



Developing Interdisciplinary Researchers: What Ever Happened to the Humanities in Education?

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In response to changing federal priorities, much discussion has taken place recently about the need for graduate education programs to firmly embrace interdisciplinary research, or “interdisciplinary integration across related fields” (National Research Council, 2004, p. 6). The related fields usually are understood to be certain social and behavioral sciences. From the perspective of the humanities, the author challenges an emerging view, widely regarded as commonsensical, about the proper nature of interdisciplinarity in education and what counts as good education research (Hostetler, 2005). He devotes particular attention to the problem of determining and distinguishing ends and means and the dangers of narrowness, and provides examples of the value of the humanities to education research.

Virtually no one would argue against the centrality of graduate education in socializing future generations into the values and commitments of academic work, despite deep disagreements about the nature of the work to be done and most especially about the nature of inquiry in education and the value of the various approaches to it. Representing an increasingly powerful point of view, Margaret Eisenhart and Robert DeHaan (2005), for example, have made a strong case for the importance of socializing neophyte education researchers into the norms of what they describe as scientific inquiry (p. 5). Arguing that the “general processes of inquiry in interpretative and experimental sciences are virtually identical” (p. 5), they propose a doctoral program that includes four components: core courses (almost exclusively research methods courses); research experience; teaching experience; and interdisciplinary collaborations. When viewed in the light of the presumed unity of all forms of inquiry and the common examples used to make the argument, the plea for interdisciplinary collaborations appears to be more for multidisciplinarity than for interdisciplinarity. In the latter, fields outside the social and certain physical sciences are discounted, and disciplinary frameworks are maintained while insights are borrowed from other frameworks, all more or less residing within the same conceptual and methodological family, when an impasse is reached within one’s own. What seems neglected is the value of the tension arising from intense conversations across differing worldviews or patterns of sense-making about some puzzle or problem that is recognized in some way as shared. In such conversations, disciplinary boundaries are made permeable and interpretative horizons jarred and then forced outward.

While reading *Advancing Scientific Research in Education* (National Research Council, 2004) and noting what appears to be a celebration of the methods of scientific problem solving, I was reminded of a statement that John Dewey made as he explored the significance of scientific inquiry to human affairs in his Gifford Lectures, published as *The Quest for Certainty* (1929):

In principle, the history of the construction of suitable operations in the scientific field is not different from that of their evolution in industry. Something needed to be done *to accomplish an end*; various devices and methods of operation were tried. Experiences of success and failure gradually improved the means used. More economical and effective ways of acting were found—that is, operations which gave the desired kind of result with greater ease, less irrelevancy and less ambiguity, greater security. Each forward step of a tool suggested operations not in mind when it was invented and thus carried the perfecting of operations still further. There is thus no *a priori* test or rule for determination of the operations which define ideas. They are themselves experimentally developed in the course of actual inquiries. They originated in what men naturally do and are tested and improved in the course of doing. (p. 124)

One phrase caught my eye in the quotation above, which I have italicized: “*to accomplish an end*.” This phrase stands out starkly for two reasons: Interdisciplinarity itself appears to be understood as a research procedure or means; and, most important, in the current debates over what counts as good research, there has been little discussion of ends (see Willinsky, 2005). We fail to question the purposes of research. In part, it is this failure that underpins Erickson’s recent charge that the NRC report “ends up justifying scientism rather than science” (2005, p. 4).

Making their case for the development of research “expertise,” Eisenhart and DeHaan argue that core courses should be offered and that these must be “scholarly, rigorous, and intense enough to bear the burden of familiarizing students with the orienting concepts in each field, the culture of scientific inquiry, and the special demands of research in education” (2005, p. 10). Where, one wonders, will these young aspiring experts learn what makes a question worthy of inquiry and educationally important, and where will they gain the courage to go outside established bounds when dissent is needed and necessary? (This point admittedly is linked to Eisenhart and DeHaan’s belief in the value of interdisciplinarity, as will become clear later.) Another apt comment by Dewey comes to mind: “That a man may grow in efficiency as a burglar, as a gangster, or as a corrupt politician, cannot be doubted. But from the standpoint of growth as education and education as growth the question is whether growth in this direction promotes or retards growth in general” (1938, pp. 28–29).

What About Ends?

