Volume 6   July 2010

Of Policy, Poetry, and the Potent Notion of Intelligence

Susan Jean Mayer
Brandeis University, Waltham, Mass.

I employ two frames to review the twelve theoretically distinct chapters of Joe Kincheloe's edited volume on Howard Gardner's theory of multiple intelligences (2004). One frame is created by the underlying tension this volume reveals between a felt need for an operationalized vision of the intelligence one should nurture in democratic schools and the, in some ways, competing call for a governing appreciation of children's meaning-making as inscrutably manifold and mysterious. Secondly, I cluster the twelve authors' varied critiques in relation to three somewhat distinct areas of concern: the credibility of the science behind MI theory; Gardner's theoretical elaboration of the relevant science; and the potential of MI to inform or guide school reform.

This review was born of two tributes to Joe Kincheloe in the wake of his sudden death, now over a year ago. The academic press Peter Lang mounted a display of the many volumes that Kincheloe had published with them at AERA last spring, where I discovered his edited volume on Howard Gardner's theory of multiple intelligences (Kincheloe, ed., 2004). In a tribute published about that time, Marla Morris, who has a chapter in the volume, proposed the idea of reviewing Kincheloe's books as a means of recognizing and revisiting his substantial contributions to furthering critical conversations within the field of curriculum studies (Morris, 2009).

As I have long pondered the troubled relationship between the worlds of learning and curriculum theory and indeed studied with Gardner as a doctoral student in the interest of furthering my understanding of the rupture between these two worlds, the idea of this review presented itself. [i] I never knew Joe Kincheloe, but I found myself wondering who this man had been who had also sought to cross the fraught divide between educational psychology and curricular theory, who had taken this divide seriously enough to have organized this volume.

Having lived and worked within the field of curriculum studies for about a decade, I personally know any number of curriculum theorists who dismiss the field of educational psychology out of hand, at least as it has been conceived within the North American academy. I had come clean regarding my own pragmatic commitments to something called science having something to do with democratic

educational theory and practice the previous year, drawing on Dewey's foundational commitment to the same (Mayer, 2008). Reading through the twelve chapters in this volume,[ii] it occurred to me that Gardner's theory of multiple intelligences (MI), along with the significant history of its shifting positions within the hearts and minds of educators for now over a quarter century, provided a lightening rod of sorts for the diverse sets of beliefs and feelings surrounding broader divides between the worlds of educational psychology, curricular theory, and school practice.

Many of those varied beliefs and feelings are represented within this volume. Among the twelve reviewers, one hears from social scientists, weary of how narrowly American social science has been construed, critical theorists, insistent on a critique of power, and pragmatists, who argue that without an articulated ethos, one cannot speak meaningfully of 'culturally valued performances' (Gardner, 1999, 1-3). Perhaps most persistently, one hears a call for a postformal psychology from scholars seeking deeper understandings of the work they do. Within single chapters, these perspectives and others blend. Such theoretical bricolage is characteristic of the field of curriculum theory, and Kincheloe was clearly willing, in the interest of nuance and fresh insight, to invite the uncertainties of interpretation such juxtapositions engender (Kincheloe, 2001).

Regardless of one's theoretical leanings, one might approach a critique of a theory such as MI from a number of angles. I cluster my thoughts here around three: 1) the science behind the theory, including both the argument that science cannot speak usefully in this area and that Gardner's science is lacking; 2) Gardner's interpretative perspective on and theoretical elaboration of the relevant science; 3) the potential of MI to inform or guide school reform.

Advancing such a conversation would seem to require some portion of leavening recognition from all regarding the natural tension between the needs of educational policy makers for an operationalized characterization of the intelligence we seek and the ultimately inscrutable poetry of creative human intelligence in any situated form. Intelligence, as a notion, will inevitably organize the work of schools; intelligence, as an expression of children's sensitive and curious relations with their environs, must be delicately tended, placed within arresting contexts and charged with interpersonal meaning. The kind of pedagogical relationships that result in profound learning cannot be legislated or even entirely described.

