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post-autistic economics review *(formerly "newsletter")*

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Some Old But Good Ideas

Anne Mayhew (University of Tennessee, USA)

As Post-Autistic Economics moves beyond criticism and on to the task of building a more relevant and robust economic science, one challenge is to develop a theoretical framework that will guide pluralistic borrowing from a variety of disciplines and approaches. Some useful guidelines for development of such a framework may be found in the history of American economic thought as it developed and flourished in the first half of the 20th century. During the first five decades of that century a group of economists who taught at a number of the major American Universities created the reasonably coherent, pluralistic and non-autistic approach to the study of economies and economic issues known as institutionalism, an approach that dominated American economic thought during the interwar years.

Four basic themes characterized this approach:

(1) Regularities in the organization of both production and distribution are the same as all other social regularities in that they are human creations and are subject to change by human intervention. In other words, there is no "natural economy" and there is no reason to assume that an idealized market system is historically or morally prior to other social systems. This perception was rooted in American pragmatic philosophy which saw individuals as recipients of inherited ideas, but also as active agents capable of perceiving problems and imagining new possibilities. The basic autistic assumption of isolated individuals interacting from the beginning of human history through exchange, but little changed by it, was rejected in favor of the notion that humans are always social beings. Mind, thought, and consciousness are products of active processes of human interactions, processes that do not end, but evolve through time.

This understanding of the social and inquiring nature of humans is crucial to two tasks that must confront post-autistic economic analysis: the understanding of variation in economic organization across time and space, *and* variation in human understanding and behavior across the lifetime of individuals. The idea that we all start with a set of inherited ideas and

perceptions is crucial to explaining economic and all other forms of social behavior. A simple example: young American children learn at an early age that food can be acquired by spending money and that money is acquired by “hard work and thrift.” They may learn that beggars without money for food are victims of hard luck; they are as likely to learn that such beggars are undeserving of receiving money because they have not worked hard or been thrifty. In this process the idea of a market economy with justified and even desirable income inequality is instilled. Young children in other times and places have learned different things and have different understanding of distribution and its relationship to production.

What the pragmatists and institutional economists also stressed is that all people are capable of questioning the ideas that they inherit. We all know that many Americans come to question the conventional wisdom that the poor have earned their own economic fate, but note that the questioning itself is via a social process of questioning, of contact with others with different ideas (contact that is now global as well as local), and of formal learning. In the process, ideas of what constitutes justice and injustice are changed, as are ideas of how to achieve justice. It is this active process that produces the evolution of thought and consciousness and that leads to change in human culture and organization.

(2) It follows from #1 that as humans create their economies, they can change those economies to solve perceived problems. A central part of economic analysis should therefore be the identification of problems, which is to say to patterns of production and distribution that do not accord with the goals of society. This analysis should lead to reasoned advocacy of reform through normal political and social processes. This aspect of pragmatism underlay the reform activities of the 1920s and 30s in the United States, activities that included creation of the Federal Trade Commission, the Social Security Act that provided income security to the elderly, unemployment compensation, regulation of securities trading and much, much more.

(3) While the Institutional economists saw their role as one of criticism and advocacy, they did not purport to offer permanent solutions or design of utopias. They were reformers, not revolutionaries who could advocate permanent solutions. Instead, the pragmatic solutions to problems were offered with the sure knowledge that these solutions would create new problems, and with the sure knowledge that as science and technology changed the interaction of humans with the physical world so too would that change alter the relationship of humans with each other. Central to institutionalist thought was the perception that the advent of industrial as opposed to craft production had altered the relationship of producers of products and of producers to consumers. New rules, regulations and patterns of interaction were required and those very rules, regulations and patterns of interaction themselves created new conflicts that would lead to more change via a process of cumulative causation. Not only was the path of change difficult to predict, but it was impossible to formulate an ideal toward which such change tended. In other words, it was futile to speculate on the conditions that would prevail in an ideal economy.

(4) In order to understand the processes of ongoing change, and in order to understand the human organization of production and distribution, a variety of tools were found to be useful. Wesley Mitchell, one of the most active of institutionalists and founder of the National Bureau of Economic Research was a strong advocate of descriptive statistics and of statistical analysis as a way of discovering the actual (as opposed to idealized) patterns of economic behavior. Others borrowed the methods of anthropology and sociology to discover patterns of behavior through rough observation and participation. Studies of the legal system as a working system of evolving human rules was central to the approach taken by John R. Commons and his students. The study of economic history was vital for understanding patterns and processes of change. In all of the institutionalist work, the tools were just that: ways to achieve the goal of understanding the patterns of human behavior and how they changed. The tools did not define the discipline.

