
ECONOMIC
CONTROVERSIES
MURRAY N. ROTHBARD

Economic *Controversies*

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Economic *Controversies*

Murray N. Rothbard

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Introduction

It was nearly forty years ago that Murray Rothbard changed my life. I was then a PhD candidate in economics at the New School for Social Research in downtown Manhattan, while also teaching Principles courses at a local university. And I was rapidly losing interest in the whole subject.

Bored by the prattling of the left-wing crowd who dominated the New School, I could find nothing very satisfying in mainstream economics either. The New School's left-wingers certainly cared about achieving a free society. But their radical agenda mainly consisted of the "instrumentalist" ideas of the econ department's emeritus professor Adolph Lowe, which boiled down to coercing people into following the dictates of elitists like him.

My only real objection to conventional economics was that it also bored me. If a theory like "perfect competition" was remote from reality, it seemed like a judgment on the imperfections of capitalism. After all, to the degree that capitalism was not perfectly competitive, it fell prey to the evils of "imperfect competition," which might require intervention from antitrust. As a typically zonked-out product of conventional schooling, I vaguely believed, that to the degree that any textbook theory failed to explain reality, so much the worse for reality. (Not long ago I spoke with an econ grad student who, when pressed, believed this quite explicitly.)

Always a compulsive book-browser, I had more than once leafed through a two-volume work titled *Man, Economy, and State* in the New School library, whose author, Murray Rothbard, I had barely heard of. After the third or fourth look, I finally began reading the book—and experienced one eureka moment after another. Two

especially memorable moments reflected the leftist tradition in which I was then mired.

First, I learned that, if leftists thought "capital" deserved no share of the economic bounty, they were in a sense more right than they knew. Rothbard explained that, in a free market, there were no financial returns to owners of capital goods as such. Since capital goods consisted of such items as factories, machinery, offices, and desks, these goods were entirely the product of labor and land (or resources). So the monetary value of newly created capital goods is entirely attributable to the purchase of land and labor, with nothing remaining for capital goods owners.

How, then, did capital goods owners make any money at all? The money they received came in two forms: interest payments for advancing resources in the present and profits for their entrepreneurial foresight—unless, of course, they were unsuccessful entrepreneurs and suffered losses.

Second was Rothbard's devastating refutation of the theory of imperfect or "monopolistic" competition—dear to leftists' hearts, since it highlighted the irrationality of capitalism. A cornerstone of this theory is that a monopolistic competitor like "Marioni Brothers' Barbershop" (monopolistic because there is only one set of Marioni Brothers; competitive, since there are many barbershops), always operate with excess capacity.

Economist Paul Samuelson had in fact targeted barber shops in his best-selling *Principles* text, observing that "The barbershop has excess capacity, with empty chairs much of the time," as he inveighed against the "wasteful social losses" resulting.[1]

Even before I read Rothbard, it occurred to me that, in this case at least, Professor Samuelson may have been missing something. Given his flexible work schedule, he may have had a habit of going for his haircut on a weekday, which would explain why he kept noticing empty chairs. Had he gone instead on Saturdays, he might have noticed that all the barber chairs were full, and that business was actually backed up. It then might have occurred to him that our

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[1]Paul A. Samuelson, *Economics*, 9th ed. (New York: McGraw-Hill, 1973), p. 518.

hypothetical Marioni Brothers were not so dumb as to waste their money on excess capacity.

The problem they actually faced as businessmen was the classic tradeoff between peaks and troughs in demand. Had they not had empty chairs during the week, they wouldn't have been able to take advantage of the glut in demand on weekends.

Such were my tentative doubts. What Rothbard exposed was the preposterousness of the whole formulation. For why assume that all such monopolistic competitors *necessarily* invest in excess capacity? "To plan a plant for producing x units," he quotes economist Roy Harrod observing, "while knowing that it will only be possible to maintain an output of x – y units, is surely to suffer from schizophrenia."[2] It made no more sense to believe that all such businessmen would waste funds on excess as it was to believe that they would all consistently underinvest and plan on inadequate capacity.

Then came what for me—robotically drawing all those cost and demand curves with the aid of differential calculus—was the *coup de grace*. Rothbard demonstrated that the whole naïve error hinged on the technicalities of geometry. The theory was simply a prisoner of the way the demand curve was made tangent to the cost curve! He then adroitly showed two different ways of drawing the graph, without violating any of the assumptions. The miraculous result: The monopolistic competitor was now operating at the low point of his average cost curve, or at full capacity.[3]

I found such moments profoundly empowering, making me realize that, whenever I thought about economics outside formal straitjackets, I naturally fell back on modes of reasoning used by Rothbard and his mentor, Ludwig von Mises. That's why the very term, "Austrian economics," is a kind of redundancy. Whenever people think sensibly about economics, they think like Austrians—one key reason why even the mainstream can have a few things to teach us, especially when they're writing mere journalism.

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[2]Murray Rothbard, *Man, Economy, and State* (Los Angeles: Nash, 1970), p. 642; combined with *Power and Market* to become the scholar's edition (Auburn, Ala.: Ludwig von Mises Institute, 2009), p. 732.

[3]Rothbard, *Man, Economy, and State*, pp. 642–45; scholar's edition, pp. 732–36.

After finishing *Man, Economy, and State*, I discovered the Laissez-Faire bookshop, then a well-stocked store on Mercer Street, which regrettably shut down years ago. Browsing at that bookshop virtually every Saturday, I gradually bought up all the Rothbard I could find, plus all the Mises, F.A. Hayek, and Israel Kirzner.

I formed a reading group in Austrian economics, attended late-afternoon seminars chaired by Kirzner at New York University—and even barged into one of Rothbard's classes at Brooklyn Polytechnic Institute, where he taught for many years.

I say "barged in" because somehow I forgot to ask him if I could sit in and audit. That might explain why he gave me a perplexed look when I raised my hand to ask a question, a reaction that discouraged me from chatting with him afterward. (The session must have been somewhere in the middle of the semester, since it was devoted entirely to the mundane task of reviewing the material to prepare students for the mid-term exam.)

When I became a senior economist at the New York Stock Exchange, the director I reported to once told me, "Gene, you're the only guy I ever met who reads economics for fun." I was honestly surprised, and might have remarked that if everyone read Rothbard and the Austrians, they might have just as much fun.

My only real, albeit brief, conversation with Rothbard occurred over the phone in October 1993, by which point he was teaching at the University of Nevada in Las Vegas, and I had just begun as a journalist at *Barron's*. University of Chicago economist Gary Becker had just won the economics Nobel, partly in recognition of his insight that a family was like a firm. (But how much more intriguing to theorize that a firm is like a family?)

Asking Rothbard what he thought of Becker's win, I expected him to tell me that he thought applying economics to non-economic issues was foolish. Instead he began by saying that it was gratifying to see a free market-oriented economist like Becker gain such recognition.

Then I asked, "But what do you think of the theory that a family is like a firm?"

Rothbard answered, "I think it's *nuts*!" And I was thus treated, first-hand, to that nasal voice going squeaky.

I had already become familiar with that nasal voice in the scores of audio-tapes I'd heard of Rothbard's lectures, along with the salty insights tossed off with dazzling ease, punctuated by the signature giggle. To me, the joy in that giggle bespeaks an indefatigable spirit.

In Rothard's lectures on economic history, I caught him in a rare moment of hypocrisy. While he blasted the use of price indexes in his writings, he never hesitated to use a price index to prove a point about historical trends. He was of course quite right to criticize the pseudo-science of price indexes. But he might have acknowledged more explicitly that they sometimes come in handy as a rough approximation of price trends.

To get a sense of the fun it must have been to be Murray Rothbard or to merely know him, try listening to one of his best lectures, "The Meaning of Ludwig von Mises."[4]

We all know there could be no Murray Rothbard the great writer and thinker without his great teacher, Ludwig von Mises. Those who read and love Rothbard would be cheating themselves if they did not also read Mises's many books. In my case, reading Mises's *magnum opus*, *Human Action*, for the first time, I found his discussion of wages finally cemented my understanding of why wages inevitably rise in a free market with rising productivity—an insight that helped seal my conversion to libertarianism.

