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The scientist. He will spend thirty years in building up a mountain range of facts with the intent to prove a certain theory; then he is so happy in his achievement that as a rule he overlooks the main chief fact of all--that his accumulation proves an entirely different thing. —Mark Twain

THE DANGER OF SCIENCE

OPINION

Sheldon Richman

Ludwig von Mises, F.A. Hayek, Ludwig Lachmann, among other members of the Austrian school of economics, often lamented that the discipline of economics alienated itself from fleshand-blood existence to the extent it imitated the natural sciences, such as physics. With that in mind, I received the news that Cambridge University economist Partha Sarathi Dasgupta, an environmental economist who is credited with helping to restore an "ethical element to economics through his espousal of social wellbeing," has become the first modern economist to be elected a fellow of the prestigious Royal Society in Great Britain. This is no small matter. The Royal Society was founded in 1660 and counts among its present and past fellows Isaac Newton, Charles Darwin, Albert Einstein, and Stephen Hawking. Almost all Royal Society fellows have been either "hard" scientists or mathematicians. A rather famous exception was Adam Smith.

Now a modern economist has been elevated to this exalted rank. What are we to make of it?

The first thing to note is that the Royal Society has broadened its definition of science to include economics because it entails "some areas of advanced math and analytical techniques." It does, indeed. But the relevant question is whether it is helpful or detrimental to regard economics as a science in this sense. There is ample reason for concern.

The word "science" has often been used separately from the natural sciences. "Social science" is a familiar term. "Moral science" gets mentioned now and again. The proper name of the Nobel Prize for economics is the Prize in Economic Sciences [yes, plural] in Memory of Alfred Nobel. (Nobel, the inventor of dynamite, did not include economics when he established his prize.) So it is not unprecedented to attach the word "science" to the study of human action in a social context.

There are understandable grounds for this. Hayek notes in his book *The Counter-Revolution of Science* that there are two notions of science, an older, general notion and a newer, narrower one. In the former sense, science exhibits "the general spirit of disinterested inquiry" and seeks truths about the world. If that was the end of the story, Hayek suggested, no harm would have come from it. As he wrote, in the 18th and early 19th centuries

the term *science* had not yet assumed the special narrow meaning it has today, nor was there any distinction made which singled out the physical or natural sciences and attributed to them a special dignity.

But that changed. Hayek continued,

During the first half of the nineteenth century a new attitude

made its appearance. The term *science* came more and more to be confined to the physical and biological disciplines which at the same time began to claim for themselves a special rigorousness and certainty which distinguished them from all others. Their success was such that they soon came to exercise an extraordinary fascination on those working in other fields, who rapidly began to imitate their teaching and vocabulary. Thus the tyranny commenced which the methods and techniques of the Sciences in the narrow sense of the term have ever since exercised over other subjects.

Tyranny is a strong word, but appropriate. How so? Once Science (as opposed to science) achieved its unique prestige and claim to truth, the practitioners of the social studies grew envious. They would not be regarded as real scientists unless their efforts resembled the hallowed work of the physicists and their natural-science brethren. So they proceeded to shoehorn their studies into a space designed for physics. This meant, among other things, using mathematics, empirical fact gathering, measurement, and testable predictions.

Two old lines should be borne in mind at this point. First is the familiar story about the drunk looking for his car keys under the street lamp, not because that's where he lost them, but because the light is better there. The second is the aphorism that when your only tool is a hammer, every problem looks like a nail. Translation: When the methods of physics are the only acceptable "scientific" methods, other objects of study will be distorted to conform.

But what if an object of study—say, man in society—is not susceptible to that method?

Economics and human action

As I said at the outset, there have been dissenters, particularly in the Austrian school. Ludwig Lachmann, for example, wrote,

Since the range of choice present to the minds of decisionmakers defies statistical measurement, no theory linking observable events, like output quantities or prices, to choice and decision is, in this sense, "testable." The circumstances influencing decisions find their mental reflection in plans. All economic action is, in the first place, the making and carrying out of economic plans. So long as there are no statistics of plans there is nothing to which the econometricians can correlate their measurements. Lachmann devoted a good part of his scholarship to exploring the implications of *expectations* for economic theory. It takes little reflection to see that expectations must play a critical role in economic and social life. Yet how can the methods of the physical sciences account for them, much less measure or predict them?

