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Ethics In Economic Theory

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Introduction

Economics and ethics are interrelated because both economists (theorists and policy advisers) and economic actors (sellers, consumers, workers) hold ethical values that help shape their behavior. In the first case economists must try to understand how their own values affect both economic theory and policy. In the second case this means economic analysis must broaden its conception of human behavior.

In this article I will focus on the first of these two issues-- economists construct theory upon a particular world view, resulting in basic concepts, such as efficiency, being value-laden.

Values, World Views and the Economist

There is a substantial body of literature on methodological issues in economics (though seldom found in the "top" journals), much of it calling into question its supposed scientific character. Part of that literature deals explicitly with the impact of ethical value judgments on economics as a science. Of this literature, a greater amount argues the value-permeation thesis than defends the idea of value-neutrality. However, value-neutrality of economics as a science remains the dominant position in the day-to-day work of mainstream economists. It seems expedient to begin by laying out its arguments.

Value-Neutrality. There are two pervasive tenets to the value-neutrality argument. The first is a reliance on the Humean guillotine which categorically separates fact ('what is') from value ('what ought to be'); also known as the positive/normative dichotomy. The second basic tenet

strongly supports the first by claiming that since we have objective access to the empirical world through our sense experience, scientists need not concern themselves with 'what ought to be.' This second tenet is the really crucial point and the one which post-positivist philosophy of science has sought to undermine.

The value neutral position argues that scientific economics is comprised of three separate components: pre-scientific decisions, scientific analysis, and post-scientific application. However, there is a difference between the value judgments of pre-science and of post-science. Hume's guillotine is protected by drawing a distinction in social science between two types of value judgments. A *characterizing value judgement* expresses an estimate of the degree to which some commonly recognized (and more or less clearly defined) type of action, object, or institution is embodied in a given instance. An *appraising value judgment* expresses approval or disapproval either of some moral (or social) ideal, or of some action (or institution) because of commitment to such an ideal. Some value judgments are thus not really value judgments of any ethical significance, but judgments that merely allow one to carry on the scientific enterprise.¹

In other attempts to reconcile value judgments and objective science, the notion of 'brute fact' is often used. This is the claim that facts are in some sense 'out there' for all to see, independent of scientific theory. Unfortunately for the value neutral position, the idea of brute fact has fallen on hard times in the philosophy of science literature. Today it is generally recognized even by sophisticated logical empiricists that facts are theory-laden and that theories are tested by those facts deemed important by the theory.

The defense of value-neutrality still stands, but the pillars have been shaken. Blaug conceded that both 'factual' and 'moral' arguments rest 'at bottom' 'on certain definite techniques of persuasion, which in turn depend for their effectiveness, on shared values of one kind or another.'² And, of course, McCloskey's writings on the "rhetoric of economics" have taken this argument into the heart of economics— *The American Economic Review*— where mainstream economists have studiously ignored it.³

Value Permeation. The value permeation position argues that while science is driven by a search for truth, it is not interested in just any truth. The relevant truth must be both 'interesting' and 'valuable,' and thus all science is goal-directed activity. Further, the criteria for a 'good' or 'acceptable' scientific theory cannot be ranked in terms of their intrinsic importance, but only in relation to the degree they serve particular goals of the scientific community.

Theory choice is not, therefore, based objectively on non-controversial criteria (e.g., degree of verification or corroboration), but on criteria that are inevitably value-laden (i.e. the extent to which each theory serves specific ends). The scientists' search for 'valuable truth' is directed by what they think society (and science) ought to do. No amount of evidence ever completely confirms or disconfirms any empirical hypothesis but only renders it more or less probable.

Another line of reasoning, Kuhnian in character, has been another line of attack. Kuhn, referring to the natural sciences, speaks of paradigms, characterized by the shared values of a given scientific community.⁴ It is Kuhn's rejection of the second tenet-- that we have objective access to the empirical world through our sense experience-- that is important for those opposed to the value-neutrality position. He argues that the empirical world can be known only through the filter of a theory; thus, facts are theory-laden. Thus, a major argument of those who build on Kuhn's approach runs as follows: A world view greatly influences the scientific paradigm out of which one works; value judgments are closely associated with the world view; theories must remain coherent with the world view; facts themselves are theory-laden; therefore, the whole scientific venture is permeated by value judgments from the start. This world view, or *Weltanschauung*, shapes the interests of the scientist and

determines the questions asked, the problems considered important, the answers deemed acceptable, the axioms of the theory, the choice of relevant facts, the hypotheses proposed to account for such facts, the criteria used to assess the fruitfulness of competing theories, the language in which results are to be formulated, and so on.