While I puzzled over why there has been so little discussion of ends, of “questions of human well-being” (Hostetler, 2005, p. 16), a quick response came to mind. Perhaps there is now no need for thinking directly about ends, because neophyte researchers, through experience and education, already are well acquainted with what are the significant educational questions. For, as John Goodlad comments, “today’s educational problems and issues are much the same as they were when I entered the first grade” (2004, p. 256). This reason does not hold, however. It is true that educational problems are persistent, but it is also certainly the case that, as the wider social and political context changes the way that these otherwise persistent problems are understood, what is taken as a satisfactory response to them also changes, sometimes dramatically. What is recognized as problematic and how it is framed as a problem makes all the difference in how it is resolved and on what counts as an adequate resolution.

Is it the case that good, researchable questions will emerge from being socialized into a research culture? Perhaps, but perhaps not. In a highly controversial statement, Paul Feyerabend (1975) captures what often happens in the process of the socialization of scientists: “Just as a well-trained pet will obey his master no matter how great the confusion in which he finds himself, and no matter how urgent the need to adopt new patterns of behavior, so in the very same way a well-trained rationalist will obey the mental image of *his* master, he will conform to the standards of argumentation he has learned, he will adhere to these standards no matter how great the confusion in which he finds himself, and he will be quite incapable of realizing that what he regards as the ‘voice of reason’ is but a *causal after-effect* of the training he has received” (p. 25). Kestenbaum (2002) makes the point more gently: “Habits of mind and the reductions they permit become natural . . . [and are] sources of blindness” (p. 81). This is precisely the origin of normal science, a concept noted by Eisenhart and DeHaan and associated with the work of Thomas Kuhn (1962). In the social sciences, studies by Richard Hamilton (1996) of the power of disciplinary orthodoxy to elevate nonsense to good sense, to divert attention from contrary facts, and to deter formation of alternative explanations, forcefully underscore the point: Despite common belief, the Panopticon that Foucault found so disturbing and placed at the center of his critique was never built; unemployed workers did not support the Nazis, and, closer to home, boys are not outperforming girls in school. Advocacy of an accepted position often comes to replace critical originality, and “[f]or the sake of intellectual convenience people hang on to cherished organizing principles” (1996, p. 200). Of course, convenience is not the only reason for embracing a wrong-headed orthodoxy. Well-funded advocacy groups may and often do promote narrow self-interest.

The philosopher Walter Kaufmann uses the term “scholasticism” to point to the operation of a sort of normal science within the humanities. His description nicely captures much that is done within the academy to sustain orthodoxy, Right and Left. For the scholastic scholar, Kaufmann argues, work becomes, “[i]n Einstein’s phrase, a kind of ‘sport,’ if not a game, or a racket” (1977, p. 45). For scholastics, as in normal science, others set purposes. It is the game—expressed through skilled employment of

established methods—and playing it well and within bounds that is important. Lacking a sense of wider context, what is left is instrumental reason, a sharp focus on means, methods, and ideology, what some years ago my colleagues and I described as “technocratic-mindedness” (Bullough, Goldstein, & Holt, 1984). The problem, as Garrison (1997) reminds us, is that ends and means cannot be separated: “[T]o desire some good, some ideal ‘end-in-view,’ is to simultaneously desire the means or operations needed to actualize the good” (p. 34). Attempts at separation produce harmful consequences; and the “game” produces its own ends.

Another troubling reason for ignoring ends comes to mind: Perhaps ends are ignored because they can be taken for granted. Perhaps it is assumed that the debate over the purposes of schooling in the United States is now closed: Education ends are clearly set and well established, and there is nothing much to discuss except means. Raise those test scores! Multiple stories could be told that support this view, from the history of the rise and triumph of standardized testing, the origins of which are fascinatingly described in Zenderland’s biography of Henry Goddard (2001), to the reduction of all educational purposes, including the cultivation of democratic values and commitments, to economic values, a view underpinning the assumptions of the President’s Commission on Excellence in Education that produced *A Nation at Risk* (1983).

On Interdisciplinarity

Generally speaking and as noted, calls of the sort made by Eisenhart and DeHaan for interdisciplinary work in education tend to be contained by social science and natural science frames of reference. The social science frame is rooted in an unfulfilled and deep longing for the status and authority of the hard physical sciences. This said, interdisciplinarity in generous or constricted forms is to be embraced because of its generative promise, the promise of fresh insight, of new metaphors and models for making meaning. As such, interdisciplinarity stands simultaneously as a research method, loosely conceived as a way of engaging a problem, and as an aim in its own right as a form of education. Its promise as a form of education is constrained, however, when the boundaries to be crossed are circumscribed by the assumptions and research methods of the sciences (see Schneider, 2004) and their “range of convenience” (Kestenbaum, 2002, p. 82), to the exclusion of other potentially promising and provocative worldviews and methodologies.

