can, for example, promote the democratic schooling that we must have if we are to address, together, the social problems that bedevil us. It can cultivate the democratic character and instill in us a deep regard for democratic values.¹⁷⁷ In this way, education research, and the democratic schooling that it can promote, might well be said to be foundational to other disciplines: it creates and sustains the democratic conditions in which all good inquiry must be planted. Properly understood, education research is not inferior to astronomy. Education research is a different endeavor than astronomy, and one that cannot be reduced to the kind of inquiry conducted by astronomers. Education researchers should not sit still, awaiting a “Newton” to deliver normal science.

Drawing on Dewey, Rorty describes the kind of pragmatist social science we might achieve. This pragmatist social science will not concern itself with how far it is modeled on the natural sciences or how far it is “scientific,” as that concept is usually cashed out. It will “not worry about how this style [of social science] is related to the ‘Galilean’ style which ‘quantified behavior science’ has tried to emulate.”¹⁷⁸ It will not be paralyzed in waiting for Newton. Instead, it will call us to expand and deepen our sense of community, and the circle of those who count as members of that community. It will allow us to see more and more “exotic specimens of humanity” as “one of us.”

Rorty describes how many researchers have reacted to the failure to model the social sciences, including education research, on the natural sciences. The lack of

¹⁷⁷ Many education researchers have embraced democratic forms of inquiry, such as participatory action research, that demand active collaboration with communities aimed at addressing issues identified by those communities. See, for example, Ben Kirshner, *Youth Activism in an Era of Education Inequality* (New York: New York University Press, 2015).

¹⁷⁸ Richard Rorty, *Consequences of Pragmatism*, 204.

absolute foundations for education research, especially our inability to neatly insulate education research from political and ethical concerns and construct some “pure” conception of schooling, prompts two reactions. Some researchers have gone the way of Foucault: recognizing that the dream of absolute foundations and a neat fact/value distinction has been thoroughly dashed, they fear that social science will function as a tool of control and technocratic social engineering. They will become “instruments of domination.”¹⁷⁹ We are stranded without “social hope,” adrift in a perpetual struggle between limited perspectives, with only power to declare the winner.

But we need not travel down this road. Rorty, and Dewey, reveal another path. Dewey tells us that we can hope for more in the wake of failure of social science on the model of natural science: humanity can take it as an opportunity “to grow up, to be free to make itself, rather than seeking direction from some imagined outside source.”¹⁸⁰ In community, we can take new responsibility for ourselves, free from “outside sources,” and follow where our shared aspirations lead. Dewey’s path, Rorty tells us, “allows room for unjustifiable hope, and an ungroundable but vital sense of human solidarity.”¹⁸¹ That we cannot demarcate and achieve pure education science need not be a gloomy fact, and it need not cause us to doubt the value of education research. Instead, it can be a source of hope and optimism. We have no guarantee, and many reasons for pessimism, but we are free to move forward together in democratic community, attempting to fashion schooling in the image of our shared values and aspirations.

¹⁷⁹ Ibid.

¹⁸⁰ Ibid.

¹⁸¹ Ibid., 207.

The second caveat: it may well be the case that enclaves within education research reach a state similar to normal science. For example, economists of education might reach general agreement about instrumentation, methods, sanctioned experiments, the education of novice researchers, and the legitimate function of schooling in democratic society. They might well generate and begin solving their jigsaw puzzle. Demarcation in an enclave within education research need not be anti-democratic in principle, provided that it is achieved through deliberation. Such an enclave might become isolated from education research at large, more and more irrelevant to the general endeavor of education researchers. Or it might attempt to seek to “colonize” education research in general, extending its paradigm into education research at large. Indeed, a set of economists has argued that economics should extend its paradigm into more and more disciplines through “economics imperialism.”¹⁸² Such attempts at demarcation are anti-democratic and should be resisted.

Conclusion

Demarcation is not an obvious good to be pursued come what may and indeed it will prove an unattainable goal for education research, on positivist and neopositivist models. When it is attainable for some discipline, it should be pursued only carefully and with an eye toward its implication for science in democratic society. Neoliberalism has provided incentives for demarcation in education research: education researchers have existed happily under neoliberalism when they study scientifically-based activities using

¹⁸² For foundational work on economics imperialism, see: Ronald H. Coase, “Economics and Contiguous Disciplines,” *The Journal of Legal Studies* 7, no. 2 (1978); George J. Stigler, “Economics – The Imperial Science?” *Scandinavian Journal of Economics* 86, no. 3 (1984); Gary S. Becker, “Nobel Lecture: The Economic Way of Looking at Life,” *Journal of Political Economy* 101, no. 3 (1993).

now orthodox scientific methods, and anxiously when they do not. These rewards have caused the education research community, and policymakers and politicians, to jump the gun. Anti-democratic consequences have followed in the wake of their attempted demarcation. Attaining the status *scientific*, as construed by positivism and neopositivism, requires comprehensive agreement about methods, instrumentation, problems worth pursuing, sanctioned textbooks and experiments, broad epistemological and ontological commitments, and, in the case of education research, the proper aims of schooling. Demarcation in education research has skipped over the robust democratic deliberation that should be used in democratic society to reach such broad agreement. Here demarcation runs afoul of the demands of democratic society and, in particular, science in a democratic society. In general, we should be suspicious of demarcation in education research. It must be understood in light of the neoliberal background conditions in which it occurs, and it must be evaluated from the standpoint of robust democracy.

There are, of course, other models of social science and education research than those provided by positivism and neopositivism. Some of these may be legitimately pursued and used to demarcate social science and education research from non-science and pseudo-science – say, astrology or witchcraft – without violating democracy and democratic values. We need not, and should not, cede the concepts *social science* and *demarcation* to positivism and neopositivism, but instead develop better views of social scientific practice, better suited for democratic society. Indeed, the contours of such a view of education research can be derived from democracy itself. Any legitimate conception of education research must be organized according to democratic values and function to sustain democracy. It must promote education for active democratic

citizenship, itself arranged democratically. There can be no legitimate conception of social science or education research that fall outside these boundaries. Democracy will not tolerate any view whatever.

Bibliography

- Apple, Michael W. "Education, Markets, and an Audit Culture." *Critical Quarterly* 42, nos. 1-2 (2005): 11-29.
- Becker, Gary S. "Nobel Lecture: The Economic Way of Looking at Life." *Journal of Political Economy* 101, no. 3 (1993): 389-409.
- Biesta, Gert. "Why 'What Works' Won't Work: Evidence-Based Practice and the Democratic Deficit in Educational Research." *Educational Theory* 57, no. 1 (2007): 1-22.
- Boler, Megan. "Teaching for Hope: The Ethics of Shattering Worldviews." In *Teaching, Learning, Loving: Reclaiming Passion in Educational Practice*, edited Daniel P. Liston and James W. Garrison, 117-136. New York: Routledge, 2004.
- Coase, Ronald H. "Economics and Contiguous Disciplines." *The Journal of Legal Studies* 7, no. 2 (1978): 201-211.
- Cohan, Peter. "To Boost College Prospects, Cut Humanities Programs." *Forbes* (Jersey City, NJ), May 29, 2012. <http://www.forbes.com/sites/petercohan/2012/05/29/to-boost-post-college-prospects-cut-humanities-departments/>.
- Curd, Martin, J.A. Cover, and Christopher Pincock. *Philosophy of Science: The Central Issues*. New York: W.W. Norton & Company, 2013.
- Davies, William. "Neoliberalism: A Bibliographic Review." *Theory, Culture, & Society* 31, no. 7/8 (2014): 309-317.
- Edmundson, Mark. *Why Read?* New York: Bloomsbury, 2005.
- Erickson, Fred, and Kris Gutierrez. "Culture, Rigor, and Science in Educational Research." *Educational Researcher* 31, no. 8 (2002): 21-24.
- Feuer, Michael J., Lisa Towne, and Richard J. Shavelson. "Scientific Culture and Educational Research." *Educational Researcher* 31, no. 8 (2002): 4-14.
- Friedman, Milton. *Capitalism and Freedom*. Chicago: University of Chicago Press, 1962.
- . *Essays in Positive Economics*. Chicago: University of Chicago Press, 1953.
- Hacking, Ian. "The Looping Effects of Human Kinds." In *Causal Cognition: A Multi-Disciplinary Debate*, edited by Dan Sperber, David Premack, and Ann James Premack, 351-382. New York: Oxford University Press, 1995.

- Hayek, Friedrich. *The Road to Serfdom: Texts and Documents – The Definitive Edition*. Chicago: University of Chicago Press, 2007.
- House, Ernest, and Kenneth R. Howe. *Values in Evaluation and Social Research*. Thousand Oaks, CA: SAGE Publications, 1999.
- Howe, Kenneth R. “Positivist Dogmas, Rhetoric, and the Education Science Question.” *Educational Researcher* 38, no. 6 (2009): 428-440.
- Kirshner, Ben. *Youth Activism in an Era of Education Inequality*. New York: New York University Press, 2015.
- Kitcher, Phillip. *Science in a Democratic Society*. New York: Prometheus Books, 2011.
- . *Science, Truth, and Democracy*. Oxford, UK: Oxford University Press, 2003.
- Kuhn, Thomas. “Logic of Discovery or Psychology of Research?” In *Criticism and the Growth of Knowledge*, edited by Imre Lakatos and Alan Musgrave, 1-24. London: Cambridge University Press, 1970.
- . *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press, 1962.
- Labaree, David. “Consuming the Public School.” *Educational Theory* 61, no. 4 (2011): 381-394.
- . *Someone Has to Fail: The Zero-Sum Game of Public Schooling*. Cambridge: Harvard University Press, 2010.
- Leys, Colin. *Market-Driven Politics: Neoliberal Democracy and the Public Interest*. New York: Verso, 2003.
- Mitchell, Michael, Vincent Palacios, and Michael Leachman. *States are Still Funding Higher Education Below Pre-Recession Levels*. Washington, D.C.: Center on Budget and Policy Priorities, 2014.
- National Research Council. *Advancing Scientific Research in Education*. Washington, D.C.: National Academy Press, 2004.
- . *Scientific Research in Education*. Washington, D.C.: National Academy Press, 2002.
- National Science and Technology Council. *Federal Science, Technology, Engineering, and Mathematics (STEM) Education 5-Year Strategic Plan*. Washington, D.C.: National Science and Technology Council, 2013.
- The National Science Board. *Diminishing Funding and Rising Expectations: Trends and*

- Challenges for Public Research Universities*. Arlington, VA: National Science Board, 2012.
- Popper, Karl. *Conjectures and Refutations: The Growth of Scientific Knowledge*. New York: Routledge & Kegan Paul, 1963. Reprint, New York: Routledge, 2004.
- Rorty, Richard. *Consequences of Pragmatism*. Minneapolis: University of Minnesota Press, 1982.
- Searle, John. *The Construction of Social Reality*. New York: The Free Press, 1995.
- . *Minds, Brains, and Science*. Cambridge, MA: Harvard University Press, 1984.
- Slavin, Robert. "Evidence-Based Education Policies: Transforming Educational Practice and Research." *Educational Researcher* 31, no. 7 (2002): 14-21.
- St. Pierre, Elizabeth. "'Science' Rejects Postmodernism." *Educational Research* 31, no. 8: 25-27.
- Stedman Jones, Daniel. *Masters of the Universe: Hayek, Friedman, and the Birth of Neoliberal Politics*. Princeton, NJ: Princeton University Press, 2012.
- Stigler, George J. "Economics – The Imperial Science?" *Scandinavian Journal of Economics* 86, no. 3 (1984): 301-313.
- Strauss, Valerie. "What Scott Walker is about to do to Wisconsin's Public Schools." *Washington Post* (Washington D.C.), July 8, 2015.
<http://www.washingtonpost.com/blogs/answer-sheet/wp/2015/07/08/what-gov-scott-walker-is-about-to-do-to-wisconsins-public-schools/>.
- Von Mises, Ludwig. *Bureaucracy*. New Haven, CT: Yale University Press, 1944.

CHAPTER 4. NEGLECTING DEMOCRACY IN EDUCATION RESEARCH AND POLICY: SCHOOL REPORT CARD ACCOUNTABILITY SYSTEMS

How can you sum up a school in one grade? You can't. In our current system, we have lots of pieces of data that come out throughout the course of the year, including NECAP test scores, science test scores, SAT scores, federal AYP status, AP participation, graduation rates and more. Each of these tells a different, sometimes inconsistent, story. And for each one, unfortunately, there are those who judge a school entirely on that one piece of data. A school receiving a low grade may be doing many things right – successful sports teams, unique clubs, high performing individual students.

Maine Department of Education¹⁸³

In this paper, we examine school report card accountability systems that assign A-F letter grades to schools, which many states have adopted. We will contend that school report cards are an instance where democracy and democratic values have been neglected in education research and policy. The premise of school report cards is simple: they make information about school quality available to students, parents, schools, and communities in simple and direct terms, pressuring schools to improve their academic performance. We begin by describing school report card accountability systems and delineating the rationales advanced for them. We proceed to examine school report cards with respect to three kinds of validity. The first is whether they are *valid as a measure*. That is, do these systems validly measure school quality? The second is whether they are *valid as a policy*

¹⁸³ “Questions and Answers,” *Maine Department of Education*, accessed February 15, 2017, <https://maine.gov/doe/schoolreportcards/resources/faq.html>. Maine has nonetheless implemented the “Maine School Performance Grading System,” a single letter grade A-F system.

instrument. That is, how far do report cards fulfill the stated aims – namely, providing clear and commonsense measures of school quality that empower parents and drive school improvement – of their proponents? The third is whether they are *valid as a democratic assessment framework*. That is, how well do report cards align with the broader goals of educating students for democratic citizenship and incorporating parent and community members in democratic deliberation about policies for their public schools?

To forecast the argument, we will contend that there is good reason to think that many such report card systems are technically flawed: they fail to validly measure and represent school quality, and they typically fail to drive the school improvement they promise. There is also good reason to think that they are *democratically* flawed: they typically fail to measure, and reward or punish, how well schools promote good democratic citizenship. They are, in effect, blind to the democratic educational outcomes required of schooling in democratic society. And they most often smuggle in, and present as given, conceptions of schooling and school quality that should be subject to deliberation among citizens. In particular, we find that they often covertly promote a neoliberal view of schooling, which holds, roughly, that schooling should be economically-oriented and prepare students to properly interface with markets. (We say more about neoliberalism later.) In the case of school report cards, education researchers and policymakers appear to labor under the illusion that “pure” conceptions of schooling and school quality, insulated from the moral and political values of researchers, policymakers, and citizens, can be discovered and used to drive educational improvement. But they are mistaken, to the detriment of democratic education and

education policy: beyond the general requirement of education in democratic society to sustain democracy itself, there can be no fixed or pure view of schooling and school quality, but rather only a succession of educational aims that emerge from deliberation among citizens, shot through with the values and aspirations of those citizens. It would be better, we contend, to recognize that democracy is foundational – not corollary or supererogatory – to education research and policy and, for that reason, to abandon, or at the very least substantially remediate, school report cards systems.

School Report Cards

Sixteen states have adopted accountability systems that assign A-F grades to schools.¹⁸⁴ Another state, Michigan, is considering implementing an A-F system for the 2017-2018 school year. Especially given the passage of the Every Student Succeeds Act (ESSA), other states are now engaged in deliberation, often contentious, about whether they too should adopt such systems, and how they should be conceived and implemented. Measures used to determine A-F grades for schools vary by state but often include graduation rates, ACT/SAT participation and scores, standardized student achievement test scores, growth in academic test scores, and attendance rates.

A-F grades have associated rewards and punishments, which vary by state. In Florida, for example, the Opportunity Scholarship Program allows students who have attended schools earning either one “F” or three consecutive years of “D” grades to exit and enroll in higher-performing public schools within their district or any other district in the state, provided space is available.¹⁸⁵ The A-F accountability system in Indiana

¹⁸⁴ For detailed information about state accountability systems, see Table 1 below.

requires the State Board of Education to intervene with a menu of options in schools that have received an “F” grades. Options include merging the school with a nearby higher-performing school, assigning a “special management team” to operate all or some part of the school, closing the school, and revising the school’s improvement plan, among others.¹⁸⁶ Such state sanctions are examples of *direct* or *bureaucratic accountability* – systems where state officials determine rewards and punishments.