The Neo-Classical World View: A Case in Point

Let me illustrate this world view argument by applying it to neo-classical economics.⁵ The world view of mainstream neo-classical economics is closely associated with the notion of the good embedded in its particular scientific paradigm. It is founded on a world view made up of the following propositions:

1. *Human nature is such that humans are a/ self-interested and b/ rational. That is, they know their own interest and choose from among a variety of means in order to maximize that interest.*
2. *The purpose of human life is for individuals to pursue happiness as they themselves define it. Therefore, it is essential that they be left free to do so.*
3. *The ideal social world is a gathering of free individuals who compete with each other under conditions of scarcity to achieve self-interested ends. As in the natural world with physical entities, in the social world too there are forces at work which move economic agents toward equilibrium positions.*

Neo-classical economists either accept the preceding empirically unverifiable and unfalsifiable statements or, barring overt acceptance, conduct scientific inquiry with methods based thereon. The first two propositions contain the motivating force in economic life (satisfaction of self-interest) and the third proposition spells out the context in which that force works itself out. It is interesting that experimental studies by psychologists indicate that people are concerned about cooperating with others and with being fair, not just preoccupied with their own self-interest. Ironically, these same studies indicate that those people attracted into economics are more self-interested and taking economics makes people even more self-interested. Thus economic theory creates a self-fulfilling prophecy.⁶

It seems fairly clear that judgments of value, of a particular notion of the good, are directly implied by propositions one and two of this world view. If the purpose of life is that individuals pursue happiness, and if they do so self-interestedly, then it certainly would be good for individuals to receive what they want. *Here is the basic notion of the good permeating all neo-classical economics: individuals should be free to get as much as possible of what they want.* There are two basic judgments required to translate this concept of the good into economic theory, such as cost-benefit analysis. The first of these is that *individual preferences are what count.* The second is a value judgment on distributional equity. But this value judgment is rather superficial, for it is external to the neo-classical paradigm. Because it is external it often obstructs our view of the more fundamental value judgments, those deeply embedded in the paradigm itself.

Other ancillary value judgments of the neo-classical paradigm either qualify what types of individual wants will be considered or are derivative from this basic value judgment. These other ancillary value judgments can be summarized in this way:

1. Competitive market equilibrium is the ideal economic situation. Therefore, a/ competitive market institutions should be established whenever and wherever possible; and b/ market prices should be used to determine value.
2. Means and ends should be bifurcated into two mutually exclusive categories.
3. Means and ends should be measured quantitatively.

The first ancillary value judgment derives from elements one and three of the neo-classical world view and from the basic value judgment that individual preferences should count. If one takes the core ideas of individualism, rationality and the social context of harmony among diverse and conflicting interests, along with a number of limiting assumptions, it can be shown that competitive equilibrium maximizes the value of consumption and is therefore the best of all possible economic situations. This ancillary value judgment does not stand alone. Competitive market equilibrium is good, in part, because it allows the greatest number of individual wants to be satisfied. Moreover, this value judgment is also determined by the world view. Without the third proposition such a judgment could not be made, for then some other economic condition could be found to satisfy individual wants. Competitive market equilibrium is good because the world view insists that only this condition can be ideal.

The notion of competitive equilibrium carries out two basic functions: it serves as an ideal and as a standard by which to measure the real value of current economic conditions. Because it serves as an ideal for which we strive, it leads directly to the value judgment that wherever competitive markets do not exist or are weak, they should be instituted or promoted. Wherever markets do not exist, the natural competitiveness of human beings will be channelled into other non-productive directions. It would be better to establish markets where this competitiveness and self-interest seeking behavior could be channelled into mutually satisfying activities. Wherever markets are weak and distorted due to monopoly power or government interference there is sure to be a reduction in actual consumption. Therefore, perfectly competitive markets should be promoted so that the ideal competitive equilibrium can be achieved.

The second and third ancillary value judgments do not spring directly from the world view. Instead, they make the paradigm based thereon operational. The separation of means and ends is not strictly required by the world view itself, but is an operational requirement, without which the paradigm could generate no meaningful research or study. If means and ends were not mutually exclusive, then neo-classical economics would be nothing more than a simple statement that humans do what they do because they wish to do it. There could be, for example, no inquiry into how satisfaction is maximized by choosing among various alternatives. If some activity (e.g., production or consumption) could be both means and end then one could not determine which part is which. This results in the value judgment that consumption is the end or 'good' to be achieved. In so doing, any good inherent in the process or means for obtaining higher consumption is ignored. For example, if the production activity of human labor were more than just a means-- if work was good in and of itself regardless of the final product-- then it would be impossible for the neo-classical economist to discover how much individual wants are satisfied by the activity. The ends and the means would be all mixed together and it would be impossible to speak of the value of the product and the cost of the resources independently.

The splitting of economic activities into means and ends by its very nature promotes a particular notion of the good. It may be an operational necessity, but it is also a judgment of value. With means and ends separated, it becomes convenient to measure the satisfaction given by particular ends and the dissatisfaction (costs) resulting from employing various means. It becomes possible to measure how much better one situation is than another, by comparing numbers instead of concepts or ideas. Things that are apparently incommensurable thus become commensurable. This is evident in many branches of neo-classical analysis; when money values are unavailable or inappropriate, quantified units are used in their place.

The emphasis on quantification in neoclassical economics adds another element to its particular notion of the good. While the second ancillary value judgment separates means and ends, the third ancillary value judgment tells us to focus on means and ends that can be

quantified. One practical outcome of this is a heavy emphasis on 'things' over interpersonal relationships, education, cultural affairs, family, workplace organization, etc. Things are countable while the quality of these other spheres of human life is not. In the area of economic policy especially, such concerns are treated often as obstacles to be removed or overcome.⁷ To the extent that this occurs, the notion of the good which focuses on quantifiable inputs and outputs is embedded in the paradigm.

Within neo-classical economics there are thus judgments of value which are rooted in a fundamental world view. There are also ancillary judgments of value which operate in concert with the world view and which allow the neo-classical approach to be operational. Together these judgments make up the neo-classical position on the character of the good, and when an economic policy is planned, implemented and evaluated, it is done on the basis of these clearly defined standards.