It's remarkable that Mises's books read as well as they do, both in translation and in the English he began to write in at age 60. Rothbard had the advantage of being an extraordinary writer in the language he grew up in, as well as a devoted student of Mises. It was therefore left to him to render Mises's great theories in clear, accessible prose, while often bringing those theories to a new level.

So I think of Rothbard as having been Plato to Mises's Socrates—an analogy I might push further if Rothbard were not so critical of Plato. Try his discussion of Aristotle's refutation of Plato's communism in *Economic Thought Before Adam Smith*, the first of his two books on the history of economic thought. Among all of Rothbard's writings—the second volume is called *Classical Economics*—these two books are the ones I prefer to dip into again when I'm looking for something diverting to reread.

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[4]This lecture is available for download at the Mises Institute website.

The whole informed guided tour of the way people thought about economics is vastly entertaining. My favorite part is probably the devastating dissection of the supposed "father" of economics, Adam Smith. It's tragic that Rothbard didn't live to complete the third and final volume, which would have dealt with economic thought in the modern era.

Which brings us to the tome you hold in your hand. It contains all of Rothbard's best essays. If there is any single book worthy of being called a companion volume to *Man, Economy, and State*, this is it.

You should start, as the book does, with the magisterial essay "The Mantle of Science," in which Rothbard lays the groundwork on how to think about economics. After finishing this essay, you might reflect that all the writer has really done is make explicit a mode of thinking that comes naturally to us all. And just as I felt after I finished *Man, Economy, and State*, you might find it similarly empowering.

Mainstream economics suffers from two main handicaps: (a) the desire to sound like a branch of physics, which feeds the elitist fantasies of those who aspire to be professional economists, and (b) the desire to sit at the tables of power à la John Maynard Keynes and Alan Greenspan, which spawns such top-down monstrosities as "macroeconomics."

Given these handicaps, it's remarkable, as mentioned, that mainstream economists can still be insightful at times, especially in their journalism. I submit it's because even they are still capable of using the mode of thinking Rothbard sets forth in "The Mantle of Science."

You might then jump, for comic relief, to "The Hermeneutical Invasion of Philosophy and Economics." In that essay, Rothbard makes fun of the heavy thinkers who keep telling us, in effect, that words have no meaning. Of course, if they are right that words have no meaning, we can only respond that this key message of theirs is incomprehensible.

For me the greatest eureka moment of all is when I first read Rothbard's essay "The Austrian Theory of Money." That was when I fully grasped Mises's most beautiful insight, called the "regression theorem," in which Mises was able to show that all money must have

originated in some commodity (gold, seashells), that if you regress backward in time, you'll find this had to have been the case. What people think of as government-created money (dollars, euros) is nothing of the kind, but came from those same commodities. For me, the beauty of the regression theorem lies in its power to infer historical fact from simple logic about human action.

I did not read Rothbard's 1972 essay "Heilbroner's *Economic Means and Social Ends*" until years after it was first published. It's a devastating critique of a book edited by New School economics Professor Robert Heilbroner, about the ideas of the abovementioned Adolph Lowe.

Here, too, Plato comes up. "Professor Lowe's political economics," observes Rothbard, "is of a piece with an unfortunate penchant of intellectuals since the days of Plato: to impose their own arbitrary and static 'order' upon the rest of society, to freeze and annul change by their coercive fiat…." Had I read this essay when it first came out, it probably would have gotten me to read more of Rothbard, even if I hadn't been lucky enough to find his economic treatise in the stacks.

There are many "first books" on libertarianism in general and Austrian economics in particular. Which one is most suitable depends on the individual. For me, the way in was *Man, Economy, and State*, which had a great deal to do with me and my circumstances at the time. If my counterpart today finds that book and this one in the stacks, I would say that *Economic Controversies* is probably the better way in. *Man, Economy, and State* can come a bit later.

Gene Epstein
Economics Editor
Barron's
New York
September 2010

Section One

Method

1

The Mantle of Science

In our proper condemnation of scientism in the study of man, we should not make the mistake of dismissing *science* as well. For if we do so, we credit scientism too highly and accept at face value its claim to be the one and only scientific method. If scientism is, as we believe it to be, an improper method, then it cannot be truly scientific. Science, after all, means *scientia*, correct knowledge; it is older and wiser than the positivist-pragmatist attempt to monopolize the term.

Scientism is the profoundly unscientific attempt to transfer uncritically the methodology of the physical sciences to the study of human action. Both fields of inquiry must, it is true, be studied by the use of reason—the mind's identification of reality. But then it becomes crucially important, in reason, not to neglect the critical attribute of human action: that, alone in nature, human beings possess a rational consciousness. Stones, molecules, planets cannot *choose* their courses; their behavior is strictly and mechanically determined for them. Only human beings possess free will and consciousness: for they are conscious, and they can, and indeed must, choose their course of action.[1] To ignore this primordial fact about the nature of man—to ignore his volition, his free will—is to misconstrue the facts of reality and therefore to be profoundly and radically unscientific.

Originally appeared as a chapter in *Scientism and Values*, Helmut Schoeck and James W. Wiggins, eds. (Princeton, N.J.: D. Van Nostrand, 1960).

[1]Human action, therefore, does not occur apart from cause; human beings *must* choose at any given moment, although the contents of the choice are *self*-determined.

Man's necessity to choose means that, at any given time, he is acting to bring about some end in the immediate or distant future, that is, that he has purposes. The steps that he takes to achieve his ends are his *means*. Man is born with no innate knowledge of what ends to choose or how to use which means to attain them. Having no inborn knowledge of how to survive and prosper, he must learn what ends and means to adopt, and he is liable to make errors along the way. But only his reasoning mind can show him his goals and how to attain them.

We have already begun to build the first blocks of the many-storied edifice of the true sciences of man—and they are all grounded on the fact of man's volition.[2] On the formal fact that man uses means to attain ends we ground the science of *praxeology*, or economics; *psychology* is the study of how and why man chooses the contents of his ends; *technology* tells what concrete means will lead to various ends; and *ethics* employs all the data of the various sciences to guide man toward the ends he should seek to attain, and therefore, by imputation, toward his proper means. None of these disciplines can make any sense whatever on scientistic premises. If men are like stones, if they are not purposive beings and do not strive for ends, then there is no economics, no psychology, no ethics, no technology, no science of man whatever.

The Problem of Free Will

Before proceeding further, we must pause to consider the validity of free will, for it is curious that the determinist dogma has so often been accepted as the uniquely scientific position. And while many philosophers have demonstrated the existence of free will, the concept has all too rarely been applied to the "social sciences."

In the first place, each human being knows universally from introspection that he chooses. The positivists and behaviorists may scoff at introspection all they wish, but it remains true that the introspective knowledge of a conscious man that he is conscious and acts

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[2]The sciences which deal with the functioning of man's automatic organs—physiology, anatomy, and so on—may be included in the physical sciences, for they are not based on man's will—although even here, psychosomatic medicine traces definite causal relations stemming from man's choices.

is a fact of reality. What, indeed, do the determinists have to offer to set against introspective fact? Only a poor and misleading analogy from the physical sciences. It is true that all mindless matter is determined and purposeless. But it is highly inappropriate, and moreover question-begging, simply and uncritically to apply the model of physics to man.

Why, indeed, should we accept determinism in nature? The reason we say that things are determined is that every existing thing must have a *specific* existence. Having a *specific* existence, it must have certain definite, definable, delimitable attributes, that is, every thing must have a specific *nature*. Every being, then, can act or behave only in accordance with its nature, and any two beings can interact only in accord with their respective natures. Therefore, the actions of every being are caused by, determined by, its nature.[3]

But while most things have no consciousness and therefore pursue no goals, it is an essential attribute of *man's* nature that he has consciousness, and therefore that his actions are self-determined by the choices his mind makes.

At very best, the application of determinism to man is just an agenda for the future. After several centuries of arrogant proclamations, no determinist has come up with anything like a theory determining all of men's actions. Surely the burden of proof must rest on the one advancing a theory, particularly when the theory contradicts man's primary impressions. Surely we can, at the very least, tell the determinists to keep quiet until they can offer their determinations—including, of course, their advance determinations of each of our reactions to their determining theory. But there is far more that can be said. For determinism, as applied to man, is a self-contradictory

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[3]See Andrew G. Van Melsen, *The Philosophy of Nature* (Pittsburgh, Penn.: Duquesne University Press, 1953), pp. 208ff., 235ff.

