Mainstream economics, heterodoxy and academic exclusion: a review essay

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Review of *G.M. Hodgson, How Economics Forgot History: The Problem of Historical Specificity in Social Science*, Routledge, London and New York, 2001, 448 pp., Paperback, £28.99, ISBN 0-415-25717-4; and *S. Keen, Debunking Economics: The Naked Emperor of the Social Sciences*, Pluto Press, Annandale, New South Wales, Australia and Zed Books, London, 2001, 352 pp., Paperback, £15.95, ISBN1-85649-992-8..

Abstract: Does the mainstream of economic thinking and analysis tend systematically to exclude ideas and approaches that could enrich the field, and, as a consequence, have important questions and issues been shunted aside for nonobjective reasons? Two recent volumes by heterodox economists that address these questions are Geoffrey Hodgson's *How Economics Forgot History: The Problem of Historical Specificity in Social Science*, and Steve Keen's *Debunking Economics: The Naked Emperor of the Social Sciences*. I evaluate their claims of academic exclusion and assess the current state of (selective) pluralism within mainstream economics.

Keywords: Academic exclusion; Pluralism; Economics education; Historical specificity; Heterodoxy

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1. Introduction

Does mainstream economics tend systematically to exclude significant and enriching ideas and approaches? Have important questions and issues been shunted aside for nonobjective reasons? Two recently published volumes answer yes.

Geoffrey Hodgson (2001) claims that economics has neglected one of the most important methodological problems in social science, that of "historical specificity", in not recognizing that diverse theoretical frameworks are required to understand behavior in different social and economic systems. Rather, he views mainstream theory as built on universalistic, "recklessly overgeneral" postulates. He proposes that the 20th century quest for a theory that explains all economic phenomena has ended in disappointment, because, for reasons that are both philosophical and computational, it is impossible to develop a "grand unified theory". It has taken many years to realize this; for much of the 20th century, a great deal of intellectual energy has been diverted away from the development of historically specific theories. The Historical School of the 19th century recognized the problem, but their views were downplayed. In the 20th century, historically oriented thinkers were forgotten due to "fascism and war". Today, we remain ignorant of this past thinking because study of the history of economic thought is unpopular within the profession.

Steve Keen (2001) wishes to show the general educated public that "almost everything economists believe is wrong". The cover promises, "read *Debunking Economics*, and you'll never be deceived by an economist again". Keen proposes that the discipline of economics purports to be based on logic and analytical rigor but in reality "rests on foundations of quicksand". He views mainstream economists as drawing incorrect conclusions from flawed models and then recommending disastrous policies to real-world policymakers, while refusing to accept criticism of their "intellectually unsound" methods, and silencing critics by hiding behind a facade of scientific truth. Keen wants the educated public to know that economics is no more scientific than astrology, and to learn to treat the predictions of economists with skepticism if not disdain. Then, the "naked emperor" can be dethroned.

Common themes run through both books: (a) there is a conviction that something is wrong with economics as currently practiced; (b) there is a claim that dissenting voices have been silenced on nonobjective grounds;[1] and (c) a call is made to change the way economists are educated. These themes are not new, and have been espoused by "heterodox" (or "nonmainstream") economists for a long time. However, in recent years, the heterodox have become more vocal and more organized, and have succeeded in generating greater publicity in the popular media. The result is that a point has been reached where "orthodox" economists feel the need to respond publicly to heterodox critiques.

2. Some recent developments

Let us summarize some recent developments. In 1992, the American Economic Review (AER) carried "A Plea for a Rigorous and Pluralistic Economics". This was a paid announcement appearing in the back pages of the journal, and was organized by Geoffrey Hodgson, Uskali Maki and Donald McCloskey. Forty-four economists signed the document, including the Nobel Laureates Franco Modigliani, Herbert Simon, Paul Samuelson and Jan Tinbergen. The full text follows:

We the undersigned are concerned with the threat to economic science posed by intellectual monopoly. Economists today enforce a monopoly of method or core assumptions, often defended on no better ground that it constitutes the "mainstream". Economists will advocate free competition, but will not practice it in the marketplace of ideas.

Consequently, we call for a new spirit of pluralism in economics, involving critical conversation and tolerant communication between different approaches. Such pluralism should not undermine the standards of rigor; an economics that requires itself to face all the arguments will be a more, not a less, rigorous science.

We believe that the new pluralism should be reflected in the character of scientific debate, the hiring of economists, in the range of contributions of its journals, and in the training and the hiring of economists (Hodgson et al., 1992).

