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Complementary Approaches

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As an econometrician and mathematical modeler, what I've come to love about Austrian economics is that it is a complementary approach to thinking about economics. I find Steve Horowitz's discussion of praxeology versus empiricism akin to that of the Protestants and Catholics during the Reformation—I don't want to have to choose between one side and the other because neither is complete, and each has unique value to recommend itself. I have also come to appreciate that the Austrians have good cause to be skeptical of mathematical and statistical analysis, though it is possible that much of their apparent disdain for statistics comes from a conflation of macroeconomics and econometrics. Macroeconomics gets such a lion's share of press that non-economists have come to regard macroeconomics as synonymous with economics. And among economists, macroeconomics is viewed as the sub-discipline most divorced from behavioral theory, thereby putting it on a collision course with the Austrian mode of thought. Macroeconomics has no truck with individual behavior, and it makes heavy use of quantitative methods. By association, quantitative methods have seemed to become, to Austrians, the enemy.

Austrians can also take issue with microeconomics' fixation on equilibria as an attained and static end rather than, as Austrians would have it, a target to which the market heads and which entrepreneurial action continually shifts.[1] However, as does Austrian thought, microeconomic theory begins from first principles: humans are rational agents who seek to maximize utility by choosing from among alternatives subject to constraints. Some Austrians take issue with whether we can even discuss utility, having an aversion to models that rely on cardinal utility.[2] Others hold that mainstream microeconomic models appearing to employ cardinal measures do so only as a matter of convenience and that what is truly at their core is ordinal utility.[3] While employing different languages, Austrian economics and traditional microeconomics at least embrace the same love of logical argument.

Traditional macroeconomics, conversely, brushes aside behavior with a call for the need to aggregate. Gone are choosy humans seeking satisfaction in the face of constraints. Replacing them is the aggregation of all consumers into that non-existent creature, homo-homogenous, with the only nod to behavior being the truism that income not spent is saved. The four-sector Keynesian model from which mainstream macroeconomic thought arises is not a behavioral model but an accounting identity. The macroeconomic thought based on this view of economics is internally consistent but rarely does anyone, apart from the Austrians, question whether the model has any connection to reality. Why break the economy into sectors by spending rather than by income or some other measure? If we are wedded to a spending approach, why break the economy into sectors according to who is spending rather than according to on what they are spending? Why treat all spending as if it were equivalent, thereby making a dollar spent on mud pies as valuable as a dollar spent on apple pies? There exists a negative halo effect wherein dislike of the approach macroeconomics takes to modeling the economy extends to the quantitative tools the discipline employs.

The counterargument, as Krugman recently put it, is that Austrian economists' eschewing of mathematical modeling leads to sloppy thinking.[4] There is something to be said for Krugman's critique. Sentences are subject to interpretation; words have multiple nuances. Ironically, Horowitz' core claim is that people have misinterpreted what Mises meant by praxeology. Mathematics suffers neither of these failings. In the opening lecture in mathematical modeling, I tell my students, "Nothing is better than cake," and point out that the sentence has two equally valid though contradictory meanings. The mathematical representation, however, leaves no ambiguity as one must choose to translate the sentence as either

$$U(\text{cake}) > U(g) \quad \forall g \in \{\text{consumption goods}\}$$

or

$$U(\emptyset) > U(\text{cake})$$

The other side of this argument is that the first step in mathematical modeling is to create an abstraction. Everything one does from that point forward, no matter how mathematically brilliant, remains in that state of abstraction. Abstraction does not, as some critics argue, make the resulting economic theory meaningless. However, mathematical economists can spend so much time ensconced in their models that, by the time they arrive at a solution, they have forgotten the caveat that the solution is entirely dependent on the abstraction not having culled subtle but important realities. One such subtle reality is the existence of entrepreneurs—something that mainstream economics seems to have only recently discovered, but which has been a core part of Austrian thought from the start.[5]

Statistical analysis is supposed to be the companion to mathematical modeling, each dutifully keeping the other within earshot of reality. Unfortunately, the advent of ubiquitous data and computing power has allowed statistical analysis to go gamboling along on its own, unaccompanied by theory. Once taboo among econometricians, data mining has, with important caveats, become an accepted technique for model building.[6] Data mining is a powerful tool when used as the first step in the scientific method (observe, hypothesize, test, reject or fail to reject). Unfortunately, there is also a growing acceptance of the use of data mining in the second and third steps, wherein statistical significance is used to select from among competing hypotheses. This practice, which when done by hand is sometimes called “data peeking,” can introduce significant bias into statistical tests. The practice is most prevalent where there is no underlying theoretical model—that is, in cases that, to Austrian thought, would not even constitute an economic argument, let alone a valid argument. Mathematical modeling that abstracts too far from reality and statistical analyses that become unhinged from theoretical models are good reasons for Austrians to be skeptical of quantitative analysis.

But in their skepticism, Austrians miss an opportunity to use statistical analysis to refute non-Austrian claims. If, as Keynesians have it, government spending increases economic activity, then quantitative analysis should show GDP growth accelerating following acceleration in government spending. If raising tax rates increases tax revenues, then we should see clear evidence in the data. In shunning empirical arguments, Austrians miss the opportunity to push non-Austrians to the wall in the opposition’s own vernacular. Whether, as Horowitz claims, Austrian economics is not anti-empirical I cannot say. I do know that the quantitative analysis of mainstream economics and the logic of Austrian economics are both tools that can reveal truth. If Gödel’s incompleteness theorem applies to economics, then the truths we seek are larger than any tool we might bring to bear. Those who can see Austrian logic and quantitative analysis as complementary tools will travel farther down the path to truth than will those who view them as competing paradigms.

Notes

[1] Peter J. Boettke, “Where did economics go wrong: Modern economics as a flight from reality.” *Critical Review* 7(1): 11–64, 1997.

[2] Walter Block, “Austrian theorizing: Recalling the foundations.” *Quarterly Journal of Austrian Economics* 2(4), 21–39, Winter 1999.

[3] Bryan Caplan, “The Austrian search for realistic foundations.” *Southern Economic Journal* 65(4): 823–38.

[4] Paul Krugman, “The conscience of a liberal: Martin and the Austrians.” *The New York Times*, April 7, 2010.

[5] Israel Kirzner, *Competition and Entrepreneurship*. Chicago: University of Chicago Press, 1974.

[6] Deirdre Nansen McCloskey and Steve Ziliak, *The Cult of Statistical Significance: How the Standard Error Costs Us Jobs, Justice, and Lives*. Ann Arbor: University of Michigan Press, 2008.

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