Ironically, despite a century of longing for full membership, education—at least a large portion of it—finds only an unsettled and uncomfortable place within the social sciences despite bold talk about “education science” (Committee on Scientific Principles for Education Research, 2002). Nevertheless, education as a field of inquiry is commonly thought of as a social science by educators and by those who engage in and seek to foster education research and who advocate a reorientation of graduate studies in education. Interdisciplinarity (really multidisciplinary), when understood in these narrow terms—as bounded by certain sciences or social sciences and the assumptions they share about the nature and purposes of inquiry—is unlikely to get far outside established research biases, habits of mind, and social commitments. Given such narrowness, the likely research outcomes are triviality, confirmation, and conformity—predictable sameness—

in the quest for administrative convenience (see Popkewitz, 2004). What is needed in the face of expanding cultural pluralism is a research community committed to “greater effective theoretical pluralism” (Hamilton, 1996, p. 218). This requires reaching beyond the guiding assumptions and methods of the physical, behavioral, and social sciences, which, in any case, are far less sure than has been argued in both *Scientific Research in Education* (Committee on Scientific Principles in Education Research, 2002) and *Advancing Scientific Research in Education* (National Academy of Sciences, 2004). Alternative traditions and modes of inquiry are called for—not as replacements, but as complicating additions and helpful correctives.

Here, again, Feyerabend (1975) proves provocative. He argues for “counter-induction” and against what he describes as the inherently conservative “consistency condition”—that interpretations and insights must confirm previously established conclusions—a point central to claims for “verisimilitude,” or the “appearance of truth” as a standard for judging meaning in the human sciences (Polkinghorne, 1988, p. 176). Feyerabend asserts that bias and blindness are found through contrast and comparison: “[P]rejudices are found by contrast, not by analysis” (Feyerabend, 1975, p. 31). Yet within-paradigm analysis continues to hold sway. The challenge of examining “something we are using all the time” to reveal presuppositions and to open alternatives requires stepping outside and embracing an “external standard of criticism, [a] set of alternative assumptions . . . constituting . . . an entire alternative world” (p. 32). What is required is a firm but playful embrace of otherness, of counter-cultural research assumptions, of stepping out of a comfortable research paradigm with attendant theories and into an uncomfortable one, even if for only as long as it takes to finish reading a helpfully disquieting book.

The first step in our criticism of familiar concepts and procedures, the first step in our criticism of “facts”, must therefore be an attempt to break the circle. We must invent [or seek out and engage] a new conceptual system that suspends, or clashes with the most carefully established observational results, confounds the most plausible theoretical principles, and introduces perceptions that cannot form part of the existing perceptual world. This step is . . . counterinductive. (1975, p. 32)

For education researchers, the humanities present abundant opportunities for breaking the circle, inviting counter-inductive moments into lives lived otherwise well within the conceptual boundaries of an aspiring educational science. There is, of course, a long and rich critical tradition in education that draws on the humanities and that is counter-inductive and counter-cultural in the sense of speaking outside of but to dominant discourses, with the aim of recasting the purposes and practices of schooling and thereby altering what counts as a legitimate avenue for inquiry. Numerous authors and their works come to mind, each work offering in its time a contrary voice and a pointed challenge to researchers. I shall mention only a few familiar works, starting with a personal favorite: In February, 1932, George Counts spoke at the annual conference of the Progressive Education Association. His address was entitled, “Dare Progressive Education Be Progressive?” and was later included in *Dare the School Build a New Social Order?* (1932). The address stunned members of the association and initiated a lively and intense discussion of the purposes of public schooling in America

that, over time, became a central concern of a wing of educational progressivism, including those educators connected to the Eight-Year Study (see Kridel & Bullough, in press).

More recently, drawing on insights from literature and existentialism, Maxine Greene’s *Teacher as Stranger* (1973) opened up for consideration the inner life of teachers in new and fresh ways that helped set the stage for a large and still emerging body of research on the inner and emotional life of teachers. Two years later, *Curriculum Theory: The Reconceptualists* (Pinar, 1975) marked a shift in curriculum thinking, and legitimated and offered alternative directions for scholars, particularly young scholars whose work was leading them outside traditional curriculum questions—objectives, sequencing of activities, evaluation. The publication of *Ideology and Curriculum* (Apple, 1979) encouraged a veritable deluge of studies of the “hidden curriculum”—the buried and sometimes pernicious influences of schooling on the young—first explored by Antonio Gramsci (see Entwistle, 1979). *Caring: A Feminine Approach to Ethics and Moral Education* (Noddings, 1984) led to a fundamental reconsideration of the nature of teaching and being with and for students, and has encouraged an abundant and growing research literature. Elizabeth Ellsworth’s (1989) provocative article “Why Doesn’t This Feel Empowering? Working Through the Repressive Myths of Critical Pedagogy” shook up the educational Left, revealing a fundamental blind spot that continues to be explored. In looking outside established education discourses, each of these authors turned toward the humanities for fresh questions and critical insights into established practices, trying to make better sense of what they were witnessing and experiencing as educators and scholars. Unfortunately, all of these authors stand at the margins of education research. But, as Feyerabend suggests, fundamental insights are born at the margins, outside of normal science.