Typically, however, A-F school grading systems also incorporate *market accountability* – systems that allow parents and students to make choices about leaving one particular school for another, taking funding with them. Vehicles for market accountability are often choice and voucher programs. For example, the Indiana Choice Scholarship Program provides eligible students with state funding for partial or full tuition costs at participating choice schools, including religiously affiliated schools.¹⁸⁷ Such programs make schools *indirectly* accountable; when information about their performance is disseminated in A-F grades, families decide whether or not students will

¹⁸⁵ For additional information about the Florida Opportunity Scholarship Program (OSP), see: “Opportunity Scholarship Program,” *Florida Department of Education*, accessed February 7, 2017, <http://www.fldoe.org/schools/school-choice/k-12-scholarship-programs/osp/>. The OSP as initially implemented allowed students to enroll in participating private schools. The Florida Supreme Court declared the OSP private school option unconstitutional in 2006. See: Sam Dillon, “Florida Supreme Court Blocks School Vouchers,” *New York Times* (New York), January 6, 2006, <http://www.nytimes.com/2006/01/06/us/florida-supreme-court-blocks-school-vouchers.html>.

¹⁸⁶ For detailed information about Indiana School accountability, see: Indiana Code IC § 20-31-9, <https://iga.in.gov/legislative/laws/2016/ic/titles/020/>. IC § 20-31-9-4 details state intervention into schools that have received “F” grades.

¹⁸⁷ For a list of Indiana participating choice schools, see: “Participating Choice Schools 2016-2017,” *Indiana Department of Education*, last modified November 17, 2016, <http://www.doe.in.gov/choice/participating-schools-2016-17>.

remain in a school. Proponents of choice systems maintain that allowing parents to remove their children from schools receiving low grades will ultimately ensure that only high-performing schools survive.

A-F school grading systems have considerable intuitive appeal to policymakers and parents as a good way to convey the quality of schools, to foster parental participation, and to spur school improvement. There is reason to become skeptical of the validity of A-F school grading systems, however, when one considers rationales and features more carefully, as we do in this paper. Below we look closely at rationales states have offered for implementing state A-F report cards systems.

Rationales for School Report Cards

Implemented over the last seventeen years or so, the A-F grading systems are a somewhat recent variation within the accountability movement in public education.¹⁸⁸ Florida was the first to adopt an A-F system. Jeb Bush, then governor of Florida, worked with the state legislature to craft and implement his “A+ Education Plan” in 1999, which put school A-F grades at the center. Students who attended schools that received an “F” two out of four years were eligible to attend either a higher-performing public school or to receive a voucher that could be used to attend a participating private school.¹⁸⁹ While Florida policymakers have substantially revised the original A+ Plan, A-F grades remain central to Florida’s accountability system. Fifteen states have now followed Florida in constructing accountability measures around A-F school grades. An important impetus

¹⁸⁸ David E. Meens and Kenneth R. Howe, “NCLB and Its Wake: Bad News for Democracy,” *Teachers College Record* 117, no. 6 (2015): 1-44.

¹⁸⁹ See: David Figlio and Maurice Lucas, “What’s in a Grade? School Report Cards and the Housing Market,” *The American Economic Review*, 94, no. 3 (2004): 591-604.

for states that implemented them was the No Child Left Behind (NCLB) waiver process. Generally speaking, states that incorporate into their policies accountability mechanisms such as A-F school grades and expanded choice were more likely to be successful in receiving approval to waive the original, rigid accountability requirements of the federal NCLB policy. More recently, the passage of ESSA has prompted more states to consider implementing school report cards.

Rationales given for A-F systems are strikingly similar across states, as if they reverberate in an echo chamber. Florida is frequently cited as an obvious success of A-F systems, and other states frequently cite similar—or indeed, identical—rationales when they choose the A-F path. For example, Jeb Bush’s Foundation for Florida’s Future argues: “Assigning a letter grade (A-F) is a way to report a school’s effectiveness in a manner everyone can understand. Used along with rewards for improving schools and support for schools that need to improve, grading schools encourages them to make student achievement their primary focus.”¹⁹⁰

Similarly, the Arizona Department of Education writes that “the A -F Letter Grade System was created to provide clear, easy to understand information to parents so that they could base their educational decisions on the best information available about the overall academic performance of schools and districts/charter holders.”¹⁹¹ And in Utah, A-F proponents contend that: “With this important accountability system in place,

¹⁹⁰ “School Grades Q and A,” *Foundation for Florida’s Future*, accessed February 7, 2017, http://www.afloridapromise.org/Pages/Florida_Formula/Facts_on_the_FCAT_and_Floridas_Path_to_Success/School_Grades_Q_and_A.aspx.

¹⁹¹ “The A-F Letter Grade System,” *Arizona Department of Education*, last modified July 30, 2013, <http://www.azed.gov/research-evaluation/files/2013/08/2013-a-f-letter-grades-guide-for-parents.pdf>.

Utah is empowering everyone—whether school administrators, parents, classroom teachers or citizens—to make informed choices and to identify ways to strengthen and improve all of our schools for the benefit of every student in Utah.”¹⁹² School report cards, proponents suggest, “give schools a tool to encourage more parental and community involvement.”¹⁹³ Such involvement is assumed to be important because “schools with higher levels of parent and community involvement have a better chance of succeeding.”¹⁹⁴

Making an explicit link to the Florida system, Utah’s school grading website prominently features a quote from Jeb Bush—“what gets measured gets done”—and provides other rationales that reference Florida.¹⁹⁵ The Indiana Department of Education suggests that “giving schools letter grades for their performance—just as we do for our students— ensures parents, students, educators and communities understand how their schools are performing.”¹⁹⁶ They write further that “Indiana’s A through F grading system gives parents, students, educators and communities a clear and concise assessment of how well their schools are doing.” The West Virginia Department of Education echoes Indiana with: “giving schools letter grades for their performance—just as we do for our students – ensures parents, students, educators and communities

¹⁹² “Utah School Grading,” *Utah State Senate*, <http://utahschoolgrading.com/faq/>.

¹⁹³ *Ibid.*

¹⁹⁴ *Ibid.*

¹⁹⁵ *Ibid.*

¹⁹⁶ “A-F School Accountability FAQ,” *Indiana Department of Education*, accessed February 7, 2017, <http://www.svcs.k12.in.us/Downloads/revised-f-faq-101712.pdf>.

understand how their schools are performing.”¹⁹⁷ And further: “West Virginia’s A-F school grading system gives parents, students, educators and communities clear and concise information on how well their schools are doing.”

Private organizations such as Michelle Rhee’s Students First, Jeb Bush’s Foundation for Excellence in Education, and the American Legislative Exchange Council (ALEC) have added significant voices to the echo chamber, advocating for the creation of more such A-F accountability systems. Students First had, until it merged with 50CAN, assigned A-F grades and GPA scores to states based on the extent to which they “empower parents,” “elevate the teaching profession,” and “spend wisely and govern well,” which the organization took to require, among other policies, assigning A-F grades to all K-12 schools.¹⁹⁸ Students First writes: “Students First believes an A-F letter-grading system that grades each K-12 school based on how well they serve their students is a powerful tool for informing parent decision-making.”¹⁹⁹ ALEC has also endorsed A-F letter grades. Describing the adoption of letter grades in North Carolina, ALEC contends that A-F grades are “a crucial step toward increasing transparency in the system”; such grades, one ALEC report argues, describe school performance “on a universally understood scale.”²⁰⁰

¹⁹⁷ “West Virginia’s A through F School Grading System: FAQs,” *West Virginia Department of Education*, accessed February 7, 2017, <https://wvde.state.wv.us/federal-programs/resources/documents/9-A-FFAQ.pdf>.

¹⁹⁸ For Students First A-F grades and GPA scores, see: Students First, *State of Education: State Policy Report Card 2013* (Washington, D.C.: Students First, 2013).

¹⁹⁹ Students First, *Empowering Parents with Data: School Report Cards* (Washington, D.C.: Students First).

²⁰⁰ Matthew Ladner and David J. Myslinksi, *Report Card on American Education*

It appears, then, that the chorus in favor of A-F systems seems to be singing the same refrain: A-F systems are said to be clear, concise systems that let everyone know how schools are doing and encourage parents to be involved in school choices and systems. Embedded in these claims, however, are several assumptions that need to be closely examined. These include the assumption that these systems accurately and adequately measure what they purport to measure (school quality) and that they actually advance goals they purport to advance (parental empowerment, democratic engagement and citizenship, and so on). They also include the assumption that fostering the democratic aims of education need not be among the considerations that go into designing accountability systems and assessing their validity. The following segments provide a close examination of these assumptions, finding them questionable at best.

The Validity of School Report Cards as a Measure of School Quality

Do state A-F school grades serve as valid indicators of school quality? Space limitations do not permit a description of each of the sixteen state systems. To be sure, there are differences among state plans (see Table 1 below for detail on individual state systems).

Despite their proliferation and variation, there has been relatively little credible research on how far these state systems validly measure school quality. What is known comes primarily from a set of papers produced by university researchers at The Oklahoma Center for Education Policy and The Center for Education Research and Evaluation. These reports raise substantial doubts about the validity of the Oklahoma A-F system as a measure. To our knowledge, these papers provide the best and most rigorous

(Arlington, VA: American Legislative Exchange Council, 2014), 2.

examinations of the validity of A-F school grading systems as a measure of school quality to date, and so we rely heavily on them in this analysis.

We found that all state A-F school grading systems share four pivotal features with Oklahoma's: (1) school quality is summarized in a single composite letter grade²⁰¹ on (2) a five-point categorical scale (3) using proficiency levels to measure academic achievement. And (4): A-F school report cards are composite scores of unmediated outcomes. This fourth feature implicitly assumes that the school itself is primarily, if not exclusively, responsible for student performance. Because the four features are, indeed, shared across all state A-F systems, the findings from Oklahoma provide a source of criticisms that generalize relatively straightforwardly across other state systems.

Questions about and criticisms of each component follow.

1. A single composite grade

A single composite score as an index of school qualities is a dubious proposition. It is by no means clear what a single grade can mean across such a diverse array of criteria – achievement, attendance rates, dropout rates, advanced class offerings, and so on (see Table 1 for an illustration of the range of possible criteria). Little, if any, attention is paid to how to justify combining the diverse components of each grade to render a value on the A-F scale. For example, in addition to whether or not to include attendance as a criterion, policymakers have to decide how heavily to weight it if they do: 10%?

²⁰¹ The Ohio accountability system does not yet assign single composite letter grades to express such school quality. Single letter grades are now being considered. Now, the Ohio A-F system assigns a variety of letter grades to schools for different outcomes: achievement, progress, gap closing, graduation rate, and so on. See: "Understanding Ohio's School Report Card," *Ohio Department of Education*, accessed February 8, 2017, <http://education.ohio.gov/getattachment/Topics/Data/Report-Card-Resources/Sections/General-Report-Card-Information/A-F-Report-Card.pdf.aspx>.

20%? Should improvement in achievement levels be calculated, or should only raw achievement scores be included? The selection and weighting of criteria seem to have no basis other than the seat-of-the pants intuitions of policymakers woefully lacking in technical knowledge and skills.

2. Five-point scale

A-F grades exemplify a crude categorical scale. This produces considerable imprecision. Schools with the same grade are represented as equivalent when they can differ substantially. Within the five categories differences are rendered invisible, and there is no way of knowing if the difference between an “F” and a “D” is of the same magnitude as the difference between a “D” and an “C,” or if the difference between a “C” and “B” is of the same magnitude as the difference between a “B” and an “A.” But the problem goes deeper than simply imprecise scaling. Successfully remedying the problem of the imprecision of the A-F scale assumes that the grades are potentially intelligible, if imprecise, indicators of school quality, which is by no means evident. The numerical intervals of computed composite scores that are translated into the various grades, like the weighing of the various criteria that go into the computations, have no firmer basis than unprofessional intuition. The fundamental problem here, that a more precise scale cannot remedy, is the assumption, discussed in (1), that a single composite score for school quality is meaningful.

3. Proficiency level as measures of academic achievement

The Oklahoma findings reveal serious problems of imprecision and lack of interpretability associated with the use of proficiency levels to represent the academic achievement component of school grades. Thirty-three percent of Oklahoma school

grades are based on student achievement values. However, the numerical test scores are grouped into only four proficiency levels: unsatisfactory, limited knowledge, proficient, and advanced. It is these calculated proficiency levels that are used in the grading formula—and also in calculations of academic growth, weighted at 34% in the grading formula. The procedure of converting original test score data to proficiency levels and using the new proficiency data to produce values for achievement and growth introduces unnecessary imprecision because it “amounts to throwing away information about examinee test performance”²⁰² and thereby masks otherwise detectable differences in student academic performance within proficiency levels.²⁰³

Such conflating of data muddies its interpretation. Empirical analysis of Oklahoma school grades revealed, for example, that there were practically no differences in average science and reading scores among “A,” “B,” and “C” schools. Students in “C” schools had higher average science scores than students in “B” schools. And students in “F” schools appeared to have had higher average reading and math achievement than students in “D” schools. Further, certain schools with lower letter grades performed better in mathematics than schools with higher letter grades.²⁰⁴ Here it may be asked: “If a letter

²⁰² The Oklahoma Center for Education Policy and the Center for Educational Research and Evaluation, *An Examination of the Oklahoma State Department of Education’s Report Card* (Normal and Stillwater, OK: OCEP and CERE, 2013), 12.

²⁰³ Andrew Dean Ho, “The Problem with ‘Proficiency’: Limitations of Statistics and Policy under No Child Left Behind,” *Educational Researcher* 37, no. 6 (2008): 351-360.

²⁰⁴ The Oklahoma Center for Education Policy and the Center for Educational Research and Evaluation, *Oklahoma School Grades: Hiding “Poor” Achievement* (Normal and Stillwater, OK: OCEP and CERE, 2013), 12-14.

grade, which is based primarily on standardized test scores,²⁰⁵ does not necessarily tell us anything about school differences in reading, math, and science outcomes, what does it tell us?”²⁰⁶ The answer here seems to be that it tells us very little or nothing. To be meaningful, the letter grade would need to represent a school’s performance pattern, but it turns out that within-school variation across subject areas, across grades, and across the academic year fluctuates a great deal. Thus, it is never clear what an “A” is or what an “F” indicates.²⁰⁷

4. A-F school report cards as composite scores of unmediated outcomes

The findings of the celebrated Coleman Report,²⁰⁸ produced 50 years ago, have proved to be impressively robust: schools account for a remarkably small amount of the variance in student achievement scores (perceived as remarkably small in the mid-1960s).²⁰⁹ Credible empirical research continues to show that school effects typically

²⁰⁵ At the time of the report, 33% of the Oklahoma grade was based on status achievement scores and another 34% is based on student growth as a function achievement scores. In all states for which we were able to determine the weightings, achievement scores are heavily weighed, typically accounting for a least 50% and often more. See Table 1 below for more detail.

²⁰⁶ The Oklahoma Center for Education Policy and the Center for Educational Research and Evaluation, *Oklahoma School Grades: Hiding “Poor” Achievement*, 13.

²⁰⁷ *Ibid.*, 5.

²⁰⁸ James S. Coleman, Ernest Q. Campbell, Carol J. Hobson, James McPartland, Alexander M. Wood, Frederic D. Weinfeld, Robert L. York, *Equality of Educational Opportunity* (Washington, D.C.: U.S. Department of Health, Education & Welfare, 1966).

²⁰⁹ Geoffrey Borman and Maritza Dowling, “Schools and Inequality: A Multilevel Analysis of Coleman’s Equality of Educational Opportunity Data,” *Teachers College Record* 112, no. 5 (2010): 1201-1246.

account for less than 30% of student academic performance.²¹⁰ Using only student academic performance and other isolated outcome measures to assign A-F school grades is, then, confusing—or even deceptive—because it ignores and obscures many important factors that contribute to school performance. Letter grades ignore, for example, the well-documented correlation between socioeconomic status and attendance and graduation rates,²¹¹ and they attribute academic proficiency changes directly to schools that students attended only most recently.²¹² The “primary assumption of the A-F accountability system, that student test scores can be dissected and manipulated into valid indicators of school performance, is simply false.”²¹³

Two more recent papers examining the Oklahoma A-F system, produced by the same Oklahoma researchers, corroborate these concerns about the validity of school report cards as a measure of school quality. The papers document a number of flaws in the Oklahoma letter grades. The researchers find, for example, that the Oklahoma letter

²¹⁰ The majority of available evidence reveals that approximately sixty percent of achievement outcomes is explained by factors outside of classroom and schools. For example, see: Brian Rowan, Richard Correnti, and Robert J. Miller, “What Large-Scale, Survey Research Tells us about Teacher Effects on Student Achievement: Insights from the *Prospects* Study of Elementary Schools,” *Teachers College Record* 104, no. 8 (2002): 1525-1567; Barbara Nye, Spyros Konstantopoulos, and Larry V. Hedges, “How Large are Teacher Effects?,” *Educational Evaluation and Policy Analysis* 26, no. 3 (2004): 237-257; Jonah E. Rockoff, “The Impact of Individual Teachers on Student Achievement: Evidence from Panel Data,” *The American Economic Review* 94, no. 2 (2004): 247-252.

