
SCIENTIFIC TO THE POINT OF SUPERSTITION:
TOO LATE FOR HERMENEUTICS?

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The final confusion that dominates methodology of the sciences is, I think, the degeneration of the concept of practice. This concept lost its legitimacy in the age of science with its ideal of certainty. For since science views its purpose as isolating the causes of events – natural and historical – it is acquainted with practice only as the application of science. But that is a “practice” that requires no special account. Thus the concept of technology displaced that of practice; in other words, the competence of experts has marginalized political reason.

Hans-Georg Gadamer
Truth and Method

Approaching the age of sixty when the first edition of his magnum opus *Truth and Method* was published, Hans-Georg Gadamer wondered if his attempt to extend the radical questioning of his mentor Martin Heidegger to the realm of scientific investigation had occurred “too late” to be of use in the mediation between philosophy and science. Gadamer warned that only a science capable of respecting the limitations as well as the power of methodological claims to “truth,” could promote and support social purposes without usurping them. And he called upon philosophy to “make this clear to an age credulous about science to the point of superstition.”¹

In *Truth and Method*, Gadamer attempted to “locate and preserve a domain of truth peculiar to the historical, human sciences that could challenge the universalist pretensions of the natural sciences, and thereby show that method is not the exclusive path to truth.”² To suggest territorial ranges for legitimated claims and to stake out space wherein historical “being” “eludes the web of method,” Gadamer called into question the belief that “proof is our sole means of access to truth.” It is the “excess of truth over understanding, reflection, and self-consciousness” that “precludes the equation of truth with method” and it is the task of the hermeneutic tradition, while of itself offering no criterion for truth, to open up “new possibilities for knowledge which would not be perceived without it.”³

This exploration of Gadamer’s fears regarding an overly credulous reliance on scientific method and his hopes for a hermeneutic “corrective,” is part of an ongoing investigation of the ways in which educators at various levels understand and interpret educational policy. Following a brief discussion of Gadamer’s case for a hermeneutic “truth” beyond “method,” educational leaders’ responses to

the *No Child Left Behind Act* signed into law January 8, 2002, by the 107th Congress will be examined with an eye to Gadamer's concerns. This examination suggests that current policy, in its reliance on narrowly defined scientific method, has explicitly excluded the wisdom of practice from the educational reform process. Educational legislation informed by Gadamer's hermeneutic would require the careful consideration, not the exclusion, of educational administrator and teacher interpretations of intended and unintended consequences as part of any legitimate policy cycle.

GADAMER'S "TRUTH"

In Gadamer's hermeneutics, understanding always entails application, not to some predetermined, external end like the ideal form of an object envisioned by a craftsman, but to a self, always at risk of being changed in the process of that understanding. For Gadamer, the traditional hermeneutic divisions of understanding, interpretation, and application are not easily maintained; understanding is always applied understanding, whether or not the interpreter's conscious purpose is one of application. As he asserts in *Truth and Method*, "Interpretation is not an occasional, post facto supplement to understanding; rather, understanding is always interpretation, and hence interpretation is the explicit form of understanding."⁴ The role of interpretation in moral understanding is particularly salient; moral knowledge is acquired "precisely in application" rather than "at a distance," arising within a circle constituted by the interplay between tradition and the interpreters of that tradition. For Gadamer, "the human sciences stand closer to moral knowledge than to theoretical knowledge."⁵ We must act without the assurance of mathematical, statistical precision in the human sciences; we cannot trust method alone to chart our course.

In moral deliberations, we find ourselves in situations that compel us to act; but unlike the craftsman who can determine the ideal shape of the object to be crafted in terms of its use irrespective of context, we cannot act morally in ways that can be determined ahead of time independent of particular situations and relationships. Nor can we stand outside the traditions within which moral decisions must be made. We are born into the *prejudices* of our traditions with *prejudices* understood as the judgments of previous generations that we inherit upon our births. The shared prejudices of historical, cultural, intellectual traditions continue to shape us even as we attempt to shape them. If our prejudices are derived not from our individual subconscious, but from our communal traditions, then for Gadamer, following Heidegger, "being thrown" into the world may mean that prejudice is "not merely prior to consciousness but its condition."⁶ It is such prejudice that the methodologies of the natural sciences claim to minimize or avoid; how then, in the midst of this prejudice is hermeneutic "truth" possible

as an ideal or as an experience? More specifically, what role might hermeneutic “truth” play in educational policy and why is this role an important one?

