

The Philosophy of Science 2-Volume Set

An Encyclopedia

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Philosophy of Economics

The philosophy of economics concerns itself with conceptual, methodological, and ethical issues that arise within the scientific discipline of economics.¹ The primary focus is on issues of methodology and epistemology—the methods, concepts, and theories through which economists attempt to arrive at knowledge about economic processes. Philosophy of economics is also concerned with the ways in which ethical values are involved in economic reasoning—the values of human welfare, social justice, and the tradeoffs among priorities that economic choices require. Economic reasoning has implications for justice and human welfare; more importantly, economic reasoning often makes inexplicit but significant ethical assumptions that philosophers of economics have found it worthwhile to scrutinize. Finally, the philosophy of economics is concerned with the concrete social assumptions that are made by economists. Philosophers have given attention to the institutions and structures through which economic activity and change take place. What is a “market”? Are there alternative institutions through which modern economic activity can proceed? What are some of the institutional variants that exist within the general framework of a market economy? What are some of the roles that the state can play within economic development so as to promote efficiency, equity, human well-being, productivity, or growth?

The dimension of the philosophy of economics that falls within the philosophy of science has to do with the status of economic analysis as a body of empirical knowledge. Primary questions include: What is economic knowledge **about**? What kind of knowledge is provided by the discipline of economics? How does it relate to other social sciences and the bodies of knowledge contained in those disciplines? How is economic knowledge justified or evaluated? Does economic theory purport to offer abstract theories of real social processes—their mechanisms, dynamics, and institutions? What is the nature of economic explanation? What is the relationship between abstract mathematical models and theorems, on the one hand, and the empirical reality of economic behavior and institutions, on the other? What is the nature of the concepts and theories in terms of which economic beliefs are formulated? Are there lawlike regularities among economic phenomena? What is the status of predictions in economics?

The intellectual role of the philosophy of economics

Philosophers are not empirical researchers, and on the whole they are not formal theory-builders. So what constructive role does philosophy have to play in economics? There are several. First, philosophers are well prepared to examine the logical and rational features of an empirical discipline. How do theoretical claims in the discipline relate to empirical evidence? How do pragmatic features of theories such as simplicity, ease of computation, and the like, play a role in the rational appraisal of a theory? How do presuppositions and traditions of research serve to structure the forward development of the theories and hypotheses of the discipline? Second, philosophers are well equipped to consider topics having to do with the concepts and theories that economists employ—for example, economic rationality, Nash equilibrium, perfect competition, transaction costs, or asymmetric information. Philosophers can offer useful analysis of the strengths and weaknesses of such concepts and theories—thereby helping practicing economists to further refine the theoretical foundations of their discipline. In this role

¹ The philosophy of economics is now a well-established sub-discipline within philosophy. Significant contributions to the discipline include (Buchanan 1985), (Hausman 1984), (Hausman 1992), (Hausman and McPherson 1996), (Little 1995), (Sen 1987), and (Rosenberg 1992). See also the journal *Philosophy and Economics*.

the philosopher serves as a conceptual clarifier for the discipline, working in partnership with the practitioners to bring about more successful economic theories and explanations.

So far we have described the position of the philosopher as the “underlaborer” of the economist. But in fact, the line between criticism and theory formation is not a sharp one. Economists such as Amartya Sen and philosophers such as Daniel Hausman have demonstrated that there is a very constructive crossing of the frontier that is possible between philosophy and economics; and that philosophical expertise can result in significant substantive progress with regard to important theoretical or empirical problems within the discipline of economics. The cumulative contents of the journal *Economics and Philosophy* provide clear evidence of the productive engagements that are possible when philosophy meets economics.

In order to accomplish these goals, the philosopher of economics has a responsibility parallel to that of the philosopher of biology or philosopher of physics: he or she must attain a professional and rigorous understanding of the discipline as it currently exists. The most valuable work in the philosophy of any science proceeds from the basis of significant expertise on the part of the philosopher about the “best practice,” contemporary debates, and future challenges of the discipline. Only through such acquaintance will the philosopher succeed in raising topics that genuinely engage with important issues in the profession.

Important questions in the philosophy of economics

Let us now consider a sampling of philosophical questions about economics as an organized body of knowledge. These questions by no means exhaust the content of the philosophy of economics, but they serve to give the reader of the types of questions that philosophers have posed to the discipline of economics.