²¹¹ The Oklahoma Center for Education Policy and the Center for Educational Research and Evaluation, *An Examination of the Oklahoma State Department of Education’s Report Card*, 5.

²¹² *Ibid.*, 15.

²¹³ The Oklahoma Center for Education Policy and the Center for Educational Research and Evaluation, *Oklahoma School Grades: Hiding “Poor” Achievement*, 8.

grades tend to hide, rather than reveal, achievement gaps. They write: “minority and FRL students in the lower ranking schools outperformed their minority and FRL peers in higher ranked schools... Further, FRL students in the lowest performing schools actually had higher average achievement than their FRL peers in the highest ranked schools.”²¹⁴ More generally, they doubt the “informational significance” of A-F letter grades – their ability to validly measure and express school quality. They write:

After removing achievement variance attributed to factors unrelated to teaching or school effectiveness, letter grades were unable to differentiate schools by average student achievement... Informational significance is lost on grades that hide achievement variance within and between schools, making any diagnostic and improvement use of A-F grades ineffectual.²¹⁵

In sum, they find that “school grades do not accurately represent achievement patterns within schools, nor are they suitable for distinguishing between higher performing and lower performing schools.”²¹⁶

Despite such weaknesses, A-F school report cards are one among many school accountability systems spawned by No Child Left Behind’s mania for assessment. State after state claims that school grades are intuitive and easy for parents and the public to understand, since they are analogous with subject matter grades, with which virtually everyone is familiar. School grades are thus touted as providing valuable information to

²¹⁴ Curt M. Adams, Patrick B. Forsyth, Jordan Ware, Mwarumba Mwavita, Laura L. Barnes, and Jam Khojasteh, “An Empirical Test of Oklahoma’s A-F School Grades,” *Education Policy Analysis Archives* 24, no. 4 (2016): 15.

²¹⁵ Curt M. Adams, Patrick B. Forsyth, Jordan Ware, and Mwarumba Mwavita, “The Informational Significance of A-F School Accountability Grades,” *Teachers College Record* 118, no. 7 (2016): 23.

²¹⁶ Curt M. Adams, Patrick B. Forsyth, Jordan Ware, Mwarumba Mwavita, Laura L. Barnes, and Jam Khojasteh, “An Empirical Test of Oklahoma’s A-F School Grades,” 19.

parents in their decision-making about schools, facilitating increased and more effective participation on their part, and ultimately fostering school improvement.

These are largely claims about the validity of A-F school grading as a policy instrument, the topic of the next section. However, we make the preliminary observation here that it is unlikely that such grading systems can accomplish purported policy objectives if they fail on the prerequisite of validity—if they do not in fact accurately measure school quality. And they do in fact fail: as we show above, they do not and cannot provide an accurate assessment of school quality. Although there is some evidence that parents do, indeed, find school report cards useful in evaluating schools, especially when presented with appealing graphics,²¹⁷ this is a case in which the perceived “face validity” of school report cards—the intuitive perception of validity—surely goes awry. “If [an A-F grading system] seems easy to understand, it is only because the use of a single indicator to represent something complex is familiar. We are used to letter grades. A truly comprehensive evaluation system is best not boiled down to a single value because it masks the very complexity it is trying to capture.”²¹⁸ The formulas by which school report cards are computed are often not readily available, and are inscrutably byzantine in any case. It would require a very atypical parent, indeed, to understand what the grades mean, particularly when it is by no means clear that they have any coherent meaning at all.

²¹⁷ Marga Mikulecky and Kathy Christie, *Rating States, Grading Schools: What Parents and Experts Say States Should Consider to Make School Accountability Systems Meaningful* (Denver: Education Commission of the States, 2014), 9-13.

²¹⁸ The Oklahoma Center for Education Policy and the Center for Educational Research and Evaluation, *An Examination of the Oklahoma State Department of Education’s Report Card*, 18.

One final observation about the validity of A-F school grades as a measure of school quality: to our knowledge, no state A-F system includes among its criteria democratic citizenship, the ability to engage in democratic dialogue with diverse others, and other public and civic educational outcomes.²¹⁹ How far can a letter grade that makes no mention of democratic citizenship validly measure school quality in a democratic society?

In sum, there are very strong reasons to reject the validity of A-F school grading systems, as currently conceived and implemented, as a measure of school quality. But the problems that beset A-F school grading systems apply not just to current systems. There are no technical fixes: the single summary evaluation on a crude five-point scale is irremediably flawed.

The Validity of School Report Cards as a Policy Instrument

The question of *validity as a policy instrument* of A-F grading systems is the question of how far such systems succeed in fulfilling proponents' stated aims. Above, we detailed evidence of an "echo chamber," where rationales for A-F school grading systems were similar, or indeed identical, across the states.

We identified three rationales commonly articulated by proponents: (1) A-F school grades provide "simple" and "common sense" information to parents and communities about the education of their children.²²⁰ (2) By providing such information, A-F school grades encourage and empower citizens, parents, teachers, and administrators

²¹⁹ For detailed information about state accountability systems, see Table 1 below.

²²⁰ *Empowering Parents with Data: School Report Cards* (Washington, D.C.: Students First).

to participate in and take rational control of decisions about schooling.²²¹ (3) A-F school grading systems work to improve schools to everyone's benefit—as enabled and fostered by the realization of rationales (1) and (2).²²² We argue that there are good reasons to doubt each of these rationales.

Rationale 1—letter grades provide parents and communities with clear information about school performance—is thoroughly undermined by the analysis of the previous section. However simple and common sense school report cards may appear to the untrained eye, a modicum of technical analysis reveals them to be patently invalid representations of school quality. As previously observed, it follows that because school report cards are invalid as a representation of school quality, so must be policy instruments based upon them. The invalidity of school report cards as a representation of school quality leaves rationale one adrift, anchored in nothing.

Like Rationale 1, Rationale 2—A-F school grades encourage and empower citizens, parents, teachers, and administrators to participate in and take rational control over decisions about schooling—finds its warrant in no more than common sense, apparently, for supporters cite no empirical research in its defense. And, we found little empirical research that speaks directly to the issue. We did find, however, a small set of recent studies on the general relationship between state accountability systems and parents' and citizens' attitudes toward government, their political participation, and their

²²¹ “The A-F Letter Grade System,” *Arizona Department of Education*, last modified July 30, 2013, <http://www.azed.gov/research-evaluation/files/2013/08/2013-a-f-letter-grades-guide-for-parents.pdf>.

²²² “West Virginia’s A through F School Grading System: FAQs,” *West Virginia Department of Education*, accessed February 7, 2017, <https://wvde.state.wv.us/federal-programs/resources/documents/9-A-FFAQ.pdf>.

involvement in the education of their children. When the findings of these studies are extrapolated to school report card systems, they undermine the claim that A-F grading empowers stakeholders.

Specifically, one study found that “parents residing in states with more developed assessment systems express significantly lower trust in government, substantially decreased confidence in government efficacy, and much more negative attitudes about their children’s schools.”²²³ Accountability policies “demobilize parents by excluding them from key educational decisions and enmeshing their children’s schools in a punitive testing context that elicits parental anxiety and dissatisfaction.”²²⁴ Significantly, parents in these states were less likely to participate substantively in the education of their children. When parents are alienated from democratic deliberation about public schooling, as they are in an A-F environment, they come to hold negative attitudes about schools in particular and government generally; in this way, they are actually separated from substantial democratic involvement with schools. Thus, rather than enhancing parental participation, more highly developed accountability systems, such as those exemplified by A-F school grading systems, actually suppressed it.²²⁵

²²³ Jesse H. Rhodes, “Learning Citizenship? How State Education Reforms Affect Parents’ Political Attitudes and Behavior,” *Political Behavior* 37 (2015): 3.

²²⁴ Ibid.

²²⁵ A-F school grading systems meet many of Rhodes’ criteria for determining which accountability systems count as “highly developed” and thereby suppress parental participation. These highly developed accountability systems include: (1) school ratings to measure school performance, (2) a statewide student identification system, allowing the state to link student test scores with schools or teachers, (3) rewards for high-performing or improving schools, (4) assistance to low-performing schools, and (5) sanctions for lower-performing schools. Hence Rhodes’ arguments apply broadly to A-F systems.

Another recent study found very little evidence that the school performance information made available through school report cards in Ohio has been used by voters as they make decisions about school board members or by school board members as they make decisions about staffing. Indeed, the study finds “no evidence that voters act on these state or federal performance designations nor that school boards respond to them when making staffing decisions.”²²⁶ More generally, the study “indicates that despite the wide dissemination of simple and clear performance information, there is little evidence that electoral pressure served as a mechanism that motivated school board members to improve the quality of public education in Ohio.”²²⁷ The study undermines the foundation of Rationale 2: if no evidence can be found that citizens and elected officials use school performance information made available by school report cards, report cards cannot be said to empower citizens and elected officials to participate in and take rational control over decisions about schooling.

Rationale 3—A-F school grading systems work to improve schools to everyone’s benefit (as enabled and fostered by the realization of rationales 1 and 2)—fails along with the others because of the cumulative relationship it bears to them. There are still further problems with this claim. As observed previously, the factors incorporated into A-F school report cards are confined to student academic performance and other outcome measures in isolation from the social, cultural, and economic context and from the policies, practices, and level of resources of schools. This is the source of two significant

²²⁶ Vladimir Kogan, Stéphane Lavertu, and Zachary Peskowitz, “Do School Report Cards Produce Accountability through the Ballot Box?,” *Journal of Policy Analysis and Management* 35, no. 3 (2016): 658.

²²⁷ *Ibid.*, 659.

problems.

First, confining evaluation criteria to student academic performance and other outcome measures in isolation from the social, cultural, and economic context and from policies, practices, and resources of schools is unfair to teachers, administrators, students and others: it holds them fully accountable for outcomes which they have limited power to produce. Two of the cardinal requirements for fairly implementing high-stakes testing are: 1) that all students are taught in conditions that provide a fair opportunity to learn test material, and 2) that the validity of reporting categories (proficiency levels, for example, or A-F grades) be established.²²⁸ Neither of these requirements is met by school report card systems.

The issue of fairness to those being held accountable is particularly germane to bureaucratic accountability, where rewards and sanctions follow directly from the report card evaluations and are assumed to be drivers of improvement. The so-called *theory of action* underlying bureaucratic accountability may be questioned.²²⁹ Citing a recent white paper authored by an impressive group of educational testing policy scholars²³⁰, the

²²⁸ See: “Position Statement on High-Stakes Testing,” *American Educational Research Association*, accessed February 10, 2017, <http://www.aera.net/About-AERA/AERA-Rules-Policies/Association-Policies/Position-Statement-on-High-Stakes-Testing>.

²²⁹ See: National Research Council, *Incentives and Test-Based Accountability in Education* (Washington, D.C.: The National Academies Press, 2011); Jaekyung Lee and Todd Reeves, “Revisiting the Impact of NCLB High-Stakes School Accountability, Capacity, and Resources: State NAEP 1990 – 2009 Reading and Math Achievement Gaps and Trends,” *Educational Evaluation and Policy Analysis* 34, no. 2 (2012).

²³⁰ Eva L. Baker, Paul E. Barton, Linda Darling-Hammond, Edward Haertel, Helen F. Ladd, Robert L. Linn, Diane Ravitch, Richard Rothstein, Richard J. Shavelson, and Lorrie A. Shepard, *Problems with the Use of Student Test Scores to Evaluate Teachers*, (Washington, D.C.: The Economic Policy Institute, 2010).

Oklahoma researchers contend “it is a myth to think that using student test scores to punish or reward schools is a driver of improvement.”²³¹ In the view of these researchers, failure to improve academic outcomes emerges not from individual actors’ failings, but rather from lack of necessary resources. Given that A-F letter grades and consequent interventions in Oklahoma do not meaningfully address profound differences in capacity and school resources, there is little reason to believe that they will strengthen schools.

The second significant problem with confining evaluation criteria to student academic performance and other outcome measures in isolation is that it precludes the capacity to produce the formative knowledge needed to improve performance on desired outcomes. In collapsing information from a limited number of outcome measures, grading plans divert attention from how school policies, practices, and resources interact with out-of-school factors and the characteristics of diverse students to produce (or fail to produce) desired educational outcomes. The focus on isolated outcomes, combined with the crude summary evaluations that grades on an A-F scale provide, undermines the claim that A-F grading systems function in general to improve schools. In fact, they are particularly ill-suited to address group-based gaps in achievement. In Oklahoma, for example, A-F letter grades tended to obscure, rather than reveal, within-school achievement gaps. Schools marked “A” and “B” were found to be least effective for minority students and students receiving free or reduced-price lunch (FRL).²³² As stated before, FRL students attending “D” and “F” schools had better average math, reading,

²³¹ The Oklahoma Center for Education Policy and the Center for Educational Research and Evaluation, *Oklahoma School Grades: Hiding “Poor” Achievement*, 27.

²³² Ibid.

and science scores than FRL students in “A” and “B” schools. The measure of school quality embedded in the Oklahoma A-F system is blind to achievement gaps. Rather than making them visible and thus allowing communities and policymakers to address them, letter grades in this case have rendered them invisible, subsuming them into differences between schools.

Almost all state plans include achievement growth as a general criterion in addition to achievement growth in the lowest quartile as a distinct criterion. Growth measures serve as a way of controlling for the influence of different student characteristics by measuring the difference between student achievement at the beginning and the end of a given period of time, on the presumption that what happens in schools causes whatever difference exist. But this is hardly sufficient to overcome the problems associated with an exclusive focus on school outcomes: It neglects the role of social, cultural, and economic factors outside of schools, as well as of the policies, practices and resources of schools—all of which play a significant role in producing those outcomes.

Before proceeding, we consider studies that have found that A-F accountability systems have driven limited school improvement. Examining letter grades in Florida and New York City, these studies find, in sum, that receiving an F grade boosts student achievement as measured by test scores, but that no other letter grade promotes school improvement. These studies typically suggest that school improvement associated with receipt of an F grade is spurred on by the “shaming effect” of school report cards. One study finds that schools in New York City “receiving a failing grade realized positive effects in English the 1st year of the sanction” but found “no evidence that receiving letter

grades other than F had positive effects.”²³³ Against expectations, the results of receiving a D-grade “appear to be negative, not just in the 1 year but in the 2nd year as well.”²³⁴ Another study of New York City finds that “summary letter grades drove improvements in student test scores in New York City schools that received an F grade” but that the “magnitude of the effect did appear to drop over time.”²³⁵ Yet another study of New York City found that “the new accountability system put in place in New York City had important effects in the months that followed its launch in the fall of 2007. Math and English test scores improved in schools that received very low accountability grades.”²³⁶ Finally, a study of the Florida A-F letter grade system found that “schools receiving an ‘F’ grade are more likely to focus on low-performing students, lengthen the amount of time devoted to instruction, adopt different ways to organize the day and learning environment of the students and teachers, increase resources available to teachers, and decrease principal control.”²³⁷

While these papers provide support for school letter grades in a limited range, we remain deeply skeptical of A-F systems. First, these studies presume that A-F letter

²³³ Marcus A. Winters and Joshua M. Cowen, “Grading New York: Accountability and Student Proficiency in America’s Largest School District,” *Educational Evaluation and Policy* 34, no. 3 (2012): 313.

²³⁴ *Ibid.*, 326.

²³⁵ Marcus Winters, *Grading Schools Promotes Accountability and Improvement* (New York: Manhattan Institute, 2016), 9.

²³⁶ Jonah E. Rockoff and Lesley J. Turner, “Short-Run Impacts of Accountability on School Quality,” *American Economic Journal* 2, no. 4 (2010): 145-146.