Marginalizing the humanities or dismissing them as inconsequential to graduate study and research in education has had, and will continue to have, far-reaching and unfortunate consequences. Not that the work will end, for certainly it will not. Rather, with marginalization of the humanities, whatever science of education is created will be to some degree impoverished. Unable to hear the still, small voice of dissent, it will be narrowed, driven by too many of the wrong sorts of questions and miss many opportunities for gaining transformational insights. Recall, it was the humanities that first formed, then articulated, the questions of equality and justice that loom so large in the thinking of many of those now working toward a science of education but who wish to equalize test scores as a surrogate measure.

Considering the Humanities

It is important to recall that the humanities were not always tangential to educational inquiry. As an incipient university study, the foundational disciplines of education included psychology, history, and philosophy, as well as various practical studies (Lucas, 1999). To be sure, as education graduate students rubbed up against history and philosophy, they probably felt a surge of self-worth arising from association with these older, well-established, disciplines. But more important, these disciplines broadened understanding and expanded the range of what was considered worthy of inquiry.

The aim of building a science of education is not new but represents a long and often-frustrated ambition.¹ Early in the last century, education stood between the humanities and the social sciences. At least in principle, it embraced simultaneously technical and emancipatory aims (Habermas, 1971): the aim of gaining and learning how to gain the compliance of students to achieve specific outcomes, and the aim of assuring their social participation and encouraging self- and social-transcendence. Historically, within the field of education, the humanities have been the keepers of the emancipatory aim, part of a grand moral tradition and social ambition evident in the works cited above. But standing between the humanities and the social sciences has proved difficult. As C. P. Snow (1959) long ago noted, finding a middle position between (disciplinary) cultures is seldom successful, yet much is lost in operating only within a single conceptual world, which offers an illusion of certainty and encourages hubris. As it stands, education as a graduate study has failed in the attempt; and sides were long ago chosen.

The State of the Humanities

It is the ideal of the humanities, more than current practice within them, that supports the value and promise of a rich and generous educational interdisciplinarity. To be sure, arguing for the value of humanities to education researchers in the current historical moment is no mean task, in part because the humanities, themselves, have done little to help the cause. There is no doubt that the state of the humanities has contributed to their relative weakness within the university. A quick review of that state is in order.

The sharpest criticism of the humanities comes from those who love them best. Seeking repair, Joan Scott (1995) observes that the humanities as a field of study has few allies within the academy; and she makes the surprising claim that champions of diversity have done terrific harm to them, adding immeasurably to a sense of crisis. She argues that within the university the aim of empowerment has found expression in the presenting of knowledge that affirms students' life experiences, that reflects them "as they already know themselves to be" (p. 300). Echoing a form of fundamentalism and embracing disengagement, an appeal is made to self-confirming "familiarity" and personal identification as the basis for motivation, for judging content, and even for evaluating a professor's worth as a teacher and researcher. Otherness is dismissed rather than embraced. As representatives of shared and recognized categories, individuals meet and are confirmed, not challenged; "identity is the only foundation for learning" (p. 300).

Ruled out as possible stimuli for the desire to learn are the challenge of the new and fundamentally unfamiliar, or a sense of frustration, or an inability to identify, or a purely cognitive interaction, or the sheer pleasure of acquiring mastery. Indeed these are taken as "disempowering. . . ." (p. 300)

One result is that those who are taught become increasingly alike, as do those who do the teaching and, it is important to note, the researching. Orthodoxy and fights among orthodoxies over agenda, resources, position, and prestige dominate the humanities, where it is increasingly difficult to make the case for "the value of critical intellectual work—work typically associated with the humanistic disciplines" (p. 301).

Framed in opposition to a common, idealized, and objectified "other" as enemy, identity politics brings feelings of belonging but tends to slide "toward the premise that social groups have essential identities" (Gitlin, 1995, p. 309). Without pretense, research is reduced to politics and disciplines to self-contained interest groups, just the sort of thing that brings the scorn of social scientists and raises questions about the possibility of interdisciplinary work. What remains is a radically fragmented university where those on the Right and Left talk in closed circles, backs turned outward, as though they and they alone understand and occupy the world, and struggle for power to impose their own versions of order on others through "programmed schools of commitment" (Bromwich, 1997, p. 239).