POLICY’S METHOD

The original *No Child Left Behind of 2001 Act*, (*NCLB*) Law P.L. 107-110 H.R. 1, is 670 pages long without addenda and contains almost 500 sections with over 90 references to Adequate Yearly Progress, the state specified test score increases for all students and sub groups to be validated by National Assessment of Educational Progress trends. In the state of Illinois, sub groups are defined within each school as 40 or more students who are economically disadvantaged, disabled, limited in English proficiency (LEP), or members of major racial or ethnic groups. The federal guidelines have identified sub groups while allowing the states some latitude in setting the number of students required in a category before each sub group is defined for measurement purposes.

In order to meet the needs of all students in all subgroups, *NCLB* specifies that “scientifically based research” be used to address achievement gaps through systematic research and vetted educational programs. There are almost 70 references to “scientifically based research” which *NCLB* has carefully defined in Section 9101 for funding and instructional purposes.⁷ In support of a “gold standard” definition of “scientifically based research,” Advisor to the Assistant Secretary for Educational Research and Improvement Valerie Reyna contends that the same rules apply to the teaching of students as apply to the treatment of cancer. Just as in medical research, large scale trials with random selection and random assignment can be used to avoid the bias introduced by groups in their “natural” settings (e.g., classrooms, schools, communities) and allow “prescriptions’ suitable for a general population with specific, measurable, predictable effects. According to *NCLB*, school reform initiatives in curriculum, instruction, and professional development based on “gold standard” research will lead to increased achievement of all students as defined and measured on standardized state and national tests.⁸

How does Gadamer’s hermeneutic “truth” come into play within the context of this policy’s method? What role do the “moral sciences” or “human sciences” play given policy requirements predicated on strict definitions of scientific method? How do the questions and claims of the moral and human sciences, wherein the subject is not kept separate from the object since the subject itself is what is studied, “make themselves intelligible as effective forms of understanding related to truth?”⁹ If hermeneutics is to be viewed, not as simply one of the “inexact sciences” when compared to the gold standard of scientifically based research, it must do more than offer a variety of perspectives, each with its own merit. It must avoid a slide into relativism whereby claims are considered simply in terms of the historically shifting prejudices of different groups exercising power and exerting influence. In their efforts to gain the precision of

the natural sciences in the social, moral sphere of educational reform, policy makers have excluded the perspectives, interpretations, and insights of educators responsible for implementing their initiatives. Some have claimed that this exclusion is part of a political move to discredit and undermine the public system in the service of vouchers and privatization. Assuming a good faith reform effort, what might a fusion of philosophical, practical and policy horizons offer in the current context?

FUSIONS OF HORIZONS

The natural sciences deal with the bias of being human by attempting to keep the subject outside, separate from the object. The strength of science thus limits its scope. Since objective science works to exclude itself in order to maintain a claim of disinterestedness and neutrality, “no objective science can be a science of the whole.” Offsetting this limitation requires a hermeneutic “truth” based on a fusion of horizons between knowledge preserved in tradition and ongoing interpretations. The “truth” made possible in this circle of inquiry is not “methodological,” but part of the “ontological structure of understanding.” In Gadamer’s hermeneutic circle, “understanding projects the unity of a shared truth, even if the single horizon enabling understanding is not given in advance.”¹⁰

Unlike objective science’s reliance on methodological closure, in the hermeneutic circle “logical priority resides with the question... rather than with knowledge, which depends on the scientific achievement of determination.”¹¹ If there are any unchanging truths they reside in the “shared questions regarding the meaning of human existence... which rule all understanding by determining the direction of any interpretation that makes a truth-claim.” In communications, including policy deliberations “the ideal is not that one party should understand the other but rather that they should reach an understanding between them.” The fusion of horizons, which represents “this between,” is the “true locus of hermeneutics.”¹²

What might such a fusion of horizons, in this case between federal policy makers and the leaders charged with the practical implementation of legislation, offer? Attempting to ground an understanding of *NCLB* in a local context without prematurely narrowing the scope of the interpretation, I interviewed 12 educational leaders during the summer of 2003.¹³ My sample included Superintendents, Central Office Administrators, and Principals in two distinctive districts. One district was a relatively affluent, suburban community; the other was a district with large pockets of poverty and multiple schools designated by the state as “failing” under both the 1994 Elementary and Secondary Education Act (*ESEA*) and *NCLB*. The concerns raised by school leaders during these interviews did not center on methodological issues or requirements for scientifically based research. Instead, they emphasized the practical, moral, human import of the legislation, for good and for ill. They also alluded to what