While free will must be upheld for man, determination must be equally upheld for physical nature. For a critique of the recent fallacious notion, based on the Heisenberg Uncertainty Principle, that atomic or sub-atomic particles have "free will," see Ludwig von Mises, *Theory and History* (New Haven, Conn.: Yale University Press, 1957), pp. 87–92; and Albert H. Hobbs, *Social Problems and Scientism* (Harrisburg, Penn.: Stackpole, 1953), pp. 220–32.

thesis, since the man who employs it relies implicitly on the existence of free will.

If we are determined in the ideas we accept, then X, the determinist, is determined to believe in determinism, while Y, the believer in free will, is also determined to believe in his own doctrine. Since man's mind is, according to determinism, not free to think and come to conclusions about reality, it is absurd for X to try to convince Y or anyone else of the truth of determinism. In short, the determinist must rely, for the spread of his ideas, on the nondetermined, free-will choices of others, on their free will to adopt or reject ideas.[4] In the same way, the various brands of determinists—behaviorists, positivists, Marxists, and so on—implicitly claim special exemption for themselves from their own determined systems.[5] But if a man cannot affirm a proposition without employing its negation, he is not only caught in an inextricable self-contradiction; *he is conceding to the negation the status of an axiom*.[6]

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[4]Francis L. Harmon, *Principles of Psychology* (Milwaukee: Bruce Publishing, 1938), p. 487, and pp. 493–99.

> Even the controversial writings of the mechanists themselves appear to be intended for readers endowed with powers of choice. In other words, the determinist who would win others to his way of thinking must write as if he himself, and his readers at least, had freedom of choice, while all the rest of mankind are mechanistically determined in thought and in conduct.

Also see Joseph D. Hassett, S.J., Robert A. Mitchell, S.J., and J. Donald Monan, S.J., *The Philosophy of Human Knowing* (Westminster, Maryland: Newman Press, 1953), pp. 72–73.

[5]See Mises, *Theory and History*, pp. 258–60; and Mises, *Human Action* (New Haven, Conn.: Yale University Press, 1949), pp. 74ff.

[6]Phillips therefore calls this attribute of an axiom a "boomerang principle . . . for even though we cast it away from us, it returns to us again," and illustrates by showing that an attempt to deny the Aristotelian law of noncontradiction must end by assuming it. R.P. Phillips, *Modern Thomistic Philosophy* (Westminister, Maryland: Newman Bookshop, 1934–35), vol. 2, pp. 36–37. Also see John J. Toohey, S.J., *Notes on Epistemology* (Washington, D.C.: Georgetown University Press, 1952), *passim*, and Murray N. Rothbard, "In Defense of 'Extreme Apriorism,'" *Southern Economic Journal* (January 1957): 318; reprinted in this volume as chapter 6.

A corollary self-contradiction: the determinists profess to be able, some day, to determine what man's choices and actions will be. But, on their own grounds, their own knowledge of this determining theory is itself determined. How then can they aspire to know *all*, if the extent of their *own* knowledge is itself determined, and therefore arbitrarily delimited? In fact, if our ideas are determined, then we have no way of freely revising our judgments and of learning truth—whether the truth of determinism or of anything else.[7]

Thus, the determinist, to advocate his doctrine, must place himself and his theory outside the allegedly universally determined realm, that is, he must employ free will. This reliance of determinism on its negation is an instance of a wider truth: that it is self-contradictory to use reason in any attempt to deny the validity of reason as a means of attaining knowledge. Such self-contradiction is implicit in such currently fashionable sentiments as "reason shows us that reason is weak," or "the more we know, the more we know how little we know."[8]

Some may object that man is not really free because he must obey natural laws. To say that man is not free because he is not able to do anything he may possibly desire, however, confuses freedom and power.[9] It is clearly absurd to employ as a definition of "freedom"

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[7]In the course of a critique of determinism, Phillips wrote: "What purpose . . . could advice serve if we were unable to revise a judgment we had formed, and so act in a different way to which we at first intended?" Phillips, *Modern Thomistic Philosophy*, vol. 1, p. 282.

For stress on free will as freedom to think, to employ reason, see Robert L. Humphrey, "Human Nature in American Thought," *Political Science Quarterly* (June 1954): 269; *Readings in Ethics,* J.F. Leibell, ed. (Chicago: Loyola University Press, 1926), pp. 90, 103, 109; Robert Edward Brennan, O.P., *Thomistic Psychology* (New York: Macmillan, 1941), pp. 221–22; Van Melsen, *The Philosophy of Nature*, pp. 235–36; and Mises, *Theory and History*, pp. 177–79.

[8]"A man involves himself in a contradiction when he uses the reasoning of the intellect to prove that that reasoning cannot be relied upon" (Toohey, *Notes on Epistemology*, p. 29). Also see Phillips, *Modern Thomistic Philosophy*, vol. 2, p. 16; and Frank Thilly, *A History of Philosophy* (New York: Henry Holt, 1914), p. 586.

[9]See F.A. Hayek, *The Road to Serfdom* (Chicago: University of Chicago Press, 1944), p. 26.

the power of an entity to perform an impossible action, to violate its nature.[10]

Determinists often imply that a man's ideas are necessarily determined by the ideas of others, of "society." Yet A and B can hear the same idea propounded; A can adopt it as valid while B will not. Each man, therefore, has the free choice of adopting or not adopting an idea or value. It is true that many men may uncritically adopt the ideas of others; yet this process cannot regress infinitely. At some point in time, the idea originated, that is, the idea was *not* taken from others, but was arrived at by some mind independently and creatively. This is logically necessary for any given idea. "Society," therefore, cannot dictate ideas. If someone grows up in a world where people generally believe that "all redheads are demons," he is free, as he grows up, to rethink the problem and arrive at a different conclusion. If this were not true, ideas, once adopted, could never have been changed.

We conclude, therefore, that true science decrees determinism for physical nature and free will for man, and for the same reason: that every thing must act in accordance with its specific nature. And since men are free to adopt ideas and to act upon them, it is never events or stimuli external to the mind that *cause* its ideas; rather the mind freely adopts ideas about external events. A savage, an infant, and a civilized man will each react in entirely different ways to the sight of the same stimulus—be it a fountain pen, an alarm clock, or a machine gun, for each mind has different ideas about the object's meaning and qualities.[11] Let us therefore never again say that the Great Depression of the 1930s *caused* men to adopt socialism or interventionism (or that poverty *causes* people to adopt Communism). The depression existed, and men were moved to think about this striking event; but that they adopted socialism or its equivalent as the way out was not determined by the event; they might just as well have chosen *laissez-faire* or Buddhism or any

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[10]John G. Vance, "Freedom," quoted in Leibell, *Readings in Ethics*, pp. 98–100. Also see Van Melsen, *The Philosophy of Nature*, p. 236, and Michael Maher, "Psychology," quoted in Leibell, *Readings in Ethics*.

[11]Thus, cf., C.I. Lewis, *Mind and the World Order* (New York: Dover Publications, 1956), pp. 49–51.

other attempted solution. The deciding factor was the *idea* that people chose to adopt.

What *led* the people to adopt particular ideas? Here the historian may enumerate and weigh various factors, but he must always stop short at the ultimate freedom of the will. Thus, in any given matter, a person may freely decide either to think about a problem independently or to accept uncritically the ideas offered by others. Certainly, the bulk of the people, especially in abstract matters, choose to follow the ideas offered by the intellectuals. At the time of the Great Depression, there was a host of intellectuals offering the nostrum of statism or socialism as a cure for the depression, while very few suggested *laissez-faire* or absolute monarchy.

