Searching for Truth, Beauty, and Goodness in Educational Research

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Willard Waller, the author of the first and best sociology of teaching, described the school as a “despotism in a state of perilous equilibrium,” a despotism “threatened from within and exposed to regulation and interference from without” (Waller 1932/1961) p. 11. I expect that educational administrators continue to experience threat from within and micro-management from without. To deal with such a situation they may seek help from the educational research community. Unfortunately, the educational research community faces exactly the same problem.” Internally there is “little sense of community and few common standards to distinguish good from bad research, or significant from trivial” (Lagemann and Shulman 1999). Externally, the research community faces an attempt to impose a single “gold standard” for research that, if taken seriously, would eliminate most of social science and large parts of the natural sciences. As a result the embattled administrator would be seeking a cure from a group that has the same disease.

Since our theme this year concerns the moral contexts of research and practice, I thought I would consider some issues in the educational research community that relate to ethical conduct. I will not be concerned with surface issues in research ethics, however important, such as whether one has informed consent, but with deeper ways in which educational research can end up reinforcing unethical conduct.

The One and the Many

One of the classic philosophical issues is the problem of “the one and the many.” Some of the Greeks thought the world composed of earth, air, fire and water, while others thought it composed of a single underlying atomic substance. They debated for generations which conception could best account for the unity and diversity of the world. The analogous problem has arisen within the educational research community in the last decades. Can we have one epistemology, one theory of knowledge, with a bit of unaccounted error? Or are there many epistemologies, even an epistemology for everyone, each incommensurable with the others? Pallas recently described the situation as follows:

We need to be aware of the way our own assumptions and concepts—determinants of mind—are, or should be, its own “inner” constraints. Internalists turn the issue around, arguing that the most important function of mind in nature (Godfrey-Smith 1996). Godfrey-Smith began by distinguishing between “externalist” and “internalist” approaches to thinking about the way mind and nature are related.

Externalist accounts view the properties of the environment as the principal factors explaining the emergence and characteristics of mind. As Godfrey-Smith puts it, “The logic of externalist explanation is the logic of adaptationist evolutionary thought, associationist psychology such as behaviorist learning theory, and many brands of empiricist epistemology” (Ibid., p 4). For the externalist you have to “get your mind right,” so to speak, by adapting to given facts or contingencies in the environment.

Internalists turn the issue around, arguing that the most important determinants of mind are, or should be, its own “inner” constraints. We need to be aware of the way our own assumptions and concepts construct “objective” reality so we can understand our own limitations. As Godfrey-Smith notes, internalism “is exemplified today by developmentally oriented views of biological evolution, by Chomsky’s ‘mentalism’ in linguistics and psycholinguistics, and various types of philosophical rationalism” (Godfrey-Smith, 1996, p. 4).

A third possibility is an “interactionist” approach. In interactionism the principal function of mind is neither to mirror the external world, nor achieve inner consistency or self-awareness, but to aid adaptation and development in a world that changes at least in part as a result of the knower’s actions. As William James put it, “our thoughts determine our acts, and our acts redetermine the previous nature of the world” (James 1971), 272. Seen in this way, knowing has the function of getting us in tune with an environment that oscillates in a rhythm that we help to create.

I will discuss some of these issues in what follows in an attempt to simplify this confusing situation. Like the Church I’ll settle on a trinity as a way of shooting between too few and too many, but will try not to leave their relation a total mystery. As you will see my approach is intimately related to the problem of the one and the many. It is also closely related to Waller’s discussion of the delicate relation between perturbation and control in education.

**Approach**

I borrow my approach from Peter Godfrey-Smith’s analysis of the function of mind in nature (Godfrey-Smith 1996). Godfrey-Smith began by distinguishing between “externalist” and “internalist” approaches to thinking about the way mind and nature are related.

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I believe these three general approaches pretty well cover the waterfront as far as epistemologies are concerned. There are other ways to categorize epistemologies which will highlight different things, but this is one consistent and relatively exhaustive approach. While I have not explicitly talked about feminist epistemologies, they may also be divide into this trinity of approaches (Anderson 2003).

