

Review of Social Economy

Published by the Association For Social Economics

EDITOR

JOHN B. DAVIS, *Marquette University*

BUSINESS MANAGER

PETER L. DANNER, *Marquette University*

ASSOCIATE EDITORS

DAVID AULT, *Southern Illinois University, Edwardsville*

ROBERT H. DEANS, *Temple University*

LAWRENCE DONNELLY, *Xavier University*

WILLIAM M. DUGGER, *DePaul University*

ROBERT B. EKELUND, JR., *Auburn University*

MICHAEL J. GREENWOOD, *University of Colorado*

E. K. HUNT, *University of Utah*

EDWARD J. KANE, *Ohio State University*

MARK A. LUTZ, *University of Maine*

EDWARD J. O'BOYLE, *Louisiana Tech University*

ALMARIN PHILLIPS, *University of Pennsylvania*

GEORGE F. ROHRLICH, *Temple University*

WARREN J. SAMUELS, *Michigan State University*

JOSEF SOLTERER, *Georgetown University*

KISHOR THANAWALA, *Villanova University*

WILLIAM R. WATERS, *DePaul University*

The *Review of Social Economy* is published four times a year, in Spring, Summer, Fall, and Winter by the Association For Social Economics. All members of the Association receive the *Review*, *ASE Newsletter* and the *Forum* as privileges of membership. Dues for Active Membership in the Association are \$25.00 a year. Student membership is \$12.50 a year. Library subscription price of the *Review* is \$35.00 per volume, \$41.00 foreign. The price of a single issue is \$10.00, \$11.00 foreign. All back issues are available; a complete price list will be sent upon request.

All correspondence regarding articles submitted for publication in the *Review* should be sent to John B. Davis, Department of Economics, Marquette University, Milwaukee, Wisconsin 53233. All correspondence regarding membership in the Association, payment of dues, and subscriptions should be sent to Peter L. Danner, Department of Economics, Marquette University, Milwaukee, Wisconsin 53233.

The Association For Social Economics does not assume responsibility for views and opinions expressed in the *Review of Social Economy*.

The articles published in the *Review* are abstracted in the *Journal of Economic Literature*, *America: History and Life* and *Historical Abstracts*. Contents are listed in *Tax Institute Bookshelf*, *Contents of Recent Economics Journals*, London, *Current Contents/Social and Behavioral Sciences*, *Economic Contents*, *Index of Economic Articles*, and *Social-Sciences Citation Index*. The *Review* is indexed in the *Catholic Periodical Index*, *Social Sciences Index*, the *Journal of Economic Literature*, *Public Affairs Information Service Bulletin* and *Development and Welfare*, University of Delhi.

The appearance of the code at the bottom of the first page of an article in this journal indicates the copyright owner's consent that copies of the article may be made for personal or internal use, or for the personal or internal use of specific clients. This consent is given on the condition, however, that the copier pay the stated per copy fee through the Copyright Clearance Center, Inc. for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. This consent does not extend to other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale. The cost to reproduce pre-1978 articles is \$1.50 per article, payable to Copyright Clearance Center, Inc., 21 Congress Street, Salem, MA 01970.

REVIEW OF SOCIAL ECONOMY

VOLUME XLVII

FALL, 1989

NUMBER 3

WHY I AM NO LONGER A POSITIVIST*

By ^{Davidi} DONALD N. McCLOSKEY**
University of Iowa

In 1964 all the good people were positivists, or so a first-year graduate student in economics was likely to think,

True, among philosophers the doctrines of strict positivism were mostly dead. Philosophical positivism had long since had its day, a glorious one, in the 1920s. One of the headings of Karl Popper's splendid intellectual autobiography, *Unended Quest* [1976 (1974), p. 87f] asks "Who Killed Logical Positivism?" He answers, "I fear that I must admit responsibility." His book of 1934, written when he was about 30 and translated into English 25 years later as *The Logic of Scientific Discovery*, was the death knell. He quotes the Australian philosopher John Passmore as writing in 1967 that "Logical positivism, then, is dead, or as dead as a philosophical movement ever becomes." [Passmore, p. 56] Even the broader doctrines of empiricism under which logical positivism sheltered had been under attack for a long time. W. V. Quine's "Two Dogmas of Empiricism" had in 1951 dynamited the distinction inherited from Kant between analytic and synthetic statements. Over in the philosophy department, then, no one earned prestige by declaring himself to be a positivist. Not in 1964.