Despite the prestige of the signatories, this plea appears to be not well known and seems to have had little impact.[2] In September 1993, the International Confederation of Associations for Pluralism in Economics (ICAPE) was formed. Geoffrey Hodgson served as its first president. By 1997, ICAPE claimed 5000 members.[3] At the 2003 convention of the Allied Social Science Associations (ASSA), nine of ICAPE's constituent organizations held sessions.[4] In 1999 and 2001, ICAPE's Executive Secretary, John T. Harvey, wrote to candidates for office in the American Economic Association (AEA), asking for their views on pluralism in AEA journals, and on the allocation of ASSA sessions to ICAPE organizations. Just five of sixteen nominees addressed the issues in a written response; of these five, four (William Brock, Peter Diamond, Bernard Saffran and Christopher Sims) were somewhat sympathetic, while one (James Heckman) was highly sympathetic.[5]

In June 2000, a group of French students signed a petition calling for a Post-Autistic Economics (PAE).[6] They demanded an end to the use of mathematics for its own sake, and a more pluralistic economics curriculum with greater sensitivity to social and institutional realities. They were soon joined by a group of French professors, who amplified their argument. The debate became front-page news in France, prompting the Minister of Education to appoint an investigative commission, headed by the distinguished economist Jean-Paul Fitoussi. Meanwhile, the PAE movement established an electronic newsletter and web site. The newsletter has developed into a journal known as the *PAE Review*; it claims over 6900 subscribers in 145 countries.[7]

In November 2000, a "sister" movement emerged in political science. Like PAE, the "Perestroika" movement (named after the pseudonym of its anonymous founder, who burst onto the public stage with a mass e-mail) demanded greater pluralism within political science. It charged that the American Political Science Association, and its journal, *American Political Science Review*, are dominated by rational (or public) choice theories and quantitative methods, and exclude all other approaches. Not surprisingly, the PAE movement was encouraged by the emergence of Perestroika. Meanwhile, Olivier Blanchard (*Liberation*—October 13, 2000) and Robert Solow (*Le Monde*—January 3, 2001) attempted to refute the arguments of PAE, and a counter-petition was organized to support the status quo.

During 2001, the PAE cause was taken up by students at Cambridge and Oxford, and also spread to the United States, with the signing of the "Kansas City Petition". This was followed in 2003 by a "Harvard Petition".[8] In September 2001, the Fitoussi Commission released its report. It admitted that mistakes had been made in economics education, and called for more openness and genuine debate on the relevance of theories to reality. Some PAE supporters were heartened by the report, although others felt that it did not go far enough.

In January 2003, the Chronicle of Higher Education reported that the University of Notre Dame would split its current economics department into two new departments (Monaghan, 2003). One department would be an orthodox one, with a graduate program; the other would be heterodox, and would be confined to undergraduate teaching. Notre Dame felt pressure to raise its ranking among economics departments, which required publishing more in mainstream journals. The department included heterodox scholars, whose areas of interest (poverty, inequality and development) are congruent with Notre Dame's religious values but who only rarely publish in mainstream journals. The Notre Dame administration believed that the differences between the two groups were too great to be successfully bridged. Splitting the department would provide the means for Notre Dame to rise in the rankings, while keeping the heterodox economists within the university.

3. Evaluating claims of exclusion is inherently difficult

Any attempt to objectively evaluate claims of exclusion runs into difficulties of defining “economics”, “the mainstream”, and “exclusion”. There has been dissent on fundamental issues at least since the days of Adam Smith. Questions have been raised about what is economics, what should economics be, is economics a “true” science, which methodologies are legitimate, and should economics try to emulate the natural sciences or follow a different approach? Because there are many approaches to these questions, it is difficult to resolve debates regarding exclusion. Those who charge exclusion claim that the ideas they are promoting are useful, relevant and worthy of recognition within economics, whereas their opponents respond that the ideas are not scientific, or that they belong to other disciplines.

Clearly, if we can prove that an idea is “included” within the mainstream, we can falsify any potential claim of exclusion. Those who are charged with exclusion attempt to do this by responding as follows: “The mainstream is more pluralistic than you say. In fact, we accept all of the legitimate ideas that you claim are excluded. Just look at our research agenda and you'll see”. Robert Solow's response to PAE is a case in point.[9] According to Solow, today's neoclassicals are fully aware that standard neoclassical assumptions may be unrealistic, and spend most of their time exploring the theoretical implications of alternative assumptions.[10] But what body of ideas is mainstream (or orthodox)? Is it defined by objective criteria, such as the formulation of theory in mathematical language (comments by Backhouse, Dow, Rutherford in Coats, 2000 and Colander, 2000), or the use of neoclassical assumptions (Coats, 2000 and Nelson and Winter, 1982). Or is it defined by sociological criteria, such as association with the leading professional organizations, conferences and journals (comments by Backhouse in Coats, 2000)?

In some cases, exclusion is subtle; perhaps the term "strong deemphasis" is more accurate. Often, a deemphazised idea has been articulated by a well-known mainstream economist (perhaps even a Nobel Prize winner), in a prestigious journal that is universally read. It might also have appeared in a popular textbook. Yet, there may be an impression that the idea has gone out of style. The idea may be far from the consciousness of most mainstream economists, motivate very little research, and be discussed only within a small circle.[11] It is not mentioned to graduate students (let alone undergraduates), who are unaware of its existence. Many "deemphasized" ideas are non-neoclassical but have been published in a mainstream venue (nonorthodox if orthodox means neoclassical, but orthodox if orthodoxy is defined according to sociological criteria).