To conclude this discussion, the paradigm or research program of *any* scientific community is circumscribed by boundaries laid out in a world view which, while not perhaps individually subjective, is nevertheless empirically untestable, or metaphysical as Boland would say.⁸ How then do value judgments about the good, the just and the right enter into scientific analysis? Such value judgments are themselves entailed by the same world view which gives rise to theoretical and factual analysis. 'What is' and 'what ought to be' are thus inextricably commingled in the data, the facts, the theories, the descriptions, the explanations, the prescriptions, and so on. All are permeated by the a priori world view.

Economists must recognize that there is no alternative to working from a world view. Making explicit the values embodied in that world view will help keep economics more honest and useful. For example, many institutional economists see the social world as characterized by interdependence of economic actors with the result that "externalities" are ubiquitous. The assignment of rights by the political and legal systems, therefore, determines "who gets what." The distribution of income, wealth, and rights that results from economic transactions and public policies becomes as important as efficiency.⁹

Furthermore, it is not sufficient to simply reject the neo-classical position that satisfying individual preferences, as expressed in the market, is the only measure of economic welfare. Alternatives must be proposed and developed. Let me sketch out one possible alternative.¹⁰

We must broaden our view of human welfare from that of a simple consumer of goods and services with consumer sovereignty as the goal. Rather, once biological needs are met, people derive welfare primarily from social activities such as working, dancing, theorizing, playing golf, painting, partying, and so forth. In order to engage in such activities people need instruments, capacities, and a social context or environment.

People need instruments (goods and services) to engage in activities-- fishing poles to fish, tools to work, shoes to dance in. Traditional economics focuses solely on this need. However, the instruments are worthless unless people have the capacity to use them-- training is needed to learn how to fly-fish, to use tools to repair a car, to dance the Tango. Finally, people need a social context or environment to carry out these activities-- a clean river is needed to fish in, good working conditions are needed to enjoy working, clean air and safe streets are needed to enjoy jogging.

The result of such a world view is that the measure of human welfare expands from consumer sovereignty to also include worker sovereignty (Do people have the jobs they want; are the jobs fulfilling; does the work enhance people's capacities?) and citizen sovereignty (Do people have the communities and environments they want; do they have the power to construct the social contexts within which they can develop their capacities?). With this expanded

conception of human welfare the evaluation of economic policies can be quite different.

Notes

1. see Ernest Nagel, *The Structure of Science: Problems in the Logic of Scientific Explanation* (New York: Harcourt, Brace and World, 1961).
2. See Mark Blaug, *The Methodology of Economics: Or How Economists Explain* (Cambridge: Cambridge University Press, 1980), p. 132.
3. See Donald N. McCloskey, *The Rhetoric of Economics* (Madison: University of Wisconsin Press, 1985) and the voluminous literature generated by it.
4. See Thomas S. Kuhn, *The Structure of Scientific Revolutions*, 2nd Ed. (Chicago: University of Chicago Press, 1970); 'Reflections on My Critics,' in Imre Lakatos and Alan Musgrave (eds.), *Criticism and the Growth of Knowledge* (Cambridge: Cambridge University Press, 1970); 'Notes on Lakatos,' in R.C. Buck and R.S. Cohen (eds.), *Boston Studies in the Philosophy of Science*, vol. 8 (Dordrecht, Netherlands: Reidel, 1971).
5. This section is based on Charles K. Wilber and Roland Hoksbergen, 'Ethical Values and Economic Theory: A Survey,' *Religious Studies Review*, 12, 3/4 (July/October 1986), pp. 211-212.
6. See Robert H. Frank, Thomas Gilovich, and Dennis T. Regan, 'Does Studying Economics Inhibit Cooperation,' *Journal of Economic Perspectives*, 7, 2 (Spring 1993), pp. 159-171.
7. A classic example is the construction of public housing for the poor. Square footage per household is the key variable, not such intangibles as neighborhood, community, or access to services. Another example is welfare policy that concentrates on levels of support and ignores the psychological impact of means testing or the prohibition of able bodied males in the household.
8. See Lawrence Boland, 'On the Futility of Criticizing the Neo-classical Maximization Hypothesis,' *American Economic Review*, 71, 5 (December 1981), pp. 1031-1036 and his *The Foundations of Economic Method* (London: Allen & Unwin, 1982). The recent literature on 'rhetoric' takes the argument another step--economic theory is a conversation, and different groups of economists (neo-classicals, marxists, institutionalists, et al.) have their own conversations which are different. See McCloskey, *The Rhetoric of Economics*.
9. See A. Allan Schmid, *Property, Power, and Public Choice: An Inquiry into Law and Economics* (New York: Praeger, 1978) and *Benefit-Cost Analysis: A Political Economy Approach* (Boulder, CO: Westview Press, 1989). Also see the exchange of correspondence between Warren Samuels and James Buchanan: 'On Some Fundamental Issues in Political Economy: An Exchange of Correspondence,' *Journal of Economic Issues*, 9 (March 1975), pp. 15-38.
10. See Herbert Gintis and James H. Weaver, *The Political Economy of Growth and Welfare*, Module 54 (MSS Modular Publications, 1974); Denis Goulet, *The Cruel Choice: A New Concept in the Theory of Development* (New York: Atheneum, 1971); Charles K. Wilber and Kenneth P. Jameson, *Beyond Reaganomics: A Further Inquiry into the Poverty of Economics* (Notre Dame, IN: University of Notre Dame Press, 1990); and "The Ethics of Consumption: A Roman Catholic View," in *Ethics of Consumption: The Good Life, Justice, and Global Stewardship*, eds. David A. Crocker and Toby Linden (Lanham, MD: Rowman & Littlefield, 1998), pp. 403-15.