There is much to be learned about the early 20th century American economy from reading Thorstein Veblen, John R. Commons, Wesley C. Mitchell, John Maurice Clark, Rexford Tugwell and the others who brought the pragmatist approach to the study of economics. What is more important is that these authors and others offer rich examples of how to build an economic science that would, in the words of Tony Lawson, describe and explain event regularities. They can teach us much about how to do non-autistic economic science.

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Against: a priori theory ***For: descriptively adequate computational modelling***

Bruce Edmonds (Center for Policy Modelling, UK)

Introduction

Autistic economics is rightly held in disregard by an increasing number of people. Unfortunately it has sullied the reputation of all kinds of formal social modelling by association. On the other hand there is sociology and discursive social theory but here there is a huge gap between its thorough and detailed observation and its abstract theoretical terms. I suggest that the way forward is *not* to abandon all types of formal modelling but rather to use expressive computational systems to build *descriptive* models of observed dynamic processes. This aims to combine the relevance and realism of social observation with the rigour of formal computational models [6]. This is a bottom-up attempt to bridge the gap and move towards a science of social phenomena (see [4] for a discussion of this). This is a consequence of accepting that economics will have to be more like biology, which employs lengthy observation and description before modelling, than physics (or, at least, than the economist's perception of physics). This is what some of the researchers in the new field of social simulation are attempting to do (for an insight into this field see JASSS [1]).

Modelling complex systems

Complex systems are precisely those for which it is extremely difficult to deduce its behaviour from first principles. For example, it is extremely unlikely that one would be able to predict the behaviour of a particular animal purely from *a priori* principles, rather one would have to spend a lot of time observing and describing its actions to get a hold on the intricate contingencies of its actual behaviour. With complex systems, observation and description must come first and only much later (when the detailed behavioural mechanisms are well understood) is it *sometimes* possible to encapsulate some of these in a predictive model. It seems likely that much economic behaviour is complex in this way. This would not be surprising since it arises as the consequence of the intricate interactions between members of a species that is characterised by the variety and contingency of its behaviour.

But if we are to give up the chimera of numerical predictive models built using *a priori* principles, doesn't that mean we have to give up formal models and rigour? I would say that we do not. What it does mean, however, is that we have to use formal and computational models that are capable of capturing the detailed behaviour as it is observed. We then need to constrain these models *as much as possible* using observations of the relevant phenomena, both in terms of the trajectories of the causal processes *as well as* the outcomes; in terms of qualitative information (such as anecdotal accounts) *as well as* quantitative data. Pinning down our models using only the verification of predictive outcomes and an insistence on formal simplicity will not be enough. We will need to capture the workings of the processes *stage by stage* as they are observed.

In order to perform this feat we will need systems that are up to the task of expressing the qualitative cognitive and social processes that economic phenomena are rooted in. These more expressive systems come at a price, they are not simple and they allow for multiple representations of the same outcomes. However there is no need for them to be any less formal than a set of differential equations.

I am suggesting that we should attempt to construct models of quite specific sets of observations that are more akin to a description than a theory. It is, of course, impossible

to lose *all* assumptions in the construction of any model, but the point is to move towards using fewer and less drastic *a priori* assumptions and use more qualitative and quantitative constraints derived from observation the processes under study. The purpose is to provide an unambiguous framework for the exploration of the possible processes within these constraints so as to inform the direction of further observation and modelling (I attempt this in [5]). This is not merely static description, for we are not concerned with static phenomena, but dynamic description of particular sets of observations using the techniques of computational and cognitive modelling. The extent to which such models are generalisable to other phenomena will only become apparent when it is compared with other descriptive models, just as the general characteristics and markings of a species of animal may only become clear when several descriptions of the animals are compared.

To many my position will seem too pessimistic. They may be still hoping for some brilliant 'short-cut' to a predictive model, that will allow them to miss out the laborious business of observing and describing the underlying processes. However, I would point out that the science of biology has become enormously successful using the methods I am suggesting and, once we have accepted the amount of field work that our subject matter entails, equal success might be achieved in economics.

Using agent-based models

The move to agent-based models in economics can be seen as part of a transition to a more descriptive style of modelling. An agent-based model must, by its very nature, model a real actor with a computational agent (in some way), so there *should* be a one-one correspondence between actors and agents. It is not necessary to assume that the law of large numbers will iron out the messy details. The model can allow the global properties to emerge (or not) without having to *assume* these details away. Real economic actors are (almost always) encapsulated, i.e. they will have an inside where the decision making is done which is largely hidden from view, and a series of ways in which they interact with the outside environment which are more easily observable. The agents that are used to model these actors are encapsulated in a directly analogous way.