Given this state of affairs and supported by a robust vocationalism, perhaps it is not surprising that on campus the humanities have been pushed aside in favor of the sciences, which seem to offer at least the possibility of making a truth claim and of adding up to an effect of some kind. This said, I doubt that many educators are even aware of the decades-long turmoil that is the humanities. As a practical study, education has an advantage not enjoyed by the humanities—there is, by definition, an overarching moral imperative, a center: the well-being of children and young people. Certainly, education has its own problems with fragmentation and fundamentalism, and numerous diversions prove enticing when one seeks to make a career; there is no question but that education is replete with scholastics, and narrow and seductive research specializations abound. Still, I suspect that most education researchers understand their work as inextricably linked to this moral center and, because of it, take seriously the challenge of otherness and, if pushed, would feel a failure when playing at the sidelines even if engaged in "antidisciplinary" work. No other explanation can adequately account for the persistence of university–public school partnerships despite the near-insurmountable difficulties and high personal costs involved in sustaining them.

By being concerned primarily with generalizations, accumulation, and patterns of consistency or congruence, science has never been very good at attending to otherness or to difference. It is here that the humanities, as historically and traditionally understood, have particular value despite their recent institutional slippage into parochialism. The humanities call attention to alterity, difference, relationship, morality, and purpose, and by acknowledging human frailty offer means for softening the "fundamental pain of . . . loneliness" (Hoffman, 2005, p. 29) and fulfilling the passion for connectedness and meaning that envelop all educational endeavors. The humanities elevate and embrace the outlier, through whose eyes central tendencies are best understood. No one learns in the abstract, no one has public experiences. Unlike the quest for the holy grail of "best practice" that consumes the science of education, confrontation with the questions that animate the humanities, at least traditionally, illuminate distinctive, remarkable, interesting, provocative, disconcerting, and sometimes even shocking ways of being and interacting, each representing a form of human practice and interrelatedness of importance to schooling and teaching. Indeed, issues related to teaching and learning speak directly to the deepest longings of humanity. In contrast, "best practice" represents a call to training, where outcomes are predictable and contextual and personal differences are of relatively minor consequence. Better to speak of promising or

better practices than “best.” Training, as R. S. Peters once wrote, “always suggests confinement” (1967, p. 7). The humanities press against confinement and invite reconsideration and reconstitution of the self and the projects that define the self, especially during dark times. Clearly, researchers ought not confuse training with education or try to substitute one for the other, even when training and its perfection are rightly needed and called for.

Imagination and Humanistic Traditions: So, What Sort of Mindedness Do We Wish to Nurture?

Describing those who work in the humanities, Kaufmann (1977) identifies four “types” of mind, each embracing a very different conception of what counts as research and each well represented in schools of education. In addition to the scholastic mind, which he sees as lacking perspective, Kaufmann identifies journalistic, visionary, and Socratic minds (critics). He is unabashed in his criticism of the “mindedness” of the academic journalist, who is a teller of others’ stories and personal anecdotes; and, while lamenting the dominance of the scholastic mind in higher education, Kaufmann recognizes that scholastic minds may and often do play an important and valuable role in cultivating a rich territory staked out by others. In contrast, Kaufmann asserts that visionaries and Socratics are crucially important to the health of the humanities, providing perspective, pressing against easy consensus when a point of view or theory becomes too convenient, and revealing alternatives: optional yet valuable ways of encountering and making a world. This is the stuff of imagination, whose power “lies in its capacity to multiply perspectives rapidly” (Garrison, 1997, p. 15).

Socratic minds—the minds of Counts, Greene, Pinar, Apple, Noddings, and Ellsworth—reject both dogmatism and naive relativism and seek to nurture a “critical spirit [that] immunizes students against the facile notion that any view is as good, or bad, as any other. Students are taught to distinguish clearly untenable views from the few positions that appear to be defensible” (Kaufmann, 1977, p. 33). For the Socratic and visionary mind, questions of ends, of the good, are front and center in research as they invite others to engage in the struggle with what ought to be done, even as outcomes are inevitably uncertain, almost happily so. Asking such questions and then taking them seriously inspires humility, demanding of researchers the habit of pausing and wondering about oneself and about one’s project as well as about the other. It requires, at least for a time, the setting-aside of instrumental rationality, the drive to move ahead quickly before knowing the reasons for acting. In contrast, scholastics quickly rush on to their work as sport, seeking to win praise and garner influence. Both the Socratic and the visionary understand the importance of the pause, of not writing before one has anything worth saying and, when writing, of striving to say just what one means. This is the stuff of philosophy, religion, literature, history, and, also of art and music, the traditional humanities, that makes pausing purposeful, productive, and necessary.