I shall relate the writings of Hodgson and Keen to recent discourse within the history of economics and economic methodology. In so doing, I critique selected aspects of each work, to promote open discussion of the questions that they raise.

4. Has economics blinded itself to historical specificity?

Geoffrey Hodgson's narrative is engaging, well-written and focused. His thesis is "With few exceptions, economists of the late 20th century (whether mainstream or not) have ignored the problem of historical specificity and have attempted to construct general, universal theories". Despite the failure of that enterprise, they continue to proceed blindly upon the same mistaken path. Those economists who have recognized the problem are ignored for a variety of nonobjective reasons. These include the (often unjustified) belief that they were poor theorists, inability to read their work because it was not written in English, and the adverse effects of World War II on scholarly communication. The problem remains significant in all social sciences, and ignoring it will not make it go away: A true message is a true message, regardless of the attributes of the messenger.

To Hodgson, an economist (past or present) should be judged according to the following criteria: (a) To what degree does he or she comprehend the problem of historical specificity? (b) Does he or she suggest possible solutions to the problem? If so, how convincing are these suggested solutions? To define the problem of historical specificity, Hodgson (pp. 39–40) lays down eight propositions (which I quote verbatim):

1. Science cannot be merely the analysis or description of empirical particulars. Descriptions themselves always rely on prior theories and concepts, either explicit or tacit.

2. Science cannot proceed without some general or universal statements and principles. Explanatory unifications and generalizations that explain real causal mechanisms are worthy goals of science.

3. However, general theories of complex phenomena are always highly limited simplifications, largely because of the complexities and computational limitations involved in attempting any truly general theory.

4. Unifications and generalizations in social science provide powerful conceptual frameworks, but they often lack the ability to discriminate between and adequately explain concrete particulars.

5. Purportedly general theories have explanatory power in the social sciences only when additional, confining and particular, assumptions are made.

6. In dealing with complex (socioeconomic) systems, we require a combination of general concepts, statements and theories, with particular concepts, statements and theories, relating to particular types of system or subsystem.

7. The most powerful and informative statements and theories in the social sciences are those that emanate from particular theorizing that is targeted at a specific domain of analysis and also guided by general frameworks and principles.

8. The social sciences must thus combine general principles with theorizing that is aimed at specific domains. These operate on different levels of abstraction. A philosophically informed meta-theory must address the relationship between these levels.

Hodgson argues that many social scientists have erred philosophically by accepting some of the postulates and rejecting the others. He points to two major groups: The general theorists and the historicists/institutionalists. Many general theorists have accepted the first two postulates while rejecting the last six; they have exaggerated the generality and explanatory power of their theories. On the other hand, many historicists/institutionalists have denied the second postulate and misunderstood the first. They have refused to accept the simplifying assumptions that are building blocks of any useful theory. They have also failed to see that all empirical work, including their own, is laden with theoretical notions. To perform an empirical analysis, a researcher must choose the topic, the type and nature of data and a methodology (historical or statistical). These choices cannot be made without reference to theoretical notions.

After defining the problem (Part I), Hodgson launches into the substance of the book (Parts II and III), which is best described as the history of historical specificity in economic thought. He begins with Marx. Although Marx's analysis was flawed, he deserves credit for recognizing that his theories were specific to the capitalist system. Marx acknowledged that a different theoretical system would be needed to analyze the new (Marxist) economy, once capitalism was replaced by Marxism.

The German Historical School also saw the problem. They argued that human behavior could not be regarded as fixed independently of the surrounding social, cultural and economic environment. Therefore, they rejected methodological individualism, and instead viewed the entire economy as an organism. Some embraced methodological collectivism, in which the behavior of the individual is explained entirely as a function of his or her socioeconomic environment. But this solution is just as unsatisfactory as methodological individualism, because the economy is being analyzed on only one level.

During the late 19th century, German historicist ideas spread, especially to the British Isles. The Irish famine of 1845–1849 sparked a debate about the merits of classical economics and laissez faire. In criticizing classical economics, historicists focused on its claim of universal applicability and on its view of human beings as atoms with fixed preferences. However, ultimately, British historicism made little progress on historical specificity. Hodgson attributes this failure to “weak and ineffective” empiricism, and the loss of a major manuscript by a promising scholar, who later died at a young age.

In the 1880s, a debate took place that had a profound impact on the future direction of economics. This debate is known as the “Methodenstreit”. Its leading protagonists were Carl Menger of Austria and Gustav von Schmoller of Germany. At the outset of the Methodensreit, historicism was firmly established as the leading school in both Germany and Austria. Menger successfully unleashed a “devastating” critique of the historicists and their “inductive, empiricist and descriptive method”. His argument consisted of four basic elements (p. 93): (a) An emphasis on the importance of abstraction in theory formation (“anti-inductivism”); (b) methodological individualism; (c) the universality of certain economic principles, and the necessity of focusing one's research efforts on them; and (d) a conviction that historical specificity is unimportant and can safely be neglected. Hodgson asserts that Menger was right only regarding the first point (inductivism). Yet modern economists believe that Menger won the argument conclusively, from which it follows that the historicists have nothing to offer to us moderns. But how many modern economists know about the Methodensreit? As Robert Solow (1985) puts it (cited by Hodgson, p. 79): “After all, no one would remember the old German Historical School if not for the famous Methodensreit. Actually, no one remembers them anyway”.[12]

