Rescuing Two Positivist "Babies" from the Educational Bathwater

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It is an understatement to say that Positivism is unpopular in education circles. "Positivist" has become for educators, what "terrorist" is for politicians. In the past two decades positivists and their bathwater have been summarily dispatched out the education window.

This situation represents a dramatic turn in philosophical and educational fashion. In the 1920s, adherents of the newly formulated positivism, or the "Scientific Conception of the World," were social and educational progressives in a reactionary central-European milieu. In the 1950s and 1960s the logical empiricist variant of positivism dominated philosophy of science and monopolized the "nature of science" chapters of science textbooks. Most serious educational researchers measured their work against positivist norms of rigor, clarity, objectivity, repeatability, and so on. The change in intellectual fashion was dramatic: from comfortable bath to defenestration in just the time it took to say "Thomas Kuhn." But how well based is the educational rejection of positivism? What can be rescued from the bathwater? This paper will answer the question by going back to the sources and examining the philosophical and educational views of two of the founding Vienna Circle positivists — Philipp Frank and Herbert Feigl — and arguing that they at least should be rescued from the bathwater; and further that most of their orientation to science, philosophy and education should be rescued along with them. Both Frank and Feigl followed in the scientific and philosophical footsteps of Ernst Mach, who also had deep and robust educational views.[1]

THE MENACE OF POSITIVISM

The sheer volume of positivist "bad press" in education makes a comprehensive survey impossible, but a small sampling gives an idea of the whole. Positivism is seen now to be a long-standing cultural, philosophical and educational malady of immense proportion. One prominent science educator writes that: "as ideology [positivism] has led to the domination of class, race, gender and nature."[2] And he believes that this influence has been operative for a long time: "The roots of positivism permeate science and science education and have done so since the birth of modern science and the time of Leonardo Da Vinci."[3] Belatedly it is being announced that the king has no clothes. Thomas Dana and Nancy Davis speak for many when they write that positivism is:

> the foundation of the traditional model of education. In this model it is assumed that an already developed body of knowledge, developed, proven, and accepted by society, can easily be transmitted to students through generally passive instructional means.[4]

It is even thought that Positivism has been detrimental to libraries and to contemporary literacy programs:

> because of its positivist philosophical orientation, the information literacy framework is incompatible with emergent concepts of knowledge and epistemology for digital and online environments.[5]

Positivists are often viewed as having a "right wing" view of the nature of science, and as being opposed to "genuine reform efforts" in education; where, at least for this author, genuine reform effort means "pushing the social constructivist argument to its limits."[6] Jacques Désautels speaks for most educators when he "sums up" the positivist view of science as one in which:

> scientific knowledge is exact, true in the sense of standing in a relationship of likeness to reality, transcendent, and universal, or, for all intents and purposes devoid of history, removed from society.[7]

The above accounts indicate that getting clear about positivism is a high-stakes endeavour. If what is said about positivism is true, then the bathwater, and all in it, should be thrown out the educational window; but on the other hand, we might well have a case of mistaken identity, and good water and innocent bathers are thrown out. Here it will be shown that:

(i) The popular educational account of positivism needs complete revision.

(ii) Some of the positivist educational principles are of value to educators facing a worldwide drift from natural sciences in schools and universities.

(iii) More attention to classic sources of positivism would have militated some of the completely erroneous views that have gained currency in education circles.

In recent years, there have been extensive philosophical and historical reevaluations of positivism; this is a small contribution to its educational reevaluation.[8]

Philipp Frank on Philosophy and Education

Philipp Frank was born in Vienna in 1884, and died in Cambridge, Massachusetts in 1966. In 1907 he received his doctorate in theoretical physics at the University of Vienna where he studied under Ludwig Boltzmann.[9] He left Czechoslovakia in 1938 for the United States and took up a modest half-time lectureship in physics and mathematics at Harvard University, where he remained for the rest of his career.