The science behind the theory

Those who more or less buy Gardner's analysis, such as Jay Lemke, a scientist himself by training, focus on extending the implications of Gardner's mapping. Lemke's chapter on semiosis distinguishes itself among the rest in this volume in the degree to which it both takes Gardner on his own terms and yet recasts MI in a useful and significant manner. Through his close consideration of semiosis and its relation to 'linguistic intelligence,' Lemke also implicitly extends and elaborates upon one of Gardner's eight organizing criteria, "susceptibility to encoding within a symbol system" (Gardner, ibid, p. 37). Boundaries begin to blur, then, regarding the purview of Gardner's "linguistic" intelligence, which one can see as infusing all conscious thought.

On the other end of this spectrum, Marla Morris disputes the capacity of psychological research to enrich educators'

understandings of human intelligence. From a Buddhist perspective, Morris finds MI "superficial, reductionist, and naïve" (p. 160). Fair enough, from a Buddhist perspective: what psychological theory would not appear so from this vantage? Elaborating, Morris quotes Haraway's characterization of any 'core' (as in Gardner's phrase "core competencies") as no more than a "regulatory fiction" (p. 161). This concept of 'regulation,' though, is very much at issue here. Again, whattheoretical framing cannot be seen, ultimately, as a 'regulatory fiction'? Just two chapters later, Canella cites Gardner himself saying that "The intelligences are fictions – at most, useful fictions" (p. 202). The question then becomes, how much of what sort of "regulation" do/should 21st century democratic schools require?

With Morris, Kathleen Berry opposes any attempt to treat the notion of intelligence in scientific terms. For Berry, Gardner's science unavoidably recapitulates the distortions of the Western logocentric worldview, "reproduc[ing] the dominant, mainstream social, institutional, and civilizational structures of Western culture" (p. 237). While Gardner does endorse the pedagogical purpose of passing along this – or any – society's cultural structures, he would not concur that such a project necessarily "maps out an apolitical education" or "creates homogenous subjects without agency" (ibid). To read Gardner is to know that he consistently presents, in his MI work and elsewhere, as a scholar invested in the defining Modern project of nurturing the growth of autonomous, creative individuals with a well developed sense of personal agency – think Piaget – who have also appropriated the linguistic, conceptual, and material means of their cultures – think Vygotsky (Mayer, 2008). One must claim a culture, he would say, on the way to reinventing it.

This disconnect, surely the deepest in the volume, introduces intertwined questions about anger, consciousness, and power that suffuse the curriculum studies/educational psychology divide. Gardner trusts his field to reinvent itself in a progressive direction; Morris and Berry do not. Gardner, awash in a particular brand of institutional power (such as it is), projects no anger; Morris and Berry do. These divergences reflect a basic disagreement about whether one must locate a critique of power within any democratizing purpose or project. Morris and Berry seem to feel that without a neo-Marxist critique of entrenched economic and political inequities, any theorist is unlikely – or unable – to advance the struggle against them; indeed, such an omission implicates one in the perpetuation of those inequities. On Morris's own terms, though, what does Buddhism tell us about the wisdom of dwelling on such inequities – or the potential gains of doing so?[iii]

Morris and Berry are by no means entirely alone in this perspective. Kincheloe describes himself as "baffled" by Gardner's lack of interest in questions of power (p. 142). Weil, who explores the potential of moving Gardner's MI work into a critical postformal framework, puts it this way, "a critical postformal psychology must take an ethical position regarding oppression, struggles for freedom, personal sovereignty, emancipation, and the struggle for human dignity. Gardner conveniently avoids these issues" (p. 228). As noted above, however, Gardner likely views his project as basically aligned with these very purposes, however discordant the tone of his discourse or the terms upon which that discourse is predicated. [iv]

Richard Cary, in his chapter on visual-spatial intelligence, discusses what he views as Gardner's unconvincing use of scientific findings at some length. Cary notes that Gardner's work is one of

interpretation: one can usefully view MI as a kind of meta-analysis of existing research from a variety of related fields. Rather than defining intelligence tautologically as a result of prescribed "intelligence tests" (which as Cary, Gardner, and all critics of the *g*-theory of intelligence invariably point out were originally designed to judge a child's readiness for school),[v] Gardner draws upon findings from a number of domains; for example, he considers the historical demands that have been made on human minds throughout their evolution. Surprisingly, Cary does not find that this sort of theoretical synthesis classifies as science. Yet all science demands broad-view theorizing, and many would say that we do not see enough of this type of integrative work these days. It is simply not accurate to suggest that scientists, as a group, view their authority as "indisputable" (p. 97): science is an evidence-based interpretive form. Accounting for regularities qualifies as science just as producing regularities experimentally does: they are complementary dimensions of the same project.[vi]