Turning to the interwar period, Hodgson singles out John Maynard Keynes and Lionel Robbins for criticism. Both ignored historical specificity, and, because of their great influence, their errors have been perpetuated until the present day. Keynes formulated a specific theory for the modern capitalist economy, which he chose to call the “General Theory [of Employment, Interest and Money]”. After World War II, most economists falsely assumed that Keynes had formulated a general theory, and attempted to duplicate his “success” by creating general theories of their own.[13]

Robbins caused “damage” by defining economics as the “science of choice”, a science concerned with the relationship between scarce means and given ends. The question of how these ends come about was left for other fields, such as sociology. (Robbins forged an implicit agreement with the sociologist Talcott Parsons, who had a narrow, ahistorical view of his own field, and tried to purge it of institutionalist ideas.) Robbins defined economics as a deductive science, which derives all of its conclusions from the axioms of rational choice. He held these conclusions to be valid in all times and circumstances. Effectively, Robbins managed to exclude the entire corpus of institutionalist and historicist work from the field. His definition of economics was adopted by Paul Samuelson, and was popularized through Samuelson's best-selling textbook.

Toward the end of his book, Hodgson (p. 354) summarizes his work in the following way: “The argument in this volume is that the development and reorientation of the social sciences can usefully benefit from rediscovering a Lost Continent of problems and ideas. The rehabilitation of historicism and institutionalism is part of this process…Today…there is an alarming degree of philosophical illiteracy among some social scientists that hinders the progress of creative and evaluative intellectual development”.

In the concluding section (Part IV), Hodgson sketches a vision for the future of economics. He chooses to define economics as the study of money and markets (which is the definition accepted by most nonacademics). He wishes to see the expansion and improvement of nonutility maximizing models, and the integration of complexity theory and post-Keynesian theory into the mainstream. He advocates letting psychology back into sociology and economics, so as to “undo the Robbins–Parsons pact of the 1930s”. In Hodgson's opinion, the attempt to ground macroeconomics upon microfoundations has failed and should be abandoned.

Hodgson's narrative is fascinating, and he has certainly convinced this reviewer that history has been excluded, or at least deemphasized, within economics. Because Hodgson assumes that most economists lack an understanding of pertinent philosophical issues (which may well be the case), it is important that the book explain these issues succinctly, without confusing the uninitiated. Hodgson succeeds admirably. His prose is free of philosophical jargon, so that the typical academic economist should be able to understand his arguments.

I wish to highlight one aspect of Hodgson's argument, which is not developed until late in the book, but should be emphasized more in the opening pages. Hodgson argues that economists who fail to understand historical specificity are likely to dispense poor policy advice. This is why Western economists erred so badly in advising the countries of Eastern Europe during the transition from socialism (which began after 1989). These economists accepted "the dangerous idea of the deinstitutionalized market". That is, they saw markets as an automatic feature of human societies, which would "spring up as soon as central planning bureaucrats vacate the field". (Jeffrey Sachs, quoted on p. 253). But this failed to happen, because "commercial rules, norms and institutions" were lacking. In 1999, Alan Greenspan, Chairman of the U.S. Federal Reserve, admitted that he had been mistaken on this very point. He now understands that markets are a matter of culture rather than nature.

This point is essential. It should have been introduced at the beginning to motivate readers and draw them into the elaborate historical narrative that follows, but does not appear until page 253.

The relationship between attitudes toward historical specificity and policy advice is an interesting topic for future research. William Easterly's book on development (Easterly, 2001) furnishes more than one example of mistaken policy advice by economists.[14] As with attitudes of economists and policy advice regarding the transition from socialism (see the papers in Campos and Fidrmuc, 2003), could mistakes have been avoided, had economists been more aware of cultural, institutional, and historical issues?[15]

5. Economics—the naked emperor of the social sciences?

Debunking Economics is a frontal attack on the foundations of neoclassical economics, especially microeconomic theory. The author, Steve Keen, is a Post-Keynesian economist and historian of economic thought at the University of Western Sydney, Australia. In his preface, Keen informs us that, as a student, he was educated in the Keynesian-neoclassical synthesis. At one point, he was exposed to the "Theory of the second best". This made him skeptical—if basic results about Pareto optimality were so fragile, perhaps there were deeper problems with economic theory. Over time, he learned that there had been major debates concerning the foundations of mainstream economic theory, and that these debates receive little or no attention in the economics curricula of most universities, and so "what I initially thought was an education in economics was in fact little better than an indoctrination". The indoctrination can be so successful that economists are incapable of listening to any criticism of the standard theoretical frameworks. When challenged, they behave like "zealots, rather than dispassionate intellectuals". Economic theory is in need of a major overhaul, but this will never happen as long as the current professional establishment remains dominant. With this belief, Keen has given up on debating conventional economists; instead, he seeks to educate the general public on the flaws of conventional economics and its policy prescriptions so that economists will no longer be able to "effectively silence" their critics, by claiming "the high intellectual ground". Keen envisions a better future, in which conventional economics will have much less influence on policy; until now, "it has made an already troubled society worse: more unequal, more unstable and less efficient".