Are there laws in economics?

The concept of a “law of nature” has been central to our understanding of the natural sciences. The intellectual power of classical physics derived from the fact that it was capable of advancing statements of physical laws that were simple and universal—laws of gravitation and planetary motion, optics, electricity and magnetism, etc. Is this an essential feature of a successful empirical science? And does economics possess such laws? Several authors are affirmative on both points (Kincaid 1996), (Rosenberg 1976). However, several points have emerged in recent discussions of the social sciences that lead to doubt about the centrality of laws in the social sciences—including economics. First, there are significant differences between natural and social phenomena that should make us dubious about the availability of strong “laws of nature” describing social phenomena. Second, it is clear that there are regularities within the discipline of empirical economics—consumption usually rises when prices fall, trade increases when transport costs fall, and infant mortality usually falls when states devote more resources to public health. But these are fairly humdrum empirical regularities, exception-laden and obvious. Are there strong “economic laws” that have the force of Maxwell’s laws of electromagnetic propagation? Nothing in current economic theory provides reason to think that there are such laws. The foundational assumptions of economic theory plainly do not fall in the category of “laws of nature.” And as we will see below, the assumption of economic rationality does not constitute a universal generalization about individual behavior. Here, as is the case in other areas of social science, it is more justifiable to seek out causal mechanisms rather than social laws.

Are the assumptions of economics “realistic”?

Do economic theories and hypotheses serve to describe unobservable economic mechanisms and structures? Milton Friedman set the stage for one answer to this question by arguing for an instrumentalist interpretation of economic assumptions (Friedman 1953). On Friedman’s view, the value of a theory is entirely expressed in its ability to predict observable phenomena; the theory is an instrument of prediction. Instrumentalism, however, has generally faced strong criticism from philosophers of science (Leplin 1984). This doctrine makes the empirical success of a theory a source of mystery. The best explanation of a theory’s having generally reliable predictions about a range of phenomena is that the mechanisms that it postulates are in fact true. So it is a deficiency in a theory that the mechanisms it postulates are implausible or false. And economic theory would be substantially undermined if we were to conclude that its premises are profoundly inconsistent with the real underlying causal processes that constitute a working economy. Against this instrumentalist framework Daniel Hausman puts forward a realist approach to economic theory (Hausman 1992). Within this approach, the goal for the economist is to arrive at assumptions that are approximately true. (As we will see below, this methodological principle suggests that economists ought to pay greater attention to economic institutions, comparative economic analysis, and economic history.)

Are economic theories testable or falsifiable?

Before we can ask whether a theory is testable, we have to have a clear specification of its empirical content. This requires us to ask the question, What is the theory intended to describe, predict, or explain? A theory has empirical content if it makes assertions about causal processes underlying a domain of phenomena and those assertions have consequences for observable states of the world. Under these circumstances it is possible for us to perform experiments (arrange the world in a certain way, observe the outcome, and compare with the theory’s predicted outcome), controlled observations (collect “before-after” cases and compare the outcomes with the theory’s predictions), piecemeal observations (examine elements of process in order to assess whether the postulated causal processes did in fact occur), and so on. Through these efforts we can bring empirical evidence to bear on the task of assessing the truth of the hypothesis. So the question before us is this: does economic theory contain substantive assumptions about the causal workings of the economic world that are intended to have implications for future observable states of the economic world? And are we able to perform observations of states of the world that confirm or falsify the theory (Hands 1992)? In principle, it is clear that the answer to this question is affirmative. Consider a range of theories of specific economic processes—economic growth, trade, unemployment, wages, or discrimination. Such theories have predictive consequences, and it is not especially difficult to describe the observations that would need to be secured to test these theories. The epistemic difficulty comes later: most theories of complex phenomena are in fact falsified—without necessarily being far from the mark in their description of the underlying processes. So how are we to distinguish among “falsified” theories to single out the more likely from the less likely (Lakatos 1974)?

Are economic theories simply formal mathematical systems, without empirical relevance?