Harry Broudy (1988) provides another way of thinking about the importance of perspective and interdisciplinarity to education research that is worth briefly noting here. He wrote as a philosopher and as a student of William Ernest Hocking. Broudy described four uses of schooling: associative, replicative, applicative, and interpretative. It is the last that is of concern here. The *interpretative* use of schooling is a “process related to application but far

less specific and detailed” (Broudy, Smith, & Burnett, 1964, p. 54). Interpretation involves imposing order and form on experience, gaining perspective and getting oriented by using categories and concepts to name a situation in order to make sense of it. Language imposes order, and so do the central concepts of the disciplines. “Whenever we use our school learnings . . . to perceive, understand, or feel life situations, we say that we are using our learning primarily for interpretation, and not replicatively, associatively, or applicatively, although strictly speaking, these uses do not necessarily exclude each other” (p. 54). It is important to note that “in a sense . . . the interpretative use of knowledge is the most fundamental of all, for without a prior interpretation of the situation we are not sure what we shall replicate, associate, or apply” (p. 54).

So, we must ask, What sort of interpretations of the world—concepts, values, beliefs, attitudes—will be encouraged by a science of education and training within it? To be sure, interpretations will be made one way or the other, fruitless or fecund, generous or stingy. Probably it is in the interpretative uses of knowledge that the training of education researchers most often fails, not in the replicative or applicative uses, which now dominate debate. Yet, as noted, the interpretative lies behind the other uses of knowledge and reveals their power and sets their value. It is difficult to think broadly and complexly about an issue when there is nothing to think with—when one has methods without philosophy, techniques without history—or when what is there is severely limited by narrow and highly technical training, whereby science is reduced to process. Such training is most often directed by scholastics, the technocratically minded, and much of the teaching is done by would-be journalists. The danger is that graduate studies in education as Eisenhart and DeHaan conceive of it will, for the most part, produce scholastics. No group is less well suited to provide useful guidance during times of great uncertainty.

Interdisciplinarity and Perspective Taking

“Questions of research,” as Popkewitz (2004) argues, “do not just arise from nowhere” (p. 65); they arise from the traditions in which researchers are educated. “Theories are formed within the intellectual tradition in which those theories work. . . . The unquestioned presuppositions orient how the researcher approaches the world to be known, shapes and fashions what is asked, and forms the objects that are investigated, and just as important, filters out other types of questions as sanctioned for inquiry” (Popkewitz, 2004, pp. 65–66). Although education, like the humanities, is filled with its own version of scholastics, there is also a smattering of Socratics and visionaries. The latter two types, however, must not be confused with either rightist or leftist preachers. Here I provide a few examples of the potential power of the humanities to enable what might best be described (drawing on Garrison, 1997) as “outlaw” thinking, or nonnormative discourse. These examples underscore the value of striving to reach beyond ourselves and our own mindset in our studies, our interactions, and our projects. I shall focus on a few persistent educational questions and seek to present them counter-inductively, as Feyerabend would say.

First, consider learning. Debates have raged within the social sciences over how students learn, and one still hears passionate pleadings from constructivists (constructivism comes in various flavors) who argue the virtue of their positions in contrast to some evil called behaviorism. For various reasons, it is difficult to get