Cary also seems to suggest that because Gardner's interpretation of the evidence has not vanquished his critics in the psychological establishment, many of whom remain enamored of the *g*-theory's elegant simplicity and reassuring capacity to reproduce familiar categories, his science must be too "soft" to do the job. Yet like Berry, Morris, Kincheloe, and Weil, Cary provides no systematic critique of Gardner's interpretive frame, based on the eight criteria Gardner expounds in *Intelligence Reframed* (1999); rather, Cary objects to the fact that Gardner is doing 'normal science,' in Kuhn's language, when Cary believes 'revolutionary science' is in order. [vii]

Indeed, Gardner's eight criteria for an intelligence, which are drawn from biological and psychological research and from logical analysis, are not enumerated anywhere in the book or even discussed very much. Kincheloe does challenge the validity of the criteria of evolutionary plausibility in passing (p. 16). He contrasts evolutionary plausibility with the historical and social construction of intelligence, a dimension he feels Gardner avoids, though other of Gardner's eight criteria do implicate "end-state performances" and "encoding within a symbol system" (Gardner, 1999, 37-8) as Lemke's chapter on semiosis suggests.

For the most part, the remaining authors in this volume locate themselves somewhere between collegial acceptance and a postformal rejection of the science behind Gardner's framework. Gail Canella, who teaches educational psychology and has likely read her share of Piaget, seems to have wearied of the narrow framings and unexamined premises of mainstream educational psychology sometime back. From Canella's perspective, educational psychology feels more than a little depleted and probably irrevocably askew. The field may have helped her organize her thinking earlier in her career, but Canella has moved on in her quest for intellectual relevance and ferment. The nature of Canella's discontent brings us to questions of theoretical interpretation and elaboration.

Gardner's interpretive perspective
One senses that the largest part of what concerns the authors of this volume falls under this heading. As Kincheloe put it in his introduction, we need "a much more coherent, inclusive, and intellectually challenging version of the eight domains" (p. 13). For Kincheloe and others, this means transcending the sense of abstract individualism that Modern cultures inherited from the Enlightenment in order to be able to see intelligence as inextricably

relational and socially distributed.[viii] Such a perspectival shift also entails opening one's sensibility to the beauty and functionality of intelligence as situated within diverse cultural frames, rather than primarily viewing human accomplishment in relation to traditional Western values and understandings.

Clearly, serious work remains to be done here, and one need not rely on Gardner, who has spent his entire adult life at Harvard, to lead the way. Kathleen Nolan, who considers 'linguistic intelligence' from more of a practice-based vantage than Lemke, can perhaps be forgiven her frustration with Gardner's lack of attention to the profound challenges the lingual diversity of this nation has historically presented for those who would advance equitable school practice, given the considerable academic attention these challenges have received over the past forty years (Cazden et al, eds., 1972; Hasan, 2005; Lee & Smagorinsky, eds., 2000).

Lemke's chapter on semiosis also serves to decenter not just Standard English, but even language itself, as the gold standard of what Lemke would want to term American school children's semiotic capacity.[ix] In fact, Piaget's research on the distinctive conceptual organization of children's thought long ago suggested the need for practitioners to ponder the foreign ways in which children construct and represent meanings.[x] Piaget believed that by cultivating children's spontaneous intellectual impetuses one might foster a more firmly rooted sense of meaning and a more comprehensive quality of understanding among them; contemporary educators are right to advance a related argument regarding students who come to classrooms with culturally diverse semiotic capacities.

Canella's critique of prevailing early education psychology naturally intersects with the Piagetian worldview, which served as a central founding influence within the Reggio Emilia schools in Italy that Gardner has praised as the "best pre-schools in the world" (p. 211). In something of the same way that Freud returned Western society to a recognition and exploration of the human unconscious that many traditional societies had never abandoned, Piaget can be thought to have tuned Western educators into subtleties of intellectual growth that the elders within some other cultures may well have always appreciated at deeper levels. Delivering the Western construction of these insights to the rest of the world, then, may be beside the point; much worse, it risks embedding inappropriate and potentially damaging cultural values and perspectives. In asymmetrical cultural exchanges, the situated insights of less powerful cultures are generally neglected and often lost. [xi]Canella is right to raise critical questions regarding *any* analysis of intelligence that purports to be (basically) "culture-free."[xii]