²³⁷ Cecilia Elena Rouse, Jane Hannaway, Dan Goldhaber, and David Figlio, “Feeling the Florida Heat? How Low-Performing Schools Respond to Voucher and Accountability Pressure,” *American Economic Journal* 5, no. 2. (2013): 275.

grades are clear and meaningful measures of school quality to begin with. As noted above, there is good reason to doubt that letter grades validly measure and express school quality. Second, the positive effects of A-F letter grades are relatively minor, impacting only certain schools receiving F grades, and still fall well short of the educational benefits promised by their proponents. Indeed, these positive effects may well be outweighed by the negative consequences documented above. Third, as noted above, report cards neglect the bulk of the factors that account for student achievement – effects beyond the walls (and control) of schools. For this reason, A-F systems may well distract citizens and elected officials alike from democratic discussion about these out-of-school effects, including poverty and socioeconomic status. Fourth, A-F systems presume that the conception of schooling and achievement embedded within them is suitable for democratic society, which is by no means clear. We say more about this fourth concern below.

In summary, there are strong reasons to doubt that A-F school grades fulfill the aims articulated by their proponents and are valid as a *policy instrument*. Their neglect of contextual features, and of the policies, practices, and resources of schools, renders them ill-suited to drive school improvement. Rather than working to empower parents and community members in a way that promotes school involvement, they are more likely to alienate parents from democratic participation in the education of their children.

The Validity of School Report Cards as a Democratic Assessment Framework

Even if A-F school grades proved *valid as a measure of school quality* and *valid as a policy instrument* – which they do not – there are still strong reasons to hold that they are invalid as a *democratic assessment framework*. They are unsuited to guide

schooling in democratic society for (at least) three reasons: first, they are blind to democratic educational outcomes; second, they impose a (neoliberal) conception of schooling with little apparent consideration of the range of competing educational and social visions; and, third, with anti-democratic consequences, they appear to presume that some “pure” conception of schooling and school quality, insulated from the political and ethical values of researchers, policymakers, and citizens, can be discovered and used to drive educational improvement. We detail each of these concerns below.

Neglecting Democratic Educational Outcomes

A-F systems appear to ignore entirely the fundamental place of schooling in preparing democratic citizens to engage in collaborative democratic deliberation. They are blind to democracy and democratic citizenship. No state A-F system measures directly the educational outcomes required to foster an effective democratic citizenry: civic engagement, the ability to engage with diverse others in authentic deliberation, understanding beliefs to be revisable and indeed revising them in light of contradictory evidence, working to maintain the conditions of democratic society, and so on. The general educational vision contained in A-F systems neglects, and undermines by crowding out, the role of schools in cultivating in students the prerequisite for democratic deliberation: democratic character, which includes the knowledge, abilities, and dispositions needed for effective participation in democratic politics. Michele Moses and John Rogers argue that democratic citizens must develop both capacities for and commitments to democratic deliberation, such as listening, weighing evidence, communicating with people from diverse backgrounds, and thinking critically about,

rather than merely accordance with, authority.²³⁸ Except tangentially, no difference between “A” and “F” schools can tell us whether or not schools succeed in preparing students to be good democratic citizens. Schools that are granted “A” letter grades in existing accountability systems could be meeting these democratic educational ends considerably less well than schools receiving lower grades.

Post-NCLB accountability systems, which include A-F school grades, have driven a narrowing of the curriculum away from democratic educational outcomes, especially away from the curricular content necessary for cultivating the democratic character.²³⁹ The intense focus on content knowledge, particularly English and mathematics, created by accountability systems has significantly limited attention to other subjects and goals, including democratic outcomes.²⁴⁰ There is little reason to believe that A-F systems will, without substantial revision, promote democratic education. Certainly they are not aimed directly at cultivating “critical habits of the mind and the inclination to deliberate and debate conscientiously on matters of social importance” which are central to democratic

²³⁸ Michele S. Moses and John Rodgers, “Enhancing a Nation’s Democracy through Equitable Schools,” in *Closing the Opportunity Gap: What America Must do to Give Every Child an Even Chance*, ed. Prudence Carter and Kevin Welner (New York: Oxford University Press, 2013), 207-216.

²³⁹ David E. Meens and Kenneth R. Howe, “NCLB and Its Wake: Bad News for Democracy.”

²⁴⁰ Erik Robelon, “Most Teachers See the Curriculum Narrow, Survey Finds,” *Education Week*, accessed February 13, 2017, http://blogs.edweek.org/edweek/curriculum/2011/12/most_teachers_see_the_curricul.html/.

character.²⁴¹ A-F systems are thus invalid as a democratic framework: they do little to promote democratic educational ends and indeed risk crowding these ends out of schooling.

That A-F systems do not promote democratic education is not some abstract concern. Much hangs on whether or not all students, especially those who belong to historically marginalized groups, are given the tools necessary for participating in democratic politics. In democratic society, these students should be provided the abilities and knowledge for protesting the unjust circumstances into which they have been thrown, for giving voice to their experiences and making those voices forceful in democratic politics. Otherwise, their experiences and voices are denied, subsumed into dominant and narrow representations of how schools and society ought to be organized. And they are too often forced to comply with these dominant representations even as these representations diminish their own experiences and force them into alienating social and economic positions. Any accountability system that fails to recognize the responsibility to cultivate the democratic character might well be said to help maintain existing injustice along lines of social class, gender, race, sexual orientation, and so on. To deny these historically marginalized groups the very tools necessary for participating in democratic politics is to collaborate in the process of consciously reproducing the highly unequal status quo. In this way, A-F systems are complicit in maintaining the existing social order and, consequently, the power and status of those who benefit from contemporary power arrangements.

²⁴¹ Kenneth R. Howe and David E. Meens, *How Recent Education Reforms Undermine Local School Governance and Democratic Education* (Boulder, CO: National Education Policy Center, 2012), 12.

There is another side of this coin. When A-F systems neglect democratic educational outcomes, the problem is not only that historically marginalized groups are denied the tools needed for active democratic participation. A further, and less documented, problem is that academic, social, political, and economic elites are educated to be what Elizabeth Anderson calls “democratically incompetent.”²⁴² They too are denied the tools needed for robust democratic citizenship. While they have little trouble dominating political life, the elite are nonetheless incompetent, practicing an impoverished form of democratic citizenship at best: they are unresponsive to the needs and aspirations of a large swath of fellow citizens, and instead govern in their own image and, typically, to their own benefit. It is apparent that “certain kinds of knowledge, as well as ignorance, exist at both ends of the hierarchy of advantage.”²⁴³ But school report cards do little, or nothing, to promote robust democratic citizenship at either end of the spectrum of power. In their neglect of democratic educational outcomes, then, A-F systems *doubly* exacerbate democratic inequality and consequent social and economic inequality.

Education policy that neglects democracy and democratic citizenship is not merely blemished; it is thoroughly wrong-headed from the start. Democratic values should not be seen as optional in education research and policy, one among many sets of values that might be promoted. Instead they should be seen as foundational, threaded into the fabric of good research and policy. No other institution is better situated to promote

²⁴² Elizabeth Anderson, *The Imperative of Integration* (Princeton, NJ: Princeton University Press, 2010).

²⁴³ Kenneth R. Howe, “The Meritocratic Conception of Educational Equality: Ideal Theory Run Amuck,” *Educational Theory* 65, no. 2 (2015): 198.

democratic citizenship than public schooling. Democracy is flimsy, no more than a pattern of behavior among citizens supported by institutions themselves constituted by patterns of behavior. Neglected in educational activity, policy, and research, it can wane. A-F systems, and education policy in general, cannot be properly evaluated in isolation from these normative considerations about the role of education in promoting and sustaining democracy.

Imposing (Neoliberal) Conceptions of Schooling and School Quality

Though in democracy citizens should be invited into deliberation about schooling, A-F systems impose a particular conception of schooling and school quality with little or no consideration of competing educational and social visions. Questions about the validity of school report cards as measure of school quality and as a policy instrument, cannot be—*should not be*—abstracted from the broader normative discussion about the place of education within a robust democracy. Typically, however, there is little or no public deliberation about which specific outcomes need to be incorporated into assessment systems. For example, while such outcomes as job preparation are commonly promoted, there is little discourse about why such preparation is essential, how it is best defined, or how the need for such a practical outcome might be balanced with others—like preparation for participation in active citizenship. Criteria reflect particular political commitments, and they are currently being imposed with little reflection on the range of possible educational and social values.

In contrast, in a democratic society the question of how schools ought to be structured should be subject to ongoing democratic deliberation. Implementation of particular visions should be open to revision as new reasons and contexts evolve.

Proponents of the A-F systems claim they produce democratic engagement as a matter of course, as when, for example, Indiana policymakers state: “The greatest benefit of the A through F school grading system is heightened community awareness and increased dialogue and action among education stakeholders.”²⁴⁴ And yet, existing evidence suggests that A-F systems conversely tend to stifle democratic control over educational structures.

But the problem is not only that A-F systems presume, and thereby impose, a conception of schooling and schooling quality. A further concern is that the presumed view is undesirable, rooted in neoliberalism. We say more about neoliberalism below, before describing how report cards tend to promote a distinctly neoliberal conception of schooling.

For almost forty years, neoliberalism has been the ascendant political and economic framework, remaking political and economic life. It has shaped education research and education researchers alike. The core of neoliberalism is the conviction that the market should be spread to more and more domains of human life. For the neoliberal, the market is the best and most efficient mechanism for producing and distributing goods. It is seen, further, as happily compatible with individual human freedom.²⁴⁵ The neoliberal, as William Davies writes, “targets institutions and activities which lie *outside* of the market, such as universities, households, public administrations and trade unions...

²⁴⁴ “A-F School Accountability FAQ,” *Indiana Department of Education*, accessed February 7, 2017, <http://www.svs.k12.in.us/Downloads/revised-f-faq-101712.pdf>.

²⁴⁵ For an example of such an argument, see: Friedrich Hayek, *The Road to Serfdom: Texts and Documents – The Definitive Edition* (Chicago: University of Chicago Press, 2007).

in order to bring them inside the market through acts of privatization.”²⁴⁶ Only through the extension of the market can efficiency and individual freedom be achieved.

The development of neoliberalism as a distinct political framework began, roughly, in the 1920s and 1930s.²⁴⁷ The early neoliberal intellectuals aimed to “reconstruct a *neo*-liberalism that remained true to the classical liberal commitment to individual liberty.”²⁴⁸ They feared that individual liberty, and classical liberalism broadly, were threatened not only by spreading fascism and totalitarianism, but also by New Deal liberalism, British social democracy, and Keynesian economic theory and policy. They converged on the central neoliberal position: among all economic alternatives, the free market most reliably secures individual freedom by denying any individual or group centralized authority over economic structures.

Later neoliberal intellectuals refined neoliberalism, developing a more mature and coherent political framework centered on more radical advocacy of free market reform, deregulation and privatization, and monetarism. They became, in particular, more and more suspicious of *any* intervention into the free market. For example, Milton Friedman’s *Capitalism and Freedom* “presented the market as the means both to deliver social goods and to deliver the ends, the good life itself.”²⁴⁹ Friedman writes: “there is an intimate connection between economics and politics, that only certain combinations of political

²⁴⁶ William Davies, “Neoliberalism: A Bibliographic Review,” *Theory, Culture, & Society* 31, no. 7/8 (2014): 310.

²⁴⁷ Daniel Stedman Jones, *Masters of the Universe* (Princeton, NJ: Princeton University Press, 2012).

²⁴⁸ *Ibid.*, 3.

²⁴⁹ *Ibid.*, 8.

and economic arrangements are possible... in particular, a society which is socialist cannot also be democratic, in the sense of guaranteeing individual freedom.”²⁵⁰

The widespread implementation, and eventual dominance, of neoliberalism began, roughly, in 1980. The energy crisis, the debt crises, and “stagflation” during the 1970s created the economic, political, and ideological conditions in which neoliberal principles – fiscal discipline and austerity, privatization, deregulation, market reform, and more – seemed reasonable economic alternatives to reigning New Deal and Great Society liberalism and British social democracy. Neoliberal economic policy was adopted by the International Monetary Fund (IMF), the World Bank (WB), the World Trade Organization (WTO), the European Union (EU), and in the North American Free Trade Agreement (NAFTA). The infamous “structural adjustment” programs, administered by the IMF and the WB, spread free market economic policy throughout the world. Despite substantial challenge, especially recently during the “Great Recession,” the neoliberal framework has proven durable. It remains the dominant organizing principle in social and economic life.

Unlike its ancestor *classical liberalism*, neoliberalism is an active force. It works to create the conditions – social, political, economic, and ideological – needed for the proper functioning of free markets. Rather than the classical liberal imperative to clear space for individual self-determination, it seeks to construct individuals with the knowledge, skills, and dispositions needed for proper interaction with those markets. Unlike classical liberalism, neoliberalism has strengthened rather than weakened state control and monitoring over human life:

²⁵⁰ Milton Friedman, *Capitalism and Freedom* (Chicago: University of Chicago Press, 1962), 8.

Whereas classical liberalism represents a negative conception of state power in that the individual was to be taken as an object to be freed from the interventions of the state, neo-liberalism has come to represent a positive conception of the state's role in creating the appropriate market by providing the conditions, laws and institutions necessary for its operation. In classical liberalism the individual is characterized as having an autonomous human nature and can practice freedom. In neo-liberalism the state seeks to create an individual who is an enterprising and competitive entrepreneur.²⁵¹

It is no coincidence that the widespread implementation of neoliberal policy beginning in 1980 corresponds neatly with a significant shift in education policy that began, roughly, with the publication of *A Nation at Risk*²⁵² and culminated with the accountability systems spawned by No Child Left Behind, including school report card systems, which are but a new variation on the same general theme. During this period, we see a shift in education policy away from the “equity regime,” in which the federal government played a narrow role in education typically confined to working toward equal educational opportunity, to a broader and more activist new policy regime, in which the federal government seeks to improve education through punitive accountability systems.²⁵³ At the heart of this new regime is the punitive neoliberal “audit culture,” which calls for constant monitoring and assessment of schools, along with associated rewards and punishments, intended to drive educational improvement. Alongside the rise of neoliberalism, we have witnessed a rapid

²⁵¹ Mark Olssen, “In Defense of the Welfare State and of Publicly Provided Education,” *Journal of Education Policy* 11, no. 3 (1996): 340.

²⁵² The National Commission on Excellence in Education, *A Nation at Risk: The Imperative for Educational Reform* (Washington, D.C.: The National Commission on Excellence in Education, 1983).

²⁵³ Patrick J. McGuinn, *No Child Left Behind and the Transformation of Federal Education Policy, 1965-2005* (Lawrence, KS: University of Kansas Press, 2005).

proliferation of *auditing*, i.e., the use of business derived concepts of independent supervision to measure and evaluate performance by public agencies and public employees, from civil servants and school teachers to university lecturers and doctors: environmental audit, value for money audit, management audit, forensic audit, data audit, intellectual property audit, medical audit, teaching audit and technology audit emerged and, to varying degrees, acquired institutional stability and acceptance... Very few people have been left untouched by these developments.²⁵⁴

A-F systems exemplify neoliberal audit culture: they seek to drive educational improvement by auditing schools and rewarding or punishing them according to audit results. And, we argue below, they exemplify the activist neoliberal drive to create and maintain the individual and institutional conditions required for free markets: they tend to promote a distinctly neoliberal view of schooling that seeks to cultivate individuals with the needed skills, knowledge, and dispositions to navigate and sustain market society.

The neoliberal view of schooling can be characterized by two central tenets. First, schooling should be economically-oriented and prepare students to properly interface with markets. Markets safeguard individual freedom and promote efficiency. Schooling is one of the central institutions for sustaining markets: it can, and should, cultivate individuals with the skills, knowledge, and beliefs necessary for the proper functioning of markets. Second, where possible, the provision of schooling should be privatized, put on the market, allowing for market competition that will promote quality schooling chosen (and purchased) by consumers and wither away shoddy schooling not chosen by consumers. Schools should not be “artificially” sustained if they cannot survive on the market. For the neoliberal, such tinkering with the market would be ethically and

²⁵⁴ Colin Leys, *Market-Driven Politics: Neoliberal Democracy and the Public Interest* (New York: Verso, 2003), 70. See also Michael W. Apple, “Education, Markets, and an Audit Culture,” *Critical Quarterly* 42, nos. 1-2 (2005) for illuminating investigation into audit culture in education and education policy.

practically concerning, undermining the potential of the market to safeguard individual freedom and promote efficiency in the production, distribution, and consumption of schooling.