The realization that ideas, freely adopted, determine social institutions, and not *vice versa*, illuminates many critical areas of the study of man. Rousseau and his host of modern followers, who hold that man is good, but corrupted by his institutions, must finally wither under the query: And who but *men* created these institutions? The tendency of many modern intellectuals to worship the primitive (also the childlike—especially the child "progressively" educated—the "natural" life of the noble savage of the South Seas, and so on) has perhaps the same roots. We are also told repeatedly that differences between largely isolated tribes and ethnic groups are "culturally determined": tribe X being intelligent or peaceful because of its X-culture; tribe Y, dull or warlike because of Y-culture. If we fully realize that the men of each tribe created its own culture (unless we are to assume its creation by some mystic *deus ex machina*), we see that this popular "explanation" is no better than explaining the sleep-inducing properties of opium by its "dormitive power." Indeed, it is worse, because it adds the error of social determinism.

It will undoubtedly be charged that this discussion of free will and determinism is "one-sided" and that it leaves out the alleged fact that all of life is multicausal and interdependent. We must not forget, however, that the very goal of science is simpler explanations of wider phenomena. In this case, we are confronted with the fact that there can logically be only one *ultimate sovereign* over a man's actions: either his own free will or some cause outside that will. There is no other alternative, there is no middle ground, and therefore the fashionable eclecticism of modern scholarship must in this case yield to the hard realities of the Law of the Excluded Middle.

If free will has been vindicated, how can we prove the existence of consciousness itself? The answer is simple: to prove means to make evident something not yet evident. Yet some propositions may be already evident to the self, that is, self-evident. A self-evident axiom, as we have indicated, will be a proposition which cannot be contradicted without employing the axiom itself in the attempt. And the existence of consciousness is not only evident to all of us through direct introspection, but is also a fundamental axiom, for the very act of doubting consciousness must itself be performed by a consciousness.[12] Thus, the behaviorist who spurns consciousness for "objective" laboratory data must rely on the consciousness of his laboratory associates to report the data to him.

The key to scientism is its denial of the existence of individual consciousness and will.[13] This takes two main forms: applying mechanical analogies from the physical sciences to individual men, and applying organismic analogies to such fictional collective wholes as "society." The latter course attributes consciousness and will, not to individuals, but to some collective organic whole of which the individual is merely a determined cell. Both methods are aspects of the rejection of individual consciousness.

The False Mechanical Analogies of Scientism

The scientistic method in the study of man is almost wholly one of building on analogies from the physical sciences. Some of the common mechanistic analogies follow.

Man as Servomechanism: Just as Bertrand Russell, one of the leaders of scientism, reverses reality by attributing determinism to men, and free will to physical particles, so it has recently become the fashion to say that modern machines "think," while man is merely a complex form of machine, or "servomechanism."[14] What is overlooked

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[12]See Hassett, Mitchell, and Monan, *The Philosophy of Human Knowing*, pp. 33–35. Also see Phillips, *Modern Thomistic Philosophy*, vol. 1, pp. 50–51; Toohey, *Notes on Epistemology*, pp. 5, 36, 101, and 107–08; and Thilly, *A History of Philosophy*, p. 363.

[13]Professor Strausz-Hupé also makes this point in his paper, "Social Science Versus the Obsession of Scientism," in Schoeck and Wiggins, eds., *Scientism and Values*.

[14]Mises, *Theory and History*, p. 92.

here is that machines, no matter how complex, are simply devices made by man to serve man's purposes and goals; their actions are preset by their creators, and the machines can never act in any other way or suddenly adopt new goals and act upon them. They cannot do so, finally, because the machines are not alive and are therefore certainly not conscious. If men are machines, on the other hand, then the determinists, in addition to meeting the above critique, must answer the question: Who created *men* and for what purpose?—a rather embarrassing question for materialists to answer.[15]

Social Engineering: This term implies that men are no different from stones or other physical objects, and therefore that they should be blueprinted and reshaped in the same way as objects by "social" engineers. When Rex Tugwell wrote in his famous poem during the flush days of the New Deal:

> I have gathered my tools and my charts,
> My plans are finished and practical.
> I shall roll up my sleeves—make America over,

one wonders whether his admiring readers thought themselves to be among the directing engineers or among the raw material that would be "made over."[16]

Model-Building: Economics, and recently political science, have been beset by a plague of "model-building."[17] People do not construct

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[15]Ibid., pp. 94–95:

> A machine is a device made by man. It is the realization of a design and it runs precisely according to the plan of its authors. What produces the product of its operation is not something within it but the purpose the constructor wanted to realize by means of its construction. It is the constructor and operator who create and produce, not the machine. To ascribe to a machine any activity is anthropomorphism and animism. The machine . . . does not move; it is put into motion by men.

[16]See ibid., pp. 249–50.

[17]On this and many other points in this paper I am greatly indebted to Professor Ludwig von Mises and to his development of the science of praxeology. See Ludwig von Mises, "Comment about the Mathematical Treatment of Economic Problems," *Studium Generale* 4, no. 2 (1953); Mises,

theories any more; they "build" models of the society or economy. Yet no one seems to notice the peculiar inaptness of the concept. An engineering model is an exact replica, in miniature, that is, in exact quantitative proportion, of the relationships existing in the given structure in the real world; but the "models" of economic and political theory are simply a few equations and concepts which, at the very best, could only approximate a few of the numerous relations in the economy or society.

Measurement: The Econometric Society's original motto was "Science is measurement," this ideal having been transferred intact from the natural sciences. The frantic and vain attempts to measure intensive psychic magnitudes in psychology and in economics would disappear if it were realized that the very concept of measurement implies the necessity for an objective *extensive* unit to serve as a measure. But the magnitudes in consciousness are necessarily *intensive* and therefore not capable of measurement.[18]

The Mathematical Method: Not only measurement but the use of mathematics in general in the social sciences and philosophy today, is an illegitimate transfer from physics. In the first place, a mathematical equation implies the existence of quantities that can be equated, which in turn implies a unit of measurement for these quantities. Second, mathematical relations are *functional*; that is, variables are interdependent, and identifying the causal variable depends on which is held as given and which is changed. This methodology is appropriate in physics, where entities do not themselves provide the causes for their actions, but instead are determined by discoverable quantitative laws of their nature and the nature of the interacting

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Human Action, *passim*; and Mises, *Theory and History*, pp. 240–63. The foundations of praxeology as a method were laid by the English classical economist, Nassau Senior. Unfortunately, the positivistic John Stuart Mill's side of their methodological debate became much better known than Senior's. See Marian Rowley, *Nassau Senior and Classical Economics* (New York: Augustus M. Kelley, 1949), chap. 1, esp. pp. 64–65.

[18]For a critique of recent attempts to fashion a new theory of measurement for intensive magnitudes, see Murray N. Rothbard, "Toward a Reconstruction of Utility and Welfare Economics," in *On Freedom and Free Enterprise: Essays in Honor of Ludwig von Mises*, Mary Sennholz, ed. (Princeton, N.J.: D. Van Nostrand, 1956), pp. 241–43; reprinted in this volume as chapter 17.

entities. But in human action, the free-will choice of the human consciousness is the cause, and this cause generates certain effects. The mathematical concept of an interdetermining "function" is therefore inappropriate.

Indeed, the very concept of "variable" used so frequently in econometrics is illegitimate, for physics is able to arrive at laws only by discovering *constants*. The concept of "variable" only makes sense if there are some things that are *not* variable, but constant. Yet in human action, free will precludes any quantitative constants (including constant units of measurement). All attempts to discover such constants (such as the strict quantity theory of money or the Keynesian "consumption function") were inherently doomed to failure.

Finally such staples of mathematical economics as the calculus are completely inappropriate for human action because they assume infinitely small continuity; while such concepts may legitimately describe the completely determined path of a physical particle, they are seriously misleading in describing the willed action of a human being. Such willed action can occur only in discrete, non-infinitely-small steps, steps large enough to be perceivable by a human consciousness. Hence the continuity assumptions of calculus are inappropriate for the study of man.

Other metaphors bodily and misleadingly transplanted from physics include: "equilibrium," "elasticity," "statics and dynamics," "velocity of circulation," and "friction." "Equilibrium" in physics is a state in which an entity remains; but in economics or politics there is never really such an equilibrium state existing; there is but a *tendency* in that direction. Moreover, the term "equilibrium" has emotional connotations, and so it was only a brief step to the further mischief of holding up equilibrium as not only possible, but as the ideal by which to gauge all existing institutions. But since man, by his very nature, must keep acting, he cannot be in equilibrium while he lives, and therefore the ideal, being impossible, is also inappropriate.