In his chapter on musical intelligence, Yusef Progler revisits Gardner's proposition that intelligence entails "the ability to solve problems or fashion products that are of consequence in a particular cultural setting or community"
(p. 50). This phrase highlights the uncertain line Gardner's interpretation walks between the type of species-general claims generated by evolutionary biology, on the one hand, and what Gardner seems, at times, to present as the entirely contingent values and priorities of particular cultures, on the other. As Progler and others here argue, Gardner awkwardly sidesteps burning questions about the dispositions and capacities that we, of this culture, might want to deem 'intelligent,' while interpretively evoking much of what

he would likely say were he fully to address this issue.

As several of these authors also note, Gardner has fashioned himself a powerful bully pulpit from which he might advance a more thoroughly elaborated notion of the intelligence we need. Yet in situating Gardner's analysis within our present cultural context, the authors of this volume have begun the work of translating Gardner's purported "generalities" into the guidance today's schools require, while also undermining any mistaken sense that the rest of the world needs to imagine intelligence in the same way.

I found Progler's trope of characterizing 'stupidity' as he works to envision intelligence startling and generative. Certainly one invokes stupidity when one speaks of intelligence, and Progler is right to insist that any theorist of intelligence bear this in mind. One wonders what Gardner would think about Progler's suggestion that a cultural grouping (such as that of the high-culture WASP) whose members, on average, struggle to keep a beat and generally shy from erupting into song can be classed as "musically stupid" in broader human terms.[xiii]

What *might* unacceptably low levels of Gardner's eight intelligences look like, and how could we ensure, as a society, that every child experiences opportunities to move beyond so impoverished a quality of experience? George Steiner, founder of the Waldorf schools, believed that every young child should study the recorder and violin. What about African drums, though, for teaching *everybody* the power of a rhythm well kept, and for providing an exciting music-making experience even for children who may not excel at learning to read new languages (see endnote 13)?

Progler also explicitly makes what is arguably this volume's central argument, namely that the cultural wealth that our students present – coupled with the rich material that Western anthropologists continue to uncover and document – can serve, to a much greater extent than it does, to deliver us from our own parochialisms. Indeed, this drive to subject oneself continually to the conceptually foreign and novel might be seen as a defining influence of the Modern and now postmodern Western experience. Might this decentering impetus, then, be something we would want to view, within our culture, as intelligent? [xiv]

As Lemke complicates the boundaries of Gardner's 'linguistic intelligence,' Peter Applebaum blurs the boundaries of the 'logical-mathematical intelligence,' which Gardner has characterized as "the capacity to analyze problems logically, carry out mathematical operations, and investigate issues scientifically" (Gardner, 1999, p. 42).[xv] Just as semiosis is implicated in all conscious thought, Applebaum notes that mathematical thought informs all human interpretation, including work in poetry, dance, and theater, and emphasizes that students need to understand that human experience in all its fullness originally inspired, and continues to inspire, mathematic insight and intuition.[xvi]

As Progler's chapter portrays a kind of musical literacy and adeptness to which we may all aspire, Applebaum provides a conception of math as a curious and playful discourse that could and should interest us all, a developed means for challenging and wondering about the world. In response to Gardner's definitional linking of math with logic (see endnote 15), Applebaum invokes all that flies in the face of logic within the field:

Thinking mathematically requires that a mathematician suspend logic. A mathematician revels in the absurd, in the incongruous, in the ineffable. Given a clearly logical statement, a mathematician challenges the statement by asking, When is it not true? When can I not know whether it is true or not? What if this did not logically follow? (p. 75)

In closing, Applebaum, proposes that perhaps "the fundamental element of a reconstructed mathematical intelligence would be an interest in surprise, paradox and wonder and, finally, awe" (p. 82). Might we, of this culture, also want to generalize and say that wonder and awe often mark compelling displays of intelligence in any domain?

To push a bit further on the idea of a return to an intelligence that is, in some aspects, general, Donald Blumenthal-Jones characterizes an utter and precise attention to one's movements as a "transcultural value" among dancers (p. 122). Might a precise attention to other dimensions of one's experience also be usefully associated with the notion of intelligence? Or even just in relation to bodily-kinesthetic intelligence, might "obesity," alarms about which are currently being raised within our schools (once again based on quantified standards), be usefully seen as resulting, in part, from a less than rapt attention to the movements of one's own body in the world?