Frank published two explicitly educational papers: "Science Teaching and the Humanities" and "The Place of Philosophy of Science in the Curriculum of the Physics Student."[10] He regrets that the "result of conventional science teaching has not been a critically minded type of scientist, but just the opposite" (*PPS*, 230). In part this regret is because "the science student who has received the traditional purely, technical instruction in his field is extremely gullible when he is faced with pseudophilosophic and pseudoreligious interpretations that fill somehow the gap left by his science courses:" (*PPS*, 230). As a consequence "This failure prevents the science graduate playing in our cultural and public life the great part that is assigned to him by the ever-mounting technical importance of science to human society" (*PPS*, 231).[11]

For Frank it is the history and philosophy of science that makes good these shortfalls; or rather, just philosophy of science because for Frank this consists to two inseparable components, "logico-empirical analysis" and "socio-psychologic" analysis (*PPS*, 248). The first is conceptual or semantic analysis, the second is careful

historical analysis. He says that "This analysis is the chief subject that we have to teach to science students in order to fill the gaps left by traditional science teaching" (*PPS*, 245).

Logico-empirical analysis of scientific theories consist primarily in identifying first, purely logical statements; second, observational statements; and third, specifying operational definitions whereby principles can be connected to observations (*PPS*, 243). Frank wants students to be able to decouple observational statements and statements that are deduced from these: "For in all these fields the central problem is the relationship between sensory experience (often called fact finding), and the logical conclusions that can be drawn from it" (*PPS*, 234). He uses the Copernican controversy to illustrate his point:

> If we look, for example, at the treatment of the Copernican conflict in an average textbook of science, we notice immediately that the presentation is far from satisfactory. In almost every case, we are told that according to the testimony of our senses the sun seems to move around the earth. Then we are instructed that Copernicus has taught us to distrust this testimony and to look for truth in our reasoning rather than in our immediate sense experience (*PPS*, 231).

Frank says that this account is mistaken and can be shown to be such by logico-empirical analysis: "Actually our sense observation shows only that in the morning the distance between horizon and sun is increasing, but it does not tell us whether the sun is ascending or the horizon is descending" (*PPS*, 231). It is, as Feyerabend would later say, "natural interpretations" that govern what is seen, and these vary with culture and history.

For Frank logico-empirical (semantic) analysis of science is not the full story: "Even if such an analysis is carried out in a careful and competent way, there still remains much to be done if we want to bring out all the educational value that is inherent in science" (*PPS*, 247). He says "We have to learn not only the operational meaning of symbols like "force" and "mass," but also how it has come about that just these symbols were chosen" (*PPS*, 248). Philosophy of science requires a second form of analysis, what he calls a "socio-psychologic" analysis. He sees psychological, religious, social and political factors all contributing to "the determination of our scientific symbolism" (*PPS*, 248).

Herbert Feigl on Philosophy and Education

Herbert Feigl was born in 1902 in Reichenberg then in Austria-Hungary, a part of the Sudetenland which subsequently was incorporated into Czechoslovakia. He died in Minneapolis in 1988. At age 20 he went to the University of Vienna; he was a foundation member of the Vienna Circle; in 1930 he immigrated to the United States and took a position at Harvard; in 1940 he was appointed professor of philosophy at the University of Minnesota; in 1953 he established the Minnesota Center for the Philosophy of Science, a center that would make a significant contribution to the articulation of logical empiricist philosophy in the United States and worldwide.[12]

Articulating Logical Empiricism

Although Feigl modestly described himself as "more of a catalyst than a producer of new and original ideas," he nevertheless did formulate and refine basic

positivist ideas in more than 100 philosophical papers.[13] The following constitute some of the key elements of his position.

Realism. Feigl early adopted the realism of Schlick and opposed the phenomenalism of Ernst Mach, Wittgenstein, and of Rudolf Carnap's early *Aufbau* treatise.[14] He thought that the basic language required by empiricism could be an object language, not a phenomenal language, it could describe existing external objects not private sensations. He held that one could reasonably say "I see a table"; he did not think that epistemology or cognitive science required one to say "I see a brown, square impression." He coined the expression "logical empiricism" to separate his realist stance from the instrumentalism and anti-realism that had long been associated with positivism.[15]

Empirical Criterion of Meaning. Feigl embraced a relaxed version of empirical criterion of meaningfulness for synthetic statements, writing that:

> The much debated and often revised testability criterion of factual meaningfulness seems to me useful and, even, indispensable. Unless some of the concepts appearing in our statements are connected, no matter how indirectly, with some data of immediate experience, those statements would at best have formal significance but they would be devoid of factual meaning. I think the enormous amount of debate and quibbling that concerned the meaning criterion has been largely a waste of time and energy.[16]

His relaxed criterion "permits the abandonment of phenomenalism and of radical operationism in favor of a genuinely critical empirical realism."[17] The relaxed criterion allows "inductive metaphysics" whereby one attempts to construct a well-rounded world view based on deep analysis of the history and conduct of science; but however relaxed, the criterion still does not legitimate traditional metaphysics of the transcendent kind where one makes in-principle untestable assertions, or believes that factual truths can be validated a priori in complete independence of the data of observation.[18]

Analytic/Synthetic Distinction. Feigl defends this distinction. Indeed there are two related distinctions first formalized by Immanuel Kant, but extending as far back as Plato in less formal terms. The distinctions have historically separated the more rationalist from the more empiricist traditions in philosophy.