**Externalism**

The first orientation, externalism is likely to be the most familiar. We are often told to adapt to the environment, to take careful account of given realities. The result of such an orientation creates what Josiah Royce called the “world of description” (Royce 1899/1976). We create a map of the world showing how we can get from one place to another. That’s what science does—creates a map or recipe specifying how to transform things from one state into another. One can represent this approach using the traditional psychological model in which perception is followed by thought or cognition, which results in an external response:

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This model emphasizing a linear sequence going from stimulus to central processing to response is consistent with the notion of creating a “world of description” because it indicates that stimuli are given and then described and related by cognition.

John Locke, a friend of Isaac Newton’s, was the principal originator of this tradition in philosophy. In effect he sought to develop an account of the mind that paralleled the Newtonian account of the heavens. Locke insisted that all knowledge comes from sensory experience. The basic physical properties of objects, such as their weight, hardness, shape and movement send elementary ideas to the mind, which relates them in various ways. These basic properties, which are commonly detected by two or more senses, can be known with certainty, Locke argued, “as in a mirror,” while other properties, such as color or taste, are more subjective (Locke 1689/1974). The point of identifying such “primary” properties was to clarify what we can know with certainty and what we cannot. If we can bring complex arguments down to earth, insisting that they be backed up by concrete sensory experiences, many empty arguments can be eliminated. Some issues will remain matters of faith, but at least we will recognize them as such.

One of Locke’s successors, the Scotsman David Hume, agreed that knowledge is based either in sensory experience or abstract deduction (as in mathematics) but questioned the certainty of sense impressions. How can we know that sense impressions correspond to objects “out there” when the only way we can know about those objects is through our senses? All we really have to work with, Hume argued, is predictive success. We observe certain kinds of events occurring before other kinds of events, and, if this happens consistently, infer that the former cause the latter. In effect, all we really have is habit or convention.

Locke was a foundationalist and Hume is often regarded as a skeptic. We might do better to call him an anti-foundationalist, because he did not think there was a metaphysical guarantee for even the simplest bits of knowledge. This did not mean that he was tender-minded, however. He was also adopting a tough-minded scientific attitude. As he famously concluded:
If we take in our hand any volume--of divinity or school
metaphysics, for instance--let us ask, Does it contain any
abstract reasoning concerning quantity or number? No. Does it
contain any experimental reasoning concerning matter of fact
and existence? No. Commit it then to the flames, for it can
contain nothing but sophistry and illusion.

The French philosopher August Comte built on this tough-minded,
anti-metaphysical approach, terming it “positivism,” presumably
because it based knowledge on positively observed events (Comte
1856/1957, Comte 1896). Comte suggested that all knowledge goes
through three stages. Explanation starts in a religious or spiritual
stage using inner spirits or agents to explain events. Why did the
volcano erupt? Because the volcano spirit was angry. This gives way
to a metaphysical stage appealing to inner principles that explain
behavior in terms of a word that describes the behavior. In this case
the volcano might have erupted because it had lots of “eruptability”
inside of it (Much as children do well in school because they have
high “intelligence”). Finally, one arrives at the “positive” or scientific
stage in which the account is based only on a succession of similar or
different events. Here the volcano erupted because it had been
observed to be emitting steam and bulging, conditions that predicted
eruptions in the past.

Comte’s positivism let to later “logical positivism” or “logical
empiricism” as Bertrand Russell and the Vienna Circle philosophers
drew on more powerful logical techniques developed at the turn of
the twentieth century. They wanted to turn philosophy into a kind
of science and viewed science as the marriage of formal logic and
empirical observation. Their central assertion was that whatever can
be known is known either by logical analysis, as in mathematical
proof, or by empirical verification. If there are no observations that
could conceivably confirm or “verify” an empirical statement then it
is not so much false as without meaning or “without sense.” As one
doctoral committee member in physics said of a student’s
dissertation, “It isn’t even false.” False statements are those that can
and have been disproven while true statements are either analytic
truths, such as those of mathematics, or verified “synthetic” truths,
like those of the natural sciences. As Carnap, concluded, echoing
Hume, “only statements of mathematics and empirical science have
sense,” while “all other statements are without sense” (Carnap