Gadamer called “the final confusion that dominates methodology of the sciences... the degeneration of the concept of practice.”¹⁴ The following sequence of sentiments expressed by a leader with both public school and university experience provides an example of a pattern seen in subsequent interviews. This educator began by describing *NCLB* as an attempt to extend the noble goal of equity in education connected to national ideals embodied in our founding documents:

I think one of the great struggles that we’ve had in this country has been the unevenness of the delivery of the education to our children because of its local character; the accessed quality is very much a function here of where you live, in accidents of birth.... So, being able to look at a group of kids of every race, both sexes, every persuasion and say, “Every one of you. We’re going to have a high expectation that you’re going to make it and if your school gets in the way, we’re not going to let that happen....” Read our *Constitution* and our *Declaration of Independence* and the principles that set out what we hoped our country could become and then think about *No Child Left Behind* as an effort to try to make sure that we can hand off some of those things to yet another generation.¹⁵

He then referred to the law’s current “method” for pursuing this noble political and educational goal: a statistically impossible (in his view) schedule of increases in state test scores for each sub group in every school. Given the possibility that the public system might be discredited and weakened beyond repair under these sanctions, this leader, so inspired by the legislation’s stated goals and narrative sweep, asked:

How can we avoid going from a failing public to a failing private system when the privates are not held to the same accountability/high stakes tests? What some worry about is that this is, in fact, the deconstruction of the historic public system. Now what? If we do it in, have done it in through *No Child Left Behind* and allowed children in poverty to escape the system by giving them vouchers and allowing them to go to other kinds of schools, how do we make sure that they haven’t just gone from a public failing institution... into one that’s private? At least, aren’t there some public protections... for kids that aren’t there in the private schools?¹⁶

If the goal is a more just and equitable public education system, then this educator’s horizon calls into question the sanctions sequence as a method for achieving that practical purpose. If the goal is the “deconstruction of the historic public system,” then the method, which includes standardized testing and sanctions, draining funds from the most impoverished schools, “naming and shaming” schools with subgroups that do not make Adequate Yearly Progress,

and eventually discrediting all the nation's schools as standards that already cannot be met are raised, may suffice. For this leader, the concern is not whether the *NCLB* reform model is itself supported by "scientifically based research." This logical, methodological question is left unasked.¹⁷ Instead, the concerns are hermeneutic: What does the policy truly mean? How are its meanings to be grounded in application? How is the policy to be understood in light of its moral justifications? To what extent can the "political reason" behind this policy be trusted?

These hermeneutic questions seem to have been effectively silenced or subordinated by *NCLB*'s insistence on measure as meaning. For example, in its reliance on the "technology" of test scores as the basis for decision making, the legislation effectively devalues the concept of practice and the understanding it brings into the evaluative process. Expertise arising from engagement in, not removal from, educational processes is not legitimated in this legislation, which claims as its ideal the certainty of scientifically based research in pursuit of numerical goals. The loss of experience-based legitimacy to "the competence of experts" is reflected in the current suspicion of teacher judgment, which, like moral judgment, must occur in application and not at a distance. The leader cited above, having worked with teachers across his district for over thirty years, observed:

Many American teachers frankly, are success stories of the American way, who were raised in families and through education they were able to be achievers. To portray our teachers as villains in all this is crazy.... I'm troubled that *No Child Left Behind* makes the teacher the worker bee. My own belief is that we should be developing the teacher as the professional, the person with the capacity to diagnose and prescribe instruction in order to improve the learning for each child. Teachers are capable of that if we get off their backs and allow them to practice their craft, develop it as a profession. But instead, we're imposing on them this bureaucratic top-down system where they're at the bottom, frankly not understanding right now what the devil's going on.¹⁸

An educational leader even more directly involved in the same district expressed similar concerns about the degeneration of the concept of practice and the loss of trust in the insights to be gained "precisely in application." This educator felt the need to address the issue directly with teachers at the beginning of the 2003 school year:

We are in a measurement mode now, but you need to keep your balance. You can't doubt everything you do. You'll lose your grounding as a professional. I have teachers who are waiting for

the test before moving kids to the next grade. I say “C’mon, give yourselves credit for being able to analyze and assess.”¹⁹