(a) *Analytic versus Synthetic*. Analytic statements are ones whose truth can be determined merely by examination of their logical structure or by examining the meaning of their constituent terms. Analyticity is a syntactical property of sentences.

(b) *A priori versus a posteriori*. A priori statements are ones whose truth can be determined without any recourse to experience (meaning external experience, sensation; not internal experience such as dreams); a posteriori statements, on the other hand, can only be known to be true (or false) by recourse to experience. A priority is an epistemological property of sentences.

Syntactical View of Theories. Feigl adopts the standard positivist view of scientific theory as a system of concepts that are related to each other by explicit definition (such as "force equals mass times acceleration" or "genes carry hereditary information"). This positivist idea of scientific theory as "free-floating" structure

was accepted by Einstein and underlies his oft-quoted comment about scientific theory being a free creation of the human mind.

Testability. Feigl maintains that the methodology of empirical science requires that components of proper theories can be independently tested and that, contra Quine, not all of science as a totality is put to the test in an experiment. The totality view "obscures dangerously what is of the greatest importance for the progress of science: the successive testing and securing of parts of science — at least in the sense of an approximation."[19]

Engaged Humanism. Feigl shared the Vienna Circle's conviction that their philosophy was not just a matter of scholarly reconstructions, or idle clarifications; he did not believe, as Wittgenstein maintained, that "philosophy left everything as it was." They thought of their work as akin to an "International Liberation Front," albeit of an intellectual and cultural kind.[20] They were *for* scientific enlightenment, and *against* demonstrable mumbo-jumbo that flooded popular culture, and against the obscurantism and misdirected advice of idealist philosophies, fanciful psychologies and religions of all sorts.

VIEWS ON EDUCATION

The foregoing is background for Feigl's explicitly educational paper, "Aims of Education for Our Age of Science: Reflections of a Logical Empiricist"; a contribution to the *The Fifty-fourth Yearbook of the National Society for the Study of Education* that dealt with "Modern Philosophies and Education."[21] Against fatalistic or mechanically deterministic views of human freedom, Feigl regards promotion of individual autonomy as the prime educational achievement.

> As long as education promotes the formation of intelligence and character in a manner that allows for free learning, rational choices, and critical reflection, human beings so educated will have an excellent opportunity for being masters of their own activities and achievements (*AE*, 322).

Feigl advocates teaching science in a historically and philosophically informed manner:

> It is my impression that the teaching of science could be made ever so much more attractive, enjoyable, and generally profitable by the sort of approach that is more frequently practiced in the arts and the humanities. The dull and dry-as-dust science courses can be replaced by an exciting intellectual adventure if the students are permitted to see the scientific enterprise in broader perspective. Preoccupation with the purely practical values of applied science has overshadowed the intellectual and cultural values of the quest for knowledge (*AE*, 337).

Feigl has a robust account of values and recognizes that they are an intrinsic part of education; that they mold and direct educational processes and are crucial to the establishment of educational aims. As he puts it: "we may say that the educational process develops or molds whatever original or "first" nature there is in a human being by transforming it into a "second" nature" (*AE*, 337). And "the aims of education presuppose some ideals of human nature and that such ideals are supported by value judgments (*AE*, 324).

Not surprisingly Feigl has an even more robust account of rationality and its place in education. He believes that the classical Aristotelian conception of man as rational animal "may still be a good beginning" and then explicates the idea for

education, stressing that rationality covers at least six virtues of thought and conduct:

> • clarity of thought (the meaningful use of language and avoidance of gratuitous perplexities);
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> • consistency of reasoning (conformity with the principles of formal logic);
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> • reliability of knowledge claims (wherever the evidence is too weak, belief should be withheld);
>
> • objectivity of knowledge claims (knowledge claims should be testable by anyone sufficiently equipped with intelligence and competence);
>
> • rationality of purposive behavior (maximum positive outcomes are to be gained at the cost of minimum negative outcomes);
>
> • and moral rationality (adherence to principles of justice, equity, or impartiality, and abstention from coercion and violence in the settlement of conflicts of interest) (*AE*, 335-36 ff).