Over in the economics department, however, there was still prestige to be earned by sneering at the soft little qualitative people. No one in economics at Harvard had heard that positivism was dead, or if they had heard they weren't telling. The division of "soft" and "hard" was irresistible to a 22-year old. A beginning graduate student wanted to be hard as nails, of course: that was why one studied economics rather than history or, perish

*0034-6764/89/0901-225/\$1.50/0.

**Originally delivered to the conference on Economics, Truth and Logic: The Impact of Logical Positivism on Economics. University of Wisconsin. March 4, 1989. I thank the participants for their comments.

the thought, English. The economists, like many other academics around 1964, espoused a positivism cruder than the philosophical kind.

Now, a quarter of a century later, the crude version persists. An economist who uses "philosophical" as a cuss word ("That's rather philosophical, don't you think?") and does not regard philosophical argument as relevant to his business will of course not reexamine the philosophy he lives by, regardless of what is going on in the philosophy department. Even grown-up economists, therefore, do not have an occasion to rethink their youthful positivism. Economists young and old still use the positivist way of arguing. They talk a lot about verifiability, observable implications, meaningful statements, science vs. pseudo-science, the love of physics, the unity of sciences, the fact/value split, prediction and control, hypothetico-deductive systems, and the formalization of languages. Logical positivism of the crude sort had charmed the young men of the 1920s and 1930s. It charmed the young men of the 1960s. It still charms the young men of the 1980s (the young women find it less attractive). Milton Friedman's famous article of 1953, usually interpreted as straightforward positivism [contrast de Marchi and Hersh, forthcoming] and confusingly named "positive economics" by Milton himself, is all that most economists think about what they do. Sentences from Milton's pen still provide the philosophical stage directions for the field. Until something changes, as it has shown recently a few signs of doing, the history and appeal of positivism will continue to be news in economics.

So the data about the graduate student of 1964 may help think about the story of positivism in economics. I do not want to laugh too harshly at the young man I once was. Professors forget that from Olympus they are all pretty funny looking. And I want to emphasize at the outset that I do not regard positivism as a useless or silly movement. In its time it did a great deal of good. In 1938 Terence Hutchison argued effectively against the a priorism of the 1920s and 1930s; in 1953 Friedman argued effectively against the refusal to examine facts of the 1940s and 1950s. But its time has passed; its values require scrutiny; it has become an oppressive rather than a liberating force in field after field, in economics, in sociology, in political science. We must grow beyond a fanatical adolescence, which is not to say that the adolescence was worthless or unnecessary.

Why then was our young man a positivist?

A young non-philosopher who declares himself to be a positivist in 1964 must be seen as declaring an allegiance vaguely understood. The young are good at vague allegiances (something we should bear in mind when teaching them) but not so good at doctrine. The same young man was beginning

to stop thinking of himself as a socialist, yet even during his socialist phase had not read much of *Capital* or much else of the doctrine. On the positivist front he seems to have owned a copy of A. J. Ayer, ed. *Logical Positivism* [1959], but internal evidence suggests that he did not read it until later, and never more than a couple of essays. (At the head of the essay by Otto Neurath he wrote in pencil "This paper reeks of metaphysics," which is either a complaint from a positivist against backsliding or a sophisticated anti-positivist observation that logical positivism requires metaphysics to live; probably the former.) A year or so into graduate school, following the economist John R. Meyer, his mentor, he read the first half of R. B. Braithwaite's book [1953] and fancied himself to be daringly advanced about hypothetico-deductive systems in science. At about the same time, having decided to study economic history, he read Carl Hempel's "The Function of General Laws in History" [1942] and decided that storytelling could be reduced to model testing. He therefore believed that hypothetico-deductive testing of models covered what was of value in human thought, and he tried to force his work on British economic history into the plan. He had been taken by Friedman's article, especially the part about leaves on trees not having to know that they "want" to face towards the sun, and remembered Hendrick Houthakker's diffident lecture on the matter to the first-year students of price theory.

His grasp of the doctrines of the new religion, then, was weak in book learning. Yet one did not need book learning in 1964 to be a thoroughgoing positivist. The intellectual world then was positivist. A sense in which it was positivist was soon to be demonstrated in the Vietnam War: here were social engineers, committed to the observable and the verifiable, armed with falsifiable hypotheses deduced from higher order propositions, unencumbered by the value half of the fact/value split, seeking passionately for dispassionate data and body counts from the river patrols. Positivistic thinking, if not philosophical positivism, pervaded intellectual life [for painting and economics see Klammer 1988].