Alexander Rosenberg makes a case for the formalist view of economic theory, having concluded that economists have not succeeded in producing empirical theories or explanations of real empirical phenomena (Rosenberg 1992: chapter 8). Rosenberg likens microeconomics to Euclidean geometry rather than classical physics or evolutionary biology; the “theory” is a set of

abstract and non-empirical axioms, and the exercise of “doing economics” is one of deriving theorems from these axioms. Is this a satisfactory way of understanding the intellectual program of economics, however? It is not. The intellectual charge for the discipline of economics—not always or successfully achieved—is to provide a social-scientific basis for understanding, explaining, and, perhaps, predicting economic phenomena. Why do interest rates affect investment levels? Why are inflation and unemployment related? Why is economic growth more rapid in the context of one set of institutions than another? What are the causal links that secure connections among economic variables? These are the sorts of questions that economists are charged to answer. And the approach to economic theorizing that stipulates that the discipline is purely formal will not aid in shedding light on these real, though unobservable, economic mechanisms. On this line of thought, the persistent mathematization of economics ought to be construed as a means to an end rather than the end itself. The formal or mathematical machinery of economics is intellectually valuable only insofar as it contributes to a better understanding of real, empirically given economic processes, causes, and systems.

What is the status of the concept of economic rationality?

The concept of economic rationality is foundational within economic theory, and especially so within neoclassical economics. So a special concern for philosophers of economics has been to provide critical examination of the theory of economic rationality. Philosophers have raised a series of important issues concerning the theory of economic rationality. Taken together, these criticisms have led to a substantial enhancement in our understanding of the concept of rationality. First, philosophers have devoted a great deal of attention to the gap between a theory of utility and a theory of individual preference. Second, they have taken issue with the assumption of egoism or rational self-interest that is presupposed in the pure theory (Sen 1987), (Anderson 2000). Third, philosophers and others have pointed out that real psychological actors reason in ways that are at odds with the pure theory of economic rationality (Simon 1983), (Kahneman, et al. 1982). Fourth, philosophers and others have devoted significant attention to the assumptions underlying game theory. Finally, some philosophers have undertaken to study the characteristics of “economic rationality” in real human persons through experiment (Schmidtz 1991). For example, Robert Axelrod has used experimental settings to examine how real human reasoners deal with prisoners’ dilemmas; he finds that experimental subjects are frequently able to achieve cooperation rather than defection, contrary to the prediction of two-person game theory (Axelrod 1984). The results of this research suggest that real reasoners behave intelligently—but differently from the axioms of the theory of pure economic rationality.

What is the role of ethical values in economics?

Economists often portray their science as “value-free”—as a technical analysis of the demands of rationality in the allocation of resources rather than a specific set of value or policy commitments. On this interpretation, the economist wishes to be understood in analogy with the civil engineer rather than the transportation policy maker: he or she can tell us how to build a stable bridge, but not where, when, or why to do so. It is for citizens and policy makers to make the judgments about the public good that are needed in order to decide whether a given road or bridge is socially desirable; it is for the technical specialist to provide design and estimate of costs. This description of the discipline of economics fails in several important respects, however. Economic theory contains a family of substantive presuppositions about the nature of the good—individual and social—that directly influence the policy recommendations to which

economic theory gives rise. For example, the assumption of rational egoism is inconsistent with several of the values of communitarianism; the assumption that equity is subordinate to efficiency is inconsistent with an egalitarian political philosophy; and the assumption that a bundle of commodities constitutes individual “wellbeing” is inconsistent with a more Aristotelian conception of the good human life (Nussbaum 2000). So the premises and assumptions of economics are substantially intertwined with normative assumptions about the good human life and the good society. This is not a deficiency, but it needs to be recognized so that we can recognize the workings of the unstated value assumptions. And it certainly invalidates the assumption of “value-free” social science. In general, it seems fair to say that the ethical assumptions that neoclassical economics presupposes fall together into a family of normative ideals that privilege individualism, inequality, and the minimal exercise of public policy.

Is distributive justice a topic for economists?

Once it is recognized that economics has ethical content, it becomes apparent that we need to examine the content of these ethical premises in detail, and offer critique when we find them wanting. In particular, economics is obliged to confront issues of distributive justice much more explicitly than it has to date. A market economy implies some degree of inequality, of various kinds: inequalities of outcomes (wealth and income), inequalities of opportunity, inequalities of power and influence, inequalities of levels of well-being (health, longevity, education). What sorts of inequalities are morally acceptable in a just society? How extensive can inequalities be before they create differences among citizens that interfere with their human dignity and the preconditions of democracy? Throughout the past thirty years philosophers have made substantial contributions to our understanding of these issues of distributive justice and the moral status of inequality; (Rawls 2001), (Nozick 1974), (Elster 1992). There is more to be done.