For Feigl, rationality is connected intimately with conduct, or at least dispositions towards rational conduct; for him one cannot be rational in thought and completely irrational in conduct.[22]

Each of the above listed components of rationality could be elaborated upon, but suffice to say that the first is of paramount importance at the present time: confused thought, meaningless language, and gratuitous perplexity are rife in public life and in the academy. Consider just the following from Elizabeth Grosz, a leading feminist philosopher:

> To formulate different conceptions of corporeality, it may be necessary to…explore non-Euclidean and non-Kantian notions of space. If Euclidean, three dimensional space organizes hierarchised perspective according to the laws of point-for-point projection, then different "pre-oedipal" or infantile non-perspectival spaces, for example, may provide the basis for alternatives to those developed in dominant representations of corporeality. This may entail research in post-Einsteinian concepts of space-time; or, in an altogether different vein, psychological or fantasmatic concepts of space.[23]

With effort, one can follow the drift of this argument. But a reasonable suspicion is that research into non-Euclidean, non-Kantian, post-Einsteinian concepts of space-time will allow any conclusion we wish to be drawn. Indeed we are told that "corporeality" is not about everyday bodies, rather "the body, or rather bodies, cannot be adequately understood as ahistorical, precultural, or natural objects in any simple way."[24] This might be well and good, but it has the consequence that, after all the complex and sophisticated analysis, we are not able to check whether her "new" conception of corporeality is confirmed or not confirmed. This is the kind of metaphysical situation that the positivists abhorred.

If the foregoing is a social-philosophic treatment of space — at least on the assumption that whatever Groszean bodies turn out to be, they at least occupy space — then consider the following social-philosophic treatment of time:

> The move from a structuralist account in which capital is understood to structure social relations in relatively homologous ways to a view of hegemony in which power relations are subject to repetition, convergence, and rearticulation brought the question of temporality into the thinking of structure, and marked a shift from a form of Althusserian theory that takes structural totalities as theoretical objects to one in which the insights into the contingent possibility of structure inaugurate a renewed conception of hegemony as bound up with the contingent sites and strategies of the rearticulation of power.[25]

One does not need to read too many examples of the above kind of scholarship to rush back to Feigl's view that the prime ingredient of rationality is "clarity of thought," where:

> This implies the meaningful use of language, the ability to distinguish sense from nonsense and thus avoid gratuitous perplexities over unanswerable questions. It also implies a sufficient degree of specification of definition of meanings so that communication may be as unambiguous and concepts be as precise as the task on hand requires (*AE*, 335).

MISTAKEN IDENTITY

There is clearly a disjunction between the faults of Positivism as commonly adumbrated by educators and the principles and practice of education advocated by at least two foundational positivists – Philipp Frank and Herbert Feigl. The following table summarizes the disjunction

SUPPOSED ILLS OF POSITIVISM	FRANK & FEIGL'S POSITION
It regards scientific knowledge as secure and privileged	They have a great sensitivity to the historical transformations of scientific knowledge and scientific methodology; it is not privileged by anything outside its own methodology and knowledge
It does not recognize the theoretical dependence of observation	They clearly do recognize this, but try to identify and isolate the dependence
It regards scientific knowledge as a codification of sense data	They would see this as a completely bizarre idea
It promotes unquestioning textbook learning	Both reject such a view of teaching and learning
It is tied to a behaviorist psychology	They reject behaviorist reduction of mind to behavior, and also reject treating mind as a theoretical "fiction," they support the scientific study of mind, whilst rejecting dualist views
It regards knowledge as a commodity	They would be appalled at the image
It believes scientific knowledge can easily be transmitted	They maintain the opposite; learning science requires great effort; they would be incredulous about the idea that "science is fun."
It is blind to the effect of culture on the generation of scientific knowledge	They explicitly say that such effects need to be recognized, but maintain that such recognition does not in itself compromise the truth of knowledge claims
It regards scientific knowledge as devoid of history and removed from society	They devoted most of their intellectual life to showing the exact opposite
It ignores the value dimension of science	They explicitly address this aspect
It is divorced from, or indifferent to, action for the improvement of society and culture	Both supported progressive, left-wing social justice causes, as did Ernst Mach and most of the Vienna Circle members
It is the dominant ideology of Western society	They could only wish that this were true.
It adheres to the Enlightenment tradition	They agree, but argue that this is a progressive stance, and one that a decent science education should foster