The core of the book is an elaboration of the following points:

(a) Much of mainstream economic theory is mathematically and logically unsound.

(b) Many theories depend upon unrealistic assumptions, and are therefore empirically irrelevant.

(c) Mathematical economists have acknowledged (a) and (b), but economists in other subfields persist in ignoring problematic realities. Instead, they continue to use flawed models, on the erroneous assumption that their mathematically oriented colleagues have solved all of the technical problems.

(d) There is no intrinsic problem with mathematical models, but today's economists often utilize inappropriate mathematical methods—for example, comparative static analysis instead of dynamic analysis. Economics deals with problems of nonlinearity and disequilibrium adjustment. Most of these problems cannot be solved by means of the techniques that are standard today.

(e) The errors of neoclassical economics filter down to students who are not equipped to critically evaluate what they learn. Having learned their mathematics from economists (not mathematicians), and lacking sufficient background in the history of economic thought, students readily accept the "specious assumptions" and logical errors propounded by their teachers.

Keen acknowledges that advanced theory often differs substantially from what is taught to undergraduates. His critics can argue that he is attacking a straw man; in reality, economics has moved way beyond the ideas that he objects to. In media interviews, Keen responds: "If what I demolish is a straw man, why do you teach him?" (Monaghan, 2003). He writes (p.15):

Economics is a moving target, and the outer edges of the theory sometimes bear little resemblance to what is taught at undergraduate level. I concentrate upon the fare served up to undergraduates—mainly because this is the level at which most economists operate, but also because much of the work done at the theoretical "cutting edge" takes as sound the foundations learnt during undergraduate days.

Debunking Economics is built upon the following structure (p. 15): (1) The presentation of an aspect of mainstream theory, "as it is believed by its adherents"; (2) a discussion of "the flaws in this superficially appealing theory—flaws that have been established by economists, and in most instances, published in economic journals", but the flaws completely invalidate the theory, in Keen's opinion; (3) an argument that mainstream economists have simply ignored the problem, and continue their work as if it did not exist. Keen lays out his argument verbally and graphically, avoiding mathematics. For more mathematically adept readers, Keen presents a set of formal derivations on his web site, http://www.debunking-economics.com.

The attack on conventional theory focuses on the following areas:

(1) The *aggregation problem*. We cannot derive a "well-behaved" (smooth and negatively sloped) aggregate demand curve from the individual demands of consumers, unless we impose severe and unrealistic restrictions.[16] The representative-agent construct is simply a false attempt to get around this problem.

(2) *The theoretical and empirical soundness of diminishing marginal productivity and increasing marginal costs*. Keen advocates Sraffa's rejection of the neoclassical theory of the firm, and the views of the antimarginalists in the "marginalist controversy" of the 1940s and 1950s.[17] Based on empirical studies from the 1950s, he argues that real-world supply curves are flat or downward sloping, which he views as demolishing the standard model of supply.

(3) *The analysis of various market structures*. Here Keen makes a novel claim: The accepted theoretical distinction between perfectly competitive firms and monopoly is an illusion. Contrary to standard assumptions, a change in the output of a single competitive firm does have a small effect on prices. Thus, marginal revenue is downward sloping even under perfect competition. It follows that the perfectly competitive firm behaves exactly as a monopolist would.

(4) *Labor supply and demand*. According to Keen, the standard supply–demand model is especially inappropriate for labor market analysis. The "meritocratic" view that workers are paid their marginal product is not valid in the real world. Nevertheless, economists rely on this model, and are therefore willing to accept enormous inequalities in the distribution of income.

(5) *The theory of capital*. Keen discusses the Cambridge capital controversies—the 1960s debate between Cambridge, England and Cambridge, Massachusetts, regarding reswitching and reverse capital deepening. He adopts the views of Cambridge, England, and asserts that capital cannot be moved costlessly from one sector to another, is not paid according to its marginal product, and cannot be aggregated.

(6) *Dynamics and disequilibrium*. Standard economics assumes equilibrium and relies on comparative static methods. This is inadequate and unrealistic. The standard supply and demand model breaks down once dynamic considerations are introduced.

(7) *Milton Friedman's "irrelevance of assumptions" thesis*. Keen rejects Friedman's famous methodological defense of mainstream economics (Friedman, 1953), and contends that it is applied inconsistently by the profession. If assumptions do not matter, only predictions, why do mainstream journals reject papers that are not rooted in neoclassical assumptions?