The wisdom of practice, a wisdom informed by the moral as well as the mathematical, appears to be in danger of being replaced with annual calculations driven by the “technologies” of testing and the expertise of test item writers. The acceptance of tightly defined scientifically based research as a “standard” for pedagogical and curricular decisions further extends the reach of “method.” Through the eyes of educational leaders interviewed, the bipartisan compromise between supporters of Senators Orrin Hatch and Ted Kennedy documented in *No Child Left Behind* looks like a collision of solutions rather than a fusion of horizons leading to more profound understandings of education and equity. When the NEA claimed that *NCLB* was gravely under funded and threatened to sue, Secretary of Education Rod Paige responded, “We’ve assembled a coalition of the willing to help kids who need it most. The NEA wants to assemble a coalition of the whining to hold kids back.”²⁰ In these exchanges, the wisdom of practice remains silenced, foreclosing the possibility of a hermeneutic truth that requires a discourse beyond slogans to reveal itself.²¹ To consider truth beyond method, policy makers and educators alike must be prepared to put personal ideas at risk and to find a common language for addressing shared problems.

A hermeneutically informed policy would not allow for simple solutions. It would not reduce the educational success of students to a single standardized test score any more than it would reduce the definition of health to a single vital sign. It would not disregard the wisdom of practice in all its variability, despite the fact that instruction may indeed be the easiest “variable” to control in a quest for educational predictability. Students certainly cannot be made “standard” given their differences in styles, talents, abilities, disabilities, needs, and goals to say nothing of their familial, racial, ethnic, religious, economic and social backgrounds. But administrators, accountable themselves for school-wide test results, can direct teachers to follow detailed curricular and instructional guides in teaching to state tests. With a low tolerance for deviation from plan, the current legislation works to minimize the variability of instruction in pursuit of its “noble goals.” In its distrust of the wisdom of educational practitioners, it defines accountability solely in terms of annual test scores similar to the quarterly profit and loss measures of business and industry. Its operative assumption seems to be that scientifically based research can be used in the calculation of learnings per student in the same way businesses calculate earnings per share.

In the ideological struggles already taking shape around the reauthorization of *NCLB* scheduled for 2006-2007 and against the momentum of scientifically based research restrictions, philosophers of education are challenged to call for policy corrections informed by practice and philosophy as well as large scale studies employing experimental and quasi-experimental designs. The search

for a single methodology, “scientific to the point of superstition,” must be replaced with the uncomfortable understanding that there is “no method of learning to question, of seeing what is questionable.”²² The wisdom of practice with its intimate knowledge of the complexities of learning in specific contexts must be viewed as a generative source of insight into the real and potential impact of policy on the lives of children; for without the careful, systematic fusion of science and hermeneutics, policy remains, unintentionally or intentionally, half blind.

Attempting to place some restrictions on the reach of science, penetrating “further and further into social practice,” Gadamer asked:

But can it be held against a philosophical approach that it does not consider scientific research as an end in itself but, rather, thematizes the conditions and limits of science within the whole of human life?²³

Gadamer proposed to complement the scientific cycle of hypothesis generation, verification and falsification, with the claims of hermeneutic “truths” grounded in the shared human cycle of disappointment and hope and informed by horizons capable of expanding the store of wisdom embodied in practice. In the cycle of human disappointment and hope, the end of knowledge is the human capacity to be open to new unpredicted experience and to be changed in the largely unquantifiable fusion of experience and tradition. Beyond the confines of scientific method, Gadamer saw a crucial task for hermeneutics: to open up “new possibilities for knowledge which would not be perceived without it.”²⁴ In the case of *No Child Left Behind*, one “possibility for knowledge” deliberately excluded from the nationally sanctioned conversation is the wisdom of practice. In the service of hermeneutically informed policy, philosophers of education can offer justification for the reinstatement of practical judgment and the legitimation of practical wisdom in the formulation, implementation, and evaluation of educational policy.

NOTES

1. Hans-Georg Gadamer, *Truth and Method*, 2nd rev. ed., trans. Joel Weinsheimer and Donald G. Marshall (New York: Crossroad, 2003), 551, 556.
2. Joel C. Weinsheimer, *Gadamer's Hermeneutics: A Reading of Truth and Method* (New Haven: Yale University Press, 1985), 17. Gadamer asked: “What kind of knowledge is it that understands that something is so because it understands that it has come about so? What does ‘science’ mean here?”
3. In exploring the historical development and shifting significance of the human sciences (*Geisteswissenschaften*), Gadamer argued against simply characterizing the human sciences as “the inexact sciences” as compared to the

natural sciences with their precise methodological ideals. For further discussion, see Gadamer, *Truth and Method*, 5, 15, 200.