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Ecological Economics is Post-Autistic

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Autism: A psychiatric disorder of childhood characterized by marked deficits in communication and social interaction, preoccupation with fantasy, language

impairment, and abnormal behavior, such as repetitive acts and excessive attachment to certain objects. It is usually associated with intellectual impairment. (American Heritage® Dictionary of the English Language: Fourth Edition. 2000)

The post-autistic economics movement has correctly identified many of the failings of mainstream economics. With reference to the definition above, mainstream economics is "autistic" in its deficits in communication and social interaction with other disciplines, preoccupation with mathematical fantasy, language impairment in its limited and specialized vocabulary, and excessive attachment to certain objects (assumptions and models). This intellectual impairment has led to its inability to address many important real world problems.

Ecological economics has moved well beyond the autism of the mainstream and represents a viable post-autistic alternative. This paper describes briefly what ecological economics is, how it developed, and why it is "post-autistic."

Ecological economics is a transdisciplinary effort to link the natural and social sciences broadly, and especially ecology and economics (Costanza 1991). The goal is to develop a deeper scientific understanding of the complex linkages between human and natural systems, and to use that understanding to develop effective policies that will lead to a world which is ecologically sustainable, has a fair distribution of resources (both between groups and generations of humans and between humans and other species), and efficiently allocates scarce resources including "natural" and "social" capital. This requires new approaches that are comprehensive, adaptive, integrative, multiscale, pluralistic, evolutionary and which acknowledge the huge uncertainties involved.

For example, if one's goals include ecological sustainability then one cannot rely on the principle of "consumer sovereignty" on which most conventional economic solutions are based, but must allow for co-evolving preferences, technology, and ecosystems (Norton et al. 1998). One of the basic organizing principles of ecological economics is thus a focus on this complex interrelationship between ecological sustainability (including system carrying capacity and resilience), social sustainability (including distribution of wealth and rights, social capital, and coevolving preferences) and economic sustainability (including allocative efficiency in the presence of highly incomplete and imperfect markets). A major implication of this is that our ability to predict the consequences of economic behavior is limited by our ability to predict the evolution of the biosphere. The complexity of the many interacting systems that make up the biosphere means that this involves a very high level of uncertainty. Indeed, uncertainty is a fundamental characteristic of all complex systems involving irreversible processes and ecological economics is particularly concerned with problems of uncertainty. More particularly, it is concerned with the problem of assuring sustainability under uncertainty. Instead of locking ourselves into development paths that may ultimately lead to ecological collapse, we need to maintain the resilience of ecological and socioeconomic systems by conserving and investing in natural and social assets.

Ecological economics has historical roots as long and deep as any field in economics or the natural sciences, going back to at least the 17th century (Costanza et al. 1997). Nevertheless, its immediate roots lie in work done in the 1960s and 1970s. Kenneth Boulding's classic "The economics of the coming spaceship Earth" (Boulding 1966) set the stage for ecological economics with its description of the transition from the "frontier economics" of the past, where growth in human welfare implied growth in material consumption, to the "spaceship economics" of the future, where growth in welfare can no longer be fueled by growth in material consumption. This fundamental difference in vision and world view was elaborated further by Daly (1968) in recasting economics as a life science -

akin to biology and especially ecology, rather than a physical science like chemistry or physics. The importance of this shift in "pre-analytic vision" cannot be overemphasized. It implies a fundamental change in the perception of the problems of resource allocation and how they should be addressed. More particularly, it implies that the focus of analysis should be shifted from marketed resources in the economic system to the biophysical basis of interdependent ecological and economic systems and their co-evolution over time.

Ecological economics is not, however, a single new paradigm based in shared assumptions and theory. It is instead a *metaparadigm*. Rather than espousing and defending a single discipline or paradigm, it seeks to allow a broad, pluralistic range of viewpoints and models to be represented, compared, and ultimately synthesized into a richer understanding of the inherently complex systems it deals with. It represents a commitment among economists, ecologists, and other academics and practitioners to learn from each other, to explore new patterns of thinking together, and to facilitate the derivation and implementation of effective economic and environmental policies. Ecological economics is deliberately and consciously pluralistic in its conceptual underpinnings. Within this pluralistic metaparadigm, traditional disciplinary perspectives are perfectly valid as *part of the mix*. Ecological economics therefore includes some aspects of neoclassical environmental economics, traditional ecology and ecological impact studies, and several other disciplinary perspectives as components, but it also encourages completely new, more integrated, ways to think about the linkages between ecological and economic systems.