Amateur positivism fitted with the trend of Western philosophy, or at any rate the trend as discerned by the logical positivists themselves, the best of the philosophical crop 1920-1950 and the writers of the books that young men bought and admired. Our young man of 1964 had browsed on the non-technical works of Bertrand Russell in the local Carnegie library when in high school. He had at least picked up Russell's scornful attitude towards the past. Logical positivism could be seen as a culmination. Glorious if muddled Greek beginnings; Christian fall back; then the ascent to Descartes, Hume, Kant, and Russell.

Positivism, therefore, appealed to a young man's desire to be up-to-date. And it was clearly scientific. A touching faith in what science could do seemed justified — scientism. Science seemed then, as it still seems to people who have not examined the history, to have been the main engine of economic progress since 1700. And the history of science had not yet established that the rational reconstructions of which philosophers talked had nothing to do with how science worked. The sociology of science that looked closely at laboratory life was still a decade away. Even in 1964 the doubts may have occurred to scholars working in the history of science, but they had not occurred to outsiders. Someone trying to become an economic scientist was going to latch on to a theory of how to be scientific. How do I know what Scientific Economics is? Positivism tells me what, right here in this book.

Being Scientific means in English being different from the common herd. Demarcating Science from other thought was the main project of the positivist movement. Perhaps the mixing of the English definition ("science" in other languages means merely "inquiry") with the positivistic program of demarcation explains why positivism of a sort has stuck so firmly to the English-speaking world. English-speaking people even now worry a good deal about whether they are scientific or not. Witness the sneers that journalists in America and Britain adopt against social "science." In Italian by contrast *un scienziato* is merely "a learned one," and mothers use it to brag about their studious little boys. A graduate student in 1964 had less desire to be "learned" than to be "scientific," in the English, honorific, lab-coated, hard-nosed, and masculine sense of the world [the desire of students has not changed: see Colander and Klamer 1987].

Importantly in 1964, as I have said, the exemplary scientists were positivists. I mentioned John Meyer, whose work with Alfred Conrad on the economics of slavery and on quantitative economic history had come out as papers a few years before. The graduate student in question had been a research assistant for Meyer, helping him put the papers into *The Economics of Slavery and Other Studies in Econometric History* [1964]. Bliss was it in that dawn to be alive/But to be young [and positive] was very heaven!

The student was soon to meet his next model, the economic historian Alexander Gerschenkron, and to get another dose of an admired scholar talking positivism (while doing something else, but the point here is the official doctrine, not the behavior). Near the beginning of Gerschenkron's famous essay "Economic Backwardness in Historical Perspective," he declared that "historical research consists essentially in application to

empirical material of various sets of empirically derived hypothetical generalizations and in testing the closeness of the resulting fit, in the hope that in this way certain uniformities, certain typical situations, and certain typical relationships among individual factors in these situations can be ascertained." [1952, *aet.* 48 (reprinted 1962, p. 6), italics added] The sentence has a whiff of Bacon in it but could pass for the usual positivism of the chair. And elsewhere he said repeatedly that the concept of relative backwardness is "an operationally usable concept." ["An Approach," p. 354]

Avant-garde-ism, hero worship, being scientific, joining in the ceremonies of scientism, then, partly explained our student's youthful positivism. The certainty of its doctrines was half the rest. Eric Hoffer wrote in *The True Believer* that "The effectiveness of a doctrine does not come from its meaning but from its certitude. No doctrine however profound and sublime will be effective unless it is presented as the embodiment of the one and only truth." [1963 (1951), p. 83f]

The remaining charm was efficiency. Even to a graduate student it was clear that positivism saved effort. It was economical in ways attractive to the young and impatient. Here was a method of being an economic historian, for example, that required no tiresome involvement with "all the sources" (as the people in the Department of History kept saying so irritatingly). No. One needed merely to form an "observable implication" of one's "higher order hypothesis," then proceed to "test" it. Most of the facts of the matter could be ignored, since most could be construed as not bearing on the hypothesis under test. No tacit knowledge was necessary, no sense of the landscape, no feel for the story. A young historian of the British iron and steel industry did not have to learn broadly about the iron and steel industry. (He did in fact learn more than was required on properly positivistic grounds, but only because he was thrown into a company of historians at the London School of Economics while doing his research, and anyway he had a non-positivistic father, also an academic, who from time to time would remark mildly to his technocratic son that one needs to know something to write about it.) Nothing could be simpler than the positivistic formula. In fact, nothing was: the proliferation of normal science in economics has shown how simple it is.