However, many agent-based modellers do not see the need for any greater descriptive accuracy than this. Thus when inspecting the learning, inference and decision making processes that an agent uses in such a model, one often finds something as unrealistic as a simulated annealing algorithm or standard genetic algorithm. These are algorithms that have been taken from the field of computer science, regardless of their descriptive appropriateness for the actual economic actors being modelled. Now it is possible that in some circumstances such algorithms will give acceptable results for some purposes, but at the moment we can only guess whether this is the case. It is not only that we do not know the exact conditions of application of each algorithm, we do not know of even a *single* real circumstance where we could completely rely on any of these 'off-the-shelf' algorithms to give a reasonable fit.

To be clear, I am not criticising looking to computer science for ideas, structures and frameworks that might be used in modelling. Being a bounteous source of possible types of process is one of the computer science's great contributions to knowledge. What I am criticising is the use of such algorithms without either any justification of their appropriateness or modification to make them appropriate.

Thus many agent-based models fail to escape the problems of more traditional models. They attempt to use some ensemble of interacting agents to reproduce some global outcome without knowing if the behaviour of the individual agents is at all realistic. The wish for the 'magic' short-cut is still there.

Constraining our models

Clearly what is needed is some way of modelling the behaviour of economic actors by computational agents in a credible way. As noted above, real economic actors are probably complex in the sense that it is unlikely that we will be able to deduce their actions using *a priori* principles. What we can do is to constrain our models as much as possible from what we do know. There are several sources of such knowledge.

1. We can ensure that the global outcomes of the model match the global outcomes of real actors in the standard way.

This is a start, but when one is using a more expressive formal system like a agent-based computational one then this is unlikely to sufficiently constrain the possible models. In other words, there are likely to be many computational models which produce the same global outcomes.

2. Ensure that the actions of the individual actors match those of our agents' behaviour as they learn and interact.

Axtell and Epstein [2] set out some criteria for the performance of multi-agent simulations in [6] In this: *level 0* is when a model caricatures reality at the global level through the use of simple graphical devices (e.g. animations or pictures); *level 1* is when the model in is qualitative agreement at the global level with empirical macro-structures; *level 2* is when the model produces qualitative agreement at the agent level with empirical micro-structures; and *level 3* is when the model exhibits quantitative agreement at the agent level with empirical microstructures. The constraint I am suggesting corresponds to their *level 3* with an emphasis on the agreement over time.

3. Look to the emerging guidelines coming from cognitive science as to the sort of learning and decision processes humans might use.

Now the task of the cognitive scientist is difficult, but such scientists are able, at least, to exclude some mechanisms for modelling behaviour and make suggestions for the mechanisms derived from a lot of observation. It is notable that many successful sciences take their ultimate grounding for the behaviour of their components from outside their discipline (e.g. chemistry is grounded in physics).

4. Simply ask the actual actors why they made the decisions they did and how they learnt what they learnt, i.e. use some of techniques of business history.

This method has its known drawbacks, but can be successfully used, especially when confirmed by other methods. In any case it is likely to produce more useful and accurate information about the real behaviour of actors than is implicit in many of the assumptions used in economics. Edmund Chattoe has recently written a more thorough catalogue of the ways in which we can collect social data to properly constrain our modeling [3].

Conclusion

Bad science starts with a technique and changes the problem to fit it, good science starts from the problem and chooses the appropriate technique. With the advent of cheap computational power and flexible modelling software we have the appropriate techniques for performing that essential abstraction task called description. In this case it is a description that captures the dynamic, emergent and complex cognitive and social processes we observe to be involved in economic exchange.

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An Alternative Framework For Economics

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The award of the Nobel Prize in Economics for Information Economics gives an opportunity to illustrate why this form of economic analysis is a dead end. The theories advanced by the Prize winners, Akerlof, Stiglitz and Spence, are ad hoc auxiliary assumptions tacked onto the neoclassical, and neowalrasian, hard core. The work of these auxiliaries is mainly ex post rationalisation rather than prediction or explanation.

Is modern economic theory just a morass of special cases? It is important that some alternative framework be found to allow valid generalisation to once again characterise economic theory, and this time, not fail to provide robust empirical results in the absence of ad hoc auxiliaries. Is there such an alternative? We can report that there is, and that it promises all that is missing from orthodoxy.

The autism of orthodoxy stems from its treatment of the human agent, who is mindless and does not interact with other agents. The broad solution then is to develop a framework in which agents carry knowledge and interact with other agents to use and create knowledge. This is the essence of the new evolutionary economics (e.g. Loasby, *Knowledge, Institutions and Evolution in Economics*, 1999). In *The New Evolutionary Microeconomics*, Potts (2000) argues that all heterodox thought shares a common ontological foundation in the view that the dynamics of evolving economic systems are in the space of connections. An economy is a complex system of interactions, and the dynamics of an economic system involve change in the connective structure of the system. Three main themes can be found to share this common foundation.