The concept of "friction" is used in a similar way. Some economists, for example, have assumed that men have "perfect knowledge," that the factors of production have "perfect mobility," and so on, and then have airily dismissed all difficulties in applying these absurdities to the real world as simple problems of "friction," just as the physical sciences bring in friction to add to their "perfect"

framework. These assumptions in fact make *omniscience* the standard or ideal, and this cannot exist by the nature of man.

The False Organismic Analogies of Scientism

The organismic analogies attribute consciousness, or other organic qualities, to "social wholes" which are really only labels for the interrelations of individuals.[19] Just as in the mechanistic metaphors, individual men are subsumed and determined, here they become mindless cells in some sort of social organism. While few people today would assert flatly that "society is an organism," most social theorists hold doctrines that imply this. Note, for example, such phrases as: "Society determines the values of its individual members"; or "The individual's actions are determined by the role he plays in the group to which he belongs," and so on. Such concepts as "the public good," "the common good," "social welfare," and so on, are also endemic. All these concepts rest on the implicit premise that there exists, somewhere, a living organic entity known as "society," "the group," "the public," "the community," and that that entity has values and pursues ends.

Not only are these terms held up as living entities; they are supposed to exist *more* fundamentally than mere individuals, and certainly "their" goals take precedence over individual ones. It is ironic that the self-proclaimed apostles of "science" should pursue the sheer mysticism of assuming the living reality of these concepts.[20] Such concepts as "public good," "general welfare," and so on, should, therefore, be discarded as grossly unscientific, and the next time someone preaches the priority of "public good" over the individual good, we must ask: Who is the "public" in this case? We must remember that in the slogan justifying the public debt that rose to

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[19]On the fallacy of conceptual realism (or Platonic ultra-realism) involved here, and on the necessity for methodological individualism, see F.A. Hayek, *The Counter-Revolution of Science* (Glencoe, Ill.: The Free Press, 1952), *passim*, and Mises, *Human Action*, pp. 41ff. and 45.

[20]We may therefore say with Frank Chodorov that "society are people." Frank Chodorov, *Society Are People* (Philadelphia: Intercollegiate Society of Individualists, n.d.). For a critique of the mystique of "society," see Mises, *Theory and History*, pp. 250ff.

fame in the 1930s: "We owe it only to ourselves," it makes a big difference for every man whether he is a member of the "we" or of the "ourselves."[21]

A similar fallacy is committed, alike by friends and by foes of the market economy, when the market is called "impersonal." Thus, people often complain that the market is too "impersonal" because it does not grant to them a greater share of worldly goods. It is overlooked that the "market" is not some sort of living entity making good or bad decisions, but is simply a label for individual persons and their voluntary interactions. If A thinks that the "impersonal market" is not paying him enough, he is *really* saying that individuals B, C, and D are not willing to pay him as much as he would like to receive. The "market" is individuals acting. Similarly, if B thinks that the "market" is not paying A enough, B is perfectly free to step in and supply the difference. He is not blocked in this effort by some monster named "market."

One example of the widespread use of the organismic fallacy is in discussions of international trade. Thus, during the gold-standard era, how often did the cry go up that "England" or "France" or some other country was in mortal danger because "it" was "losing gold? What was actually happening was that English*men* or French*men* were voluntarily shipping gold overseas and thus threatening the banks in those countries with the necessity of meeting obligations (to pay in gold) which they could not possibly fulfill. But the use of the organismic metaphor converted a grave problem of banking into a vague national crisis for which every citizen was somehow responsible.[22]

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[21]See the delightful essay by Frank Chodorov, "We Lose It to Ourselves," *analysis* (June 1950): 3.

[22]A similar error of metaphor prevails in foreign policy matters. Thus:

> When one uses the simple monosyllabic "France" one thinks of France as a unit, an entity. When . . . we say "France sent her troops to conquer Tunis"—we impute not only unity but personality to the country. The very words conceal the facts and make international relations a glamorous drama in which personalized nations are the actors, and all too easily we forget the flesh-and-blood men and women who are the true actors . . . if we had no such word as "France" . . . then we should more accurately

So far we have been discussing those organismic concepts which assume the existence of a fictive consciousness in some collective whole. There are also numerous examples of other misleading biological analogies in the study of man. We hear much, for example, of "young" and "old" nations, as if an American aged twenty is somehow "younger" than a Frenchman of the same age. We read of "mature economies," as if an economy must grow rapidly and then become "mature." The current fashion of an "economics of growth" presumes that every economy is somehow destined, like a living organism, to "grow" in some predetermined manner at a definite rate. (In the enthusiasm it is overlooked that too many economies "grow" backward.) That all of these analogies are attempts to negate individual will and consciousness has been pointed out by Mrs. Penrose. Referring to biological analogies as applied to business firms, she writes:

> where explicit biological analogies crop up in economics they are drawn exclusively from that aspect of biology which deals with the nonmotivated behavior of organisms. . . . So it is with the life-cycle analogy. We have no reason whatever for thinking that the growth pattern of a biological organism is willed by the organism itself. On the other hand, we have every reason for thinking that the growth of a firm is *willed* by those who make the decisions of the firm . . . and the proof of this lies in the fact that no one can describe the development of any given firm . . . except in terms of decisions taken by individual men.[23]

> describe the Tunis expedition in some such way as this: "A few of . . . thirty-eight million persons sent thirty thousand others to conquer Tunis." This way of putting the fact immediately suggests a question, or rather a series of questions. Who are the "few"? Why did they send the thirty thousand to Tunis? And why did these obey? Empire-building is done not by "nations," but by men. The problem before us is to discover the men, the active, interested minorities in each nation, who are directly interested in imperialism and then to analyze the reasons why the majorities pay the expenses and fight the wars. (Parker Thomas Moon, *Imperialism and World Politics* [New York: Macmillan, 1930], p. 58)

[23]Edith Tilton Penrose, "Biological Analogies in the Theory of the Firm," *American Economic Review* (December 1952): 808.

Axioms and Deduction

The fundamental axiom, then, for the study of man is the existence of individual consciousness, and we have seen the numerous ways in which scientism tries to reject or avoid this axiom. Not being omniscient, a man must learn; he must ever adopt ideas and act upon them, choosing ends and the means to attain these ends. Upon this simple fundamental axiom a vast deductive edifice can be constructed. Professor Mises has already done this for economics, which he has subsumed under the science of praxeology: this centers on the universal formal fact that all men use means for chosen ends, without investigating the processes of the concrete choices or the justification for them. Mises has shown that the entire structure of economic thought can be deduced from this axiom (with the help of a very few subsidiary axioms).[24]

Since the fundamental and other axioms are qualitative by nature, it follows that the propositions deduced by the laws of logic from these axioms are also qualitative. The laws of human action are therefore qualitative, and, in fact, it should be clear that free will precludes quantitative laws. Thus, we may set forth the absolute economic law that an increase in the supply of a good, given the demand, will lower its price; but if we attempted to prescribe with similar generality *how much* the price would fall, given a definite increase in supply, we would shatter against the free-will rock of varying valuations by different individuals.

It goes without saying that the axiomatic-deductive method has been in disrepute in recent decades, in all disciplines but mathematics and formal logic—and even here the axioms are often supposed to be a mere convention rather than necessary truth. Few discussions of the history of philosophy or scientific method fail to make the ritual attacks on old-fashioned argumentation from self-evident principles. And yet the disciples of scientism themselves implicitly assume as self-evident not what cannot be contradicted, but simply that the methodology of physics is the only truly scientific methodology. This methodology, briefly, is to look at facts, then frame ever more general

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[24]In his *Human Action*. For a defense of this method, see chapter 6, this volume; and Rothbard, "Praxeology: Reply to Mr. Schuller," *American Economic Review* (December 1951): 943–46; reprinted in this volume as chapter 7.

hypotheses to account for the facts, and then to test these hypotheses by experimentally verifying other deductions made from them. But this method is appropriate only in the physical sciences, where we begin by knowing external sense data and then proceed to our task of trying to find, as closely as we can, the causal laws of behavior of the entities we perceive. We have no way of knowing these laws directly; but fortunately we may verify them by performing controlled laboratory experiments to test propositions deduced from them. In these experiments we can vary one factor, while keeping all other relevant factors constant. Yet the process of accumulating knowledge in physics is always rather tenuous; and, as has happened, as we become more and more abstract, there is greater possibility that some other explanation will be devised which fits more of the observed facts and which may then replace the older theory.