Blumenthal-Jones frames several characteristics of bodily-kinesthetic intelligence, which he believes Gardner would also recognize, in order to construct what Progler and Applebaum also sought to provide in their chapters, a conception of intelligence as a performance of which we are all capable. Along with others in this volume, these three scholars worry that Gardner's emphasis on Mikhail Baryshnikov and Michael Jordan – or Mozart, Einstein, or Picasso – works against his stated purposes of democratizing the notion of human intelligence. As Progler's discussion of musical stupidity suggests, democracy may be better served by a focus on reducing stupidity of all varieties in all people than on cultivating genius among the few.

Not that these are necessarily mutually exclusive aims; reducing stupidity across the board may very well lead to more and greater cultural genius. Let us say, with Gardner, that there are eight full intelligences; would developing a fair portion of all of them – remember, we all do have some portion of all of them – amount to an intelligence of a superior quality? Gardner is fond of noting that one can be a brilliant mathematician and yet a horrible human being at the same time. But can a fascist really be what we would want to term *brilliant* in the intra- and inter-personal domains?[xvii]

In his chapter on the personal intelligences, Kincheloe speaks of the inherited cultural understandings that go entirely missing in Gardner's interpretation of the interpersonal. Just as one requires grounding within a culturally established framework in order to enact one's mathematical talents, though, one needs grounding in a stable and seasoned set of understandings about the meanings and purposes of human relationships in order to develop whatever natural proclivities one might possess toward interpersonal insight and understanding.[xviii]

In opposition to Gardner's preoccupation with genius,

Blumenthal-Jones and his colleagues are more concerned that educators do not close down garden-variety expressions of their students' intelligence that may feel unfamiliar or even threatening to their own worldviews. As doctors vow to do, Blumenthal-Jones wants educators to begin by "doing no harm" to the natural intelligent propensities with which all children navigate their lives. Once assured that one is not squelching those propensities, one can move on to attempting actively to nurture them.

Can MI help to reform our schools?

By the early 1980s, standardized tests had begun – in concert with educational performance anxieties (still focused at that time on the Soviet Union) – to limit the pedagogical visions of educational administrators. This narrowing focus on test scores had begun, in turn, to constrain the pedagogical possibilities available within schools. As Kincheloe recounts in his introduction, he was among the many who embraced Gardner's *Frames of Mind* (1983) as a resource for opposing the technocratic sensibilities that seemed to be infiltrating all discussion of the purposes and outcomes of schools (though only the most fatalistic would have imagined where such sensibilities would lead by the early 21st century).

Concerned with supporting the broader development of human potential within schools, Gardner had specifically positioned MI to provide educators with a scientific argument with which to oppose the reigning notion of a unified intelligence that could be measured with tests and meaningfully characterized by a number. That Gardner's work was in many ways well suited to meeting this challenge stoked hopes for MI that can be seen today, perhaps, as having been unrealistic. One wonders whether some of the frustration heard in this volume results from dismay that even Gardner and his mainstream science could not protect schools from our current, federally mandated onslaught of standardized testing. One hears strange shifts of tone within several of these chapters, a move from respectful acknowledgement of the contribution MI has made in altering the terms of debate to arch incredulity that Gardner continues to cling to an outdated psychology, incapable of delivering the final blows to NCLB.

Yet I imagine most of these authors appreciate that forces larger even than Howard Gardner are also at work here. In his essay, "Method, Social Science, and Social Hope," Richard Rorty notes that once pragmatism has been embraced, one is left to choose between Dewey's hopeful thought that we might study the regularities in our lives in the interest of expanding a shared set of understandings about what makes life worth living and Foucault's rather darker set of concerns regarding the purposes to which the powerful might direct any assembled set of such understandings. As Rorty puts it, "Reading Foucault reinforces the disillusion which American intellectuals have suffered during the last few decades of watching the "behavioralized" social sciences team up with the state" (Rorty, 1982, p. 207).