outside this interpretative circle. Drawing on the humanities is helpfully troubling; both views might well miss fundamental and crucial elements of what learning is (and, notably, how learning is experienced—a question too seldom considered). Clifford Mayes (2005a), for example, brings a broad and profoundly religious perspective to the question. Writing of “death and resurrection” in the classroom, Mayes argues for the importance of providing “sufficient opportunities” for students to fail. Referring to the biblical Mother Eve, he asserts: “Our first, great Mother-Teacher understood the need for both failure as well as success in the eternal maturation of the spirit. Following her example, spiritual teaching evidences [a balanced] mixture of the bitter with the sweet. . . . Not only does the spiritual teacher not let a student get caught in failure; [she] does not let him get caught in success” (pp. 68–69). Taking Mayes seriously, one begins to think about planning for what perhaps can best be described as “smart” failure, for confronting limitations and repenting and overcoming ignorance. In this way a student becomes increasingly teachable (“unteachability” being a source of common complaint among teachers) and learns how one learns, discovers the need for reliance on others when encountering difficulties. This is a radical notion. In another work, Mayes (2005b) draws on insights from Jungian mythology to rethink aspects of the nature of teacher-pupil relations; when predictability is the aim, such relations are often thought to be at their best when businesslike. Calling attention to the nature of transference and counter-transference, Mayes points to neglected but important and researchable aspects of how teachers and pupils interact. He raises the generally neglected question of what teachers gain from these relationships and how the relationships are formed to satisfy one or another compelling, and not always healthy, desire or need on the part of the teacher. Identifying and making these desires explicit may have a dramatic impact on the nature and quality of teacher-student relationships, revealing important aspects of those relationships that are most life-affirming for both parties, most likely to encourage learning, and, dare I say, most promising of higher test scores. From comparisons of this kind one discovers, drawing on an insight from Stephen Toulmin (2001), that the “eccentric can be used to explain the central, rather than the other way around” (p. 30). As noted, attending to outliers opens worlds of understanding by revealing what has been missed or intentionally ignored, possibly for good methodological reasons.

In a controversial piece about the teacher-student relationship, Bullough, Patterson and Mayes (2002) draw upon the work of the theologian Walter Brueggemann to explore ways in which teaching involves the prophetic.² Viewing teaching in this way sheds light on how teaching often is a “calling,” to which one is “summoned, . . . impelled by a sense of inner necessity” (p. 315). Teachers who experience teaching as a calling may engage their work in unique ways reflecting their sense of investment in a deeply moral enterprise. This understanding may account for some aspects of a teachers’ classroom and school behavior, most particularly how personal failure or success with students is experienced and understood, including failure to raise standardized test scores. For “called” teachers, facing threatening accountability measures puts the entire self at risk. In addition, the authors note a critical component of teaching as prophecy, where the teacher-prophet necessarily engages in criticism of the world “in order to

reimagine [it]” (Bullough, Patterson, & Mayes, p. 325) and thereby help the young to reimagine themselves as learners. These authors call attention to an ever-present utopian impulse in teaching, where living ideals are always awaiting realization, ideals that may very well ground acts of teacher resistance as well as inspire willing self-sacrifice in service to the young. The authors also open a way for thinking about leadership as a form of service and of ministering grounded in truth-telling rather than as a set of skills taught in administration programs.

Consider yet another example, the nature of moral education. In *Moral Imagination* (1993), the philosopher Mark Johnson demolishes taken-for-granted Enlightenment moral theories grounded in laws and rules and argues for a theory set in four requirements: (1) the development of moral imagination; (2) gaining knowledge of our own moral understanding; (3) forming moral empathetic imagination; and (4) envisioning imaginative possibilities for taking action (pp. 198–203). Empirically testable, the implications of this theory for classroom disciplinary practices and for resolving student disputes through managing conflict are provocative and far-reaching. Discipline comes to be thought of as involving opportunities to develop students’ imaginative moral capacities, including the ability to step into others’ shoes, rather than as means for achieving compliance alone. Similarly, this theory points to often-neglected possibilities for perspective taking and practicing moral reasoning through student conflict management.

Questions and works of these sorts stand outside the interpretative circle set by a science of education. Yet, as I have suggested, they open up important areas for research and offer insights useful for reimagining and productively reframing the problems of teaching and learning.

Conclusion

Maxine Greene, writing more than three decades ago, warned of the dangers of a concept she often championed, “wide-awakeness,” which has a direct bearing on the challenge of interdisciplinarity and the nature of perspective taking. Although she writes about teachers, her point holds for education researchers as well:

One of the risks of “wide-awakeness” is that the sights and sounds of a culture in crisis may overwhelm. At one extreme, they may thrust the teacher back into reliance on precedent; defensively, he may become an automaton. At the other extreme, they may cause him deep disquietude. He may realize, as never before, that he is responsible for his moral choices, that—with dissonance afflicting him and no one to run to for a resolution—he is dreadfully free. . . . (1973, p. 183)

Researchers may recoil from such freedom, seduced by safe and relatively simple questions that assure career success, that are easily measurable; or they may embrace freedom in such a way that the academic life becomes a shared encounter with the unknown and not merely a scholastic’s quest for professional standing or a journalist’s quest for stories that will sell. Robert Coles (1989) observes that the “critical root” of the word “theory” is “I behold, as in what we see when we go to the theater” (p. 20). In beholding, data (the “‘things’ of the world”) are created; and, by *re*-searching in ways suggested by Mayes’s work, new data are beheld and old questions reconceived (Popkewitz, 2004, p. 72).