The point of this tough-mindedness was to find a way to draw a line
between what we know and what isn’t knowledge at all, even though
it takes the form of a declarative statement. Drawing such a
“demarcation line” has proven difficult, however, since too tight a
line can harm what it is supposed to protect or result in paradoxes.
Faith in logical positivism largely dissolved as a result of attacks from
within. The distinction between analytic and synthetic truths, the
deductive truths of logic and mathematics and the inductive truths of
the natural sciences, was criticized by Quine, who argued that logic
and evidence, theory and fact, are not really so independent of one
another. Sometimes the very best science, like quantum mechanics,
violets the laws of logic in order to do better science (Quine 1953). In
effect, Quine and others argued that facts are “theory laden.” You
have to believe in a lot of other stuff to believe that you are really
seeing a “virus” when you look through an electron microscope,
making what you “observe” not entirely independent of your prior
beliefs.

The verification principle of meaning also ran into trouble because no
number of observations logically proves an empirical proposition
true. No matter how many white swans have been seen the next one
may still turn out to be black. This led Karl Popper to conclude that
there is no logic of induction, only a logic of deduction. Others argued
that theories are underdetermined by facts (Hanson 1958), just as
many lines that can go through a set of data-points. As a result,
pragmatic criteria, such as solvability, simplicity or relevance to the
situation at hand, are necessary in determining which beliefs to
accept.

Figure 1

![Diagram of Epistemologies]

Externalist

Empiricism

Positivism

Post-Positivism

All of this has led to a loose movement, “post-positivism,” that
roughly describes the present state of affairs (See Table 1). In this
approach facts are taken to be theory-dependent, theories are possibly
falsifiable but not verifiable, truth is a regulative ideal that we seek
rather than an achieved state of affairs, values enter into inquiry in the
choice of the problem, and knowledge is recognized as a communal
rather than solitary affair (Phillips and Burbules 2000).

So what remains of the externalist tradition? It seems that all the
guarantees have all been knocked away. Every attempt to find some
unshakeable foundation for knowledge or some unbreachable
boundary between sense and nonsense has failed. Sheer falsifiability
is often adopted as a line separating science and non-science but even
it appears to fail when pushed (Lakatos and Musgrave 1970). What
remains seems to be the pursit of truth, and especially universal
truths like some of those in natural science. We might say there is the
attempt to understand things using a mechanical metaphor, a
metaphor of systems whose parts interact in accord with given rules.
In addition there is the social organization of scientists or other
inquirers in competitive and mutually skeptical relations. There are
also evolving norms of good inquiry that keep changing as new
model inquiries appear. And there are new techniques, new
technologies and instruments. This may not seem like much
compared to the search for metaphysical guarantees or impregnable
boundaries separating sense from nonsense, but it may be enough. As
Charles Sanders Peirce put it,
This attitude, rather than metaphysical guarantees or certain methods, may be the most important lesson to be drawn from the externalist approach.

**Internalists**

Internalists turn the issue around, focusing on the knower rather than the object known. As Immanuel Kant, put it, “until now one assumed that all cognition has to conform to objects...henceforth one might try to find out whether we do not get further...if we assume that the objects have to conform to our cognition” (Glaserfield 1995) p. 39. The most important influences in shaping knowledge may be “inner” characteristics or structures of the mind, language or culture. As Godfrey-Smith notes, the internalist approach “is exemplified today by developmentally oriented views of biological evolution, by Chomsky’s ‘mentalism’ in linguistics and psycholinguistics, and various types of philosophical rationalism” (Godfrey-Smith 1996, p. 4).

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The reason that objects may have to conform to our cognition, rather than the reverse, is that the very notion of an “object” is a construct. If there were no organisms making functional distinctions in their experiences there would be no “objects” for the notion of an object implies a generalization with respect to function. “Oranges” are things that perform the functions that oranges can be expected to perform. We might represent this attitude using a diagram similar to the earlier one with the arrows going in the opposite direction:

Response affects cognition and cognition affects stimulation. This may seem odd, but it makes perfect sense. A response, such as an emotional reaction, can clearly affect cognition. Feelings of threat or opportunity with respect to issues of interest alter one’s focus of attention. Altered attention picks up on different things, detecting different patterns in sensation, resulting in a functionally different “stimulus.” The world constructed in this way is a world consistent with one’s interests or emotional responses, what Royce termed “the world of appreciation” (Royce 1899/1976). A recent article on the English painter, J. M. W. Turner, describes the attitude well:

Someone as skilled in constructing space and light as Turner didn’t have to stick to facts. He could conjure up the world according to his whim, proclaim it as truth, and then stand back and let his viewers take it or leave it, as they pleased (Gopnik 2007).