(8) *Macroeconomics*. Keen argues that IS-LM is a gross distortion of Keynes, because it leaves out uncertainty, expectations, liquidity preference and speculative influences on asset prices.[18] In 1980, Sir John Hicks published an article in the *Journal of Post-Keynesian Economics*, in which he acknowledged the contradictions and limitations of his original 1937 model (Hicks, 1980). Equilibrium can be maintained only by making the unrealistic assumption of self-fulfilling expectations; therefore, IS-LM is likely to give misleading answers to policy questions. Keen attacks rational expectations and representative-agent models as well.

(9) *Financial markets*. The efficient markets hypothesis is completely detached from reality. Fisher's debt-deflation theory and Minsky's financial instability hypothesis are far more accurate depictions of modern financial markets.

(10) *Mathematics in economics*. Mathematics, properly used, has its place in economics. Unfortunately, economists routinely practice bad mathematics. Economists must upgrade their mathematical skills, and begin to incorporate nonlinearities and dynamics into their analyses.

(11) *Marx*. Alternative conceptions of economics can draw some useful ideas from Karl Marx. However, current Marxians have little to offer; they are simply too ideological and "self-absorbed".

(12) *The Austrian, Post-Keynesian, Sraffian, complexity and evolutionary approaches*. These are not yet developed enough to provide an alternative that can supplant mainstream economics, although each is strong in selected areas where mainstream theory is weak.

It is not surprising that *Debunking Economics* has not found favor in the mainstream economics community. One of Keen's most persistent critics is M. Christopher Auld of the University of Calgary. Auld has debated Keen in an internet discussion forum (the "Keen Seminar" on the Hayek-L list, which was held March 11–25, 2002[19]), and has written a short paper entitled "Debunking Debunking Economics" (Auld, 2002).

According to Auld, Keen is mistaken concerning the distinction between perfect competition and monopoly (or lack thereof—topic 3), and his perception that mainstream modeling ignores dynamics (topic 6). These errors, in Auld's estimation, are caused by "either a lack of familiarity with the literature, conceptual errors, or both". As Auld shows, perfect competition can be rigorously derived as the limit of a model of imperfect competition (as the number of firms becomes large). Assume that each firm takes competitors' outputs as given, but recognizes that it has some degree of market power (its own output influences the market price). The ratio of output under this form of imperfect competition to output under perfect competition is $n/(n+1)$ (where n is the number of firms). When standard theory assumes that firms take prices as given, it is making an innocuous assumption; for example, an imperfectly competitive industry with 100 firms will produce slightly over 99% of the perfectly competitive output. On dynamics, Keen completely ignores the extensive literature on dynamic programming (including a number of textbooks), and the numerous applications of such methods in economic research. His argument that MR=MC does not maximize profits in a dynamic model (even if one admits that it does in a static model) is simply wrong; if MR=MC in each period, the discounted stream of profits is indeed maximized.

How should we assess Keen's contribution? Keen has done service by drawing attention to issues and controversies that have been forgotten within the mainstream, and by pointing out that economists tend to teach a very simplified version of their field to students, even at the graduate level. Indeed, it is possible to obtain a PhD in economics without ever hearing of Friedman's irrelevance of assumptions thesis, the marginalist controversy, the aggregation of demand problem, the Cambridge capital controversies, doubts concerning the relevance of constant returns to scale or U-shaped average cost curves, or questions regarding the relevance of IS-LM analysis. Keen is correct when he points out that eminent economists have expressed serious concerns regarding aspects of economic theory, and the content of economics education as well. Even if one does not believe that flaws in the theory invalidate economics as a discipline, one should be aware of its limitations and be honest with one's students about them. It is important for the profession (and its students) to hear these messages. Unfortunately, *Debunking Economics* makes no attempt to be objective in its treatment of theoretical issues, and is marred by multiple mischaracterizations and exaggerations.

(a) As Auld (2002) points out, Keen ignores important developments in the literature. Here are additional examples: Keen (p. 82) criticizes the failure of mainstream theory to contend with questions of capacity utilization. He does not mention recent research on variable utilization (see Abel and Bernanke, 1998, pp. 371–375 for an undergraduate-level treatment). Also, Keen pays no attention to research in experimental and behavioral economics, which has thrived in the last 20 years, and has been published in leading journals.[20] Game theory is overlooked as well. This field should be of particular interest to Keen, given that many microtheorists have shifted to game theory.

(b) Keen exaggerates the conservatism of contemporary economists in policy debates. His assertions sharply contradict reality, at least in the United States. There are many economists who accept the neoclassical "holy trinity" (greed, rationality and equilibrium) as the starting point of economic analysis, while advocating government intervention to help the poor, low-wage workers, etc. (Alan Blinder and Edmund Phelps are two prominent examples.) There is an extensive literature on the policy views of U.S. economists. Several studies find that, on a number of issues, U.S. economists tend to be liberal, and more so than the general public (see Blendon et al., 1997).[21]

(c) Keen exaggerates the antimonopoly stance of the mainstream. Introductory textbooks (such as Baumol and Blinder, 1998) state clearly that there are situations in which monopoly is preferable to perfect competition.