Gardner would say that there is no avoiding the state when you are in the business of trying to improve public schools, and clearly this is correct. Policy will be made; no imminent return to the days when the government pretty much left educating to the educators appears to be glimmering on our horizon. All that remains is for educators to determine the character of their relationship with this reality. Gardner has chosen to argue – in the language of those who craft policy – that one cannot and should not measure intelligence and that intelligence comes in many different kinds. He has

repeatedly, even tirelessly, taken this argument on the road and published books about it in the popular press that a general reader can understand. In doing so, he has established a broadly recognized theoretical platform with which contemporary curricular theorists can work, as the authors of this volume have demonstrated.

Can educational psychology, then, be 'reconceptualized' (at least partially) from the inside with the support of some willing critics from neighboring fields of concern? Or, has educational psychology, in its historical insecurity and enduring methodological pretensions (Lagemann, 2000), irreversibly alienated that group of educators who most closely ponder the social and psychological regularities of educational practice? Might the field have bartered too much away in the interests of garnering what attention it might from figures of social and political power?

Though Rorty sympathizes with Foucault's leanings in response to such questions, he finds Dewey's optimism preferable as a matter of personal and public policy.

> Admirers of Habermas and Foucault join in thinking of the "interpretive turn" in the social sciences as a turn against their use as "instruments of domination," as tools for what Dewey called "social engineering." . . . one should not attribute undue importance to the "Galilean-vs.-hermeneutic" or "explanation-vs.-understanding contrasts by seeing them as parallel with the contrast between "domination" and "emancipation." We should see Dewey and Foucault as differing not over a theoretical issue, but over what we may hope" (ibid, p. 204).

With Dewey, Rorty wants to hope for what we might still, today, call 'solidarity,' even in the absence of any final governing belief system or transcendental ideals. As another good pragmatist, William James, would ask, what stance stands to advance most powerfully our aims as we see them?[xix] To stand in solidarity, though, in the absence of a shared belief system means relinquishing the hope and desire that our compatriots in policy efforts will share our assumptions and terms and will speak in familiar cadences. It will have to suffice that they have pointed themselves in more or less the same direction.[xx]

For Foucault, finding the spaces within which one might cultivate joy and beauty would remain a more personal enterprise (Paras, 2006). Yet Foucault has made his contribution.[xxi] With Morris and others in this volume, we can value the insights born within those closer, more intimate contexts where one can invest oneself in chosen religions, myths, and poetry, nurturing insights not readily spoken in the languages of social science (however poetic our ethnographers become). Not everyone must want or be able to speak to policy makers. Yet *some* must shuttle between these realms if the thoughts of poets are to inform the construction of educational policy.

Intelligence as coherent and somewhat unified

The postformalism reflected throughout this volume, then, recapitulates Dewey's old fashioned (yet ever radical) pragmatism in its insistence that we claim and make visible what Applebaum calls (citing Tyler) our 'philosophical screen.' Applebaum's point is that this "screen" of values and priorities that Tyler (now Gardner) asks

educators to drop in is not really up for grabs: per Kuhn, it is fashioned from the conceptual water in which we swim. We can only begin to discern, let alone interrogate, the commitments and assumptions with which we view our world by placing them against larger backdrops and daring to imagine ways in which they might have been different, or could be made somehow new. In order to forge great public schools in our given moment and place, we need to undertake this kind of penetrating reflection regarding what we are trying to accomplish and why.

Characterizing intelligence is a normative project, as Gardner recognizes, and educators therefore always work from some assemblage of commitments and claims. As Dewey devoted his life's work to explaining, the only ground left within which we can root any fundamental claims at this point is the concept of democracy itself, with its embedded commitments to the universal valuing of human life and to a decentralized distribution of social and political power. The Western scientific tradition within which Gardner has toiled has grown alongside the development of democratic social and political structures, in part, because even marginally democratic deliberations demand practical demonstration in the service of theory.

Any move toward revealing and embracing the wellsprings of his Western assumptions about intelligence can only deepen the significance of Gardner's work, which operates within common contemporary understandings of inherited democratic values.[xxii] The postmodern lenses that Kincheloe would have Gardner recognize are also artifacts of the Western intellectual journey.[xxiii] We might even want, as I have suggested, to view postmodernism as reenacting one defining impetus of Western thought: a restless urge to transcend existing conceptual frames.