Seen in this way the world that we experience is in a sense made up, or at least cognitively constructed, by our conceptual distinctions and the interests that drive them.

The seminal philosopher in this tradition is Immanuel Kant. Kant criticized the empiricists, Hume in particular, arguing that our minds do not simply associate given sensory inputs (Kant 1781/1966). Rather, the perception of discrete events is itself the product of mental discrimination. We need categories like “before” and “after,” or “similar” and “different” before we can have Humean experiences because we have to distinguish between such things. Similarly, we need to have the concept of “causation” to infer causation from correlation. Rather than starting with predefined sensory experiences in this view we cut up the flux of sensory feelings to constitute our own “objects.”

Kant’s approach clearly threatened to make knowledge subjective. If we all cut up our sensory feelings in different ways we will live in private universes. He dealt with this threat by arguing that the basic assumptions and distinctions, such as those of time, space and causation, are universal (because we need them in order to survive). Thus Kant was as much a foundationalist as Locke. He just thought the foundations of knowledge were internal rather than external.

The history of internalist thought since Kant has gone both ways on the issue of foundationalism. The predominant tendency has been to suggest that Kant was wrong about universal foundations. Post-Kantian hermeneuticists, like Schliermacher and Dilthey (Dilthey 1962), neo-Kantian sociologists, like Durkheim (Durkheim 1965) and neo-Kantian anthropologists, like Boas (Boas 1928/1986) suggested that different peoples use different conceptual systems. “Objectivity” is preserved within a culture but, perhaps, not between them. Psychologists, like Piaget, found similarly that children have different “realities” constructed in them depending on their stages of development (Piaget 1954).

Other scholars held on to the notion of universal inner laws or categories. Gestalt psychologists sought laws of good form shaping all perception. Linguists like Chomsky posited a universal grammar underlying all human languages. Anthropologists like Levi-Strauss posited a deep emotional logic underlying all human relationships. This attitude helped underpin the “structuralist” movement associated with French literary theory from the 1950’s to 70’s that functioned a polemical alternative to Anglo-American empiricism. Where the empiricists posited elementary sensory experiences or observational facts the structuralists posited underlying structures of a priori belief or conceptual distinction that constructed those elementary experiences or facts. The latter emphasis on what the knower brings to the situation, and not merely on what the environment brings to it, was helpful in suggesting some limitations or biases in the externalist account. Sometimes the most important “events” are things unseen, things that never happened. The letter you didn’t send to your lover may be more important than the one that you did. The events that are not detected or acknowledged by one group may be very significant to those in other groups with whom they interact.

Over time the structures thought to be universal seem to have become more limited and abstract. In his latest work, Chomsky is down to claiming that simple recursion is the underlying universal property of all languages (Hauser, Chomsky et al. 2002). Whatever is universal it clearly must be so general as to allow for cultural and historical diversity, making it fairly useless for underpinning specific knowledge claims. Even more damaging, the whole notion of structuralism came under attack, largely from within. Structuralism itself involves assumptions that can easily become dogmatic. As Derrida argued, taking psychological, linguistic or cultural structures as foundational tends to treat such structures as simple given and therefore as themselves outside of structurality. If all of our objects are
constituted by some structural contrast, then aren’t “structures” constituted in this way as well? Don’t we bring something to an inquiry that finds underlying structural contrasts to be important? Apparently structuralism was another way to sneak in a preferred answer, a “metaphysical signified,” before starting the inquiry, much as externalists sneaked in a preference for atomism (Derrida 1978).

Figure 2

A more consistent approach is to accept the “structurality of structure” (Derrida 1978) p. 280. Just as the externalist quests after truth, knowing it to be never fully attainable, the internalist quests after new conceptual universes, new understandings of understanding, recognizing that there is no ultimate end to the process, only a continual “play” of interpretations and interpretations of interpretations. The resulting post-structuralist or post-modernist approach (Figure 2) is anti-foundationalist, incredulous at the gall of anyone believing that they have a privileged position from which to tell a master story encompassing others (Lyotard 1984). As Foucault put it:

To give some assistance in wearing away certain self-evidentnesses and commonplaces about madness, normality, illness, crime and punishment; to bring it about….that certain phrases can no long be spoken so lightly, certain acts no longer….so unhesitatingly, performed, to contribute to changing certain things in people’s ways of perceiving and doing things, to participate in this difficult displacement of forms of sensibility and thresholds of tolerance.--I hardly feel capable of attempting much more than that ((Philp 1985), p. 80).