The simplicity of positivism has great appeal to the young. To put it harshly, it is a 3" x 5" card philosophy of science. Its doctrines can be stated briefly and understood shortly thereafter. Once understood they can be applied to everything, and most particularly they can be applied by the young and ignorant. The young can be forgiven, having few enough weapons against the old. Game theory has such charm these days; econometrics

once had it; tomorrow it will be computer simulations.

Positivism avowedly and from its beginnings tried to narrow the grounds on which scholars could converse to the observable, to the numerical, to the non-tacit. The physicist Ernst Mach famously attacked the very idea of the electron, as a non-observable figment. His slogan was "the observable." The economic slogans are equally unargued: "macro-economics must be expressed as microeconomics"; "ethical discussions are meaningless." Positivism is one of the great sloganeering movements. So it is with movements attractive to young intellectuals. The German classicist, Ulrich von Wilamowitz-Moellendorff, wrote of his own youthful fascination with the Method of his age:

Philology had [in 1870] the highest opinion of itself, because it taught method, and was the only perfect way of teaching it. Method, via ac ratio, was the watchword. It seemed the magic art, which opened all closed doors; it was all important, knowledge was a secondary consideration.

He remarked ruefully fifty years on, "Gradually the unity of science ["inquiry" in German] has dawned on me. . . . Let each do what he can, . . . and not despise what he himself cannot do." [1928 (1930), p. 115; cf. 1927 (1982), p. 136]

The Harvard graduate student's attitude towards the *via ac ratio* in 1964 is best illustrated by the motto he affixed a couple of years later over the doorway of the Economic History Workshop, in the attic of a building just off Harvard Square: "Give us the data and we will finish the job." It seemed clever at the time. Economists would not need to be concerned with the mundanities of *collecting* the data. And there was nothing beyond quantifiable, observable implications to be known from a phenomenon.

By way of contrast, consider the great biologist Barbara McClintock, who approached Nature with the idea, as Evelyn Fox Keller puts it in her account of McClintock's career, that

Organisms have a life and an order of their own that scientists can only begin to fathom. . . . [McClintock said] "there's no such thing as a central dogma into which everything will fit." . . . The need to "listen to the material" follows from her sense of the order of things . . . [T]he complexity of nature exceeds our own imaginative possibilities. . . . Her major criticism of contemporary research is based on what she sees as inadequate humility. . . . [The usual] dichotomies of subject-object, mind-matter, feeling-reason, disorder-law . . . are directed towards a cosmic unity typically excluding or devouring one of the pair [1985, pp. 162-63]

Perhaps positivism is a male method. The style of empirical inquiry that spends six years on the aberrant pigmentation of a few kernels of corn is rare

in economics. Yet no one is surprised to find it disproportionately among female economists: Margaret Reid of Chicago, for example, or Dorothy Brady of Pennsylvania and of the Women's Bureau at the Department of Labor, or Anna Jacobson Schwartz of New York University and the National Bureau of Economic Research. "The thing is dear to you for a period of time; you really [have] an affection for it," said McClintock. [Keller, 1985, p. 164] What is dear to male economists, by contrast, is quick fits to models. "Testing hypothesis," after all, is easier than thinking and much easier than making the thing "dear to you for a period of time."

One could reverse the old calumny on socialism: Anyone who is not a positivist before 25 has no brain; anyone who is still a positivist after age 40 has no heart. But that is not quite right. The brain/heart distinction is itself a piece of positivism, dividing up the world into what we know and what we feel, science and passion. Positivism is a young man's passion about what he feels positively he knows.