Ecological economics has also developed a solid institutional base. After numerous experiments with joint meetings between economists and ecologists, the International Society for Ecological Economics (ISEE) was formed in 1988 and currently has over 2000 members worldwide (<http://www.ecologicaeconomics.org/>). The journal of the society, *Ecological Economics*, published its first issue in February of 1989 and is currently publishing 12 issues per year, with an impact factor ranking it in the top 1/5 of all economics journals (<http://www.elsevier.com/inca/publications/store/5/0/3/3/0/5/>). Major international conferences have been held since 1990 (<http://www.ecologicaeconomics.org/conf/conf.htm>) with attendance as high as 1500. Several ecological economic institutes have been formed around the world, a significant number of books have appeared with the term ecological economics in their titles (e.g. Martinez Alier 1987, Costanza 1991, Peet, 1992, Jansson et al 1994, Barbier et al. 1994, Krishnan et al. 1995, Costanza et al. 1997), and a fair number of university courses, certificate programs (e.g. http://www.uvm.edu/giee/giee_certif.html), and graduate degree programs (e.g. <http://www.rpi.edu/dept/catalog/97-98/Interdisciplinary/ecological.html>) have also developed.

So, is ecological economics post-autistic? The "Kansas City Proposal" (2001) lists seven changes needed to move to post-autism: (1) a broader conception of human behavior; (2) recognition of culture; (3) consideration of history; (4) a new theory of knowledge (beyond the positive-normative dichotomy); (5) empirical grounding; (6) expanded methods; and (7) interdisciplinary dialogue. Ecological economics certainly has all of these characteristics. Its explicit links with the natural sciences result in a more scientific approach, which is inherently more pluralistic (Fullbrook 2001) and empirically grounded. It places humans and human behavior in a broader historical, evolutionary, and ecological context (Costanza et al 1993). Humans are seen as a part of the natural world, not abstractions in isolation from nature and each other. It is problem-based, not tool-based, and its methods include any that are applicable to the problems at hand. These include everything from participatory processes (Campbell et al. 2000) to envisioning alternative futures (Costanza 2000, Farley and Costanza 2002) to complex systems simulation modeling (Costanza et al. 1993, 2002, Boumans et al. 2002). It recognizes the importance of envisioning and the limits of the positive-normative dichotomy (Costanza 2001). It goes well beyond interdisciplinary dialogue. It aspires to be a truly transdisciplinary science.

One question is: given that ecological economics has been around since 1990 and seems to “fit the bill” for post-autistic economics, why has it not been recognized as such by the post-autistic economics movement which began around 2000? I can only conclude that this is just one more symptom of the autism of mainstream economics, which has been so hermitically sealed from the real world that it has not noticed (or more likely aggressively ignored) these developments and has not made its students aware of them. Now that the veil of that autism is finally being lifted, we can join forces and move together to create a transdisciplinary, pluralistic science that can help solve the pressing problems the world faces today and help create a sustainable and desirable world for the future.

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Is GDP a good measure of economic progress?*

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Every year, or even every quarter, economic growth figures are anticipated and scrutinised to assess the economic health of a country. In spite of abundant commentary in the media by politicians and economists, the very notion of economic growth remains elusive: who really knows what it really measures ? Yet the level of GDP (or GDP growth) is probably the most widely used indicator for piloting economic policies around the world and for making international comparisons.

When one says that "GDP growth reached 3% in 2002", what does that mean ? Broadly speaking, GDP measures the amount of goods and services produced in a given place (a country, a region, etc.), in a given period of time (a year, a quarter, etc.). All goods and services ? Well, that's where the whole issue lies!

Our point is that GDP includes goods and services that do not increase a country's economic wealth, and, furthermore, excludes goods and services that do. Thus, the use of GDP as an indicator of economic progress is flawed and results in biases in international comparisons.

What GDP forgets

"Marry your cleaning person, and you will make GDP drop!". This weird remark, made by the famous French economist Alfred Sauvy, points to the fact that GDP excludes (or significantly underestimates) goods and services produced outside the official market economy. The bits forgotten by GDP can be divided into three categories:

- Household production: marrying the cleaning person means transforming a standard marketed activity (house cleaning, paid at a given rate, etc.) into domestic work, not accounted for in GDP as there is no way to measure the value added by this service (no price paid). A priori, this change does not alter the level of service enjoyed by the newly married consumer (in both cases, house cleaning was made, by the same

person; this example is used to point out the insufficiencies of GDP, not to advocate more domestic work...). Is that a problem? Yes, as by any measure domestic production represents a large part of goods and services. For instance, one estimates that people spend 17% more time in household production (cleaning, cooking, childcare, etc.) than in paid activities. According to various studies carried out in France, domestic production could represent as much as 75% of standard GDP.

- Voluntary work: a bicycle repaired by a friend makes GDP fall if the work used to be done by (and paid to) a professional. Thus, a society where voluntary work is widespread will enjoy a higher level of economic well-being but not necessarily a higher GDP (in fact, even a lower GDP).
- Public administration: in public accounting rules, GDP is the sum of values added by all economic entities, i.e. the difference between the value of production and consumed inputs (energy costs, raw materials, etc.). Thus, value added is in fact constituted by two main parts: wages and profits. But for public administration, no value of production is available as public services are generally not bought by anyone on a market (think of public gardens maintenance or tax collection). To include them in GDP, accountants decided to measure value added as wage costs (we exclude capital depreciation from our analysis). As a result, the contribution of public services to GDP is always underestimated. By the same token, a free service resulting from a past public investment (a road, a fountain, a public park or a public sport facility) will not appear in GDP, contrary to its private equivalent (priced road, private sport facility, etc.).