Ludwig von Mises wrote in *Human Action*, "Economics is not about things and tangible material objects; it is about men, their meanings and actions." But meanings and the actions they inspire are not susceptible to study by the empirical methods of physics. They can't be captured in statistics or equations. All data is historical. Action, Mises taught, demonstrates *inequality*. All action expresses a preference for future-state-of-affairs *A* over future-stateof-affairs *B*. In other words, *A* does not equal *B* in the eyes of the acting human being. (It matters not what the scientific observer thinks.)

It's even more complicated than that. *A* and *B* are not mere physical objects sitting before the actor waiting to be chosen. They are mental phenomena—imagined future conditions. This is true of the simplest cases. An apple and an orange are on a table, and a person is deciding which to choose. He does not merely select an apple or an orange, because that's not ultimately what he wants. He wants the *services rendered* by one of them, the feeling, say, of satisfaction from hunger relieved or flavor experienced. He imagines two futures (albeit only a few minutes away): one in which he consumes the apple and one in which he consumes the orange. He chooses on the basis of which *future* he prefers *now*. But he may err. His present knowledge of the future must be imperfect. The apple could give him a stomachache. The orange could taste sour. All action is entrepreneurial and risky. How can that element be incorporated into formal mathematics or into predictions?

Constant disequilibrium

More generally, what's the point of building elaborate models of general equilibrium when the world is always in disequilibrium thanks to people's capriciously changing expectations, judgments, tastes, preferences, and moods? The Austrians use equilibrium— the conceptual halting of change—to understand the effects of change. The "scientific" economists took equilibrium literally and treated it as though this was how the world essentially is—or worse, should be. Why? Because the light is better under the street lamp. Because if we see the problem as a nail, our hammers can be called into service. These really are not good reasons.

Economics cannot be a Science for a reason so simple that intellectuals often miss it or wish to overlook it: Human beings are not like objects, molecules, atoms, or subatomic particles. Those things we study as outsiders, applying the principles of mechanics, which were discovered by previous repeated observation. When billiard balls move after being hit by other billiard balls, the physicist need not wonder what plans and expectations motivated the 8-ball or whether it will move differently tomorrow under the influence of new purposes.

In contrast, we observe human action as insiders. We bring to the study of social and economic processes an intimate knowledge of the concepts *intention, purpose, preference, plan, expectation, valuation,* and so on. We must observe human activity from within this theoretical framework, which itself needs no scientific confirmation. Indeed, it is what makes science possible. Any attempt to disprove the existence of purposeful action would be to commit a performative contradiction.

But while we have this intimate general knowledge about people, what we cannot have is an inventory of particulars. Social processes are complex phenomena, the outcome of factors too numerous and resistant to measurement for any person or group to comprehend. That's why central economic planning fails.

The debate over whether economics is a Science is not merely academic. In our age, when Science is the reigning deity, the pronouncements of its High Priests resemble irresistible prescriptions. Measurement and prediction in the natural sciences have led, quite properly, to greater control over the natural environment. But can we tolerate this in the social environment? (See Thomas Szasz's latest book, *Faith in Freedom*, for parallels between psychiatry and economics with respect to "scientific" control of human beings.)

Economists routinely offer proposals for the well-being of "the economy." Often these call for raising a tax, offering a tax credit for a particular activity, enacting some regulation, raising or lowering interest rates, increasing the minimum wage, burdening imports, subsidizing exports, and so on. Although couched in scientific terms, such proposals are inherently value-laden and political: they presume to control not economies but people. Economics per se is not a normative discipline, but a value-free study of social processes. However, any economic policy calling for positive government action necessarily involves moral issues, since all government activity requires the threat of violence against innocents, beginning with taxation.

Thus a scientific mask disguises the compulsion that must attend all such proposals. There's the danger of Science, or *scientism*, which Hayek defined as "a mechanical and uncritical application of habits of thought to fields different from those in which they have been formed."

Hayek understood that danger well. When he was awarded the Nobel Prize for "economic sciences" in 1974, he expressed disapproval of the prize as such, for it "confers on an individual an authority which in economics no man ought to possess." In his acceptance address, "The Pretense of Knowledge," he issued a chilling warning:

[To] entrust to science—or to deliberate control according to scientific principles—more than scientific method can achieve may have deplorable effects ... The recognition of the insuperable limits to his knowledge ought indeed to teach the student of society a lesson of humility which should guard him against becoming an accomplice in men's fatal striving to control society—a striving which makes him not only a tyrant over his fellows, but which may well make him the destroyer of a civilization which no brain has designed but which has grown from the free efforts of millions of individuals.



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