4. Gadamer, 305.
 5. Weinsheimer, 293, 314.
 6. Ibid., 10. For an examination of Gadamer's views on prejudice see Ingrid Scheibler, *Gadamer: Between Heidegger and Habermas* (New York: Rowman & Littlefield Publishers, Inc., 2000), 33. Scheibler argues that Gadamer, like Habermas, seeks to "combat false prejudices that are a product of socialization and sedimented interpretations serving hegemonic interests."
 7. For an account of the political processes involved in defining the phrase "scientifically based research" for both program funding and educational research policy within the context of *No Child Left Behind* and its historical precursors, see Margaret Eisenhart and Lisa Towne, "Contestation and Change in National Policy on 'Scientifically Based' Education Research" *Educational Researcher* 32, no. 7 (October 2003): 31-38.
 8. For example, in Section 5131 a (26), "Local Uses of Funds," programs "that employ research-based cognitive and perceptual development approaches and rely on a diagnostic-prescriptive model to improve students' learning of academic content at the preschool, elementary, and secondary levels" are eligible for funding. See U.S. Department of Education. (July 11, 2002). *No Child Left Behind Act of 2001: Reauthorization of the Elementary and Secondary Education Act Legislation and Policies Website*. Retrieved October 10, 2002, from <http://www.ed.gov/legislation/ESEA02/107-110.pdf>, 358.
 9. Guner Figal, "Phronesis as Understanding: Situating Philosophical Hermeneutics," in *The Specter of Relativism: Truth, Dialogue, and Phronesis in Philosophical Hermeneutics*, ed. Lawrence K. Schmidt (Evanston, IL: Northwestern University Press, 1995), 236-247. At the 2002 Annual Meeting of the American Educational Research Association, Margaret Eisenhart, representing anthropology on the panel "Discipline Reflections on Social Context," articulated a need for compelling narratives that could be legitimated in public discourse, given *NCLB's* attempts to foreclose such discussions.
 10. Weinsheimer, 248; Gadamer, 293; Weinsheimer, 183.
 11. Francis J. Ambrosio. "Caputo's Critique of Gadamer: Hermeneutics and the Metaphorics of the Person," in *The Specter of Relativism: Truth, Dialogue, and Phronesis in Philosophical Hermeneutics*, ed. Lawrence K. Schmidt (Evanston, IL: Northwestern University Press, 1995), 96-101.
 12. Weinsheimer, 102, 178, 184.
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13. Pamela P. Moss and Aaron Schutz, "Educational Standards, Assessment, and the Search for Consensus," *American Educational Research Journal* 38, no. 1 (Spring 2001): 37-70.
 14. Gadamer, 556.
 15. Interview 1, 3 & 17. June 19, 2003.
 16. Interview 1, 5. June 19, 2003. In the first phase of *NCLB*, if any sub group (as few as 24 students or 60% of 40 in a sub group) fails to make the required percentage improvement in scores in two years, the entire school is labeled a "failing school." Once a Title 1 school is on the "failing" list, 10-15% of its federal funds must be allocated to provide approved (e.g. Sylvan Learning) tutoring and/or to transport students to other schools. If the school remains on "the list," within a few years, management of the school may be taken over by state or for-profit entities.
 17. While large scale experimentally designed research projects on school reform initiatives would be difficult to conduct, Linda M. McNeil has documented the impact of reform in the state of Texas beginning with legislation introduced by Ross Perot in the mid-1980s, which has served as a "model" for federal educational policy. Her research suggests that short term benefits proved to be as "short-lived and as artificial and inflated as the test scores produced by months of test preparation." The "benefits" of these accountability systems were offset by increases in school drop out rates, differentiation of teaching and learning by race and class, and foreclosures of external criticism. See Linda M. McNeil, "Creating New Inequalities: Contradictions in Reform," *Phi Delta Kappan* 81, no. 10 (June 2000): 728-734.
 18. Interview 1, 4 & 13. June 19, 2003.
 19. Interview 6, 20. July 17, 2003.
 20. Ben Feller, "Teachers' Union to Sue Feds Over Funding" Associated Press, (No Child Left Standing News from the Associated Press). Available: NRCLIST@LISTSERV.NRCONLINE.ORG.
 21. Weinsheimer, 231.
 22. Ibid., 207.
 23. Gadamer, 552.
 24. Weinsheimer, 200.
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