A-F systems appear consistent with, if not outright supportive of, the first tenet of the neoliberal view of schooling: schooling should be economically oriented, training students to properly participate in free market life. These systems commonly conflate *education* and *education for economic ends*. For example, consider the rationales given for A-F school grades in a presentation produced by the Louisiana Department of Education (DoE).²⁵⁵ The Louisiana DoE contends that “American education outcomes are not competitive internationally.” Reports that many other countries have outperformed the U.S. educationally, the department suggests, have substantive economic consequences: “there is substantial cost to our country and our state associated with lower educational outcomes. Had the U.S. closed the international achievement gap by 1998, the GDP could have been \$1.3 trillion to \$2.3 trillion higher in 2008.” The department notes, further, that “Louisiana graduates will struggle to compete for jobs” because of inadequate school outcomes. Most new jobs, they write, will require education after high school. A-F school grades are taken to be a part of the solution to both of these (economic) problems. We find very similar discussion in other states.

Some, but not all, A-F systems are generally supportive of the second tenet of the neoliberal view of schooling: privatizing the provision of schooling, such that market competition will promote quality schooling and wither away poor schooling. Whether an

²⁵⁵ “Louisiana Believes: Letter Grade Results Fall 2013,” *Louisiana Department of Education*, accessed February 15, 2017, [http://www.louisianabelieves.com/docs/test-results/10-24-13-report-card-presentation-\(thursday\).pdf?sfvrsn=4](http://www.louisianabelieves.com/docs/test-results/10-24-13-report-card-presentation-(thursday).pdf?sfvrsn=4).

A-F system supports the second tenet of neoliberal schooling depends on the accountability rewards and punishments associated with letter grades. Recall, for example, the Indiana Choice Scholarship Program, which provides eligible students with state funding for partial or full tuition costs at participating choice schools, including religiously affiliated schools. Recall too the Florida Opportunity Scholarship Program, which allows students who have attended schools earning either one “F” or three consecutive years of “D” grades to exit and enroll in higher-performing public schools within their district or any other district in the state, provided space is available. Whenever these “choice schools” are managed by corporations or non-profit organizations, A-F systems exemplify neoliberal privatization. Both report card systems move in the direction of, but do not fully endorse, the second tenet: while neither call for the general privatization of the provision of schooling, both embrace the view that the market can drive educational improvement, allowing parents and students to make choices about leaving one particular school for another, supporting schools that are selected and pressuring those that are not.

Here and elsewhere, we find little to no discussion of non-market educational outcomes—cultivating, for example, good democratic citizens or ensuring that students have studied and worked with a diverse set of fellow citizens. In A-F systems, the neoliberal view of schooling (and especially its first tenet) typically crowds out democratic educational outcomes. A-F systems that promote the neoliberal view of schooling to the detriment of democratic educational outcomes are undesirable in democratic society.

Presuming “Pure” Conceptions of Schooling and School Quality

More broadly, report cards systems presume that some “pure,” or at least broadly uncontroversial, conception of schooling and school quality can found. They seek a conception of schooling and school quality insulated from enduring moral-political reflection among citizens over education that can be used to drive school improvement. But there can be no such pure conception: any legitimate view of schooling in democratic society will emerge from deliberation among citizens, shot through with the values and aspirations of those citizens. In presuming that pure conception, they allow a particular view of schooling, and associated moral and political values, to sneak in without scrutiny. Beneath the illusion of a value-neutral conception of schooling and school quality, they typically covertly promote an undesirable neoliberal view of schooling.

Consider two “domains” of questions in education research. In the *technical domain*, education researchers inquire into how far educational intervention X promotes educational outcome Y . The technical domain is the province of education researchers who possess the technical skills needed to answer technical questions. It is the domain, for example, of the statistician who draws on statistical methods to estimate the effects of class size reduction in a school district. In the *normative domain*, education researchers inquire into how far educational outcome Y is desirable, how far it conforms to the demands of robust democratic society. The normative domain is the jurisdiction of democratic citizens generally. Questions that fall in the normative domain should be subject to continued deliberation among researchers and citizens. (To be clear, the normative and technical domains are not cleanly separable in education research: normative considerations will inevitably permeate the technical domain, while technical

considerations will inevitably permeate the normative domain. We say more about this below.)

Embedded inevitably within school report cards is some conception of schooling and school quality. To be meaningful, A-F letter grades must contain normative content. They must adopt some position, shot through with values, about the proper function of schooling in democratic society. They must adopt some view of what measures should be used to indicate fulfillment, or not, of that function. Here we inhabit the normative domain, the realm of democratic citizens. Normative views about school quality and the legitimate aims of schooling should be subject to deliberation among citizens. To presume or to impose some view of schooling and school quality, without deliberation, is to run afoul of democracy.

In the case of A-F systems, education researchers and policymakers appear to have proceeded directly to the technical domain, skipping over the normative domain. They have presumed the particular normative conceptions of schooling and school quality embedded in report card systems, rather than holding them open to deliberation and weighing them against the range of competing educational views. It is presented as pure, or at least uncontroversial, insulated from ongoing moral-political reflection about education. A-F letter grades, too, are presented as pure or uncontroversial measures of school quality. But there can be no pure conception of schooling and school quality. Any conception of schooling will be laden with political values because schooling must always work toward some end. Any legitimate view of schooling in democratic society will emerge from deliberation among citizens, thoroughly saturated by the values of those citizens. The presumption of a pure conception of schooling is anti-democratic, alienating

citizens from deliberation. In leaping over the normative domain and into the technical domain, researchers and policymakers have neglected the foundational role of democratic values in education research and policy.

Advocates of A-F systems might maintain that they *should* skip over the normative domain. They can, and should, bracket political and ethical values from their research. To insert their own values and aspirations into school letter grades would be anti-democratic. Instead, political and ethical questions – say, “what are the legitimate goals of schooling in democratic society?” and “what is a legitimate conception of school quality?” – are relegated to policy makers, who are democratically accountable to citizens. Education researchers should seek only to answer technical questions using their technical expertise, which will be governed only by epistemic and technical concerns and not contaminated by political considerations. They seek only to produce technical knowledge – how far does educational intervention X promote educational outcome Y – to be given to policymakers who will use that knowledge in deliberation.²⁵⁶

But this view is flawed. While education researchers and policymakers should, out of respect for democracy, remain vigilant about covertly embedding their values into A-F systems, this strategy backfires. Education research and policy, in general, cannot be insulated from political and ethical considerations. Any conception of school quality, some version of which *must* be presumed in A-F systems, will be loaded with normative

²⁵⁶ For a well-known defense of this view, and one connected to neoliberalism, see Milton Friedman, *Essays in Positive Economics* (Chicago: University of Chicago Press, 1953), 2. Friedman maintains that positive economics, as distinct from normative economics, “is in principle independent of any particular ethical position or normative judgments... [It] can be an ‘objective’ science, in precisely the same sense as any of the physical sciences.” He contends that political and ethical values can, and should, be filtered from positive economics.

considerations. Failing to disclose that answers to question within the technical domain will be shot through with moral and political values will bias deliberation among policymakers and citizens, silently promoting those views. Instead of revealing the moral and political values that inevitably permeate A-F systems, it masks them, shielding them from deliberation and criticism.

In sum, report card systems neglect the priority of democracy to education research and policy. They are unlikely to promote democratic educational outcomes. Rather than inviting citizens to deliberate about the host of possible educational and social visions that could be embedded in A-F letter grades, they appear to impose particular (typically neoliberal) conceptions of schooling and school quality. And they presume, wrongly, that pure, or at least broadly uncontroversial, conceptions of schooling and school quality can found and used to drive school improvement. In doing so, they often covertly promote particular values and particular views of schooling and school quality which are shielded from deliberation and scrutiny. We find that report card systems are *invalid as a democratic assessment framework*. Because they are democratically invalid, A-F systems cannot be remediated with technical fixes. They are flawed *normatively*, beyond the reach of technical tinkering – they violate the general requirement for schooling in democratic society to promote democracy. They may well be irredeemably flawed, at least without a substantial consideration of the role of schooling and school accountability in democratic society.

Conclusion and Recommendations

We endorse three recommendations of the Oklahoma researchers, who suggest to policymakers:

1. Eliminating “the single grade, which cannot be composed without adding together unlike elements and promoting confusion and misunderstanding.”²⁵⁷
2. Developing “a report card format that uses multiple school indicators that more adequately reflect a school performance profile.”²⁵⁸
3. Enlisting the services of assessment and evaluation experts in designing school accountability systems.

While we find these recommendations sound, we believe that alone they are too narrow, that they fail to take into consideration the need to consider the role and responsibilities of an educational system within a democratic society. As stated above, these technical fixes alone cannot remedy the deeper democratic defects in report card systems.

Therefore, we add our own recommendations to those above, noting we believe these are relevant not only to A-F grading systems but to all school accountability systems.

Given the above discussion, we recommend that in determining accountability systems for schools, policymakers:

1. Enable democratic deliberation over the many possible purposes of schooling in a democratic society before determining assessment criteria. The indicators of “school quality” must be determined through authentic conversation, reflecting the voices and experiences of all members of our democratic society—not just the narrow vision of policymakers.
2. Ensure that accountability systems promote, rather than neglect or inhibit, the

²⁵⁷ The Oklahoma Center for Education Policy and the Center for Educational Research and Evaluation, *An Examination of the Oklahoma State Department of Education’s Report Card*, 6.

²⁵⁸ *Ibid.*, 6.

formation of democratic character—which must be consciously cultivated. While democratic outcomes may not be the only legitimate goal for public schools, they surely should be counted among the most essential.

Unless these modifications can be made, rendering A-F systems valid as a democratic assessment framework, we recommend that they be abandoned as irredeemable.

Table 1. State Report Card Accountability Systems

Information gathered from individual state Department of Education websites. Michigan, where policymakers are considering implementing A-F letter grades in 2017-2018, has not been included.

State	Measured	Student Achievement Scale	Formula/Weighting
Alabama (Final report card letter grades will be assigned December 2017.)	Assessment Scores/Student Achievement Growth/Academic Progress Local Indicators Graduation Rate Attendance Alabama Plan 2020 Program Reviews	Proficiency Scale (4 Level): Level I Level II Level III Level IV	Weighting not readily available.
Arizona (Letter grades were temporarily halted in 2014. They will resume in 2017 in a different form.)	Assessment Scores/Student Achievement Achievement Gap Closure Growth/Academic Progress ELL Achievement Gains Academic Progress of Lowest Quartile Dropout Rate Graduation Rate	Proficiency Scale (4 Level): Fall Far Below Standards Approaches Standards Meets Standards Exceeds Standards	Elementary and Middle Schools: 50% Growth Score (25% growth of all students + 25% growth of students in lowest performing quartile) 50% Composite Score (% passing AIMS tests, % ELL students reclassified, falls far below reduction) High Schools: 50% Growth Score (25% growth of all students + 25% growth of students in lowest performing quartile) 50% Composite Score (% passing AIMS tests, % ELL students reclassified, graduation rate, dropout rate)
Arkansas	Assessment	Proficiency Scale	Weighting not readily

	Scores/Student Achievement Growth/Academic Progress Graduation Rate Achievement Gap Closure Graduation Gap Closure	(5 Level): Did Not Meet Partially Met Approaching Grade Level Met Grade Level Exceeded Grade Level	available.
Florida	Assessment Scores/Student Achievement Growth/Academic Progress Academic Progress of Lowest Quartile Graduation Rate Advanced Placement Scores International Baccalaureate Exam Scores Dual Enrollment Credits Industry Certifications	Proficiency Scale (5 Level): Level 1 Level 2 Level 3 Level 4 Level 5	ELA Achievement – 100 points Mathematics Achievement – 100 points Science Achievement – 100 points Social Studies Achievement – 100 points ELA Learning Gains – 100 points Mathematics Learning Gains – 100 points ELA Learning Gains of Lowest Performing Quartile – 100 points Mathematics Gains of Lowest Performing Quartile – 100 points Acceleration Component for Middle Schools (high school course enrollment and industry certification) – 100 points Graduation Rate for High Schools – 100 points College and Career Acceleration for High Schools – 100 points
Georgia	Assessment Scores/Student Achievement ACT/SAT Scores	Proficiency Scale (4 Level): Beginning Learners	110 Points Possible: Achievement – 50 points Progress – 40 points

	Advanced Placement Scores International Baccalaureate Exam Scores Graduation Rate Growth/Academic Progress Achievement Gap Closure Innovative Instructional Practices Career-Related Outcomes Performance of Economically Disadvantaged Students Performance of Students with Disabilities Performance of English Language Learners	Developing Learners Proficient Learners Distinguished Learners	Achievement Gap – 10 points Challenge Points – 10 points
Indiana	Assessment Scores/Student Achievement Growth/Academic Progress Graduation Rate Advanced Placement Scores International Baccalaureate Exam Scores Dual Enrollment Credits Industry Certifications	Proficiency Scale (3 Level): Not Proficient Proficient Highly Proficient	Elementary/Middle Schools: 50% - Performance 50% - Growth High Schools: 20% - Performance 20% - Growth 60% - Multiple Measures (Graduation Rate, AP Scores, IB Scores, Dual Enrollment Credits, Industry Certifications)
Louisiana	Assessment Scores/Student Achievement Growth/Academic Progress ACT Scores Graduation Rate Advanced Placement	Proficiency Scale (5 Level): Unsatisfactory Approaching Basic Basic Mastery Advanced	Elementary Schools: 100% - Evidence of Learning Middle Schools: 95% - Evidence of Learning 5% - High School

	Scores International Baccalaureate Exam Scores		Credits High Schools: 25% - End of Course Assessments 25% - ACT Scores 25% - Graduation Index (AP Scores, IB Scores, etc.) 25% - Graduation Rate
Maine	Assessment Scores/Student Achievement Growth/Academic Progress Graduation Rate	Proficiency Scale (4 Level): Substantially Below Proficient Partially Proficient Proficient Proficient with Distinction	Elementary/Middle Schools: 50% - Proficiency 50% - Growth High Schools: 40% - Proficiency 40% - Growth 20% - Graduation Rate
Mississippi	Assessment Scores/Student Achievement Growth/Academic Progress Graduation Rate Advanced Placement Scores International Baccalaureate Exam Scores Dual Enrollment Credits Achievement Gap Closure	Proficiency Scale (5 Level) – Minimal Basic Passing Proficient Advanced	Elementary/Middle Schools – 700 points possible: Reading Proficiency – 100 points Reading Growth All Students – 100 points Reading Growth Lowest 25% - 100 points Math Proficiency – 100 points Math Growth All Students – 100 points Math Growth Lowest 25% - 100 points Science Proficiency – 100 points High Schools – 1000 points possible: Reading Proficiency – 100 points Reading Growth All Students – 100 points Reading Growth Lowest

			25% - 100 points Math Proficiency – 100 points Math Growth All Students – 100 points Math Growth Lowest 25% - 100 points Science Proficiency – 50 points U.S. History Proficiency – 50 points Graduation Rate – 200 points Acceleration (AP, IB, Dual Credit) Proficiency/Participation – 50 points College Readiness Rate (ACT) – 50 points
New Mexico	Assessment Scores/Student Achievement Growth/Academic Progress SAT/ACT Scores Dual Enrollment Credits Vocational Certifications Achievement Gap Closure School Climate	Proficiency Scale – levels not readily available.	Elementary/Middle Schools – 100 points possible: Proficiency – 20 points Growth – 20 points School Growth – 10 points Growth of Higher Performing Students – 20 points Growth of Lowest Performing Students – 20 points Opportunity to Learn (Attendance, Classroom Surveys) – 10 points High Schools – 100 points possible: Proficiency – 15 points Growth – 15 points School Growth – 10 points Growth of Higher Performing Students – 10 points

			<p>Growth of Lowest Performing Students – 10 points</p> <p>Opportunity to Learn (Attendance, Classroom Surveys) – 8 points</p> <p>Graduation – 17 points</p> <p>Career and College Readiness – 15 points</p>
North Carolina	<p>Assessment Scores/Student Achievement</p> <p>Growth/Academic Progress</p> <p>ACT/SAT Scores</p> <p>Graduation Rate</p> <p>College Enrollment</p> <p>College Course Completion</p> <p>Advanced Placement Scores</p> <p>Specialized Course Enrollment</p>	<p>Proficiency Scale (5 Level) –</p> <p>Level 1 (Limited Command)</p> <p>Level 2 (Partial Command)</p> <p>Level 3 (Sufficient Command)</p> <p>Level 4 (Solid Command)</p> <p>Level 5 (Superior Command)</p>	<p>Achievement – 80%</p> <p>Growth – 20%</p>
Ohio	<p>Assessment Scores/Student Achievement</p> <p>Growth/Academic Progress</p> <p>Four Year/Five Year Graduation Rates</p> <p>Achievement Gap Closure</p> <p>Annual Measurable Objectives (AMOs)</p> <p>SAT/ACT Scores</p> <p>Industry-Recognized Credentials</p> <p>Honors Diplomas Awarded</p> <p>Advanced Placement Scores</p> <p>International Baccalaureate Exam Scores</p> <p>Dual Enrollment</p>	<p>Proficiency Scale – levels not readily available.</p>	<p>Letter grades assigned for several different categories:</p> <ol style="list-style-type: none"> 1. Achievement 2. Progress 3. Graduation Rate 4. Gap Closing 5. K-3 Literacy 6. Prepared for Success