In the study of human action, on the other hand, the proper procedure is the reverse. Here we *begin* with the primary axioms; we know that men are the causal agents, that the ideas they adopt by free will govern their actions. We therefore begin by fully knowing the abstract axioms, and we may then build upon them by logical deduction, introducing a few subsidiary axioms to limit the range of the study to the concrete applications we care about. Furthermore, in human affairs, the existence of free will prevents us from conducting any controlled experiments; for people's ideas and valuations are continually subject to change, and therefore nothing can be held constant. The proper theoretical methodology in human affairs, then, is the axiomatic-deductive method. The laws deduced by this method are *more*, not less, firmly grounded than the laws of physics; for since the ultimate causes are known directly as true, their consequents are also true.

One of the reasons for the scientistic hatred of the axiomatic-deductive method is historical. Thus, Dr. E.C. Harwood, inveterate battler for the pragmatic method in economics and the social sciences, criticizes Mises as follows:

> Like the Greeks, Dr. Mises disparages change. "Praxeology is not concerned with the changing content of acting, but with its pure form and categorical structure." No one who appreciates the long struggle of man toward more adequate knowing would criticize Aristotle for his adoption of a similar viewpoint 2,000 years ago, but, after all, that *was* 2,000 years ago; surely economists

> can do better than seek light on their subject from a beacon that was extinguished by the Galilean revolution in the 17th century.[25]

Apart from the usual pragmatist antagonism to the apodictic laws of logic, this quotation embodies a typical historiographical myth. The germ of truth in the historical picture of the noble Galileo *versus* the antiscientific Church consists largely in two important errors of Aristotle: (a) he thought of physical entities as acting teleologically, and thus in a sense as being causal agents; and (b) he necessarily had no knowledge of the experimental method, which had not yet been developed, and therefore thought that the axiomatic-deductive-qualitative method was the only one appropriate to the *physical* as well as the human sciences. When the seventeenth century enthroned quantitative laws and laboratory methods, the partially justified repudiation of Aristotle in physics was followed by the unfortunate expulsion of Aristotle and his methodology from the human sciences as well.[26] This is true apart from historical findings that the Scholastics of the Middle Ages were the forerunners, rather than the obscurantist enemies, of experimental physical science.[27]

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[25]E.C. Harwood, *Reconstruction of Economics* (Great Barrington, Mass.: American Institute for Economic Research, 1955), p. 39. On this and other examples of scientism, see Leland B. Yeager, "Measurement as Scientific Method in Economics," *American Journal of Economics and Sociology* (July 1957): 337. Also see Yeager, "Reply to Col. Harwood," ibid. (October 1957): 104–06. As Yeager wisely concludes, "Anthropomorphism, rightly scorned in the natural sciences as prescientific metaphysics, is justified in economics because economics is about human action."

[26]Van Melsen, *The Philosophy of Nature*, pp. 54–58.

[27]As Schumpeter declared: "The scholastic science of the Middle Ages contained all the germs of the laical science of the Renaissance." The experimental method was used notably by Friar Roger Bacon and Peter of Maricourt in the thirteenth century; the heliocentric system of astronomy originated inside the Church (Cusanus was a cardinal and Copernicus a canonist); and the Benedictine monks led the way in developing medieval engineering. See Joseph A. Schumpeter, A *History of Economic Analysis* (New York: Oxford University Press, 1954), pp. 81ff.; and Lynn White, Jr., "Dynamo and Virgin Reconsidered," *The American Scholar* (Spring, 1958): 183–212.

One example of concrete law deduced from our fundamental axiom is as follows: Since all action is determined by the choice of the actor, any particular act demonstrates a person's preference for this action. From this it follows that if A and B voluntarily agree to make an exchange (whether the exchange be material or spiritual), both parties are doing so because they expect to benefit.[28]

Science and Values: Arbitrary Ethics

Having discussed the properly scientific, as contrasted to the scientistic, approach to the study of man, we may conclude by briefly considering the age-old question of the relationship between science and values. Ever since Max Weber, the dominant position in the social sciences, at least *de jure*, has been *Wertfreiheit*: that science itself must not make value judgments, but confine itself to judgments of fact, since ultimate ends can be only sheer personal preference not subject to rational argument. The classical philosophical view that a rational (that is, in the broad sense of the term, a "scientific") ethic is possible has been largely discarded. As a result, the critics of *Wertfreiheit*, having dismissed the possibility of rational ethics as a separate discipline, have taken to smuggling in arbitrary, ad hoc ethical judgments through the back door of each particular science of man. The current fashion is to preserve a façade of *Wertfreiheit*, while casually adopting value judgments, not as the scientist's own decision, but as the consensus of the values of others. Instead of choosing his own ends and valuing accordingly, the scientist supposedly maintains his neutrality by adopting the values of the bulk of society. In short, to set forth one's own values is now considered biased and "nonobjective," while to adopt uncritically the slogans of other people is the height of "objectivity." Scientific objectivity no longer means a man's pursuit of truth wherever it may lead, but abiding by a Gallup poll of other, less informed subjectivities.[29]

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[28]For a refutation of the charge that this is a circular argument, see Rothbard, "Toward a Reconstruction of Utility and Welfare Economics."

[29]"When they [the practical scientists] remember their vows of objectivity, they get other people to make their judgments for them." Anthony Standen, *Science Is a Sacred Cow* (New York: E.P. Dutton, 1958), p. 165.

The attitude that value judgments are self-evidently correct because "the people" hold them permeates social science. The social scientist often claims that he is merely a technician, advising his clients—the public—how to attain their ends, whatever they may be. And he believes that thereby he can take a value position without really committing himself to any values of his own. An example from a recent public finance textbook (an area where the economic scientist must constantly confront ethical problems):

> The present-day justification for the ability principle (among economists) is simply the fact that . . . it is in accord with consensus of attitudes toward equity in the distribution of real income and of tax burden. Equity questions always involve value judgments, and tax structures can be evaluated, from an equity standpoint, only in terms of their relative conformity with the consensus of thought in the particular society with respect to equity.[30]

But the scientist cannot thereby escape making value judgments of his own. A man who knowingly advises a criminal gang on the best means of safe-cracking is thereby implicitly endorsing the end: safe-cracking. He is an accessory before the fact. An economist who advises the public on the most efficient method of obtaining economic equality is endorsing the end of economic equality. The economist who advises the Federal Reserve System how most expeditiously to manage the economy is thereby endorsing the existence of the system and its aim of stabilization. A political scientist who advises a government bureau on how to reorganize its staff for greater efficiency (or less inefficiency) is thereby endorsing the existence and the success of that bureau. To be convinced of this, consider what the proper course would be for an economist who *opposes* the existence of the Federal Reserve System, or the political scientist who would like to see the liquidation of the bureau. Wouldn't he be betraying his principles if he helped what he is against to become more efficient? Wouldn't his proper course either be to refuse to advise it, or perhaps to promote its *in*efficiency—on the grounds of the classical remark by a great American industrialist (speaking of government corruption): "Thank God that we don't get as much government as we pay for"?

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[30]John F. Due, *Government Finance* (Homewood, Ill.: Richard D. Irwin, 1954), p. 122.