Postmodernism, though, also represents a turn in the road for Western societies. Nowhere is this more the case than in this country, which came of age within the Modern era and whose explosive growth has served to reproduce its sensibilities throughout the world. The postmodern sensibility establishes a dialectical movement between the will to push past our current conceptions and a return to their histories and legacies. This return is made in a spirit of humility that is quite at odds with the Modernist belief that so much of what we have been as a species might now be placed entirely behind us.

In regards to the notion of intelligence, postmodernism invites us into a messy and highly decentralized pragmatism. We are asked to listen across human boundaries of every kind, and not only to our fellow humans, but also to our fellow species and to the ways of our planet. We are challenged to place what we see, sense, and hear within the circumstances that have shaped these realities, however unfamiliar or disturbing. We are required to view our own self-interest in the widest possible terms. Clearly, any number of developed dispositions and capacities are required. In characterizing these, theorists provide direction for the work of our schools.

Endnotes

[i] Full disclosure, Gardner served on my doctoral committee along with two others with expertise in Piaget. Eleanor Duckworth, my advisor, studied with Piaget and her work, critical exploration, is deeply rooted in his (Duckworth, 1996).

[ii]The volume's twelve chapters treat the current eight full intelligences and provide five more general perspectives on the work. I was surprised that no one apparently showed adequate interest in the "half intelligence" status of existential awareness to write an entire chapter on it, though it is briefly mentioned by Morris. The eight currently recognized intelligences were outlined in Gardner's 1999 take on MI: linguistic, logico-mathematical, visual-spatial, bodily kinesthetic, intra- and inter-personal (which tend to get grouped in people's minds and share a chapter here), and naturalistic.

[iii]Which is not to say that those concerned with issues of social justice do not often draw productively upon anger in their work. The question only is whether scholars need always do so. Also see, Gert Biesta's piece on emancipation through the eyes of Rancière for a complementary perspective (2010).

[iv] Richard Rorty makes the following point in this regard, "Dewey had learned from Hegel what Foucault learns from Nietzsche – that there is nothing much to "man" except one more animal, until culture, the meshes of power, begin to shape him into something else. . . Once "power" is freed from its connotation of "repression," then Foucault's "structures of power" will not seem much different from Dewey's "structures of culture" (Rorty, 1982, p. 208).

[v] See Gould, 1996.

[vi] Cary also objects, along with some of Gardner's critics within psychology, that Gardner's theories are not "predictive," a critique that harkens back to early associationism and to behaviorist methodology. Not all scientific theories can predict phenomena within experimental timeframes: think of Stephen Jay Gould's evolutionary theory of 'punctuated equilibrium' (Gould, 2002).

[vii] Thomas Kuhn's work on scientific revolutions provides a clarifying lens here. Gardner's whole point, it seems to me, was to employ established findings and methods (i.e. 'normal science') to explode persistent misreadings of the scientific significance of psychometric measures relative to existing understandings about human intellectual capacity.

[viii]Kincheloe points out that mainstream psychology's individualist frame is a function of Modernism rather than an artifact of Western culture (p. 22). I have written about the intellectual import of Enlightenment individualism, which always lives in tension with the standardizing influences of one's native cultural context (Mayer, 2006).

[ix]Which is not to suggest that proficiency in Standard English does not need to be effectively taught in schools, but only that linguistic intelligence must be cultivated in a great array of diverse forms.

[x]The philosophical concerns regarding the evolution of human reason that informed Piaget's work are not greatly discussed in the American psychological tradition (Mayer, 2006, 2008).

[xi]For example, Ethan Watters has studied the exportation of Western constructions of mental illness. Watters' work sensitively demonstrates the risks both to non-Western *and* Western medical understandings to which a unilateral imposition of the Western

worldview naturally leads (Watters, 2010).

xiiCanella also treats Western psychology's lack of internal awareness of its own assumptions. Her discussion of child-centeredness and Reggio Emilia provides an evocative example of the ways in which educational philosophies become conceptually polyglot in a manner that can obscure key organizing dimensions.

xiiiProgler cites a paper by Allen Farmelo that speaks of "the five discourses that block children from learning music and hinder good musiking (sic), which are: inherent talent, musical intelligence [that is, inborn intelligence, as in Mozart], virtuosity obsession, literacy training, and the professional-amateur discourse" (p. 64), all of which can be recognized as prevalent discourses within this culture's educational system.

xivPiaget thought of this decentering impetus as the engine of intellectual growth.