What GDP should forget

“Burn Paris and you will make GDP grow!”. Another weird remark, another problem with GDP : GDP only includes positive values: if something is destroyed, then rebuilt by a private company, GDP goes up while economic well-being is unchanged. Those who use GDP as a good measure of economic progress forget that production is closely linked to destruction. In two ways:

- Production as measured by GDP is often just compensation for a previous destruction (think of booming activity after a cyclone or of most legal and medical activities). If lawyers prosper because there are more crimes and more offences, does that mean the country is richer?
- Production is, by definition, destruction: destruction of human and natural capital. What about two countries achieving the same level of standard GDP but, for one of them, through the exhaustion of its natural and human resources? It reminds us of those companies who report profits only by under-reporting depreciation of assets. The case is not just theoretical: Britain and France have roughly the same GDP but British workers work 25% more.

The Obesity Connection

The remarks made above can be illustrated by the example of obesity. Obesity is not just a pathology, it is also a formidable way to create standard economic wealth without increasing well-being (figures below can be found at www.rprogress.org, the website of an American

think tank, Redefining Progress):

- in the US alone, food companies spend around \$20bn in advertising to convince consumers to eat more;
- unfortunately, their efforts prove successful as each day, one in every four Americans eats in a fast-food restaurant, for a total expenditure of \$110bn a year;
- consequently, Americans are increasingly obese (over the past 30 years, the number of Americans not able to use a standard airplane seat – due to overweight, not to financial difficulties... – has risen by 350%);
- obese people (and others) spend around \$30-50bn a year in weight-losing products, gym facilities, etc.;
- but most do not manage to lose the weight “gained” in fast-foods, which feeds medical expenditure linked to obesity (obesity often leads to diabetes, increases the likelihood of heart attacks, etc.), at around \$50bn per year.

These expenditures boost GDP, but their contribution to economic well being is at best questionable. As asked by one of Redefining Progress’s leaders: “if GDP is up, why is America down?”.

Flawed international comparisons

The arguments presented above cast doubt on the usefulness of GDP as the main “pilot” of economic policy. If the thermometer is wrong, then the policy based on it should be wrong too. The use of GDP produces biases in favour of a particular set of political choices, consisting in marketisation of economic activity. This also means that international comparisons based on GDP are fundamentally flawed. In two ways, following the two problems associated with GDP:

- two countries with different levels of “marketisation” cannot be compared on the basis of GDP, as GDP will not include the same activities in the two countries (part of economic activity will be excluded from the comparison);
- two countries with different levels of destruction cannot be compared on the basis of GDP as these very destructions are not taken into account. Peaceful societies, characterised by a lower level of crime (and consequently legal activities, private prisons, etc.) are penalised in terms of GDP! As are countries with a healthy way of life!

And all this is without even taking into account the technical difficulties: how to compare GDPs measured in different currencies? If we use simple exchange rates, we run the risk to have very volatile results (the euro lost 30% of its value against the dollar from January 1999 to October 2000, but it would have been stupid to conclude that GDP dropped in the same proportion). The purchasing power parity method, used by economists to take into account the fact that currencies do not buy the same amount of goods and services, is not without problems, too. Is it relevant to compare the price of the same basket of goods and services in different countries (to derive purchasing powers) when the structures of the studied economies vary. Finally, statistical methods used to measure outputs and prices differ

significantly across the world. Thus, cross-country comparisons create many more difficulties than the already problematic national GDP calculation.

Paradoxically, it is mostly for poor countries that alternatives to standard GDP have been developed, though they are badly needed for rich countries too. For instance, the United Nations Development Programme (UNDP) calculates a Human Development Index (HDI), which includes GDP per capita, but also the literacy rate, life expectancy at birth and school enrolment ratios. A report to the French ministry for Social Economy (abolished by the current government) suggested that the human development report (now limited to poor regions) be extended to cover Europe. Others have tried to build more relevant measures of GDP, by removing from standard GDP values added that do not increase well-being or that contribute to the destruction of natural resources, and by adding domestic and voluntary work. One such example is the Genuine Progress Indicator, calculated by the US NGO Redefining Progress (see above) for the US, and which has been stagnating since the early 1980s (while standard GDP almost doubled over the same period).

Yet, these interesting experiments are not without drawbacks : besides numerous technical difficulties, similar to those identified for the measure of standard GDP, the choice to include or exclude economic activities from the new index can easily be arbitrary. For instance, should we exclude health care linked to avoidable diseases on the ground that it merely reflects a fundamentally unhealthy way of life (the counterpart of other parts of GDP such as fast-food activities, or tobacco, so as not to be counted twice...). Or should we include it because it makes people live better, *everything else being equal*...? Should we exclude legal activities linked to divorces because divorce is a sad thing which reflects the disintegration of families in contemporary societies, or include them as they allow women to enjoy more independence?

In my opinion, we should give up trying to compete in terms of GDP (an aggregated indicator). Economic development is always something with many dimensions. Therefore, an economic system should be judged on its ability to provide individuals with what they need to achieve well-being : food, health, leisure, clean air, a high life expectancy, means of communication, etc. For each of these sub-categories, it is possible to build indicators that reflect to what extent the population enjoys access to these resources. Not an average indicator but one that takes inequality into account : two people with a phone each is better than one people with two phones and one without any. Thus, we would be able (in fact we already are, but these figures are never publicized) to compare two countries by comparing their ability to provide these essential goods to the largest possible part of their population. We would certainly have some surprises, such as that the World Health Organisation ranks the US health system as 37th in the world, while France ranks 1st and Portugal 12th, two countries with a much lower GDP per capita.

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Economics: The Disappearing Science?