If the externalist approach has tended to be convergent, seeking universal truths like those of the natural sciences, the internalist approach has tended to be divergent, appreciative of the many ways the world is and the many symbolic worlds that culture and language create. In its post-structuralist or post-modernist guise it has been “incredulous” at the attempt to narrow or normalize things to one way or one symbolic world. In a more positive vein, it can also lead to greater appreciation of difference and greater recognition of the limitations of one’s own (or a group’s) way of thinking and perceiving. As William James noted, “to miss the joy is to miss all” (James 1899/1958). Yet the attempt to recognize and acknowledge “difference” can also become doctrinaire, like structuralism, such as when “difference” is treated as simply given rather than discerned (Ortiz 1999). The greatest lesson to be drawn from the evolution of the internalist approach may be the tendency to question its own tendencies towards dogmatic foundationalism combined with greater appreciation of others and humility about the limitations or biases built into one’s own symbolic “reality.”

Interactionism

One criticism of both externalism and internalism is that both tend to presuppose a passive knower. Locke’s knower learned through sensory impressions, as though looking at the world as a spectator. Kant’s knower used mental categories to actively parse sensation, but did not act to alter future sensation. Neither approach is very strongly concerned with the way “our thoughts determine our acts, and our acts redetermine the previous nature of the world” (James 1971), 272.

The problem of acting in the world, of living, is not just a matter of adapting to a fixed external environment. Nor is it merely a matter of adopting an appealing “inner” attitude or orientation. Each of these may constitute a phase of action. At times one may pay attention primarily to “the way things are” as perceived from a given orientation. At other times one may attend primarily to one’s own attitude or orientation. Once time or history is brought into the story these can be seen as phases or moments in a longer adaptive story. Once organism and environment are viewed as interacting dynamically then the problem of acting involves getting in tune with environmental rhythms that we at least partly create.

One can diagram this by suggesting that stimulation affects cognition, cognition affects response, and responding affects subsequent stimulation (See (Dewey 1896).2

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2 Note it is probably more realistic to posit a number of feedback cycles as in the following diagram but the overall flow of action is still in terms of a sequence like that above:

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Given this view the question is how thinking can be oriented so as to be best enable successive or progressive lines of activity. Seen in this way thinking is a mediator between past and present activity. If it is too passive and backward looking (as in the externalist attitude) it may not be relevant enough to aid with on-going action, and if it is too idealistic and self-referential (as in the internalist attitude) it may not be sufficiently constrained by present realities. Thinking can aid progressive adaptation but it can also get in its way, resulting in dysfunctional, self-defeating behavior.

At this point I suspect you may be beginning to think of Schön’s The Reflective Practitioner (Schön 1983) or perhaps Argyris and Schön’s Organizational Learning (Argyris and Schön 1978). Each of these works is concerned with learning to correct basic beliefs and values when they become practically self-defeating. You would be right to do so, although I will trace it back to some earlier philosophers. To my mind three philosophers were particularly important in developing this third line of thought: Hegel, Marx and Dewey (Schön did his dissertation on Dewey so there is good reason for that similarity). All adopted an evolutionary viewpoint of one form or another. They considered the way ideas come out of a socio-cultural context that they affect in return. In effect, all three were concerned with the way thinking is functional or dysfunctional to our further development and the development of an environment that supports it.

