

This paper is very timely, well-researched, and fairly well written. This is a useful article for someone who is interested in the topic and would like to have a literature overview of the issues at hand. It is my conclusion, however, that the paper does not go deep enough into the intricacies of figuring out what exactly is wrong with the predominant economic paradigm and what to do to improve it.

Although the author identifies many relevant problems of the discipline, not enough theoretical structure or analysis is given, making the essay a collection of relatively unconnected parts. As I read it, I kept waiting for “the meat” or “punch line” to come in the next page. For example, on page 14 we find comments on how economics (macroeconomics) could become a science that is better served if done “top down”:

“As Philip Ball (2005) argues in his book *Critical Mass*, winner of the Adventis Prize for Science Books, physics has developed tools, methods and ideas to study systems whose components parts have a capacity to act collectively. So, they seem especially accurate to analyze collective behavior in economics.

The first requisite for this is to change the departing point in economics. It should be not the individual but the economic aggregates. These aggregates are the result of the behavior of many agents, all interacting with one another at once. So, collective behavior and not individual behavior should be the departing point of economic analysis.

Orthodox economics demands for microfoundations as a necessary condition in macroeconomics. But, for instance, thermodynamics and chemistry do not claim for a micro theory. All biological creatures are made up of particles. This does not mean that the natural place to start in building biology is to start with particle physics. Botanists study certain characteristics of the behavior of plants without knowing the exact biochemical mechanism behind them. Zoologists study anthills without having to resort to the individual behavior of ants. It is well known that relativity theory (macrophysics) and quantum mechanics (microphysics) are mutually inconsistent. Why should economics demand what harder sciences do not?”

But just in the next page, the author seems to endorse just the opposite type of approach (bottom up):

“Since the end of the eighties, multi-disciplinary research as done at the Santa Fe Institute has stimulated a lot of work on interacting agents in economics and finance. Models of interacting particle systems in physics served as examples of how local interaction at the micro level may explain structure at the macro level.”

The author states in his conclusions that: “The departing point in economics should be not the individual but the economic aggregates. Microfoundations are not a necessary condition for macroeconomics,” but I am not convinced that this is a particularly good way of going forward. Rather, a much more in-depth discussion of the necessary meso-models of description, dynamics and structure generating mechanisms is warranted.

This essay could easily be extended to a book that a lot of people would be interested in reading. I believe, however, that this paper does not make a significantly novel contribution in its current length and presentation to warrant its publication, since all of the points it makes can be found elsewhere.