Alan Shipman

Economics can easily explain the demise of wheelwrights, weavers and wallpaper hangers. Technical progress dispelled the first group, globalisation the second, changing preferences the third.

The 'dismal science' has more difficulty accounting for its own disappearance. But the downtrend in UK economics has now persisted too long to be dismissed as a mere correction after momentary excess.

Entry of home students to PhD courses has fallen to "dangerously low levels" according to Royal Economic Society research published in 2000. Two of the country's most prestigious institutions (London School of Economics and Nuffield College, Oxford) had, that year, attracted no new UK doctoral students. Demand for national funds to support these had also slumped to the level of supply, while sociology and politics maintained their usual over-subscription.

The Royal Economic Society gives a predictably economic explanation for the flight from higher degrees. "Relatively low pay and unattractive working conditions in academia" persuade high-flyers to seek higher returns on their instructional investment. Writing before stock markets stumbled, report authors Stephen Machin and Andrew Oswald noted that City economists could earn up to five times their academic counterparts, with senior management, consultancy and civil service jobs also catapulting more basically qualified economists above the professors who taught them. At Oswald's Warwick University, the proportion of first-class honours students staying on for further study dropped from 80% in 1983-5 to 33% by 1995-7.

But if this were the only explanation for decline, demand for more basic economic qualifications would have held up. In reality, the PhD numbers plunge is the culmination of a fall in interest all along the economist production line.. Shrinking UK postgraduate entry results from steady decline in undergraduate and taught masters interest, now mirrored in the final pre-university years. Entries for economics A-level slid from over 32,000 in 1993/4 to less than 20,000 in 2000/01.

The American Economic Association has dug more deeply for explanations of its own declining undergraduate enrolments, which peaked in 1990. American Economics Association research suggests this is due not just to doubts on the economic rewards of staying the course, but disillusionment with the way it is structured and taught. From being a historical and literary subject, whose journals could still be understood by non-specialists into the 1960s, the subject's 'mainstream' research has become submerged in mathematical modelling and statistical analysis. A shift in assessment methods from essays to exercises and multiple choice tests further opens the subject to mathematicians who have never read the economic 'classics', while closing it to those who study nothing else.

By 'formalising' past ideas into highly stylised models, economics has become a narrow problem-solving exercise, denying students the big picture they expect it to provide. With dialogue confined to a shrinking range of specialists familiar with the same formulae, the subject's past power to clarify everyday dilemmas has if anything been reversed. "Many college seniors who have taken an economics course still show a lack of understanding of basic economics," laments the latest American Economics Association survey of economic literacy by William Wallstad and Sam Allgood, echoing recent British results. Though adept at deducing a rational agent's optimum consumption bundle, new graduates are often baffled by practical questions - what happens when an exchange rate falls, who sets monetary policy, or what can be done to fend off a recession.

Detachment from reality is especially a deterrent for women and ethnic minorities, whose

second-class status is confirmed in other Royal Economic Society surveys. In the UK women comprise one-third of PhD candidates and hold almost the same proportion of fixed-term lecturers in economics, but hold only 17% of permanent lectureships, and 4% of professorships. Although family-unfriendly faculties are part of the explanation, the earnings gap for unmarried women (14% below male counterparts) is actually greater than that for married women ('only' 9%). Similar discrimination was found for ethnic minority economists, who on average earned 8% less than white counterparts, even after adjusting for their relatively greater youth and resultant shorter experience and publication records.

Reviewing these millennial results, Royal Economic Society president Partha Dasgupta and women's committee chair Carol Propper looked across the Atlantic for salvation, inferring from a strong PhD market that "clearly US economics continues to generate innovation and intellectual excitement." When, as end-century chair of the Cambridge economics faculty, Dasgupta led a radical redesign of its undergraduate course, he had little hesitation in swapping 'Cambridge Tradition' for the North American approach.

Cambridge's new course, whose final phasing-in this year will coincide with the hundredth anniversary of the original, downgrades Keynesian demand deficiencies, business cycles, capital debates and income distribution effects, in favour of more statistics and mathematical modelling. Supporters say the expanded technical toolkit will restore the subject's relevance to those who currently by-pass it for business studies or other social disciplines.

However, critics charge that narrower focus and procedural prescriptiveness are what have stifled interest, just when the spread of everyday economic problems – from widening world inequality to underfunded personal pensions – should be reviving it. A reductionist search for optimising 'microfoundations' neglects economies' 'emergent' properties, produced by individuals' interactions and not predictable from their actions. Economists build an unrealistic 'micro' picture, based on well-informed rational choices that even statistically trained subjects seem incapable of making. They thereby lose the macro picture, denying (or ascribing to state interference) such awkward phenomena as persistent unemployment and growth-rate differences, because the models point to 'equilibrium' and 'convergence'.

In his just-published *Reorienting Economics**, Dasgupta's Cambridge nemesis and leading 'realist' Tony Lawson goes beyond the usual arguments about what to measure and how to model, tracing the economists' troubles to the way they view the world. He accuses the mainstream of twisting the economy to fit mathematical analysis by treating it as a 'closed' mechanical system, ignoring complexities due to reflection and reaction by its constituent parts, and their need for social institutions to steer through the complexity. Economists' search for surface 'event regularities', showing which policy levers to push, displaces concern for the more relevant underlying tendencies and structures, whose surface manifestations resist statistical disentanglement. Mainstreamers' mistake, Lawson argues, is to mimic (nineteenth-century) natural scientists in 'inducing' general principles from superficial observation, or 'deducing' them from axioms, when all they can realistically do is 'reproduce' the deeper reality from surface effects.