Hegel tried to find a way to bring together universal standards of rationality (implicit in Kant), and recognition of the different ways of thinking evident in different historical epochs (in Herder). You might say his problem was how to square cultural relativity with universal standards. His way of resolving this tension was to adopt a developmental view, placing each historical society in the context of an overall evolutionary story (Hegel 1837/1953). Each epoch has its own unique spirit or culture, its own set of basic concepts and ideas that people work within and elaborate. Over time this local approach runs into practical limitations, anomalies, or contradictions, paving the way for a new approach that reacts against the limitations of the old. The new approach probably succeeds for awhile but eventually produces its own anomalies, leading people to develop a third, synthetic approach, uniting the earlier two, whose common limitations had begun to be clear, and setting the stage for new development—and eventual anomalies. In effect, people are locally stupid in the short run but collectively smart in the long run. The way to integrate the universal and the particular (e.g., the one and the many) was to see how each particular emphasis helped facilitate the overall development. If you can see, as Hegel thought he saw, the overall direction of world progress (toward increased self-consciousness and freedom) then you can place each particular story in a “universal” evolutionary account and get a sense of which ideas have “history” on their side.

Marx adopted this same dialectical/evolutionary scheme but reversed the emphasis, viewing theory as derived from practice rather than the reverse. As he put it,

The mode of production of material life conditions the social, political and intellectual life process in general. It is not the consciousness of men that determines their being, but, on the contrary, their social being that determines their consciousness. (Marx 2002)

Each stage of economic development creates certain basic experiences that tend to be consistent with the dominant ideology justifying the economic system. We have created a world where individualistic competition is part of our daily experience making theories of laissez faire competition seem self-evidently true. It is only when anomalies develop, such as the experience of widespread immobility and failure, that the old ideology tends to be questioned, leading to new forms of action.

Both of these theories are forms of radical social constructivism. Both suggested that we create the environments to which we adapt. This is not just a symbolic or inner world that is constructed. Rather the “external” environment involving the physical structure of things and the organized behavior of fellow human beings is in fair part one of our own creation. The role of thinking in this process is, ultimately, to enable this process of evolutionary self-realization to go on. Its job is not to help us adapt to things as they are, nor to be appreciative of our own biases or the wonderfulness of other ways of thinking. It is practical, helping us evolve as a species, becoming, as the army ads put it, “All that we can be.”

Both of these accounts are also foundationalist. They are teleological meta-narratives of progress, big stories that tell us the uses and limitations of all the smaller, local narratives. Each sought to find the ultimate goal of human history, the direction toward which our evolution inevitably tends, using that endpoint as a standpoint from which to evaluate all other accounts. For Marx, for example, the working class had special insight into things, however latent or unrecognized, because they were closer to the contradictions occurring within the dominant social paradigm. We tend to reject both of these thinkers for their dogmatism, their sense of a preordained future that they could see. We also reject them because their accounts ended up, ironically, on the wrong side of history. At least thus far Spencer and Weber had better predictions of the future--more markets and more bureaucracy--than Hegel or Marx.3

This leaves Dewey and the pragmatists (See Figure 3). Dewey also sought to develop an evolutionary approach suitable for fostering social and individual self-realization, but his approach was neither teleological nor foundationalist. There was no certain standpoint and no given end to history. We’re making this up as we go. The only question is whether we are making it up intelligently, or in a blind or impulsive manner (Dewey 1922). Dewey’s approach was very simple yet it appears to be extraordinarily hard for people to “get.” I’ll admit he was verbose and imprecise and changed his emphasis, over time. You have to read too much of what he wrote over a long and prolific life to get a clear view of his attitude.

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3 They also fell into the internalist versus externalist divide at a meta-level. In essence Hegel saw ends or ideals as determining means, while Marx saw means, technologies and economic systems, as determining ends. Hegel was a meta-internalist while Marx was a meta-externalist.
For Dewey and the other pragmatists, inquiry is embedded within practice. We engage in practical activity, run into difficulties—practical, experienced difficulties—try to figure out the source of the difficulty and how we might resolve it (using knowledge gained from past experience), act on our idea and see if it resolves the trouble. If it does, the reconstructed practice is allowed to continue and we learn from the experience, developing knowledge of means-ends relations that can help resolve the next difficulty (Dewey 1910). Such knowledge is always provisional or falsifiable, however, since past experience may not work in the next concrete situation, which is always unique when considered as a whole. What could be simpler or more obvious?