Einstein wrote to his friend Michele Angelo Besso about Ernst Mach's positivism: "I do not inveigh against Mach's little horse; but you know what I think about it. It cannot give birth to anything living; it can only exterminate harmful vermin." [13 May 1917, cited in Jeremy Bernstein's book on Einstein; self-cited in his essay on Besso in the *New Yorker* Feb. 27, 1989, p. 86f] That seems about right. Positivism was a reaction to German idealism. Harmful or not, idealism was exterminated in the English-speaking world for fifty or sixty years. It is coming back as something more grownup, as pragmatism or rhetoric or other projects after virtue, finding its reality in social discourse rather than in the transcendental spirit or in data seen clearly and distinctly by a lone observer. In the meantime positivism did not give birth to anything living. Our theories of the economy are more precise than they were before positivism and claim to be more observable, at least by a narrow standard of observability. But our living understanding of the economy has not much advanced. In some brains it has retrogressed.

The graduate student of 1964 went on to get his Ph.D. from Harvard, becoming there a Chicago economist in method and in politics, and in 1968 began twelve years teaching at the University of Chicago. Gradually, very gradually, his student positivism faded. Such intellectual growth will come as a surprise to people who cannot think of the Chicago School of Economics as anything but the incarnation of all evil (such people are surprisingly common, though it turns out that they do not know the Good Old Chicago School of Frank Knight, T. W. Schultz, Margaret Reid, and Ronald Coase).

The positivism faded when the method talk of other Chicago economists

stopped sounding fresh and new. It took ten years. At Chicago the positivism was laid on thick, and conversations with George Stigler were likely to be terminated abruptly by a positivist ukase and a sneer.

One conversation with Stigler was especially eye opening to an associate professor beginning at last in 1978 to doubt the epistemological claims of positivism. George was holding forth on the merits of behaviorist theories of voting in which people are said to vote their pocketbooks. His younger colleague, who had just read Brian Barry's devastating attack on such models [1978] and for ten years had been teaching first-year graduate students about the small man in a large market, following George's exposition in *The Theory of Price*, noted that people would be irrational to go to the polls in any case. Since the people were nuts to begin with, it would be strange if they voted their pocketbooks when they got inside the booth. The argument struck a nerve, and Stigler became as was his custom abusively positivistic, declaring loudly that all that mattered were the observable implications. To the doubting positivist, though, the argument seemed to throw away some of the evidence we have. That did not seem right to him: throw away some of the evidence and then proceed to examine the evidence. He noticed, too, that Stigler refused to talk any more about the matter. By 1978 Milton Friedman had left Chicago for the Hoover Institution, Harry Johnson was dead, Robert Fogel was at Harvard, and T. W. Schultz was long retired. The ethics of conversation at Chicago was being governed by Stigler. One began to wonder whether a method that resulted in such irrational ends to conversations was all that it was cracked up to be.

A conversation with Gary Becker a year or so later opened the eyes of the apostate positivist still further. The Lord works in mysterious ways, and it may be significant that the conversation took place at the regular Economics luncheon in the cafeteria of the Episcopal Theological Seminary. The Chicago economists were talking about the economics of capital punishment: conversations at Chicago were always about economics, which is why it was the best place to be an assistant or associate professor, though maybe not such a good place to be a full professor, if you wanted to grow intellectually). Gary was explaining the result from his colleague and student Isaac Erlich that from a cross-section of states one execution appeared to deter seven murders. The now definitely apostate colleague (he was reading philosophy of science again) remarked that an execution was not the same as a murder. He did not express it very clearly at the time, and Gary may not have followed the point (Becker was more open-minded than Stigler on such matters). The point was that an execution is an elevation of the state to life-and-death power, whereas a murder is an individual's act. The two are not

morally comparable. It would be like deterring truancy by shooting the parents: shooting would work, no doubt, probably in a ratio about seven to one, but would not, therefore, be morally desirable. Becker was greatly annoyed (again that conversation rupturing feature of positivism). In a positivistic and utilitarian spirit he broke off the discussion, muttering repeatedly, "Seven to one! Seven to one!"

And so it went, quickly. At about this time (the end of the 1970s) the former positivist picked up a copy of Feyerabend's *Against Method* at the Chicago bookstore, found Stephen Toulmin's book *The Uses of Argument* [1958] in a New Orleans second-hand shop, and finally in 1980 was asked by the English professor Wayne Booth to give a talk on "The Rhetoric of Economics," whatever that was. The invitation probably came on the strength of a reputation for knowing more people outside economics than most economists at Chicago did and being marginally less inclined to sneer at non-economists than the rest of the Department. The economist read hurriedly Booth's *Modern Dogma and the Rhetoric of Assent* and Michael Polanyi's *Personal Knowledge* in his mother-in-law's house in Vermont over Christmas 1980. He gave the lecture and wondered what he was talking about.