xv Gardner explains that he means to reference what Piaget studied as 'logico-mathematical' reasoning. Although Gardner says that Piaget "claimed that he was studying all of intelligence" (ibid), my sense is that Piaget thought of logical and mathematical reasoning (somewhat more precisely) as both the organizing impetus of the human move toward intelligent action and as the language within which the universe might one day be explained.

xviPiaget believed that each of us constructed mathematical and logical thinking by theorizing our own practical negotiations of physical reality.

xviiWhat would it mean, in this case, to understand oneself and one's deepest needs? Or to understand the nature of human relationships at the highest of levels? Are we to locate brilliantly manipulative propagandists, with Gardner, toward the pinnacle of the inter-personal hierarchy? Or are such types just as likely to be sociopaths, missing a key set of neurological signals having to do with guilt?

xviiiWith Gardner, I am assuming that 'intelligence' is most usefully seen as rooted in both one's psycho-biological and sociological inheritances.

xixRorty also cites and discusses James in this regard.

xxThe philosopher Kate Elgin first pointed this out to me.

xxi In this essay, Rorty calls Foucault, "one of the most interesting philosophers alive" (ibid, p. 208).

xxii Kincheloe's full list includes: "critical social theories, feminist theories, postcolonial analyses, poststructural theories, postformal theories, processual analysis, systems theories, complexity theories, the Santiago theory, [and] Batesonian theory," (pp. 136-7).

Bibliography

Biesta, G., (2010). "A New Logic of Empancipation: The Methodology of Jacques Rancière." *Educational Theory*, 60(1), 39-59.

Cazden, C., John, V., & Hymes, D., eds., (1972). *Functions of*

Language in the Classroom. New York: Teachers College Press.

Dewey, J., (1916/44). *Democracy and Education.* New York: Free Press.

Duckworth, E. (1996). *"The Having of Wonderful Ideas" and Other Essays on Teaching and Learning.* New York: Teachers College Press.

Gardner, H., (1983). *Frames of Mind: The Theory of Multiple Intelligences.* New York: Basic Books.

Gardner, H., (1999). *Intelligence Reframed.* New York: Basic Books.

Gardner, H., (2000). *The Disciplined Mind.* New York: Penguine.

Gould, S. J., (1996). *The Mismeasure of Man.* New York: W. W. Norton & Co.

Gould, S. J., (2002). *The Structure of Evolutionary Theory.* Cambridge: Belknap Press.

Hasan, R., (2005). *Language, Society, and Consciousness.* London: Equinox.

Kincheloe, J. L., (2004). *Multiple Intelligences Reconsidered.* New York: Peter Lang.

Kincheloe, J. L., (2001). "Describing the bricolage: Conceptualizing a new rigor in qualitative research." *Qualitative Inquiry*, 7(6), 679-92.

Lagemann, E. (2000). *An Elusive Science: The Troubling History of Educational Research.* Chicago: The University of Chicago Press.

Lee, C. & Smagorinsky, P., eds., (2000). Vygotskian Perspectives on Literacy Research: Constructing Meaning through Collaborative Inquiry. Cambridge, UK: Cambridge University Press.

Mayer, S. J., (2008). "Dewey's Dynamic Integration of Vygotsky and Piaget." *Education and Culture,* (24)2, 6-24.

Mayer, S. J., (2007). "The Ideal as Real: John Dewey and the Social Construction of Moral Coherence." *Journal of Curriculum & Pedagogy,* (4)2, 176-186.

Mayer, S. J., (2006). "Getting it Right: Keeping it Complicated." *Journal of the American Association for the Advancement of Curriculum Studies.* Vol. 2. http://www.uwstout.edu/soe/jaaacs/vol2/index.htm

Morris, M., (2009). "Joe Kincheloe: Marxist *Kritik* and the Tender-Hearted." *Journal of Curriculum Theorizing.* 25(1) 6-13. Retrieved January 2010: http://journal.jctonline.org/index.php/jct/issue/view/25-1-2009/showToc

Paras, E., (2006). *Foucault 2.0: Beyond Power and Knowledge.* New York: Other Press.

Rorty, R., (1982). *Consequences of Pragmatism.* Minneapolis: University of Minnesota Press.

Watters, E., (2010). *Crazy Like Us: The Globalization of the American Psyche.* New York: Free Press.