(d) Keen completely ignores the New Keynesian school; his readers would never know that it exists. As a case in point, let us examine Keen's treatment of Joseph Stiglitz. In his introduction, Keen cites Stiglitz's outspoken criticism of IMF and World Bank policies. In Stiglitz's view, the international financial institutions erred by applying theory in an institution-blind fashion. Keen reacts to this by writing: "This book puts the case that even the best, latest version of the type of economics Stiglitz describes as smart is not smart, but fundamentally unsound". Keen makes no further mention of Stiglitz, except to note that he is one of a number of eminent economists who have, "to varying degrees…distanced themselves from conventional economics". Apparently, Keen sees Stiglitz as a neoclassical like any other, because his theories incorporate greed, rationality and equilibrium. He does not deal with Stiglitz's contributions, nor explain why he has not followed Stiglitz's approach. Why are Keen's own models (also simplifications of reality, like any other model) any better than Stiglitz's?

To summarize, Keen is correct that many issues that should be taught to students are not being taught. There is need for a book that introduces students to controversies in theory and methodology, on a level that is accessible to advanced undergraduates. *Debunking Economics* is, however, too biased to fulfill this need. If one wishes to advocate a reform of economics (and Keen may very well be correct that it is a necessity), one must provide a more nuanced, more accurate, and more up to date picture of its current state.

6. How pluralistic is contemporary economics?

I close this essay with a brief discussion on pluralism in economics, based on recent literature. Contemporary economics is about building and testing models. The mainstream, which comprises those who are involved in the enterprise of model building and testing, has no interest in issues of formal methodology (Solow, 1997). Ideas that cannot be formally modeled tend to be ignored by economists: "We just don't see what we can't formalize". (Krugman, 1995). Lipsey (2001) points out several manifestations of exclusion within contemporary economics. Without a model, one cannot have an article accepted to a top journal, even if the inclusion of a model would not add any further insight. Also, "…the high cost of learning advanced mathematics has tended to push more descriptive and factual material out of the curriculum…Elegant error is often preferred to messy truth…Theoretical tractability is often preferred to empirical relevance".

Colander (1999) argues that the career incentives of economists tend to discourage innovation. The existing tenure system involves no independent evaluation of research; its sole criterion is number of articles and prestige of journals. This reality encourages young faculty members to produce papers that are essentially modifications of existing work, and to avoid innovation, which carries a substantially greater risk of rejection. Also, authors of undergraduate textbooks avoid suggesting directions for further research, because they know that such suggestions will generate hostile reviews.

Mayer (2001) draws our attention to the serious communication problems that exist in economics. Among academics, writing for the general public is discouraged; academics have little contact with nonacademic practitioners. Thus, two economists who work on the same question, but analyze it at different levels, are very likely to be unaware of each other's work.

At the same time, there are signs of greater inclusiveness and a broadening of horizons among the model builders. David Kreps (1997) writes:

…strange things are happening at the core. As a result of increasing access to both experimental and field-based data, pressure from important constituencies, and the desire to have something new to work on, the canonical principles [greed, rationality and equilibrium-DS] are under attack in our nearest approximation of high temples-journals such as *Econometrica*, the *Journal of Political Economy*, and the *American Economic Review*. These attacks have been resisted to some extent by the faithful, but they have increasingly come from previously conformist supporters of the canon. To date, no one has been anathematized. Indeed, some of those who previously were viewed as heretics have been welcomed back into the congregation.

Kreps adopts Paul Romer's metaphor of an hourglass to describe the history of economics in the twentieth century. At the beginning of the century, economics was characterized by a broad range of topical interests and methodologies. After World War II, economics underwent a process of formalization, which unified the methodology but narrowed the range of research topics. At the close of the century, topical interests are broadening once again, and ideas that were rejected before are now being given serious consideration (e.g., bounded rationality, new conceptions of the consumer and firm and nonequilibrium modeling). Interdisciplinary collaborations are also more widespread and accepted than they were in the 1980s.

Yet, despite his optimism, Kreps expects the new pluralism to be evolutionary, rather than revolutionary. The mainstream will not give up the "canon" so easily, because so many economists are wedded to the canon and the tradition of modeling within it. Also, theorizing outside it would require a completely new definition of efficiency; that alone may prevent the emergence of a new paradigm.

Backhouse and Laidler (2004) describe an hourglass phenomenon in macroeconomics. They point out that, during the 1940s to 1970s, many important ideas that had been prominent before 1936 were virtually forgotten as the IS-LM apparatus rose to prominence. Once economists were trained in IS-LM, they were conditioned to simply ignore ideas that did not fit within it (including some of Keynes' own ideas). These ideas include dynamics, intertemporal choice, expectations, policy regimes and intertemporal coordination failures. (Keen mentions some of these in his criticism of IS-LM.) Some of the neglected ideas have been rediscovered recently, but others remain out of sight.[22]

Esther-Mirjam Sent (2002) argues that "pluralism in economics is recurring, but often denied". Contrary to Kreps, she sees the Post-World War II formalization era as an unsuccessful attempt to reach methodological monism. Since the quest for monism has failed, we are left with a de facto pluralism. Older ideas that were on the margins are being revived; for example, Herbert Simon's idea of bounded rationality is attracting renewed interest, including in macroeconomics.