It should be realized that values do not become true or legitimate because many people hold them; and their popularity does not make them self-evident. Economics abounds in instances of arbitrary values smuggled into works the authors of which would never think of engaging in ethical analysis or propounding an ethical system. The virtue of equality, as we have indicated, is simply taken for granted without justification; and it is established, not by sense perception of reality or by showing that its negation is self-contradictory—the true criteria of self-evidence—but by assuming that anyone who disagrees is a knave and a rogue. Taxation is a realm where arbitrary values flourish, and we may illustrate by analyzing the most hallowed and surely the most commonsensical of all tax ethics: some of Adam Smith's famous canons of "justice" in taxation.[31] These canons have since been treated as self-evident gospel in practically every work on public finance. Take, for example, the canon that the costs of collection of any tax be kept to a minimum. Obvious enough to include in the most *wertfrei* treatise? Not at all—for we must not overlook the point of view of the *tax collectors*. They will favor high administrative costs of taxation, simply because high costs mean greater opportunities for bureaucratic employment. On what possible grounds can we call the bureaucrat "wrong" or "unjust"? Certainly no ethical system has been offered. Furthermore, if the tax itself is considered bad on other grounds, then the opponent of the tax may well favor high administrative costs on the ground that there will then be less chance for the tax to do damage by being fully collected.

Consider another seemingly obvious Smith canon, namely, that a tax be levied so that payment is convenient. But again, this is by no means self-evident. Opponents of a tax, for example, may want the tax to be made purposely inconvenient so as to induce the people to rebel against the levy. Or another: that a tax be certain and not arbitrary, so that the taxpayers know what they will have to pay. But here again, further analysis raises many problems. For some may argue that uncertainty positively benefits the taxpayers, for it makes requirements more flexible, thus allowing more room for possible bribery of the tax collector. Another popular maxim is that a tax be

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[31]Adam Smith, *The Wealth of Nations* (New York: Modern Library, 1937), pp. 777–79.

framed to make it difficult to evade. But again, if a tax is considered unjust, evasion might be highly beneficial, economically and morally.

The purpose of these strictures has not been to defend high costs of tax collection, inconvenient taxes, bribery, or evasion, but to show that even the tritest bits of ethical judgments in economics are completely illegitimate. And they are illegitimate whether one believes in *Wertfreiheit* or in the possibility of a rational ethic: for such ad hoc ethical judgments violate the canons of either school. They are neither *wertfrei* nor are they supported by any systematic analysis.

Conclusion: Individualism vs. Collectivism in the Study of Man

Surveying the attributes of the proper science of man as against scientism, one finds a shining, clear theory separating one from the other. The true science of man bases itself upon the existence of individual human beings, upon individual life and consciousness. The scientistic brethren (dominant in modern times) range themselves always against the meaningful existence of individuals: the biologists deny the existence of life, the psychologists deny consciousness, the economists deny economics, and the political theorists deny political philosophy. What they affirm is the existence and primacy of social wholes: "society," the "collective," the "group," the "nation." The individual, they assert, must be value-free himself, but must take his values from "society." The true science of man concentrates on the individual as of central, epistemological and ethical importance; the adherents of scientism, in contrast, lose no opportunity to denigrate the individual and submerge him in the importance of the collective. With such radically contrasting epistemologies, it is hardly sheer coincidence that the political views of the two opposing camps tend to be individualist and collectivist, respectively.

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What is the Proper Way to Study Man?

If the proper study of mankind is man, the question immediately arises: what is the proper way to study man? In recent generations, the enormous prestige gained by physics in advancing our knowledge of the material world has led to the uncritical transfer of the methods appropriate in the natural sciences to the study of actions of men. These three books illuminate different aspects of the important truth that differences between the nature of human action and the behavior of unmotivated physical objects require different methodologies of scientific study.

The science of economics has always had a separate methodology of its own; but, as in almost all successful sciences, it did not begin to examine and analyze its methodology until it had developed the bulk of its laws and principles. However, if a well-analyzed methodology is not established in time, a science is in danger of falling into gross error by wandering down plausible but invalid paths. In an age when many widely divergent and even contradictory paths of inquiry are open to economists, it is more important than ever that economic science develop a more critical awareness of its proper methodology. Ludwig von Mises's *Grundprobleme der Nationalökonomie*, published in 1933, was a monumental achievement in

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Originally appear in the September 15, 1961 issue of *The National Book Foundation.* A review of Ludwig von Mises's, *Epistemological Problems of Economics* (Princeton, N.J.: D. Van Nostrand, 1960); *Essays in European Economic Thought*, Louise Sommer, ed. (Princeton, N.J.: D. Van Nostrand, 1960); and Richard von Mises, *Probability, Statistics, and Truth*, 2nd revised English edition, prepared by Hilda Geiringer (New York: Macmillan, 1957).

the study of economic methodology. While previous work by Senior, Cairnes, and Menger had vindicated the validity of economic theory, Mises's volume was the first to rid the methodology of economics of all traces of positivism and relativism. For the first time, Mises explained fully why the laws of human action (economics and, more widely, "praxeology") cannot be "tested" by reference to statistical or historical "data." In the behavior of physical objects, science begins by empirical observation of constant relations, and then frames tentative hypotheses of explanatory laws, these hypotheses being always subject to testing and revision by referring their deduced consequents to controlled experiments, where all but the relevant, isolated factors are held constant. This is the "scientific method" of physics. But in the study of human action, as Mises shows, the reverse is true; here, we begin by knowing the causal laws: by *knowing* the fact of human consciousness, of free will, of motivated, purposeful action of human beings in using given means for the attainment of desired ends. On the other hand, the facts of human history are not, as in physics, controllable and subject to testing; they are the complex and changing resultants of the interplay of human motives and actions, impinging on the natural environment and on each other. The laws of economic science, therefore, can only be constructed by starting with apodictically known axioms and deducing from them a body of necessarily true laws.

The best-known modern work on economic methodology in the English-speaking world has been Lionel Robbins's *An Essay on the Nature and Significance of Economic Science*, published at about the same time as *Grundprobleme*. But Mises's book is a far more profound and basic work in the same general tradition, and its present translation as *Epistemological Problems of Economics* therefore fills a vital gap by bringing us the outstanding work on the methodology of economics.

Essays in European Economic Thought brings to the American reader translations of seven important European economic essays of the past century. Perhaps the outstanding article in the collection is the brilliant critique of mathematical economics by Paul Painlevé, an eminent French mathematician who wrote the essay as the introduction to the French translation of W. Stanley Jevons's *Theory of Political Economy* in 1909. Jevons's work was one of the first, and one of the least harmful, of the increasingly frequent incursions into economics

of the mathematical method; and yet, in his critique of Jevons, Painlevé already saw the dangers and fallacies. The Austrian, praxeological tradition has always recognized that mathematics, and quantitative methods generally, are appropriate to the physical sciences where behavior is continuous and unmotivated; but that verbal logic, in contrast, is the appropriate method where one is studying the necessarily discrete, motivated, qualitative actions of men. In a field where mathematical economists are too often inclined to dismiss critics as ignorant of mathematics, the arguments of this distinguished mathematician carry particular weight.

Richard von Mises's great classic, *Probability, Statistics, and Truth*, effected a revolution in the nature of probability theory during the 1920s and 1930s. "Classical" probability theory considered numerical probability to be derived from "equal ignorance" about the potential events being considered: thus, the probability of obtaining a "three-spot" upon the throw of a die was considered to be "one-sixth" because there are six possibilities and we do not know if one possibility is stronger than another. Mises (the brother of Ludwig von Mises), demonstrating the contradictions of this approach, insisted that the probability is *not* one-sixth if the die happens to be "loaded," and that the only way to find out if a die is loaded is by tossing it a large number of times. Thus was born the "frequency theory" of numerical probability, based on knowledge and not on ignorance. The frequency theory implies that to say the probability of a die showing "three" is "one-sixth" means that, if a die is thrown a great many times, the number of occasions on which "three" is obtained will approach one out of every six throws. But this means, that numerical and mathematical probability theory cannot really apply to each single case, but only to the proportion of randomly-selected homogeneous events as tossing a coin or throwing a die. This fact is much more true of the unique, non-random events of ordinary human (and entrepreneurial) action. It becomes evident from Richard von Mises's fundamental work that mathematical probability theory can never be applicable to economics, or to any other study of human action.

At the present time, when mathematical probability theory is very heavily used in economics and sociology, the translation of the third German edition of Mises's work is particularly welcome. For Mises here refutes various modern criticisms of his theory and

demolishes the attempts of such philosophers as Carnap and Reichenbach to establish a mathematical theory for individual *cases*, as contrasted to large homogeneous *classes*, of human actions.