The first is the evolutionary economics revived by Nelson and Winter (1982). This builds on Book IV of Marshall's *Principles*, and on Schumpeter's theories of cycles and innovation, creative destruction and greed for monopoly profit. Market capitalism is a restless system of experimentation in pursuit of sustainable rents based on private knowledge. This is fundamentally a neo-Darwinian approach. It has been argued in Nightingale and Laurent (*Darwinism and Evolutionary Economics*, Edward Elgar, 2001), that social and cultural theory is ultimately swallowed by Darwin's 'universal acid', as Dennett so tellingly put it (Dennett, *Darwin's Dangerous Idea*, 1995). Complexity and self-organisation theory is the most recent advance of the neo-Darwinian project (Foster and Metcalfe, *Frontiers of Evolutionary Economics*, 2001).

The second is the New “Old Institutionalism”, which is about how agents with minds construct and use complex systems of rules. Current orthodoxy has largely ignored the cognitive dimension of human behaviour. This strand of course began with Veblen, finding new life in the development of both evolutionary thought and its application to human institutions. American Institutionalism saw the difficulties of Veblen’s imprecision and contradictions, and neglected the biological metaphor introduced by Veblen in favour of a vague developmental notion of institutions as historical determinants of economic outcomes. Current research on Veblen’s themes often ignores his contribution, but continuity of ideas remains clear. Organisational ecology, and other resource and systems based views of the firm, is one such well-defined field on inquiry. Evolutionary psychology is another (L. Cosmides and J. Tooby, (1994) ‘Better than Rational’ *AER*, 84: 327–32). Both these are converging in the economist’s sphere, seeking explanations of selection processes and system regularities in habits, routines and the causes for organisations’ and other institutions’ persistence as well as entry and exit. The means by which knowledge is conserved as well as transformed and created is at the centre of this program.

The third is the complex systems view of economic systems. Methodological Individualism is one of the principles on which modern orthodox economics is based, as an article of faith, and a justification for the reductionism that has bedevilled areas such as macroeconomics. The antithesis of this is an organic approach that can be traced to, among others, the American pragmatist philosopher Charles Sanders Peirce. In essence, the concept of a system rather than some atom within an aggregation of atoms, as the entity of interest, distinguishes the organic approach from MI. Geoff Hodgson’s *Economics and Evolution* (Polity Press, 1993) has an extended exposition of the importance of this branch of theory. Reductionism, one of the fundamentals of MI, insists on ‘micro foundations’ for any explanation. An organic, systems or hierarchical approach insists that this demand is not only irrelevant but misleading. Such a demand results in attempting to use inappropriate theory, and has long been abandoned in the physical and life sciences (ever heard of a sub-atomic theory of ocean waves?).

This range of heterodox economic theories, all of which are close relatives of very orthodox theories in other fields of science, are united against the neowalrasian orthodoxy, even with the ad hoc auxiliaries added by this year’s Nobel prize winning information economists, by a single critical feature. They are all theories of connections between knowledge carriers, be these individuals (in a theory of intra-household decisions), firms (in a theory of market structure), or sectors or national economies (in a theory of macroeconomic performance). They are all dynamic theories of systems evolving endogenously, subject to external shocks, of course. They are theories in which knowledge rather than information is key. They are not Newtonian field theories, in which every point is connected to every other. They can all be subsumed analytically as elements and the connections between them. These dynamic systems theories of evolutionary organisation are all graph theory constructs. In other words, using the language of graph theory, the geometry of elements and connections provides a unifying frame with which to develop these alternative economic theories.

This, then shows there is a progressive alternative to autistic neoclassical/neowalrasian economics. The emerging synthesis of evolutionary and self-organizational approaches into a framework of complex systems theory is a solid basis upon which to build. It connects evolutionary biology and evolutionary psychology to evolutionary economics (for a popular science account, see, for example, Stuart Kauffman’s *At Home in the Universe*, 1995). It provides analytic methods in discrete mathematics and multi-agent simulation models. It is the study of the emergence of order, rather than continuous equilibria. It is ontologically well-founded in a growth of knowledge framework where connections are the prime variables in an economic system. Such a unified heterodox synthesis may underpin a broad front of research advances that do not close off alternatives, but open more to scientific development.

Jason Potts is the author of [The New Evolutionary Microeconomics: Complexity, Competence, and Adaptive Behaviour](#) (2000). John Nightingale is the co-editor of [Darwinism and Evolutionary Economics](#), Edward Elgar, 2001.

Ignoring Commercial Reality

Alan Shipman

Consumers confronted with a legal monopoly shop around for cost-effective alternatives. Rival producers innovate around the patent to supply them. They are helped by the monopolist's growing distance from competitive reality, leaving it to churn out, ever less efficiently, products ever fewer people want. If mainstream economists still bought this 'Austrian' story, they'd see their own monopoly in a starring role. People seeking to survive in the economy look to journalists for information, financial commentators for advice and business schools for education. Academic economists, finding little market for their tales of the market, are left chasing shrinking public subsidy – or privately dispensing consultancy and forecasts built on different principles from those they teach in class.