	Credits		
Oklahoma	Assessment Scores/Student Achievement Growth/Academic Progress Attendance Rate Graduation Rate ACT/SAT Scores Dropout Rate Advance Coursework Participation and Performance	Proficiency Scale (4 level): Unsatisfactory Limited Knowledge Proficient Advanced	Student Performance – 50% Overall Student Growth – 25% Bottom 25% Growth – 25%
Texas (For the 2015-2016 school year, schools received letter grades for “domains” 1-4. A single letter A-F system using all five domains will go into effect for the 2017-2018 school year.)	Assessment Scores/Student Achievement Growth/Academic Progress Achievement Gap Closure Attendance Rate & Chronic Absenteeism Dropout Rate Graduation Rate SAT/ACT Scores Advanced Placement Scores International Baccalaureate Exam Scores Dual Enrollment Credits Industry Certifications Military Enlistment Career/Technical Education Coursework	Proficiency Scale (4 Level): Does Not Meet Approaches Meets Masters	Domain 1 – Student Achievement – 35%* Domain 2 – Student Progress – 35%* Domain 3 – Closing Performance Gaps – 20% Domain 4 – Postsecondary Readiness – 35% Domain 5 – Community and Student Engagement – 10% * Weighting does not sum to 100% because schools use the better of their Domain 1 and Domain 2 scores.
Utah	Assessment Scores/Student Achievement Growth/Academic Progress Graduation Rate	Proficiency Scale (4 level): Below Proficient Approaching Proficient Proficient	Elementary and Middle Schools – 600 points possible: % Proficient ELA – 100 points % Proficient Math – 100

	ACT Scores	Highly Proficient	<p>points</p> <p>% Proficient Science – 100 points</p> <p>Growth of all students – 150 points</p> <p>Growth of below proficient students – 150 points</p> <p>High Schools – 900 points possible:</p> <p>% Proficient ELA – 100 points</p> <p>% Proficient Math – 100 points</p> <p>% Proficient Science – 100 points</p> <p>Growth of all students – 150 points</p> <p>Growth of below proficient students – 150 points</p> <p>Graduation Rate – 150 points</p> <p>ACT Achievement – 150 points</p>
West Virginia	<p>Assessment Scores/Student Achievement</p> <p>Growth/Academic Progress</p> <p>Attendance Rate</p> <p>Graduation Rate</p> <p>Reduction of Students at Risk for Dropping Out</p> <p>Advanced Placement Scores</p> <p>International Baccalaureate Exam Scores</p> <p>Dual Enrollment Credits</p> <p>Career/Technical Education Coursework</p>	Proficiency Scale – levels not readily available.	<p>Elementary Schools – 1200 points possible:</p> <p>ELA Proficiency – 175 points</p> <p>Math Proficiency – 175 points</p> <p>ELA Observed Growth – 100 points</p> <p>Math Observed Growth – 100 points</p> <p>ELA Adequate Growth – 100 points</p> <p>Math Adequate Growth – 100 points</p> <p>ELA Improvement of Lowest 25% - 100 points</p> <p>Math Improvement of Lowest 25% - 100</p>

			<p>points</p> <p>3rd Grade Reading Proficiency – 50 points At-Risk Subgroup Reduction – 100 points Attendance – 100 points</p> <p>Middle Schools – 1200 points possible: ELA Proficiency – 175 points Math Proficiency – 175 points ELA Observed Growth – 100 points Math Observed Growth – 100 points ELA Adequate Growth – 100 points Math Adequate Growth – 100 points ELA Improvement of Lowest 25% - 100 points Math Improvement of Lowest 25% - 100 points 8th Grade Math Proficiency – 50 points At-Risk Subgroup Reduction – 100 points Attendance – 100 points</p> <p>High Schools – 1500 points possible: ELA Proficiency – 250 points Math Proficiency – 250 points ELA Observed Growth – 100 points Math Observed Growth – 100 points ELA Adequate Growth – 100 points Math Adequate Growth</p>
--	--	--	---

			– 100 points ELA Improvement of Lowest 25% - 100 points Math Improvement of Lowest 25% - 100 points Graduation Rate – 150 points College and Career Ready Indicators – 150 points At-Risk Subgroup Reduction – 50 points Attendance – 50 points
--	--	--	---

Bibliography

- “The A-F Letter Grade System.” *Arizona Department of Education*. Last modified July 30, 2013. <http://www.azed.gov/research-evaluation/files/2013/08/2013-a-f-letter-grades-guide-for-parents.pdf>.
- “A-F School Accountability FAQ.” *Indiana Department of Education*. Accessed February 7, 2017. <http://www.svcs.k12.in.us/Downloads/revised-f-faq-101712.pdf>.
- Adams, Curt M., Patrick B. Forsyth, Jordan Ware, Mwarumba Mwavita, Laura L. Barnes, and Jam Khojasteh. “An Empirical Test of Oklahoma’s A-F School Grades.” *Education Policy Analysis Archives* 24, no. 4 (2016).
- Adams, Curt M., Patrick B. Forsyth, Jordan Ware, and Mwarumba Mwavita. “The Informational Significance of A-F School Accountability Grades.” *Teachers College Record* 118, no. 7 (2016): 1-31.
- Anderson, Elizabeth. *The Imperative of Integration*. Princeton, NJ: Princeton University Press, 2010.
- Apple, Michael W. “Education, Markets, and an Audit Culture.” *Critical Quarterly* 42, nos. 1-2 (2005): 11-29.
- Baker, Eva L., Paul E. Barton, Linda Darling-Hammond, Edward Haertel, Helen F. Ladd, Robert L. Linn, Diane Ravitch, Richard Rothstein, Richard J. Shavelson, and Lorrie A. Shepard. *Problems with the Use of Student Test Scores to Evaluate Teachers*. Washington, D.C.: The Economic Policy Institute, 2010.
- Borman, Geoffrey, and Maritza Dowling. “Schools and Inequality: A Multilevel Analysis of Coleman’s Equality of Educational Opportunity Data.” *Teachers College Record* 112, no. 5 (2010): 1201-1246.
- Coleman, James S., Ernest Q. Campbell, Carol J. Hobson, James McPartland, Alexander M. Wood, Frederic D. Weinfeld, Robert L. York. *Equality of Educational Opportunity*. Washington, D.C.: U.S. Department of Health, Education & Welfare, 1966.
- Davies, William. “Neoliberalism: A Bibliographic Review.” *Theory, Culture, & Society* 31, no. 7/8 (2014): 309-317.
- Dean Ho, Andrew. “The Problem with ‘Proficiency’: Limitations of Statistics and Policy under No Child Left Behind.” *Educational Researcher* 37, no. 6 (2008): 351-360.
- Dillon, Sam. “Florida Supreme Court Blocks School Vouchers.” *New York Times* (New

- York), January 6, 2006. <http://www.nytimes.com/2006/01/06/us/florida-supreme-court-blocks-school-vouchers.html>.
- Figlio, David, and Maurice Lucas. "What's in a Grade? School Report Cards and the Housing Market." *The American Economic Review* 94, no. 3 (2004): 591-604.
- Friedman, Milton. *Capitalism and Freedom*. Chicago: University of Chicago Press, 1962.
- . *Essays in Positive Economics*. Chicago: University of Chicago Press, 1953.
- Hayek, Friedrich. *The Road to Serfdom: Texts and Documents – The Definitive Edition*. Chicago: University of Chicago Press, 2007.
- Howe, Kenneth R. "The Meritocratic Conception of Educational Equality: Ideal Theory Run Amuck." *Educational Theory* 65, no. 2 (2015): 183-201.
- Howe, Kenneth R., and David E. Meens. *How Recent Education Reforms Undermine Local School Governance and Democratic Education*. Boulder, CO: National Education Policy Center, 2012.
- Kogan, Vladimir, Stéphane Lavertu, and Zachary Peskowitz. "Do School Report Cards Produce Accountability through the Ballot Box?" *Journal of Policy Analysis and Management* 35, no. 3 (2016): 639-661.
- Ladner, Matthew, and David J. Myslinksi. *Report Card on American Education*. Arlington, VA: American Legislative Exchange Council, 2014.
- Lee, Jaekyung, and Todd Reeves. "Revisiting the Impact of NCLB High-Stakes School Accountability, Capacity, and Resources: State NAEP 1990 – 2009 Reading and Math Achievement Gaps and Trends." *Educational Evaluation and Policy Analysis* 34, no. 2 (2012): 209-231.
- Leys, Colin. *Market-Driven Politics: Neoliberal Democracy and the Public Interest*. New York: Verso, 2003.
- "Louisiana Believes: Letter Grade Results Fall 2013." *Louisiana Department of Education*. Accessed February 15, 2017.
[http://www.louisianabelieves.com/docs/test-results/10-24-13-report-card-presentation-\(thursday\).pdf?sfvrsn=4](http://www.louisianabelieves.com/docs/test-results/10-24-13-report-card-presentation-(thursday).pdf?sfvrsn=4).
- McGuinn, Patrick J. *No Child Left Behind and the Transformation of Federal Education Policy, 1965-2005*. Lawrence, KS: University of Kansas Press, 2005.
- Meens, David E. and Kenneth R. Howe. "NCLB and Its Wake: Bad News for Democracy." *Teachers College Record* 117, no. 6 (2015): 1-44.

- Mikulecky, Marga, and Kathy Christie. *Rating States, Grading Schools: What Parents and Experts Say States Should Consider to Make School Accountability Systems Meaningful*. Denver: Education Commission of the States, 2014.
- Moses, Michele S., and John Rodgers. "Enhancing a Nation's Democracy through Equitable Schools." In *Closing the Opportunity Gap: What America Must do to Give Every Child an Even Chance*, edited by Prudence Carter and Kevin Welner, 207-216. New York: Oxford University Press, 2013.
- The National Commission on Excellence in Education. *A Nation at Risk: The Imperative for Educational Reform*. Washington, D.C.: The National Commission on Excellence in Education, 1983.
- National Research Council. *Incentives and Test-Based Accountability in Education*. Washington, D.C.: The National Academies Press, 2011.
- Nye, Barbara, Spyros Konstantopoulos, and Larry V. Hedges. "How Large are Teacher Effects?" *Educational Evaluation and Policy Analysis* 26, no. 3 (2004): 237-257.
- The Oklahoma Center for Education Policy and the Center for Educational Research and Evaluation. *An Examination of the Oklahoma State Department of Education's Report Card*. Normal and Stillwater, OK: OCEP and CERE, 2013.
- . *Oklahoma School Grades: Hiding "Poor" Achievement*. Normal and Stillwater, OK: OCEP and CERE, 2013.
- Olssen, Mark. "In Defense of the Welfare State and of Publicly Provided Education." *Journal of Education Policy* 11, no. 3 (1996): 337-362.
- "Opportunity Scholarship Program." *Florida Department of Education*. Accessed February 7, 2017. <http://www.fldoe.org/schools/school-choice/k-12-scholarship-programs/osp/>.
- "Participating Choice Schools 2016-2017." *Indiana Department of Education*. Last modified November 17, 2016. <http://www.doe.in.gov/choice/participating-schools-2016-17>.
- "Position Statement on High-Stakes Testing." *American Educational Research Association*. Accessed February 10, 2017. <http://www.aera.net/About-AERA/AERA-Rules-Policies/Association-Policies/Position-Statement-on-High-Stakes-Testing>.
- "Questions and Answers." *Maine Department of Education*. Accessed February 15, 2017. <https://maine.gov/doe/schoolreportcards/resources/faq.html>.
- Rhodes, Jesse H. "Learning Citizenship? How State Education Reforms Affect Parents'

- Political Attitudes and Behavior.” *Political Behavior* 37 (2015): 181-220.
- Robelon, Erik. “Most Teachers See the Curriculum Narrow, Survey Finds.” *Education Week*. Accessed February 13, 2017. http://blogs.edweek.org/edweek/curriculum/2011/12/most_teachers_see_the_curricul.html/.
- Rockoff, Jonah E. “The Impact of Individual Teachers on Student Achievement: Evidence from Panel Data.” *The American Economic Review* 94, no. 2 (2004): 247-252.
- Rockoff, Jonah E., and Lesley J. Turner, “Short-Run Impacts of Accountability on School Quality.” *American Economic Journal* 2, no. 4 (2010): 119-147.
- Rouse, Cecilia Elena, Jane Hannaway, Dan Goldhaber, and David Figlio. “Feeling the Florida Heat? How Low-Performing Schools Respond to Voucher and Accountability Pressure.” *American Economic Journal* 5, no 2. (2013): 251-281.
- Rowan, Brian, Richard Correnti, and Robert J. Miller. “What Large-Scale, Survey Research Tells us about Teacher Effects on Student Achievement: Insights from the *Prospects* Study of Elementary Schools.” *Teachers College Record* 104, no. 8 (2002): 1525-1567.
- “School Grades Q and A.” *Foundation for Florida’s Future*. Accessed February 7, 2017. http://www.afloridapromise.org/Pages/Florida_Formula/Facts_on_the_FCAT_and_Floridas_Path_to_Success/School_Grades_Q_and_A.aspx.
- Stedman Jones, Daniel. *Masters of the Universe: Hayek, Friedman, and the Birth of Neoliberal Politics*. Princeton, NJ: Princeton University Press, 2012.
- Students First. *Empowering Parents with Data: School Report Cards*. Washington, D.C.: Students First.
- . *State of Education: State Policy Report Card 2013*. Washington, D.C.: Students First, 2013.
- “Understanding Ohio’s School Report Card.” *Ohio Department of Education*. Accessed February 8, 2017. <http://education.ohio.gov/getattachment/Topics/Data/Report-Card-Resources/Sections/General-Report-Card-Information/A-F-Report-Card.pdf.aspx>.
- “Utah School Grading.” *Utah State Senate*. <http://utahschoolgrading.com/faq/>.
- “West Virginia’s A through F School Grading System: FAQs.” *West Virginia Department of Education*. Accessed February 7, 2017. <https://wvde.state.wv.us/federal-programs/resources/documents/9-A-FFAQ.pdf>.

Winters, Marcus A. *Grading Schools Promote Accountability and Improvement*. New York: Manhattan Institute, 2016.

Winters, Marcus A., and Joshua M. Cowen. "Grading New York: Accountability and Student Proficiency in America's Largest School District." *Educational Evaluation and Policy* 34, no. 3 (2012): 313-327.

CHAPTER 5. CONCLUSION

Many education researchers continue to relapse into the quest for pure education research. They chase after an educational “foundation stone”: they desire pure conceptions of schooling and school quality that can be used to discover which educational interventions *really do* work to promote student learning, blocking out the noise from the tiresome, perpetual political struggle over education. They seek to leap over the messy “normative domain” in education research, insulating themselves from contextual ephemera. The quest for pure science is seductive. It is not difficult to understand why many education researchers feel its siren call. Democratic deliberation among citizens about schooling is not a tidy affair: it is messy, cluttered by a wide array of competing educational and social aspirations. Pure education research would allow us to bypass the wild landscape of democracy. And it would provide a shot of “metaphysical comfort”: it would grant safe harbor to those who fear that we cannot be more than “two drunken sailors supporting each other by leaning back to back.”²⁵⁹

But we cannot have that foundation stone – pure education science – and neither should we want it. We cannot have it because education research, and social science generally, will be inevitably shot through with values. Education research is not the kind of endeavor that can be shielded from values, whether epistemic, moral, or political. The concepts that must be presumed in education research – such as *schooling*, *school quality*, and *student achievement* – are “two-edged”: they are at once descriptive and normative,

²⁵⁹ Susan Haack, *Evidence and Inquiry: A Pragmatist Reconstruction of Epistemology*, 2nd ed. (Amherst, NY: Prometheus Books, 2009), 65-66.

describing but also endorsing some view of the activities named by them.²⁶⁰ They are laden with ineliminable normative components. The questions that are deemed “scientifically significant,” worthy of scientific investigation, will be deemed so through a miscible blend of practical and epistemic considerations.²⁶¹ And, though even it would not provide the desired touchstone, education research cannot be modeled on the natural sciences. The social phenomena we study in education research – schooling, achievement, testing, discipline, behavior, and more – are not “well-behaved.” We are guaranteed no regularity. “Learning,” for example, depends on human beings taking that thing to be an instance of learning. Unlike physical phenomena, social phenomena set no limit whatever on what can count as their physical realization.²⁶² The quest for pure education research is doomed to failure.