There are two issues concerning Positivism and Education: the first is positivist views about the nature of science; the second, is positivist views about pedagogy. The foundational positivists had a very rich and developed idea of science, of its historicity, of its cultural contingency, and of its interactions with society, culture, mathematics and philosophy. They had comparably rich ideas about education, specifically science education. The two aspects – views on science and views on education — should be independently appraised, but too frequently they are run together. It is often held that support for the former requires some kind of didactic and oppressive pedagogy — it does not. Conversely it is held that support for the second requires the rejection of logical empiricist accounts of science — it does not.

CONCLUSION

There has been a clear failure by educators to identity foundational positivism and separate it from tabloid or vulgar positivism. This failure has meant that the canonical positivist texts are simply not read, they are removed from the education tradition; they do not figure in curriculum, debate or discussion. For all the educators who talk about the ills of positivism, and its debilitating affect on education, especially science education, only a handful have read Frank or Feigl on education. This is a great loss. Glib and easy criticism of a straw man is not nearly as productive as engaging with a significant and well thought-out position; especially one that is well informed about science, is supporting enriched science education, and that is championing science against its detractors. If more educators had paid attention to the philosophical and educational arguments of Frank and Feigl, then there would not be as many completely mistaken claims made about positivism in the literature; nor would there be as much faulty argument about constructivism; and finally, arguments commonly advanced for multicultural science education, or for feminist science education, would need to be recast, as these frequently take the form: positivist views of science exclude local or particularist sciences; but positivist views of science are discredited; therefore multicultural or feminist (or Islamic or Hindu or Christian) sciences are legitimate. When Frank or Feigl's position is substituted for the second premises, then such positivism is not so easily discredited, and consequently the conclusions do not follow.

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1. Michael R. Matthews, "Ernst Mach and Contemporary Science Education Reforms," *International Journal of Science Education* 12, no. 3 (1990): 317-25.

2. Kenneth Tobin, "Sociocultural Perspectives on the Teaching and Learning of Science," in *Constructivism and Education*, ed. M. Larochelle, N. Bednarz, and J. Garrision (Cambridge: Cambridge University Press, 1998), 196.

3. Ibid., 209.

4. Thomas M. Dana and Nancy T. Davis, "On Considering Constructivism for Improving Mathematics and Science Teaching and Learning," in *The Practice of Constructivism in Science Education*, ed. Ken Tobin (Washington, DC.: AAAS Press, 1993), 326.

5. Cushla Kapitzke, "*In*formation Literacy: A Positivist Epistemology and a Politics of *Out*formation," *Educational Theory* 53, no. 1 (2003): 38.

6. Michael Wolf-Roth, " Science and Technology Studies and Science Education: A Natural Match?" *Research in Science Education* 28 (1998): 1, 4.

7. Jacques Désautels, "Constructivism-in-Action: Students Examine Their Idea of Science," in *Constructivism and Education*, ed. LaRochelle, et al., 123.

8. See Michael Friedman, *Reconsidering Logical Positivism* (New York: Cambridge University Press, 1999); Thomas E. Uebell, ed., *Rediscovering the Forgotten Vienna Circle* (Dordrecht: Reidel, 1991); P. Parrini, W. Salmon, and M. Salmon, eds., *Logical Empiricism: Historical and Contemporary Perspectives* (Pittsburgh: University of Pittsburgh Press, 2003); and contributions to *Science and Education* 13, nos. 1-2 (2004).

9. Two sources of biographical information for Frank are Robert S. Cohen's "Introduction" to Philipp Frank, *The Law of Causality and its Limits*, ed. Robert S. Cohen (Dordrecht: Kluwer Academic Publishers, 1998); and "Philipp Frank," in J. Blackmore, R. Itagaki and S. Tanaka, *Ernst Mach's Vienna 1895-1930* (Dordrecht: Kluwer Academic Publishers, 2001), chap. 3.

10. Philipp Frank, "Science Teaching and the Humanities," in *Modern Science and Its Philosophy* (Cambridge: Harvard University Press, 1949), 260-85 and Philipp Frank, "The Place of Philosophy of Science in the Curriculum of the Physics Student," in *Modern Science and Philosophy*, 228-59. The latter essay will be cited as *PPS* in the text for all subsequent references.