In the spring came the final break with Chicago's version of positivism. An otherwise excellent graduate student gave a thesis seminar consisting of "observable implications" which massively ignored evidence and reasoning that did not fit into a positivistic mold. The associate professor, having by this time declared that he was going to leave Chicago, made himself a pain in the neck at the seminar, grilling the candidate and the faculty supervisor on why they did not want to look at all the evidence.

* * * * *

Later the other arguments against positivism became important. Positivism has long claimed to be a sword and buckler against totalitarianism. The Demarcation Criterion was taken to demarcate civilization from the darkness. As Terence Hutchison expressed the notion in 1938:

The most sinister phenomenon of recent decades for the true scientist, and indeed to Western civilization as a whole, may be said to be the growth of Pseudo-Sciences no longer confined to hole-in-corner cranks. . . . [Testability is] the only principle or distinction practically adoptable which will keep science separate from pseudoscience. [pp. 10-11]

This rhetorical turn has been popular since the 1930s. It was the convention of the 1950s to associate fascism, somehow, with Hegel and Nietzsche and even with the anti-fascist Croce. The turn is still in use — witness the use of

the late Yale critic Paul de Man's fascist past (the fact of it is in dispute) as a way of attacking recent trends in literary criticism. Think of it as intellectual McCarthyism. I hold in my hand a list of intellectuals with plain connections to the enemies of civilization.

The turn has parallels in many fields. Peter Novick in *That Noble Dream: The "Objectivity Question" and the American Historical Profession* discusses its use in academic history and observes that "as early as 1923 Bertrand Russell [consider the source] had made a connection between the pragmatic theory of truth and rigged trials in the Soviet Union. In a 1935 discussion of the ancestry of fascism he made it clear that doubts about the existence of objective truth [or Objective Truth, McC.] figured prominently in that genealogy." [1988, p. 289]

The viciousness of the assaults on "relativism," and the willingness to tar people of good will with fascism or Stalinism, conceals a weakness in the case. The weakness is that totalitarianism can be more plausibly connected with positivism than with relativism. One can reply, in other words, *tu quoque*. Hutchison was attacking, of course, the pseudoscience of racism. What he failed to notice was that this particular pseudoscience was itself a product of early positivism. The political analysis here, echoed even now in rearguard actions by neo-positivists, was always weak. Especially so it was weak, I am saying, because the positivists themselves (for example, Karl Pearson) devised the pseudosciences of which Hutchison speaks — eugenics, for example, and racial anthropology, the sciences of the extermination camps. A day at Auschwitz does not put one in mind of Hegel or Nietzsche. It puts one in mind of factories and laboratories and record-keeping, the measuring of skulls and the testing of human tolerance for freezing water.

I am not claiming that positivists are fascists. I am suggesting merely that they cannot in all fairness claim that their opponents are. The trick of saying that anyone who does not agree with a particularly narrow version of French rationalism or British empiricism is an "irrationalist" [Stove 1982] and is, therefore, in cahoots with Hitler needs to be dropped. One of many awful truths about Nazism and the Holocaust is that they came from Western civilization, from its best as from its worst, from positivism itself as much as from Valley-girl irrationalism. The positivists have long been accustomed to shouting angrily that open discourse leads to totalitarianism. Perhaps their anger defends them from a wordless guilt.

Positivism, then, claims to contribute to human freedom. I must say I have not noticed such results. The narrowing of argument down to a nub of first-order predicate logic and the results of controlled experiments makes people more not less intolerant and more not less willing to use violence in

support of their ideas. One is reminded of the sometime chief rabbi of the British Empire of whom it was said he never used reasoning until he had exhausted violence. The violence with which economists outside the main stream excluded from the conversation is one example (though our National Science Foundation has in fact been admirably tolerant to its cost). A physicist who works on the paranormal (that is, works on it, not "believes in it") is instantly ostracized from science. [Collins and Pinch, 1982]

A case can be made, in fact, that positivism is a denial of human freedom, a step beyond freedom and dignity. It is a subordination of individuals to the rare systematic genius. John Ruskin, the 19th-century critic of architecture, noted that the search for a crystalline ideal has been an incubus on classical and Renaissance (and now modernist) architecture. He attacked the tyranny of the lonely genius, seeking by contemplation in his warm room a universal system to impose upon us all. Of the Renaissance he wrote:

[I]ts main mistake . . . was the unwholesome demand for perfection at any cost. . . . Men like Verrocchio and Ghiberti [try Marx or Samuelson] were not to be had every day. . . . Their strength was great enough to enable them to join science with invention, method with emotion, finish with fire. . . . Europe saw in them only the method and the finish. This was new to the minds of men, and they pursued it to the neglect of everything else. "This," they cried, "we must have in our work henceforward;" and they were obeyed. The lower workman secured method and finish, and lost, in exchange for them, his soul. [1853 (1960), pp. 228-229]

Consider whether Ruskin's argument does not apply to positivism in economics, seeking an all-embracing, testable Theory quite apart from the practical skills of the statesman, the craftsman, or, indeed, the economic scientist. An "interpretative economics," as Arjo Klamer and Don Lavoie are calling it, would turn the other way, as economists really do in most of their work. It is in Ruskin's terms "Gothic economics," an end to searching for a Grail of a unified field theory, an awakening from Descartes' Dream. As Ruskin said again,

[I]t requires a strong effort of common sense to shake ourselves quit of all that we have been taught for the last two centuries, and wake to the perception of a truth. . . . that great art . . . does not say the same thing over and over again. . . . [T]he Gothic spirit . . . not only dared, but delighted in, the infringement of every servile principle. [1853 (1960), pp. 166-167]

Positivism has the young man's willingness to enslave himself to a 3" x 5" card principle and the corresponding intolerance. A few years ago A. J. Ayer, the importer of a simplified form of Vienna positivism into the English-speaking world, gave a speech at the University of York. His subject,

astonishingly, was tolerance (it was a series, not his own choice of topic). He used religion as the example of intolerance, as befits the condition of the West that positivism helped cure. At the reception after the talk he was asked if he had been tolerant of non-positivists in the 1930s. He did not seem startled by the question: "No," he said, "I was not tolerant."

Toleration is not the strong point of positivism. The philosopher Clark Glymour amused many of his colleagues by beginning his *Theory and Evidence* with the following: "If it is true that there are but two kinds of people in the world — the logical positivists and the god-damned English professors — then I suppose I am a logical positivist." [1980, p. ix] That most philosophers find this funny is a measure of how far they have wandered from the love of truth. Another philosopher, Stanley Rosen, noted that "the typical practitioner of analytic philosophy" succumbs "to the temptation of confusing irony for a refutation of opposing views." [1980, p. xiii] To Glymour I say in reply that if there are but two such kinds of scholars, and one loftily scornful of what can be learned from the other, then I suppose I am a goddamn English professor.

Many economists I admire talk in positivist terms — Friedman, Armen Alchian, Harold Demsetz, Robert Fogel. But I think this only suggests that it is possible to be a good economist and a poor philosopher. My habit is to avoid picking fights with such people on their philosophy, sticking to the economics. The philosophy may be pretty weak, but it seems to give them the strength to go on. We need inspiriting in academic life because the rewards come so late. If an illogical philosophy makes an economist courageous in collecting facts and ideas about the economy, then no one should object. The other English professors and I are willing to be more tolerant of the positivists than they were of others.

If some good economists espouse positivism, the question arises how economics would be different without it. Not much [see Klammer *et al.*, 1988]. An economist without the 3"×5" card would take questionnaires more seriously. Right now a confused argument that people sometimes (shockingly) do not tell the whole truth suffices to kill questionnaires in economics. He would be more serious about analyzing his introspection. Right now the introspection comes in by the back door. He would recognize his metaphors and his stories [McCloskey, 1988b]. Right now he calls them models and time series, thinking himself superior to the humanists. He would reassess his devotion to value-freedom, without abandoning the distinction entirely. Right now the values run the wizard's show from behind the curtain. He would be less enamoured of utilitarianism. Right now utilitarianism seems to most economists to be the same as thinking. He would look at all the

evidence. Right now his positivism allows him to narrow the evidence to certain mismeasured numbers and certain misspecified techniques. [McCloskey, 1989] Economics would become less rigidly childish in its method. I do not know what changes in conclusions would follow. If I did I would be rich. [McCloskey, 1988a]

Positivism, in short, is not a philosophy for an adult in science. Young men — especially young men — can believe it because they can believe any crazy thing. Recall the title. Why am I no longer a positivist? Because finally the graduate student of 1964, in this one matter at any rate, was able to put away his childish toys.