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Praxeology as the Method of the Social Sciences

The Praxeological Method

During the past generation, a veritable revolution has taken place in the discipline of economics. I am referring not so much to the well-known Keynesian revolution, but to the quieter yet more profound revolution in the methodology of the discipline. This change has not occurred simply in the formal writings of the handful of conscious methodologists; it has spread, largely unnoticed, until it now permeates research and study in all parts of the field. Some effects of this methodological revolution are all too apparent. Let the nonspecialist in economics pick up a journal article or monograph today and contrast it with one of a generation ago, and the first thing that will strike him is the incomprehensibility of the modern product. The older work was written in ordinary language and, with moderate effort, was comprehensible to the layman; the current work is virtually all mathematics, algebraic or geometric. As one distinguished economist lamented, "Economics nowadays often seems like a third-rate sub-branch of mathematics," and one, he added, that the mathematician himself does not esteem very highly.

Of course, economics shares this accelerated mathematization with virtually every other field of knowledge, including history and literature. But, laboring under the common notion that it is a science with a special focus on *quantities*, economics has proceeded farther

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and faster than any of its sister disciplines down the mathematical and statistical road.

The emphasis on mathematics is a symptom of a deeper change in the discipline: the rapid adoption of what we may broadly call "positivism" as the guide for research and the criterion for the successful construction of economic theory. The growing influence of positivism has its source in the attempt of all social sciences to mimic the (allegedly) supremely successful science, physics. For social scientists, as for almost all intellectuals, physics has unfortunately all but replaced philosophy as the "queen of the sciences." In the hands of the positivists, philosophy has almost come to be an elaborate running commentary on and explication of physics, too often serving as the handmaiden of that prestigious science. What positivists see as the methodology of physics has been elevated, at their hands, to be *the* scientific method, and any deviant approach has been barred from the status of science because it does not meet the rigorous positivist test.

At the risk of oversimplification, the positivist model of the scientific method may be summarized as follows:

Step 1. The scientist observes empirical regularities, or "laws," between variables.

Step 2. Hypothetical explanatory generalizations are constructed, from which the empirically observed laws can be deduced and thus "explained."

Step 3. Since competing hypotheses can be framed, each explaining the body of empirical laws, such "coherence" or consistent explanation is not enough; to validate the hypotheses, other deductions must be made from them, which must be "testable" by empirical observation.

Step 4. From the construction and testing of hypotheses, a wider and wider body of generalizations is developed; these can be discarded if empirical tests invalidate them, or be replaced by new explanations covering a still wider range of phenomena.

Since the number of variables is virtually infinite, the testing in Step 3, as well as much of the observation in Step 1, can only be done in "controlled experiments," in which all variables but the ones under study are held constant. Replicating the experimental conditions should then replicate the results.

Note that in this methodology we proceed from that which is known with certainty—the empirical regularities—up through ever wider and more tentative hypotheses. It is this fact that leads the layman to believe erroneously that Newton "overthrew" his predecessors and was in his turn "overthrown" by Einstein. In fact, what happens is not so much substitution as the addition of more general explanations for a wider range of phenomena; the generalizations of a Newton or an Einstein are far more tentative than the fact that two molecules of hydrogen combine with one molecule of oxygen to produce water.

Now, I am not expert enough in the philosophy of science to challenge this positivist model of the methodology of physics, although my reading in the philosophy of nature leads me to suspect that it is highly inadequate.[1] My contention is rather that the wholesale and uncritical application of this model to economics in recent decades has led the entire discipline badly astray.

There is, however, unbeknownst to most present-day economists, a competing methodological tradition. This tradition, the method of most of the older classical economists, has been called "praxeology" by Ludwig von Mises, its most eminent modern theorist and practitioner. Praxeology holds that in the social sciences where human beings and human choices are involved, Step 3 is impossible, since even in the most ambitious totalitarian society, it is impossible to hold *all* the variables constant. There *cannot* be controlled experiments when we confront the real world of human activity.

Let us take a recent example of a generally unwelcome economic phenomenon: the accelerated price inflation in the United States in the last few years. There are all manner of competing theoretical explanations for this, ranging from increases in the money supply to a sudden increase in greed on the part of the public or various segments thereof. There is no positivist empirical way of deciding between these various theories; there is no way of confirming or disproving them by keeping all but one supposedly explanatory variable constant, and then changing that variable to see what happens to prices. In addition, there is the well-known social science analogue

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[1]On this, see Andrew G. Van Melsen, *The Philosophy of Nature* (Pittsburgh, Penn.: Duquesne University Press, 1953).

of the Heisenberg uncertainty principle: positivist science contains predictions, but how can predictions be tested when the very act of prediction itself changes the forces at work? Thus, economist A predicts a severe recession in six months; acting on this, the government takes measures to combat the supposedly imminent recession, the public and the stock market react, and so on. The recession then never takes place. Does that mean that the economist was basing his prediction on erroneous theories, or that the theories were correct but inappropriate to the actual data, *or* that he was "really" right but that prompt action forestalled the dreaded event? There is no way to decide.

One further example: Keynesian economists hold that depressions can be cured by massive doses of deficit spending by the government. The United States government engaged in large-scale deficit-spending to combat the depression in the late 1930s, but to no avail. The anti-Keynesians charge that this failure proves the incorrectness of Keynesian theory; the Keynesians reply that the doses were simply not massive enough, and that far greater deficits would have turned the tide. Again, there is no positivist-empirical way to decide between these competing claims.

Praxeologists share the contention of the impossibility of empirical testing with other critics of positivism, such as the institutionalists, who for this reason abandon economic theory altogether and confine themselves to purely empirical or institutional economic reportage. But the praxeologist does not despair; he turns instead to another methodology that *can* yield a correct body of economic theory. This methodology begins with the conviction that while the economist, unlike the physicist, cannot test his hypotheses in controlled experiments, he is, in another sense, in a *better* position than the physicist. For while the physicist is certain of his empirical laws but tentative and uncertain of his explanatory generalizations, the economist is in the opposite position. He begins, not with detailed, quantitative, empirical regularities, but with broad explanatory generalizations. These fundamental premises he knows with certainty; they have the status of apodictic axioms, on which he can build deductively with confidence. Beginning with the certain knowledge of the basic explanatory axiom A, he deduces the implications of A: B, C, and D. From these he deduces further implications, and so on. If he knows that A is true, and if A implies B, C, and D, then he

knows with certainty that B, C, and D are true as well. The positivist, looking through the blinders imposed by his notion of physics, finds it impossible to understand how a science can possibly begin with the explanatory axioms and work downward to the more concrete empirical laws. He therefore dismisses the praxeological approach as "mythical" and "apriorist."

What are these axioms with which the economist can so confidently begin? They are the existence, the nature, and the implications of human action. Individual human beings exist. Moreover, they do not simply "move," as do unmotivated atoms or molecules; they *act*, that is, they have goals and they make choices of means to attain their goals. They order their values or ends in a hierarchy according to whether they attribute greater or lesser importance to them; and they have what they believe is technological knowledge to achieve their goals. All of this action must also take place through time and in a certain space. It is on this basic and evident axiom of human action that the entire structure of praxeological economic theory is built. We do not know, and may never know with certainty, the ultimate equation that will explain all electromagnetic and gravitational phenomena; but we do know that people act to achieve goals. And this knowledge is enough to elaborate the body of economic theory.[2]

There is considerable controversy over the empirical status of the praxeological axiom. Professor Mises, working within a Kantian philosophical framework, maintained that like the "laws of thought," the axiom is *a priori* to human experience and hence apodictically certain. This analysis has given rise to the designation of praxeology as "extreme apriorism." Most praxeologists, however, hold that the axiom is based squarely in empirical reality, which makes it no less certain than it is in Mises's formulation. If the axiom is empirically

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[2]Thus the fact that people act to achieve their goals implies that there is a scarcity of means to attain them; otherwise the goals would already have been attained. Scarcity implies costs, which in a monetary system (developed much later in the logical elaboration) are reflected in prices, and so forth. For a consciously praxeological development of economic theory, see Ludwig von Mises, *Human Action* (New Haven, Conn.: Yale University Press, 1949); and Murray N. Rothbard, *Man, Economy, and State*, 2nd ed. (Kansas City: Sheed Andrews and McMeel, 1970).