Inside business schools, the research and teaching for which companies and students willingly pay looks very different from those economists peddle. Management courses and journals mix their economics with sociology, psychology, natural and computer sciences, ethics, and any other discipline whose information and ideas help undertake or understand the running of enterprise. Their presentation ranges from macro- and micro-econometrics and statistically strip-mined survey data to cross-disciplinary syntheses, case studies, anecdotes and sectoral straw polls. Their authors are an equally diverse mix of full-time researchers, practising managers, consultants with a foot in each campus and gurus with their heads in the sky. They probably resemble the economics departments of fifty years ago, with research posts and products accessible to anyone with informed interest, however convoluted their career path or maverick their method.

Yet while business literature has much to say on the corporate strategy, organisational and consumer behaviour, technology choice, expectation and regulation which drive the modern economy, mainstream economists pay it little attention - even when published in journals as rigorously refereed as their own. Dialogue has died because neoclassical economists speak an increasingly exclusive language. Like early industrialists, they have found a way of discussing the enterprise by its financial flows, in splendid isolation from human and physical stocks. Accounting made it possible to run a company by numbers, tracking money and materials to avoid touring plants and talking to employees. In the pioneer industrialisers (and de-industrialisers) Britain and the US, accountants still outnumber engineers in middle and senior management, and 'strategy' offshoots of the big accounting/auditing firms have wrested the consultancy market from those who once practised what they preach.

In the same way, mainstream economists seek knowledge through numbers to stop the messy reality of people, processes and politics dirtying their invisible hands. Missing or hard-to-measure variables are conveniently proxied (e.g. model-consistent predictions for expectations, volatility for risk). Unmeasurable variables, if theory requires them, are hammered into measurable shape (e.g. aggregate capital derived from a whole-economy 'production function', bounded rationality recast as rationally chosen rule-of-thumb). More usually, what's not in the National Accounts doesn't count. In the neoclassical division of labour, theorists condense the economy into algebraic symbols, opening its components (firms, households, governments) to much more apparently precise analysis than that of classical theorists, who debated these phenomena in the raw. Applied economists can then 'calibrate' the models and 'compute' the general equilibrium, their forecasts' correctness to two decimal places somehow forgiving their incorrectness when reality catches up.

A diplomat posted to a new country studies its history, language, political system and

social conventions, often taking years to acclimatise before daring to make big decisions. An economist flown in by donor government or multilateral lender studies its national accounts, and is often dispensing expert advice a lunch-hour after stepping off the plane. Just as airline pilots take their cockpit gauges as accurate summaries of external conditions, the more ambitious economists claim to fly an economy by financial newswire – leaving seat-of-the-pants driving to ‘less developed’ social disciplines, and blaming any wrong turns or crashes on faulty statistics, or failure of political passengers’ nerve.

Models have helped the mainstream clarify key concepts (like output gaps and imperfect information), explain away anomalies (persistent unemployment becoming ‘voluntary’), and turn vague tendencies into quantified causal links. By nailing conflicting approaches to a common framework, they pinpoint deductive mistakes, and pare down complex debates (‘Keynesian’ vs ‘monetarist’, mark-up vs marginal pricing) to disputes over parameter values. They establish a standard reporting style [reassuringly close to that of natural science] which makes papers easy to read and write, for those who’ve mastered the maths. Most importantly, they establish a common debating language. Alternative contributions remain imprecise, incomprehensible and dispensable, until ‘formalised’ into a neoclassical model (and, preferably, estimated from available data).

Thus Marxism can re-enter mainstream debate if formalised as a macro-model with ‘rational choice’ foundations (indeed, Bowles’ and Gintis’ AER-published model of capitalist labour incentives was one of the foundation stones of orthodox principal-agent theory). March and Simon’s ‘bounded rationality’ moved from marginalized management science to mainstream microeconomics once reformulated as a ‘transaction cost’ to be optimised alongside production cost. But such heresies as Austrian economics (tarring the rational-expectations modelbuilder with the same brush as the all-knowing central planner), post-Keynesianism and Sraffianism (with non-marginalist price theories), the Cambridge criticism (dismantling marginalism’s aggregate capital), institutionalism (denying that all social structures can be traced to repeated game-play), or classical Marxism (where capitalists’ individual rationality sums to collective disaster) fall outside the mainstream’s logic, despite tackling its central topics.