New forms of beholding, of interpreting the world, not only create new data but also alter practice by changing researchers' understandings of themselves.

Remarkably little educational history or philosophy are read these days. It is worth noting that it was David Tyack, in his landmark book *The One Best System* (1974), who warned of the dangers of single and simple solutions to complex educational problems. Education researchers fixated on finding "best practices" would do well to read this book, even as government-sponsored orthodoxies grow in influence and power and ever more researchers line up for service. I was amazed a few years ago to discover that not a single faculty member in my department (Ph.D.s all) had ever read Dewey's *Democracy and Education* (1916), a book that argues that democracy is a theory of education and has long been a fountainhead of profound questions. Books of this sort, which challenge and provoke, must find a prominent place in graduate education at its core. Too few of us who teach graduate education courses read broadly, but we must. Perhaps, like our students, we need to learn how to read.

Kaufmann (1977) argues for learning to read dialectically, an approach that fuses three elements. The first element is *Socratic*: We enlist the text in a process of examining our own "life, faith, and values." The second is *dialogical*: The "text is treated as a You and allowed to question us, as we question the text" (p. 62)—here we are committed to hearing and understanding what the author intended to say even when there is strong disagreement. The third is *historical-philosophical*: We attempt to understand the work and the author broadly and contextually, reaching beyond the minutiae that capture the scholastic mind. The argument Kaufmann makes is helpful for thinking about the nature of research training in education and the need to "read" not just texts, but also education, dialectically. A researcher ought to know why one or another research question is found to be compelling—what it promises for the researcher and for those the researcher serves, and what is missed by choosing to ask this question rather than another. Before research begins, one ought to develop a broad understanding of the problem. Doing so requires considering contrasts and comparisons of the sort that Feyerabend defends (an effort that is often missing in literature reviews); it also requires attending to and seeking alternatives, getting beyond oneself and one's position to imagine the problem as others understand and have understood it—and to do this requires engagement with others. Here, the visionary may enter, for visionaries in their wide-awakeness see the world as others do not and in so doing stretch and challenge imagination. In challenging the commonplace, they reveal fresh ways of understanding old problems, and they attack new questions that may involve acts of reclamation—for example, when good ideas have been forgotten or seemed to lose promise because a needed supporting technology was unavailable.

I have argued for an expanded and generous conception of interdisciplinarity, not multidisciplinary, for graduate education, one that would support the sort of dialectics that Kaufmann envisions between and among researchers and that which is studied and researched. There is no doubt that this is a tall order. It requires the crossing of well-established intellectual divisions and social and institutional boundaries—divisions and boundaries that tend to encourage and reward insularity while often leaving policy analysis to the journalists and their friends. Given the prac-

tical moral intent of education research, crossing the boundaries and doing so with others should prove not nearly as difficult as in the social sciences, although perhaps not as easy as in the hard sciences, where mathematics provides a shared language. In any case, disciplinary boundaries are historical creations, habits of mind, and are subject to change over time despite faculty allegiance to and self-investment in them.

Perhaps more important, I argue for encouraging those who wish to engage in education research to read broadly and with others.³ Graduate programs in education should be carefully crafted to include encounters with the humanities and to engage students from a wide range of social and intellectual backgrounds on shared and meaningful tasks. Those of us who teach in such programs will face a daunting challenge, for we may discover that we are not fully able to guide our students and are increasingly dependent on "interdisciplinary networks" (National Research Council, 2004, p. 67) and their collective expertise. The challenge brings with it rich opportunities to learn, relearn and—perhaps most important—unlearn our worlds, and to form new, more expansive visions.

NOTES

¹A century ago, practical studies, for example, were defended as reflecting "scientific training rather than . . . practical applications" (Hinsdale, 1910, p. 400). Then, as now, and despite William James's warning, psychology in its various—and often narrowest—forms continues to enjoy first position as the avenue to a science of education. James said, "Psychology is a science, and teaching is an art: and sciences never generate arts directly out of themselves. An intermediary inventive mind must make the application, by using its originality" (1899, pp. 8–9). The prominence of psychology as a field has had many effects, including the reversal of the long-established relationship of curriculum and instruction and the near death of curriculum studies.

²Garrison's discussion of the prophetic in teaching is equally provocative: "Prophets are the finest poets and philosophers, for it is their task to call into existence the novel values that, if we truly desire them, will lead us toward a better destiny" (1997, p. 136).

³John Goodlad's Associates Program may provide a model for work of this kind (see Smith, 1999; Patterson & Hughes, 1999).

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