Is there a basis for rational debate about economic institutions?

What sort of social world does economic theory presuppose? In considering this type of question, philosophers begin to move into substantive debates about the nature of the empirical phenomena under study. The discussion falls under the rubric of “criticism,” in that it focuses on blindspots that can be discerned within the visual field of economic theorizing. Economists make assumptions about the institutions that constitute the framework of economic transactions, and these assumptions are sometimes inflexible and unrealistic. It is therefore worthwhile for philosophers to devote attention to the shortcomings of the social institutional assumptions that economists often make. The new institutionalism in the social sciences has focused substantial interest on the specifics of the institutions within which social activity takes place (Brinton and Nee 1998), (Powell and DiMaggio 1991). Institutions matter; so a more refined account of the economic institutions of a particular market economy may lead to better understanding of the phenomena that we witness. For example, incorporation of transaction costs and asymmetric information between buyer and seller has significantly changed our understanding of market institutions. One strand of philosophical criticism comes from the level of abstractness of typical economic theories. Greater empirical detail may well change the inferences we draw about the workings of the institution. Market “imperfections” may be the rule rather than the exception—so it is important to incorporate some of these empirical characteristics into our theories of economic institutions.

Are there alternative economic institutions that can work in a modern economy?

Economic activity within a modern society requires institutions that define the use, management, and enjoyment of resources; the deployment and management of labor; and the management of enterprises. Neoclassical economics presupposes private ownership of capital; “free” workers who do not own property; and states that have minimal economic influence. Are there other institutions through which economic activity might be conducted within a modern and productive society (Elster and Moene 1989)? For example, what is the economic logic of workers’ cooperatives? How could worker-controlled pension funds be used to enhance democratic equality? Is there more to be learned from the experience of market socialism, state ownership, or workers’ control of industrial processes? Are alternative institutions feasible? Are they efficient? Are they equitable?

What can we learn from comparative economic analysis?

Economic development has proceeded in very different ways in different nations and regions since the emergence of modern technologies and economic institutions. Market institutions developed very differently in Britain, France, and the United States during the 19th and 20th centuries. Collectivized economies followed different institutional trajectories in Yugoslavia, the USSR, and China. What can we learn about economic processes and dynamics by studying and comparing national economies in significant detail? For example, what do the parallel yet different experiences of China and India since 1945 teach us about alternative pathways of economic development (Drèze and Sen 1989)? Does this sort of comparative economic research provide a “post cold war” basis for analyzing the political economy of development? As economists come to confront the intellectual challenge of providing realistic causal accounts of economic systems, they will be able to arrive at significant new insights through comparative economic analysis.

What is the intellectual relevance of the history of western industrial capitalism for economic theory?

Re-examination of the history of European capitalism suggests that there were feasible alternative paths of economic development besides mass manufacture and specialized production (Sabel and Zeitlin 1997). Mass manufacture and mass unskilled labor represented one important alternative, but there were other historically feasible alternatives. As Sabel and Zeitlin demonstrate, another feasible system of industrial production involves highly skilled workers, flexible production, and flexible tools and production processes (Sabel 1985). Once again, the moral for the discipline of economics is an important one: It is possible to arrive at more empirically satisfactory economic theories when we consider the range of institutions through which economic activity and growth has taken place.

Conclusions

The philosophy of economics serves as a source of sympathetic yet rigorous critique of the science of economics, broadly construed. It raises familiar questions about the epistemology of this branch of the social sciences—questions about theory structure, theory confirmation, explanatory adequacy, and the like. It questions the implicit normative assumptions that economics contains. It raises some of the ethical questions that economics is almost forced to confront—but rarely does. And it suggests the value of a broader and more eclectic approach to economic theorizing—making more extensive use of alternative theoretical approaches,

incorporating more study of economic institutions, paying more attention to comparative economic trajectories, and giving more rigorous attention to economic history. Economics will be a more successful social science when it embraces more of the role it often played in the 19th century as a seminal social science—an area of social inquiry that was equally interested in the concrete social and economic institutions that constituted a “modern” economy, interested in the ethical implications of the social phenomena with which it was concerned, and willing to consider a variety of theoretical models in aspiring to the goal of achieving a scientific understanding of economic processes, institutions, and outcomes.

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