Economists’ retreat into private language explains their neglect of relevant information and explanation outside their model-based world. Anthropologists, ethnographers, historians and philosophers have much to say about origins and varieties of individualism, altruism, profit maximisation; but these are unnecessary interrogations of neoclassicism’s ‘a priori’ assumptions, irrelevant if they support these and inconvenient if they challenge them. Sociology, psychology and politics give equally rich insights into internal and external pressures on (and problems with the outcome of) people’s economic choices. But unless (like Jonathan Bendor in sociology, Steve Brams in politics or Kahneman and Tversky in psychology) they spell out their ideas in rational-choice, repeated-game language – so as to publish in mainstream economics journals – they are firmly repelled beyond the disciplinary border.

Instead of engaging with alternatives on their terms, the mainstream tries to refashion them into its own. So where such emerging (and emergent) phenomena as social capital, market-mediating institutions, interdependent expectations and path-dependent technical change appear at all, they do so in selectively interpreted, model-translated, neoclassically-readable form. This complicates the presentation (to anyone unschooled in neoclassical language and its unspoken assumptions), while often oversimplifying the argument, by ditching what cannot be distilled to simultaneous equation.

This ‘imperial’ battle has reached its height in the confrontation between neoclassical economics and evolutionary psychology (EP). Like neoclassicism, EP offers an all-embracing explanation for unrestricted individual action having functionally efficient, ‘natural’ outcomes; and for all attempts to guide or manipulate that action being doomed to inflict collective as

well as individual damage. But whereas neoclassical 'competitive selection' works in the market period, ensuring that behaviour persists where best suited to the present time, EP appeals to paleontological periods, resulting in persistence of behaviour better suited to prehistorical than post-industrial times. To turn EP from usurper into ally, neoclassicists must assume that the traits 'hard-wired' into evolved human minds are fully consistent with individual rational choice and rational expectation. Hence the current quest for game-based models and simulations equating 'evolutionary stable strategy' with winning noncooperative game strategy, ensuring that such EP phenomena as altruism and group selection amount to nothing more than clever manifestations of humanity's universally selfish streak.

While economists play these games, management schools continue capturing staff, students, and research funds from them, because what they teach and publish is what their sponsors and customers want to know. They do so without narrowing the syllabus down to neoclassical nostrums – because underconsumption crises, technological upheavals and panics and persistent disequilibrium are real threats to those working in the economy, even if irrelevant to those working on it, and Marx's assessment is as acceptable as Samuelson's if it helps to steer a way through. Most bookshops have emptied their Economics shelves to make room for a bulging Business section. Business research passes a 'market test' which mainstream market champions know they would fail – and so prefer to pass up, in favour of 'peer review' which judges quality by conformity to accepted method, rather than usefulness of results. The consequent financial rationing helps neoclassical department heads restrict recruitment to researchers in their own image. But it means the mainstream's abstract art is painting itself into an ever more (literally) marginal corner.

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The Russian Defeat of Economic Orthodoxy

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Many armies have followed a triumphant march into Russia with an ignominious withdrawal. Orthodox economics is merely the latest invader to succumb to this dismal tradition. But this theory did more damage to the Russian Bear than most military invaders.

Neoliberals were jubilant at the fall of the Berlin Wall. Not only had capitalism proved superior to communism, but the economic theory of the market economy had, it seemed, proved superior to Marxism. A task of transition did lie at "the end of history"—though not from capitalism to communism as Marx had expected, but from state socialism back to the market economy.

Such a transition was clearly necessary. In addition to the clear political and humanitarian failures of centralized Soviet regimes, economic growth under central planning had failed to maintain its initial promise. Once impressive performances gave way to stagnant economies producing dated goods, whereas the market economies of the West had grown more rapidly (if unevenly), and with far greater product innovation.

As the most prominent intellectual advocates for the free market over central planning, neoclassical economists presented themselves as the authorities for how this transition should occur. Above all else, they endorsed haste. In a typical statement, Murray Wolfson argued that

market systems are much more stable than most people who have been brought up in a command economy can imagine. The flexibility of market systems permits them to absorb a great deal of abuse and error that a rigidly planned system cannot endure. (Wolfson 1992, "Transition from a command economy: rational expectations and cold turkey", *Contemporary Policy Issues*, Vol. 10, April: p. 42).

The terms "abuse" and "error" were unfortunately prophetic—for the rapid transition imposed a great deal of abuse and error on the peoples of Eastern Europe. A decade later, incomes have collapsed, unemployment is at Great Depression levels, poverty is endemic. The transition has in general been not from Socialist to Capitalist, but from Socialist to Third World.

Wolfson is far from being a leading light of neoliberal economics. But his arguments in favour of a rapid transition are indicative of the naivety of those whom Joseph Stiglitz would eventually blame for abetting the theft and destruction of Russia's wealth. Their key failing was a simplistic belief in the ability of market economies—even proto-market economies—to rapidly achieve equilibrium. This led them to recommend haste in the transition, and especially in privatization of state assets—a haste which effectively handed over state assets to those in a position to move quickly, the old Party apparatchiks and organized crime.