REFERENCES

- Ayer, A. J., ed. *Logical Positivism*. New York: Free Press, 1959.
- Barry, Brian. *Sociologists, Economists and Democracy*. Chicago: University of Chicago Press (London: Collier-Macmillan, 1970), 1978.
- Braithwaite, Richard B. *Scientific Explanation*. Cambridge: Cambridge University Press, 1953.
- Colander, David and Arjo Klammer. "The Making of an Economist." *Journal of Economic Perspectives* (Fall 1987).
- Collins, Harry and Trevor Pinch. *Frames of Meaning: The Social Construction of Extraordinary Science*. London: Routledge and Kegan Paul, 1982.
- Conrad, Alfred H. and John R. Meyer. *The Economics of Slavery and Other Studies in Econometric History*. Chicago: Aldine, 1964.
- Friedman, Milton. "The Methodology of Positive Economics." In his *Essays in Positive Economics*. Chicago: University of Chicago Press, 1953.
- Gerschenkron, Alexander. "Economic Backwardness in Historical Perspective." Reprinted pp. 5-30 in *Economic Backwardness in Historical Perspective: A Book of Essays*. Cambridge: Harvard University Press, 1952 (1962).
- . "The Approach to European Industrialization: A Postscript." In *Economic Backwardness*. (1962), pp. 353-366.
- Glymour, Clark. *Theory and Evidence*. Princeton: Princeton University Press, 1980.
- Hempel, Carl G. "The Function of General Laws in History." In P. Gardiner, ed., *Theories of History* (New York: Free Press, 1959), 1942.
- Höffer, Eric. *The True Believer: Thoughts on the Nature of Mass Movements*. New York: Time, Inc., 1963 (1951).
- Hutchison, Terence. *The Significance and Basic Postulates of Economic Theory*, 2nd ed. New York: Kelley, 1960 (1938).
- Keller, Evelyn Fox. *Reflections on Gender and Science*. New Haven: Yale University Press, 1985.
- Klammer, Arjo, Donald N. McCloskey, Robert M. Solow (eds.). *The Consequences of Economic Rhetoric*. New York: Cambridge University Press, 1988.
- Klammer, Arjo. *Conversations with Economists: New Classical Economists and Opponents Speak Out on the Current Controversy in Macroeconomics*. Totowa, N.J.: Rowman and Allanheld, 1983.

- _____. "The Advent of Modernism in Economics." MS, University of Iowa, 1987.
- Klamer, Arjo, D. N. McCloskey, and Robert Solow, eds. *The Consequences of Rhetoric*. Cambridge: Cambridge University Press, 1988.
- McCloskey, D. N. "The Limits of Expertise: If You're So Smart, Why Ain't You Rich?" *The American Scholar*, 57 (Summer 1988a), pp. 393-406.
- _____. "The Storied Character of Economics." *Tijdschrift voor Geschiedenis*, 101 (4, 1988b), pp. 643-654.
- _____. "Formalism in Economics, Rhetorically Speaking." *Ricerche Economiche*, forthcoming, March, 1989.
- Marchi, Neil de and Abraham Hersh. "Milton Friedman's Pragmatism." Unpublished paper.
- Novick, Peter. *That Noble Dream: The 'Objectivity Question' and the American Historical Profession*. Cambridge: Cambridge University Press, 1988.
- Passmore, John. "Logical Positivism." art. P. Edwards, ed. *The Encyclopedia of Philosophy*. New York and London: Macmillan and Collier Macmillan, 1967.
- Popper, Karl. *Unended Quest: An Intellectual Autobiography*. London: Fontana. (First published in *The Philosophy of Karl Popper*, 1974), 1976.
- Rosen, Stanley. *The Limits of Analysis*. New York: Basic, 1980.
- Ruskin, John. *The Stones of Venice*. Abridged by J. G. Links. New York: Farrar, Strauss & Giroux, paperback edition of 1983 (New York: Da Capo Press), 1863 (1960).
- Stove, David. *Popper and After: Four Modern Irrationalists*. Oxford: Pergamon, 1982.
- Wilamowitz-Moellendorff, Ulrich von. *My Recollections*, trans. G. C. Richards. London: Chatto & Windus, 1930 (1928).