Even if we could attain pure education research, insulated from values, it is not the kind of thing that we should want in democratic society. We should not want it because it would impoverish education research. Democratic values are built into good education research. Good education research, and social science generally, cannot get off the ground without them. Education research must be bathed in democratic values if it is to reach toward objectivity. This is so because objectivity is fundamentally *social*, to be secured through communities of inquiry arranged according to democratic values. No

²⁶⁰ Kenneth R. Howe, “Positivist Dogmas, Rhetoric, and the Education Science Question,” *Educational Researcher* 38, no. 6 (2009): 430.

²⁶¹ Phillip Kitcher, *Science, Truth, and Democracy* (Oxford, UK: Oxford University Press, 2003), 86.

²⁶² See: John Searle, *The Construction of Social Reality* (New York: The Free Press, 1995); John Searle, *Minds, Brains, and Science* (Cambridge, MA: Harvard University Press, 1984).

matter their virtue and training, individual researchers cannot detect all of their cognitive biases or background assumptions. But together, arranged in thoroughly democratic communities, researchers can expose their research to cleansing “transformative criticism,” revealing the widely shared values and aspirations that would otherwise contaminate inquiry.²⁶³ Guided by democratic values, researchers can interact with one another in conditions of intellectual equality, relying on persuasion rather than force, engaging in substantive deliberation in which they take their views to be revisable, and listening carefully to one another. Without democratic values, research will be biased and put to manipulative and authoritarian ends. While we cannot eliminate values from education research, we can reveal those that are now embedded in education research and, if they cannot be defended, replace them with democratic values.

There is another reason not to want pure education research: it would be an abnegation of democracy and democratic citizenship, an acid bath to properly democratic education and education research. It would presume that pure conceptions of schooling and school quality could be found and incorporated into education research. In doing so, it would covertly promote particular values and aspirations, in particular neoliberal values and aspirations. It would shield whatever set of values it presumes from the “transformative criticism” enabled by deliberation among researchers and citizens. It would serve as a tool of manipulation and control, pressuring citizens to conform to presumed values rather than incorporating them into deliberation. It runs afoul of democracy. For these reasons, at once ethical and epistemic, we should abandon the quest

²⁶³ Helen Longino, *Science as Social Knowledge* (Princeton, NJ: Princeton University Press, 1990), 76.

for pure education research. We should instead recognize the priority of democracy to education research.

I have argued that better models for education research come from pragmatism and from feminist philosophy of science. Consider, for example, Phillip Kitcher's attempt to delineate a properly democratic science – what he calls “well-ordered science.” He maintains that both the process and products of scientific inquiry should be subject to democratic deliberation inclusive of citizens in general. Decisions about which projects to pursue, about how many resources to commit to those projects, and about how the products of those projects should be used should emerge from conversation among citizens. Properly democratic science is not the domain of experts alone. It should not advance the private interests of any narrow group – say, elites – above the preferences of citizens generally. How science should proceed in democratic society should not be “for any single person – not even an insightful religious teacher or a clever philosopher – to determine. Individuals can make *proposals*, but the only authority in this arena derives from conversation.”²⁶⁴ Rather, in democratic society, “properly functioning inquiry – well-ordered science – should satisfy the preferences of the citizens in the society in which it is practiced.”²⁶⁵

Kitcher describes a “deliberative,” rather than “aggregative” or “vulgar,” procedure for developing and discovering citizens' desires and aspirations for scientific inquiry. On the vulgar view, which Kitcher takes to be irremediably flawed, the

²⁶⁴ Phillip Kitcher, *Science in a Democratic Society* (New York: Prometheus Books, 2011), 112.

²⁶⁵ Phillip Kitcher, *Science, Truth, and Democracy*, 117.

“untutored” personal views of citizens are aggregated through a voting procedure. The most widely supported untutored preference for scientific inquiry is enacted. Untutored views are those that have not been refined through deliberation, “ignorant about the full range of scientific possibilities and the diverse needs of their fellow citizens, let alone those of more distant people.”²⁶⁶ Kitcher describes the vulgar or aggregative position: “priorities are set as a result of haphazard shouting of more or less powerful voices, each expressing, at best, some partial truth.”²⁶⁷ He continues:

Consider, for example, the actual ways in which research agendas are constructed. The channeling of the research effort is subject to pressures from a largely uninformed public, from a competitive interaction among technological enterprises that may represent only a tiny fraction of the population, and from scientists who are concerned to study problems of very particular kinds or to use the instruments and forms of expertise that are at hand.²⁶⁸

On the deliberative view, citizens come together in democratic conversation in order to develop “tutored preferences.” Tutored preferences are forged through deliberation in which citizens gather, in the spirit of mutual understanding, to learn about the full range of scientific possibility and the needs and desires of fellow citizens. In deliberation, citizens learn the epistemic and practical significance of potential lines of inquiry and then revise their untutored views to accommodate this new information. Instead of aggregating tutored preferences through a voting procedure, citizens “attempt to draw up a list that represents their priorities concerning the outcomes to which inquiry might prove relevant.”²⁶⁹ Where their lists of priorities for inquiry are co-extensive,

²⁶⁶ Phillip Kitcher, *Science in a Democratic Society*, 126.

²⁶⁷ Ibid.

²⁶⁸ Phillip Kitcher, *Science, Truth, and Democracy*, 126.

citizens reach consensus. Where their lists of priorities are not co-extensive, citizens accept the intersection of their lists. Aggregative voting would occur only in the case that the intersection of these lists is empty.

Kitcher's delineation of properly democratic science is but one among many similar pragmatist and feminist accounts. But it reveals that pragmatist and feminist accounts of education research have (at least) three advantages over the kind of education research sought by those who chase after pure science. First, they generate better research, in the sense that such research will be permeated by democratic values and, consequently, more likely to attain objectivity. Second, they do not flee from democracy in search of a foundation stone, but instead recognize the priority of democracy to education research. Third, they are clear-eyed about our epistemic condition and about our condition in general, but they do not collapse into acidic melancholy. I have written at length about the first two advantages. To conclude, I say more about the third.

Richard Rorty observes that those who have given up the quest for pure science, seeing that it is fruitless, sometimes follow Foucault: recognizing that the dream of absolute foundations and a neat fact/value distinction has been thoroughly dashed, they fear that social science will function as a tool of control and technocratic social engineering. They will be "instruments of domination."²⁷⁰ We are stranded without "social hope," adrift in a perpetual struggle between limited perspectives, with only power to declare the winner.

²⁶⁹ Ibid., 119.

²⁷⁰ Ibid.

Pragmatism and feminist philosophy of science bushwhack a different path. While both are optimistic about our epistemic condition and about our condition in general,²⁷¹ neither is deluded. They are lucid in their diagnosis: collectively, we human beings have “set sail,” and we have no external resources or guidance to which we can appeal. We are always in transit, with no safe harbor to be found. We are alone, ethically and epistemically, and we have no reason to expect help from elsewhere. Individually, we are limited and flawed. We are always “situated,” our perspectives necessarily partial. We cannot hope to transcend ourselves. We cannot reach toward objectivity in isolation. Alone, we are worse than two drunken sailors, without the support even of a fellow drunkard.

But pragmatism and feminist philosophy of science show us that we need not mourn. That we are mutually dependent, in inquiry and in life, can be a source of optimism and solidarity. Together, animated by democratic values, we can engage in inquiry that will help us to confront the real problems that loom up in experience. And it is *only* together, through democracy, that we can address those problems. That we are alone as human beings, without recourse to any external authority, can be a source of freedom and opportunity. Humanity is invited “to grow up, to be free to make itself, rather than seeking direction from some imagined outside source.”²⁷² We have no guarantee, and many reasons to think that we will not be up for the task, but we are free to move forward in democratic community, unchained from our dependence on external authority. That we are all drunken sailors together at sea need not be so lamentable: in

²⁷¹ For an argument along these lines, see: Hilary Putnam, *Ethics without Ontology* (Cambridge, MA: Harvard University Press, 2004).

²⁷² Richard Rorty, *Consequences of Pragmatism*, 204.

solidarity with fellow citizens, we are free, at least, to direct the ship as well as we can to whatever destination we determine together in conversation.

To repeat one final time: democracy is foundational to education research. The benefits of democracy and democratic values in education research are simultaneously ethical and epistemic. Democratic values are not corollary or supererogatory to educational research *qua* education research – they are threaded into the fabric of good education research. The quest for pure education research should be abandoned. It leaps over democracy and is, in any case, doomed to fail. We should turn instead to pragmatism and feminist philosophy of science, which offer models of education research that recognize the priority of democracy to education research.

Bibliography

- Haack, Susan. *Evidence and Inquiry: A Pragmatist Reconstruction of Epistemology*, 2nd ed. Amherst, NY: Prometheus Books, 2009.
- Howe, Kenneth R. "Positivist Dogmas, Rhetoric, and the Education Science Question." *Educational Researcher* 38, no. 6 (2009): 428-440.
- Kitcher, Phillip. *Science in a Democratic Society*. New York: Prometheus Books, 2011.
- . *Science, Truth, and Democracy*. Oxford, UK: Oxford University Press, 2003.
- Longino, Helen. *Science as Social Knowledge*. Princeton, NJ: Princeton University Press, 1990.
- Putnam, Hilary. *Ethics without Ontology*. Cambridge, MA: Harvard University Press, 2004.
- Rorty, Richard. *Consequences of Pragmatism*. Minneapolis: University of Minnesota Press, 1982.
- Searle, John. *The Construction of Social Reality*. New York: The Free Press, 1995.
- . *Minds, Brains, and Science*. Cambridge, MA: Harvard University Press, 1984.

Bibliography

- “The A-F Letter Grade System.” *Arizona Department of Education*. Last modified July 30, 2013. <http://www.azed.gov/research-evaluation/files/2013/08/2013-a-f-letter-grades-guide-for-parents.pdf>.
- “A-F School Accountability FAQ.” *Indiana Department of Education*. Accessed February 7, 2017. <http://www.svcs.k12.in.us/Downloads/revised-f-faq-101712.pdf>.
- Adams, Curt M., Patrick B. Forsyth, Jordan Ware, Mwarumba Mwavita, Laura L. Barnes, and Jam Khojasteh. “An Empirical Test of Oklahoma’s A-F School Grades.” *Education Policy Analysis Archives* 24, no. 4 (2016).
- Adams, Curt M., Patrick B. Forsyth, Jordan Ware, and Mwarumba Mwavita. “The Informational Significance of A-F School Accountability Grades.” *Teachers College Record* 118, no. 7 (2016): 1-31.
- Allais, Stephanie. “Economics Imperialism, Education Policy, and Education Theory.” *Journal of Education Policy* 27, no. 2 (2011): 253-274.
- Anderson, Elizabeth. “The Democratic University: The Role of Justice in the Production of Knowledge.” *Social Philosophy and Policy* 12, no. 2 (1995): 186-219.
- . *The Imperative of Integration*. Princeton, NJ: Princeton University Press, 2010.
- . “Knowledge, Human Interests, and Objectivity in Feminist Epistemology.” *Philosophical Topics* 23, no. 2 (1995): 27-58.
- Apple, Michael W. “Education, Markets, and an Audit Culture.” *Critical Quarterly* 42, nos. 1-2 (2005): 11-29.
- Bacon, Michael. *Pragmatism: An Introduction*. Malden, MA: Polity Press, 2012.
- Baker, Eva L., Paul E. Barton, Linda Darling-Hammond, Edward Haertel, Helen F. Ladd, Robert L. Linn, Diane Ravitch, Richard Rothstein, Richard J. Shavelson, and Lorrie A. Shepard. *Problems with the Use of Student Test Scores to Evaluate Teachers*. Washington, D.C.: The Economic Policy Institute, 2010.
- Becker, Gary S. “Nobel Lecture: The Economic Way of Looking at Life.” *Journal of Political Economy* 101, no. 3 (1993): 389-409.
- Berlin, Isaiah. “Two Concepts of Liberty.” In *Four Essays on Liberty*, 118-172. Oxford: Oxford University Press, 1971.

- Bernstein, Richard. "American Pragmatism: The Conflict of Narratives." In *Rorty and Pragmatism: The Philosopher Responds to His Critics*, edited by Herman J. Saatkamp Jr., 54-71. London: Vanderbilt University Press, 1995.
- . *The New Constellation: The Ethical-Political Horizons of Modernity/Postmodernity*. Cambridge, MA: MIT Press, 1998.
- Biesta, Gert. "Why 'What Works' Won't Work: Evidence-Based Practice and the Democratic Deficit in Educational Research." *Educational Theory* 57, no. 1 (2007): 1-22.
- Boler, Megan. "Teaching for Hope: The Ethics of Shattering Worldviews." In *Teaching, Learning, Loving: Reclaiming Passion in Educational Practice*, edited Daniel P. Liston and James W. Garrison, 117-136. New York: Routledge, 2004.
- Borman, Geoffrey, and Maritza Dowling. "Schools and Inequality: A Multilevel Analysis of Coleman's Equality of Educational Opportunity Data." *Teachers College Record* 112, no. 5 (2010): 1201-1246.
- Burgin, Andres. *The Great Persuasion: Reinventing Free Markets since the Depression*. Cambridge, MA: Harvard University Press, 2012.
- Coase, Ronald H. "Economics and Contiguous Disciplines." *The Journal of Legal Studies* 7, no. 2 (1978): 201-211.
- Code, Lorraine. "Taking Subjectivity into Account." In *Feminist Epistemologies*, edited by Linda Alcoff and Elizabeth Potter, 15-49. New York: Routledge, 1993.
- Cohan, Peter. "To Boost College Prospects, Cut Humanities Programs." *Forbes* (Jersey City, NJ), May 29, 2012. <http://www.forbes.com/sites/petercohan/2012/05/29/to-boost-post-college-prospects-cut-humanities-departments/>.
- Coleman, James S., Ernest Q. Campbell, Carol J. Hobson, James McPartland, Alexander M. Wood, Frederic D. Weinfeld, Robert L. York. *Equality of Educational Opportunity*. Washington, D.C.: U.S. Department of Health, Education & Welfare, 1966.
- Crouch, Colin. *The Strange Non-Death of Neoliberalism*. Cambridge, UK: Polity, 2011.
- Curd, Martin, J.A. Cover, and Christopher Pincock. *Philosophy of Science: The Central Issues*. New York: W.W. Norton & Company, 2013.
- Dardot, Pierre and Christian Laval. *The New Way of the World: On Neoliberal Society*. New York: Verso, 2014.
- Davies, William. "Neoliberalism: A Bibliographic Review." *Theory, Culture, & Society*

- 31, no. 7/8 (2014): 309-317.
- . *The Limits of Neoliberalism: Authority, Sovereignty, and the Logic of Competition*. Los Angeles: SAGE Publications, 2014.
- Dean Ho, Andrew. "The Problem with 'Proficiency': Limitations of Statistics and Policy under No Child Left Behind." *Educational Researcher* 37, no. 6 (2008): 351-360.
- Delpit, Lisa. *Other People's Children: Cultural Conflict in the Classroom*. New York: The New Press, 1995.
- . "Skills and other Dilemmas of a Progressive Black Educator." *Harvard Educational Review* 56, no. 4 (1986): 379-385.
- Dillon, Sam. "Florida Supreme Court Blocks School Vouchers." *New York Times* (New York), January 6, 2006. <http://www.nytimes.com/2006/01/06/us/florida-supreme-court-blocks-school-vouchers.html>.
- Edmundson, Mark. *Why Read?* New York: Bloomsbury, 2005.
- Erickson, Fred, and Kris Gutierrez. "Culture, Rigor, and Science in Educational Research." *Educational Researcher* 31, no. 8 (2002): 21-24.
- "FAQs." *Foundation for Excellence in Education*. Accessed February 25, 2017. <http://www.excelined.org/faqs/>.
- Fay, Brian. *Contemporary Philosophy of Social Science*. Malden, MA: Blackwell Publishers, 1996.
- Figlio, David, and Maurice Lucas. "What's in a Grade? School Report Cards and the Housing Market." *The American Economic Review* 94, no. 3 (2004): 591-604.
- Friedman, Milton. *Capitalism and Freedom*. Chicago: University of Chicago Press, 1962.
- . *Essays in Positive Economics*. Chicago: University of Chicago Press, 1953.
- Gould, Stephen Jay. *The Mismeasure of Man*. New York: W.W. Norton & Company, 1981.
- Gutmann, Amy and Dennis Thompson. *Why Deliberative Democracy?* Princeton, NJ: Princeton University Press, 2004.
- Haack, Susan. *Evidence and Inquiry: A Pragmatist Reconstruction of Epistemology*, 2nd ed. Amherst, NY: Prometheus Books, 2009.
- Hacking, Ian. "The Looping Effects of Human Kinds." In *Causal Cognition: A Multi-*