In summary, modern economics embraces pluralism but in a limited sense. Diversity is allowed in modeling but rhetoric without a model is still derided as unscientific. Many research developments filter down to students slowly (if at all), and many economists do not display methodological and historical awareness. We shall have to wait to see whether new winds will blow in economics education (undergraduate and graduate), and whether history and methodology will resume their rightful place in the curriculum.

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Notes

[1] Silencing can also occur based on prejudice against a group. See Aschheim and Tavlas (2004).

[2] It is discussed only in nonmainstream forums, such as the Post-Autistic Economics Review.

[3] This information, and much of what follows, is taken from the ICAPE website, http://www.icape.org. Although ICAPE is the official name, some use the acronym ICARE (replacing the word "pluralism" with "reform").

[4] For many economists, the ASSA is just a name for the convention of the American Economic Association (AEA). This is due to the latter's dominance of ASSA. In fact, ICAPE has lobbied the AEA not to reduce the number of sessions allocated to ICAPE constituents. See the ICAPE website for more details.

[5] See ICAPE's website. The classification of responses as "somewhat" or "highly" sympathetic is my own, but is consistent with John T. Harvey's personal impression (private communication).

[6] Information on PAE is taken from a summary by Edward Fullbrook, which appears on the PAE website (http://www.paecon.net).

[7] As of March 2004, 24 issues have been published. Hodgson and Keen are among the contributors. The PAE Review has debated questions such as "what is worth keeping in standard microeconomics?" and "is there a single correct alternative to neoclassical economics?"

[8] The texts of the aforementioned petitions are available on the PAE website, http://www.paecon.net.

[9] A similar theme appears in some of the AEA nominee responses to ICAPE.

[10] This is an excellent characterization of the work of Joseph Stiglitz, one of Solow's most prominent students. However, I doubt that Stiglitz is comfortable with the neoclassical label. According to Colander (2000), the label "neoclassical" does not accurately describe contemporary economics, and we should stop using it in professional discourse. Nevertheless, this essay uses the neoclassical label, in keeping with the terminology employed by authors whose works are cited here.

[11] For example, Irving Fisher's "debt-deflation theory of great depressions" (Fisher, 1933) was virtually ignored by the mainstream for many years, due (at least in part) to the influence of Friedman and Schwartz's monetary explanation of the Depression. Since Bernanke's seminal article (Bernanke, 1983), Fisher's theory has risen to greater

prominence. As Daniel Fusfeld (comments in Coats, 2000) puts it, "Heterodoxy often becomes orthodoxy, and orthodoxy often becomes heterodoxy, as the economy changes, as the social context of economic thought changes, and as ideas develop and change".

[12] Hodgson takes this quote out of context, and uses it to introduce his chapter on the *Methodenstreit* (Ch. 7). Taken by itself, it could mislead the reader into thinking that Solow advocates an ahistorical approach. This is incorrect, and is not what Hodgson is trying to say. A full reading of Solow's lecture shows that he advocates the opposite—recognition of historical specificity, and the abandonment of the "one-model-fits-all" approach that is taken by many contemporary economists. Solow discusses the German historicists at the beginning of his lecture, and probably intended to make a humorous observation, not a normative statement. A wider discussion of Solow's views appears later in the book (pp. 269–270).

[13] A notable exception was Joseph Schumpeter, who criticized Keynes for making exaggerated claims of generality.

[14] See Hillman (2002) for a review.

[15] Easterly relates that the World Bank used the Domar growth model to determine how much aid a country would need to achieve a particular growth rate. Evsey Domar protested this practice (but to no avail); he had formulated his model with the U.S. economy in mind, and considered it to be totally inapplicable to developing countries.

[16] Ackerman (2002) sums up the shortcomings of general equilibrium theory, including the aggregation problem. He suggests an explanation for these shortcomings, and outlines the basic ingredients necessary for a new and improved approach to micromodeling.

[17] Mongin (1997) for an account of the marginalist controversy.

[18] Sims (1998) has argued that IS-LM is "an appealing, teachable, falsehood", and needs to be replaced by a more coherent model that is tractable enough to teach to undergraduates. See Colander (2004), who explains why IS-LM remains the mainstay of undergraduate macrocourses.

[19] The archived discussions can be accessed at http://maelstrom.stjohns.edu/CGI/wa.exe?A1=ind0203&L=hayek-l#31.

[20] Blaug (1998) denies this assertion. He claims that these new paradigms have run into tremendous resistance and are not taught in graduate schools.

[21] On the other hand, Colander (2003) finds that PhD economists tend to become

more conservative as they age.

[22] Interestingly, many of today's young economists have never studied IS-LM, because their professors did not consider it worth teaching. Krugman (undated) relates that during his years at MIT, he was once asked to teach (graduate) Macro I, which includes the IS-LM model. He was chosen for the course (although it was not his specialty) because several senior faculty members were unavailable that semester, while junior faculty (under 40) were not inclined to teach the course because they had never studied the material themselves.