Some Thoughts on the Future of Economic Theory

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Scientific theories are parsimonious ways of summarizing patterns in observations and unifying diverse, seemingly unrelated, phenomena by highlighting hidden common structures. In this sense, theory is our way of grasping the fundamental aspects of empirical phenomena, and theoretical research aims to expand and deepen this understanding. Economic theory is no exception.

When considering the current state of the art in economic theory, it is useful to think metaphorically. Theoretical physics explores the forces that shape the universe; engineering seeks ways to harness these forces and direct them to attain specific objectives. Analogously to physics, economic theory explores human motives and strategic interactions in the context of existing institutions, their implications, and welfare consequences. Analogously to engineering, economic theory also explores the design of new institutions intended to direct individual behavior, using appropriate incentive structures, to attain social goals. Both types of theoretical investigations constitute the current occupation of economic theory.

To speculate about the future of economic theory, it is useful to invoke Kuhn’s structure of scientific revolutions. In the past, major advances in economic theory occurred when the dominant paradigm—such as general equilibrium theory, which dominated the discourse in the 1950s and 1960s—reached “maturity.” When a paradigm reaches maturity, the central issues are well understood and incorporated into the discussion. A paradigm shift occurs when the mature paradigm is challenged by observations that are difficult to reconcile with it, or by dissatisfaction with some of the premises on which it is built. The exploration of the theory of incentives and asymmetric information, which has dominated the discourse in economics since the early 1970s, seems to have reached maturity, and we may be on the verge of new breakthroughs.

Below is a short list of potential areas that, from the vantage point of the current state of the art, seem ripe for changes that potentially can affect economic theory in a fundamental way.

a. The formation and evolution of preferences Economic theory takes individual preferences as a primitive concept. This attitude is problematic in that it is silent on the formation and evolution of these preferences, which appear to be affected by cultural and social circumstances. Moreover, the welfare analysis currently practiced in economics is based on the premise that preferences are immutable. If preferences indeed evolve as a result of economic, social, and cultural changes, then welfare economics as we know it will have to be fundamentally revised. Furthermore, much of economic theory is based on a narrow definition of human motives—namely, the maximization of self-interest, where self-interest is defined in strictly material terms. This outlook, while useful, leaves out considerations of fairness and justice, as well as emotions, such as shame, guilt, and pride that play an important role in motivating human behavior. The incorporation of emotions into the model of individual behavior, which is at the interface of economics,
psychology and possibly neuroscience, is another area in which progress may inspire fundamental change in the understanding of economic behavior.

b. **The limits of rationality** Economics is often criticized for assuming that individuals—**or homo economicus**, as the agents in economic models are referred to—are fully rational and have infinite capacity to absorb, store, and process information and to use it to optimize or figure out the best strategic response in complicated games. This assumption is patently false. The problem with departing from the rationality assumption is that, to paraphrase Tolstoy, all rational individuals are rational in the same way, while irrational individuals are irrational in their own idiosyncratic ways. This diversity poses a difficulty for economic modeling. Exploring the meaning of and modeling bounded rationality may lead to major revisions of our understanding of how economic institutions work and how their performance can be evaluated.

c. **The analytical framework** By and large, economic models are founded on the premise that decision makers, be they individuals, households, or firms, are fully aware of and understand the alternatives among which they must choose and their consequences. This is patently wrong, raising the question of how to incorporate unawareness into models of economic behavior. Incorporating unawareness poses conceptual challenges that may require a fundamental revision of the analytical framework currently used to model decision making in general and decision making under uncertainty in particular.

d. **Mechanism and new market designs** On the “engineering” part of economic theory, recent years witnessed major new institutions, such as the markets for trading pollution rights, kidney exchange programs, student-school matching programs, new auction forms designed to sell the right to use the spectrum, to mention some important examples. All these institutions are intended to improve efficiency and promote social welfare. New designs and institutions are likely to be invented in response to needs and the exploitation of the new powers of communication and calculation afforded by advances in information technology.