- Disciplinary Debate*, edited by Dan Sperber, David Premack, and Ann James Premack, 351-382. New York: Oxford University Press, 1995.
- Haraway, Donna. "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective." *Feminist Studies* 14, no. 3 (1988): 575-599.
- Harding, Sandra. "Rethinking Standpoint Epistemology: What is 'Strong Objectivity?'" In *Feminist Epistemologies*, edited by Linda Alcoff and Elizabeth Potter, 49-82. New York: Routledge, 1993.
- Harvey, David. *A Brief History of Neoliberalism*. Oxford, UK: Oxford University Press, 2005.
- Hayek, Friedrich. *The Road to Serfdom: Texts and Documents – The Definitive Edition*. Chicago: University of Chicago Press, 2007.
- Hempel, Carl. *Aspects of Scientific Explanation*. New York: The Free Press, 1965.
- . *Philosophy of Natural Science*. Upper Saddle River, NJ: Prentice-Hall, 1966.
- House, Ernest, and Kenneth R. Howe. *Values in Evaluation and Social Research*. Thousand Oaks, CA: SAGE Publications, 1999.
- Howe, Kenneth R. "The Meritocratic Conception of Educational Equality: Ideal Theory Run Amuck." *Educational Theory* 65, no. 2 (2015): 183-201.
- . "What (Epistemic) Benefit Inclusion?" In *Philosophy of Education 1997*, edited by Susan Laird, 89-96. Normal, IL: Philosophy of Education Society, 1998.
- . "Positivist Dogmas, Rhetoric, and the Education Science Question." *Educational Researcher* 38, no. 6 (2009): 428-440.
- Howe, Kenneth R., and David E. Meens. *How Recent Education Reforms Undermine Local School Governance and Democratic Education*. Boulder, CO: National Education Policy Center, 2012.
- Howe, Kenneth R., and Kevin Murray. *Why School Report Cards Merit a Failing Grade*. Boulder, CO: National Education Policy Center, 2015.
- Jaggar, Alison. *Just Methods*. Boulder, CO: Paradigm Publishers, 2014.
- Jordan-Young, Rebecca. *Brain Storm: The Flaws in the Science of Sex Differences*. Cambridge, MA: Harvard University Press, 2010.
- Kirshner, Ben. *Youth Activism in an Era of Education Inequality*. New York: New York University Press, 2015.

- Kitcher, Phillip. *Science in a Democratic Society*. New York: Prometheus Books, 2011.
- . *Science, Truth, and Democracy*. Oxford, UK: Oxford University Press, 2003.
- Kogan, Vladimir, Stéphane Lavertu, and Zachary Peskowitz. “Do School Report Cards Produce Accountability through the Ballot Box?” *Journal of Policy Analysis and Management* 35, no. 3 (2016): 639-661.
- Kuhn, Thomas. “Logic of Discovery or Psychology of Research?” In *Criticism and the Growth of Knowledge*, edited by Imre Lakatos and Alan Musgrave, 1-24. London: Cambridge University Press, 1970.
- . *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press, 1962.
- Labaree, David. “Consuming the Public School.” *Educational Theory* 61, no. 4 (2011): 381-394.
- . *Someone Has to Fail: The Zero-Sum Game of Public Schooling*. Cambridge: Harvard University Press, 2010.
- Ladner, Matthew, and David J. Myslinksi. *Report Card on American Education*. Arlington, VA: American Legislative Exchange Council, 2014.
- Lagemann, Ellen Condliffe. *An Elusive Science: The Troubling History of Education Research*. Chicago: The University of Chicago Press, 2000.
- Lee, Jaekyung, and Todd Reeves. “Revisiting the Impact of NCLB High-Stakes School Accountability, Capacity, and Resources: State NAEP 1990 – 2009 Reading and Math Achievement Gaps and Trends.” *Educational Evaluation and Policy Analysis* 34, no. 2 (2012): 209-231.
- Leys, Colin. *Market-Driven Politics: Neoliberal Democracy and the Public Interest*. New York: Verso, 2003.
- Lloyd, Elisabeth. “Science and Anti-Science: Objectivity and Its Real Enemies.” In *Feminism, Science, and the Philosophy of Science*, edited by Lynn Hankinson Nelson and Jack Nelson, 217-259. New York: Springer, 1996.
- . *The Case of the Female Orgasm: Bias in the Science of Evolution*. Cambridge, MA: Harvard University Press, 2005.
- Longino, Helen. *Science as Social Knowledge*. Princeton, NJ: Princeton University Press, 1990.
- “Louisiana Believes: Letter Grade Results Fall 2013.” *Louisiana Department of*

- Education*. Accessed February 15, 2017.
[http://www.louisianabelieves.com/docs/test-results/10-24-13-report-card-presentation-\(thursday\).pdf?sfvrsn=4](http://www.louisianabelieves.com/docs/test-results/10-24-13-report-card-presentation-(thursday).pdf?sfvrsn=4).
- McGuinn, Patrick J. *No Child Left Behind and the Transformation of Federal Education Policy, 1965-2005*. Lawrence, KS: University of Kansas Press, 2005.
- Meens, David E. and Kenneth R. Howe. "NCLB and Its Wake: Bad News for Democracy." *Teachers College Record* 117, no. 6 (2015): 1-44.
- Mikulecky, Marga, and Kathy Christie. *Rating States, Grading Schools: What Parents and Experts Say States Should Consider to Make School Accountability Systems Meaningful*. Denver: Education Commission of the States, 2014.
- Mirowski, Phillip, and Dieter Phlewe. *The Road from Mont Pelerin: The Making of the Neoliberal Thought Collective*. Cambridge, MA: Harvard University Press, 2009.
- Misak, Cheryl. "Introduction," In *The New Pragmatists*, edited by Cheryl Misak, 1-6. Oxford, UK: Oxford University Press, 2007.
- Mitchell, Michael, Vincent Palacios, and Michael Leachman, *States are Still Funding Higher Education Below Pre-Recession Levels*. Washington, D.C.: Center on Budget and Policy Priorities, 2014.
- Moses, Michele S., and John Rodgers. "Enhancing a Nation's Democracy through Equitable Schools." In *Closing the Opportunity Gap: What America Must do to Give Every Child an Even Chance*, edited by Prudence Carter and Kevin Welner, 207-216. New York: Oxford University Press, 2013.
- The National Commission on Excellence in Education. *A Nation at Risk: The Imperative for Educational Reform*. Washington, D.C.: The National Commission on Excellence in Education, 1983.
- National Research Council, *Advancing Scientific Research in Education*. Washington, D.C.: National Academy Press, 2004.
- . *Incentives and Test-Based Accountability in Education*. Washington, D.C.: The National Academies Press, 2011.
- . *Scientific Research in Education*. Washington, D.C.: National Academy Press, 2002.
- National Science and Technology Council. *Federal Science, Technology, Engineering, and Mathematics (STEM) Education 5-Year Strategic Plan*. Washington, D.C.: National Science and Technology Council, 2013.
- The National Science Board. *Diminishing Funding and Rising Expectations: Trends and*

- Challenges for Public Research Universities*. Arlington, VA: National Science Board, 2012.
- Nye, Barbara, Spyros Konstantopoulos, and Larry V. Hedges. "How Large are Teacher Effects?" *Educational Evaluation and Policy Analysis* 26, no. 3 (2004): 237-257.
- The Oklahoma Center for Education Policy and the Center for Educational Research and Evaluation. *An Examination of the Oklahoma State Department of Education's Report Card*. Normal and Stillwater, OK: OCEP and CERE, 2013.
- . *Oklahoma School Grades: Hiding "Poor" Achievement*. Normal and Stillwater, OK: OCEP and CERE, 2013.
- Olssen, Mark. "In Defense of the Welfare State and of Publicly Provided Education." *Journal of Education Policy* 11, no. 3 (1996): 337-362.
- "Opportunity Scholarship Program." *Florida Department of Education*. Accessed February 7, 2017. <http://www.fldoe.org/schools/school-choice/k-12-scholarship-programs/osp/>.
- "Participating Choice Schools 2016-2017." *Indiana Department of Education*. Last modified November 17, 2016. <http://www.doe.in.gov/choice/participating-schools-2016-17>.
- Peck, Jamie. *Constructions of Neoliberal Reason*. Oxford, UK: Oxford University Press, 2013.
- "People." *Rhode Island Innovative Policy Lab*. Accessed February 25, 2017. <http://riipl.org/people/>.
- Philips, D.C., and Nicholas C. Burbules. *Postpositivism and Education Research*. Lanham, MD: Rowan and Littlefield, 2000.
- Popper, Karl. *Conjectures and Refutations: The Growth of Scientific Knowledge*. New York: Routledge & Kegan Paul, 1963. Reprint, New York: Routledge, 2004.
- "Position Statement on High-Stakes Testing." *American Educational Research Association*. Accessed February 10, 2017. <http://www.aera.net/About-AERA/AERA-Rules-Policies/Association-Policies/Position-Statement-on-High-Stakes-Testing>.
- Putnam, Hillary. *The Collapse of the Fact/Value Dichotomy and Other Essays*. Cambridge, MA: Harvard University Press, 2004.
- . *Ethics without Ontology*. Cambridge, MA: Harvard University Press, 2004.

- . *Realism with a Human Face*. Cambridge, MA: Harvard University Press, 1990.
- . *Renewing Philosophy*. Cambridge, MA: Harvard University Press, 1992.
- “Questions and Answers.” *Maine Department of Education*. Accessed February 15, 2017. <https://maine.gov/doe/schoolreportcards/resources/faq.html>.
- Quine, W.V.O. “Carnap and Logical Truth.” In *Logic and Language: Studies Dedicated to Professor Rudolf Carnap on the Occasion of his Seventieth Birthday*, edited by B.H. Kazemier and D. Vuysje, 39-63. New York: Springer Science and Business Media Dordrecht, 1962.
- . “Two Dogmas of Empiricism.” *The Philosophical Review* 60 (1951): 20-43.
- Rorty, Richard. *Consequences of Pragmatism*. Minneapolis: University of Minnesota Press, 1982.
- . *Objectivity, Truth, Relativism*. Cambridge, UK: Cambridge University Press, 1991.
- . “Response to Conant.” In *Rorty and His Critics*, edited by Robert Brandom, 342-250. Malden, MA: Blackwell Publishing, 2000.
- . “The Priority of Democracy to Philosophy.” In *Prospects for a Common Morality*, edited by John P. Reeder and Gene Outka, 257-282. Princeton, NJ: Princeton University Press, 1992.
- . “There is a Crisis Coming.” In *Take Care of Truth and Freedom Will Take Care of Itself: Interviews with Richard Rorty*, Edited by Eduardo Mendieta, 56-65. Stanford, CA: Stanford University Press, 2006.
- Rhodes, Jesse H. “Learning Citizenship? How State Education Reforms Affect Parents’ Political Attitudes and Behavior.” *Political Behavior* 37 (2015): 181-220.
- Robelon, Erik. “Most Teachers See the Curriculum Narrow, Survey Finds.” *Education Week*. Accessed February 13, 2017. http://blogs.edweek.org/edweek/curriculum/2011/12/most_teachers_see_the_curricul.html/.
- Rockoff, Jonah E. “The Impact of Individual Teachers on Student Achievement: Evidence from Panel Data.” *The American Economic Review* 94, no. 2 (2004): 247-252.
- Rockoff, Jonah E., and Lesley J. Turner. “Short-Run Impacts of Accountability on School Quality.” *American Economic Journal* 2, no. 4 (2010): 119-147.
- Rouse, Cecilia Elena, Jane Hannaway, Dan Goldhaber, and David Figlio. “Feeling the

- Florida Heat? How Low-Performing Schools Respond to Voucher and Accountability Pressure.” *American Economic Journal* 5, no 2. (2013): 251-281.
- Rowan, Brian, Richard Correnti, and Robert J. Miller. “What Large-Scale, Survey Research Tells us about Teacher Effects on Student Achievement: Insights from the *Prospects* Study of Elementary Schools.” *Teachers College Record* 104, no. 8 (2002): 1525-1567.
- Scheman, Naomi. “Epistemology Resuscitated: Objectivity as Trustworthiness.” In *Engendering Rationalities*, edited by Nancy Tuana and Sandra Morgen, 23-52. Albany, NY: State University of New York Press, 2001.
- “School Grades Q and A.” *Foundation for Florida’s Future*. Accessed February 7, 2017. http://www.afloridapromise.org/Pages/Florida_Formula/Facts_on_the_FCAT_and_Floridas_Path_to_Success/School_Grades_Q_and_A.aspx.
- Searle, John. *The Construction of Social Reality*. New York: The Free Press, 1995.
- . *Minds, Brains, and Science*. Cambridge, MA: Harvard University Press, 1984.
- Slavin, Robert. “Evidence-Based Education Policies: Transforming Educational Practice and Research.” *Educational Researcher* 31, no. 7 (2002): 14-21.
- Stedman Jones, Daniel. *Masters of the Universe: Hayek, Friedman, and the Birth of Neoliberal Politics*. Princeton, NJ: Princeton University Press, 2012.
- Stigler, George J. “Economics – The Imperial Science?” *Scandinavian Journal of Economics* 86, no. 3 (1984): 301-313.
- Stout, Jeffrey. “On Our Interest in Getting Things Right.” In *The New Pragmatists*, edited by Cheryl Misak, 7-31. Oxford: Oxford University Press, 2007.
- St. Pierre, Elizabeth. “‘Science’ Rejects Postmodernism.” *Educational Research* 31, no. 8: 25-27.
- Strauss, Valerie. “What Scott Walker is about to do to Wisconsin’s Public Schools.” *Washington Post* (Washington D.C.), July 8, 2015. <http://www.washingtonpost.com/blogs/answer-sheet/wp/2015/07/08/what-gov-scott-walker-is-about-to-do-to-wisconsins-public-schools/>.
- Students First. *Empowering Parents with Data: School Report Cards*. Washington, D.C.: Students First.
- . *State of Education: State Policy Report Card 2013*. Washington, D.C.: Students First, 2013.

- Terry, Jennifer. "Lesbians under the Medical Gaze: Scientists Search for Remarkable Differences." *Journal of Sex Research* 27, no. 3 (1990): 317-339.
- Tong, Rosemarie. *Feminist Thought: A More Comprehensive Introduction*. Boulder, CO: Westview Press, 2014.
- "Understanding Ohio's School Report Card." *Ohio Department of Education*. Accessed February 8, 2017. <http://education.ohio.gov/getattachment/Topics/Data/Report-Card-Resources/Sections/General-Report-Card-Information/A-F-Report-Card.pdf.aspx>.
- "Utah School Grading." *Utah State Senate*. <http://utahschoolgrading.com/faq/>.
- Van Horne, Robert, Philip Mirowski, and Thomas A. Stapleford. *Building Chicago Economics: New Perspectives on the History of America's Most Powerful Economics Program*. Cambridge, UK: Cambridge University Press, 2011.
- Von Mises, Ludwig. *Bureaucracy*. New Haven, CT: Yale University Press, 1944.
- "West Virginia's A through F School Grading System: FAQs." *West Virginia Department of Education*. Accessed February 7, 2017. <https://wvde.state.wv.us/federal-programs/resources/documents/9-A-FFAQ.pdf>.
- Winters, Marcus A. *Grading Schools Promote Accountability and Improvement*. New York: Manhattan Institute, 2016.
- Winters, Marcus A., and Joshua M. Cowen. "Grading New York: Accountability and Student Proficiency in America's Largest School District." *Educational Evaluation and Policy* 34, no. 3 (2012): 313-327.