11. On this matter, many have pointed out that fundamentalist Christian churches are common in areas of high-tech scientific industries in the United States. Belief in Creationism and competence in space technology go hand-in-hand. In Australia, an orthodox Jewish research geologist was reported as saying that the world is 5,647 years old, but God is so clever that He has made it appear 6-billion years old (*Sydney Morning Herald*, 20 February 2004). Or consider the studies that show that belief in astrology is unaffected by completion of an American science degree!

12. Sources of biographical information on Feigl are his own brief life story "No Pot of Message," in Herbert Feigl, *Inquiries and Provocations: Selected Writings 1929-1974*, ed. Robert S. Cohen (Dordrecht: Reidel, 1981), 1-20; Paul Feyerabend's "Introduction" to Paul K. Feyerabend and Grover Maxwell, eds., *Mind, Matter, and Method: Essays in Philosophy of Science and Science in Honor of Herbert Feigl* (Minneapolis: University of Minnesota Press, 1966), 3-13; and two published eulogies, C.W. Savage, "Herbert Feigl: 1902-1988," *PSA 1988,* vol. 2 (1989): 15-22, and B. Aune, "Herbert Feigl," *PSA 1988,* vol. 2 (1989), 23-24.

13. Cohen, "Introduction," in Feigl, *Inquiries and Provocations*, ix. A bibliography of Feigl's papers (1927-1980) is contained in Feigl, *Inquiries and Provocations*. His elucidation of the key components of logical empiricism can be found in: "Some Major Issues and Developments in the Philosophy of Science of Logical Empricism," in *Minnesota Studies in the Philosophy of Science*, vol. 1, ed. Herbert Feigl and Michael Scriven (Minneapolis: University of Minnesota Press, 1956), 3-37; and "The Power of Positivistic Thinking," in Feigl, *Inquiries and Provocations*, 38-56.

14. Morris Schlick, "Positivism and Realism" (1932), in *Logical Positivism*, ed. A.J. Ayer (New York: The Free Press, 1959), 82-107; reprinted in R. Boyd, P. Gasper and J.D. Trout, eds., *The Philosophy of Science* (Cambridge: MIT Press, 1991) and Rudolf Carnap, *The Logical Structure of the World*, trans. R.A. George (1928; reprint, Berkeley: University of California Press, 1969).

15. Herbert Feigl, "The *Wiener Kreis* in America," in Feigl, *Inquiries and Provocations*, 79-80.

16. Feigl, "No Pot of Message," 12.

17. Ibid., 16.

18. Ibid., 22.

19. Feigl, "Some Major Issues and Developments," 12.

20. On this topic, see Stephen E. Toulmin, "From Logical Analysis to Conceptual History," in *The Legacy of Logical Positivism*, ed. P. Achinstein and S.F. Barker (Baltimore: Johns Hopkins Press, 1969), 25-55.

21. Herbert Feigl, "Aims of Education for Our Age of Science: Reflections of a Logical Empiricist," in *Modern Philosophies and Education: The Fifty-fourth Yearbook of the National Society for the Study of Education*, ed. N.B Henry (Chicago: University of Chicago Press, 1955), 304-41; reprinted in *Science and Education* 13, nos. 1-2 (2004). This article will be cited as *AE* in the text for all subsequent references.

22. Feigl's account of rationality and education is similar to the account later articulated by Harvey Siegel in Harvey Siegel, *Educating Reason: Rationality, Critical Thinking, and Education* (London: Routledge, 1988) and Harvey Siegel, *Rationality Redeemed? Further Dialogues on an Educational Ideal* (New York: Routledge, 1997).

23. Elizabeth Grosz, "Notes Toward a Corporeal Feminism," *Australian Feminist Studies* 5 (1987), quoted in James Franklin, *Corrupting the Youth: A History of Philosophy in Australia* (Sydney: Macleay Press, 2003), 369.

24. Ibid., 370.

25. Butler 1997, at www.aldaily.com/bwc.htm. A wonderful, if depressing, source of comparable scholarly writing is the "Annual Bad Writing Contest" coordinated by Denis Dutton in the Philosophy Department at the University of Canterbury, Christchurch, New Zealand. See www.aldaily.com/bwc.htm.