Reading these pro-haste papers one decade after the transition debacle, one can take little comfort in realizing how different the outcome of this rapid transition was to the expectations economists held:

"Even though we favour rapid privatization, we doubt that privatization will produce immediate, large increases in productivity... Nonetheless, we believe that in order to enjoy these enormous long-term gains, it is necessary to proceed rapidly and comprehensively on creating a privately-owned, corporate-based economy in Eastern Europe" (Lipton & Sachs 1990: "Privatization in Eastern Europe: the case of Poland", *Brookings Papers on Economic Activity*, 2: 1990, p. 295)

"The motivation for comprehensiveness and speed in introducing the reforms is clear cut. Such an approach vastly cuts the uncertainties facing the public with regard to the new 'rules of the game' in the economy. Rather than creating a lot of turmoil, uncertainty, internal inconsistencies, and political resistance, through a gradual introduction of new measures, the goal is to set in place clear incentives for the new economic system as rapidly as possible. As one wit has put it, if the British were to shift from left-hand-side drive to right-hand-side drive, should they do it gradually ... say, by just shifting the trucks over to the other side of the road in the first round?" (Sachs, 1992. "The economic transformation of Eastern Europe: the case of Poland", *The American Economist*, Vol. 36 No. 2: p. 5)

It might be thought that, since speed was such a key aspect of the recommendations economists gave for the transition, they must have modeled the impact of slow versus fast transitions and shown that the latter were, in model terms at least, superior. But in fact the models economists took their guidance from completely ignored time: they were equilibrium models that presumed the system could rapidly move to a new equilibrium once disturbed.

The period of transition coincided with the peak influence of the concept of "rational expectations" in economic theory. This theory argues that a market economy is inhabited by "rational agents" who have, by some presumably evolutionary or iterative learning process, developed complete knowledge of the workings of the market economy and who can therefore confidently predict the future (at the very least, they know what will happen in response to any policy change by the government). The workings of the market economy happen to coincide with the behavior of a conventional neoclassical model, so that the economy is always in full employment equilibrium.

When this theory is put into a mathematical model, it results in a dynamic system known as a “saddle”, because the system dynamics are shaped like a horse’s saddle.

In conventional dynamic modeling, a saddle is an unstable system: the odds of the system being stable are the same as the odds of dropping a ball on to a real saddle and having it come to rest on the saddle, rather than falling off it. But if you were so lucky as to drop the ball precisely onto the saddle’s ridge, and it stayed on that ridge, it would ride up and down it for quite a while until it finally came to rest.

In rational expectations modeling, the saddle system that sensible dynamic models would say is unstable becomes stable but cyclical. The “rational agents” of the models all know the precise shape of the saddle, and jump onto its crest instantly from wherever they may have been displaced by a government policy change. Then the economy cycles up and down the ridge of the saddle, eventually coming to rest in full employment equilibrium once more. This is how devotees of rational expectations explain cycles, given their belief in the inherent equilibrium-seeking nature of a market economy: the system cycles up and down the sole stable path until coming to rest until it is once again disturbed.

These perspectives on individual behavior, the formation of expectations, and the behavior of a market economy, are dubious enough in their own right. Rational expectations “logic” is truly worthy of the moniker autistic, since it is based on a proposition that, if properly handled, negates its own predictions. This is the proposition that, as Muth put it:

Information is scarce, and the economic system generally does not waste it. (John Muth, “Rational Expectations and the Theory of Price Movements”):)

Since in neoclassical economics, scarcity is the basis of value, then information should according to this theory have a cost. If it has a cost, then agents should economize on its use—they will not use “all available information” but only the subset of information that they can afford, given their preferences for knowledge. Therefore individual agents will not know the full character of the economy, and most will certainly not know its “stable manifold”. Rational agents therefore cannot be expected to jump immediately to the equilibrium path of the economy unless they are irrational enough to expend the enormous amount of revenue that would be necessary to buy all the scarce information.

The foundations of “rational expectations” economics are thus internally inconsistent, and the fact that they were taken seriously in the first place is a clear sign of how truly autistic economic theory has become.

But if it was autistic to give this theory credence in the West, how much more so was it to apply this model to the behavior of people in an economic system in transition between central planning and market capitalism?

How can the “agents” in a transitional system develop a mental model of a market economy with which they predict the future behavior of the actual economy, if they have not previously lived in a market economy? Are we to presume instead that people can instantly develop the understanding of something as complex as a market economy—and are we to grace this belief with the adjective “rational”?