Dewey’s “experimentalist” approach is not the least bit startling as an account of the way engineers work. It becomes more novel when applied to the resolution of public problems, however. Public problems, social problems, are caused by uncoordinated, unregulated interdependencies between people (Dewey 1927). If we all try to drive to work at the same time none of us will get to work. If we stagger our times there’s likely to be less of a problem. Dewey was saying simply that we should approach our social problems in a fallibilistic, experimental fashion and should not begin with certain prejudices, certain favored classes of solution that we are committed to before we begin. In fact, we should evaluate our favorite beliefs and values in terms of the likely social consequences in our own behavior and the responses of others. If we really believe in atomistic individualism, like the externalists, or in structured differences, like the internalists, then how will this affect the way we behave towards others and they towards us?

Approached in this way a good policy maker or educational researcher should be looking at the broader human or social significance of their ideas and not only to their narrowly instrumental or private meaning. They should be attending to the effects of acting on these ideas, focusing on symptoms of their goodness. Do they allow for continuity of action, “progress” with few pernicious side-effects, such as few extreme counter-reactions from others, or do they disrupt on-going effort and energy? Do they harmonize the full range of goals or interests active in a situation, or only those of a select minority? If they have few undesirable side-effects and many positive ones, relative to their competitors, they may be judged relatively “good.” But this judgment is only provisional and fallible for the best-laid plans may “gang aft a’glay.” That’s not a philosophical problem, however, it’s just life. It calls for rethinking one’s approach, for self-reflection and new experimental action, not existential dismay. Put otherwise, pragmatic fallibilism is the alternative to both absolutism and generalized skepticism.

In this approach we are making up our own social evolution. We look back at where we have been and consider where we might want to go. We create a trajectory, a direction of social evolution. We face local difficulties and see how we can build on our own trajectory in a constructive manner to create a future that is improved in some ways and sets a good groundwork for further improvements. The “we” in this action needs to include all of those whose interests are interdependent, or at least all that can eventually agree to act in common, given fair and open discussion and negotiation. Sensory input plays a role in this because it indicates the results of past action, but is not itself “knowledge.” Response plays a role because it creates new sensory inputs by altering the environment, but it is constrained because things do not always work out as hoped. Cognition also plays a role because it attempts to figure out a way to restore a dynamic means/ends equilibrium, weaving past conditions and hoped for futures together. But both the externalist and internalist attitudes are reduced to temporary phases in this process.

Conclusions

So what does all of this have to do with the relation between research and ethics? And what does it suggest about the embattled administrator, threatened from within and micro-managed from without?

One of the most important implications for ethics is that the deepest reason that educational research, policy and practice are likely to be unethical is because they focus on the wrong problem (Bredo 2007). If our efforts are directed at solving problems that have been framed or conceptualized in a way that creates many undesirable side-effects and few desirable ones, and if they directly serve few but indirectly disserve many, then they are likely to be “unethical.” They may be based on research that is “true,” that is, their main effects may in fact be produced, but if they are not also “progressive” in this sense they are likely to be ethically bad. Any ideologically driven reform is a good example, insofar as such reforms are advance in a way that makes all questioning of their original conceptualization or premises unlikely. Such activities are all too likely to foster unethical behavior because they lead to systematic blindness to effects on important goals, thereby making it difficult to harmonize all of the goals or interests that are affected.

By ethically good or bad, then, I mean that goals or interests active in a situation have (or have not) been consciously harmonized as well as possible. Any approach that makes us blind to this meta-aim, such as the search for truth or beauty alone, is likely to lead to unethical conduct, conduct that defeats its own broader or longer-run goals. What this suggests is that we need research, policy and practice that: a) more fully involves all of those with interests in the issue, b) is more self-reflective and self-critical and c) is more hypothetical and
Waller had it about right. The schools are a despotism because they are in perilous equilibrium and they are in perilous equilibrium because they are a despotism. We oscillate between the despotism of uniform standards and the perilous equilibrium of an endless diversity of standards, between the one and the many. The former is too narrow and rigid; the latter too chaotic. Each offers something important, yet when adopted too rigidly and extremely, each leads to overshoot, reinforcing the opposing extreme. The alternative to oscillation between these extremes is to thoughtfully chart a provisional course sensitive to the immediate situation while drawing on past experience to formulate an experimental and revisable way forward. Both truth and beauty play a role in this, but neither should trump judgments of relative goodness. Whether we can create political conditions and institutions that make a more reasonable and collaborative approach possible is the question that remains.

References