Lest this seem an overly harsh rhetorical flourish, consider the following discussion of how fast the transition should be from Wolfson’s 1992 paper. He begins with a statement that a sensible person might expect would lead towards the conclusion that people must be given time to learn how to react to market signals:

“Indeed, when government actions become so large that their effect on prices causes wide divergence from individual choices, one cannot determine what those choices would have been. As a result, no reliable guidelines exist for government choice. Even with the best of intentions, unlimited collective choice destroys the very information base for rational decisions.” (Wolfson 1992: 37).

But instead, he immediately follows up this apparently sensible statement with the following proposition:

Central planners seemingly should at once resign their posts and close their offices. Their departure simply would signal the market to move immediately to equilibrium.” (Wolfson 1992: 37)

What market? But oblivious to logical contradictions, he elaborates:

“For example, suppose the government were planning a gradual transition from a regime of administered prices to market prices to take place a year from now. What would happen 364 days hence? Obviously, people would refuse to make any but the most urgent transactions at the old prices, or an illegal market would immediately jump to the new prices. Those individuals who would have to sell their goods and services at a lower price on day 365 would find no legal customers on day 364. Similarly, those who would receive higher prices at day 364 would not sell legally on day 363, 362, 361, and so on. The economy would either come to a complete stop or would legally or illegally anticipate the future. In the face of rational and reasonably knowledgeable economic agents, delay invites disaster.” (Wolfson 1992: 37)

“Rational and reasonably knowledgeable economic agents”? Where did they come from, and how did they acquire so profound a knowledge of the market system they have not as yet lived in that they can predict its behavior (and prices in it a year into the future) before they experience it? Yet presuming their existence and their intimate knowledge of the behavior of an economic system that does not yet exist, Wolfson advises that

A rational expectations conclusion is that quitting communism Cold Turkey is the only way to get from A to B. In practice, governments must make the national currency convertible and allow it to float on legal as well as black markets, abolish the system of subsidies and direct plans and quotas, close plants that cannot compete, come quickly to a privatization of industry even if some inequities result, strictly control the money supply, and allow goods and services to find their own price on national and international markets. (Wolfson 1992: 39; Wolfson does qualify his arguments with some concessions to reality, but in the end his recommendations are all for speed on the basis of a belief in the self-adjusting properties of the market economy)

While there were significant differences in how the program of transition was implemented, in general this rapid and complete exposure of the once relatively closed economies of the East to the West was the rule. Away from the fantasies of rational expectations economics, what this rapid exposure to international competition did was give ex-socialist consumers instant access to Western goods, and expose Eastern European factories to open competition with their Western counterparts.

As Janos Kornai details so well, the soft budget constraints of the Soviet system had resulted in “cashed up” consumers on the one hand, and technologically backward and shortage-afflicted factories on the other. The consumer financial surpluses, accumulated during the long wait between placing orders for consumer durables under the Soviet system

and actually receiving the goods, were rapidly dissipated on Western consumer goods. The Eastern businesses, now forced to compete with technologically far superior Western firms, were rapidly destroyed, throwing their workers into unemployment. With accumulated buying power dissipated and freely floating currencies, exchange rates collapsed—for example, Romania's Lei has gone from about 1,000 to the US dollar in 1993 to 32,000 to the dollar today.

A sensible dynamic analysis of the plight of the ex-socialist economies—one that really did take time into account—would have predicted this outcome from a too rapid transition. Even if the technological advantages of the market system over Soviet-style industrialization had amounted to just a one percentage difference per annum in productivity, the forty five year period of socialism would have given market economy firms a 55 per cent cost advantage over their socialist counterparts. And of course, the product development aspect of technological innovation had made far greater differences than this merely quantitative measure of costs—Western firms would have decimated socialist ones on product quality alone, even without a cost advantage.

A time-based analysis would therefore have supported a gradual transition, with substantial aid as well to assist Eastern factories to introduce modern production technology and process control methods. It should also have been obvious that for a market economy to develop, one needs the minimum distributive systems of a market: systems of wholesale and retail distribution, respect for written contracts, systems for consumer protection, laws of exchange—all things which take a substantial time to put in to place.

With the obscene haste with which the actual transition was implemented, the only non-market systems that could rapidly develop were those that were already in place in the preceding socialist system—the systems of organized crime that had always been there to lubricate the wheels of the shortage-afflicted Soviet system, just as market intrusions once permeated the feudal systems out of which capitalism itself evolved in Europe.

It is of course too late now to suggest any alternative path from socialism to the market for these no longer socialist economies. The new transition they must make is from a de-industrialized Third World state back to a developed one, and that transition will clearly take time.

Steve Keen is the author of [Debunking Economics: The Naked Emperor of the Social Sciences](#) (Zed Books [US/UK] & Pluto Press).

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