Instead of arguing, in a classic example, whether sighting of a black swan negates the universality of white swans, realists want to re-focus on the mechanisms that generate and change swans' colour. Many alternative views are demanding attention from the mainstream. Evolutionists emphasise the path-dependent nature of technological and industrial change. Institutionalists deny the reducibility of all social structures to individual decisionmaking and voting. 'Austrian' theorists point out how markets can coordinate choice by interdependent individuals with scattered and limited information, inverting the textbook depiction of fully informed and behaviourally independent individuals. 'Post-Keynesians' seek the return of

aggregate demand to explanations of economies' short-run cycles, and of income distribution to accounts of their long-run growth.

UK calls for a rethink have found strong resonance elsewhere in Europe, notably the 'post-autistic economics (PAE) movement' launched on the internet by disgruntled French students in 2001. As the PAE's *Crisis in Economics*** manifesto hit the press in early April, the plea for pluralism reached the 'other' Cambridge, with 700 Harvard students rallying behind Professor Stephen Marglin's campaign for a broader-spectrum introductory course. Colleagues' rejection of his eclecticism drove home the dissenters' point..

Machin and Oswald speculate at the end of their 2000 study that shrinking supply will eventually cause a jump in economists' price, until their soaring pay brings financially savvy students flocking back onto their courses. But loss of initiative to more inclusive disciplines could thwart that recovery. Non-mainstream staff and students displaced from economics faculties have often found more fertile ground in business schools and other social science departments, where methodologies snubbed by peer review still prosper in the marketplace.

In an accompanying survey of minority representation, David Blackaby and Jeff Frank interpreted the high proportion of expatriate staff in higher-ranked UK economics departments as confirming the UK's entry into a global market for top economic talent. But if the commercial capture of home-grown high flyers is as widespread as the Royal Economic Society suggests, this import of labour to resolve local skill gaps owes more to the pattern of the UK's National Health Service than football's Premier League.

Economists used to joke that they had solved the unemployment problem – for economists. For much of their subject's history, this could be done without any professional entry restriction. As chroniclers Keith Tribe and Alon Kadish have shown, pioneering courses at London and Cambridge faced a protracted struggle to attract sufficient students. Most continued to see classics, history, law or moral philosophy as firmer career foundations, or preferred to keep their elegant mathematics unsoiled by social concerns. A century on, that attitude seems to be returning. Economics that continues to sidestep reality could soon be down to economy size.

Notes

* Tony Lawson (2003) *Reorienting Economics*, London and New York: Routledge.

** Edward Fullbrook (ed) (2003) *The Crisis in Economics*, London and New York: Routledge.

*This article appeared in The Times Higher Education Supplement, 2 May 2003, under the title 'Dismal Returns of Micro-Men'

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Towards a Post-Autistic Managerial Economics

Sashi Sivramkrishna (Foundation to Aid Industrial Recovery, India)

A course in economics finds a place in almost every management education program. This course, usually called Managerial Economics, is intended to help students to solve decision-making problems that they will encounter as managers. Most students find the course quite fascinating and the economic models *seem to* provide them with tools to solve important problems they are likely to face as managers. The $MC = MR$ rule, in particular, tells a manager what she needs to know most, price of the product and quantity to be produced so that profits are maximized!

I had a student who came up to me at the end of the Managerial Economics course and asked me to be a consultant for a project to dispense a popular Indian food through vending machines. He wanted my help in finding p^* and Q^* . I had to tell him that a local restaurant manager would be of greater help to him than an economist. Quite irritated, he asked me of what use then was a microeconomics course to managers. This led me to think about why economics may have so little to offer managers and entrepreneurs in their actual decision-making problems.

The essential problem with the term Managerial Economics is its vague meaning: is it economics *for* managers or is it the economics *of* management? If Managerial Economics means economics *for* managers then this course can be considered supportive in nature, providing awareness, insights and a general understanding of the market system – important ingredients for managerial decision-making – but not meant to provide tools to solve managerial decision-making problems *per se*. In other words, the course is not intended to teach managers $MC = MR$ type rules that they can “apply” in business.

“Conventional price theory was never intended to serve as a conceptual framework for the study of pricing of the individual firm ... price theory has been primarily developed for use in the analysis of broad economic changes and the evaluation of social controls ... therefore, it would be unfruitful (and erroneous) to use conventional price theory as a unified framework to guide the theoretical and empirical study of price determination within real-world firms” (Diamantopoulos & Mathews).

Such a managerial economics course, however, becomes essentially an economics course; there is nothing managerial about it. In this case it is also not necessary to take just a neoclassical approach – economic history, political economy, institutional economics and even Marxist theory could all provide invaluable insights of the working of a capitalist economy to managers. And what is being discussed in the *Post-Autistic Economics Review* is of utmost relevance to managerial economics courses.

I usually begin my Managerial Economics course with a reading of Heilbroner’s, “Worldly Philosophers”. Students must understand that economists, not just the neoclassical ones, try to unravel the mystery of the market system, how it works, when and why it fails, where government intervention may be useful and what are the effects of intervention on societal welfare. Managerial economics must be seen in this light – putting the market system in perspective – the efficiency of the market system in a perfectly competitive structure, the deadweight loss from tariffs and quotas, the inefficiency of monopolies, the need for regulation of natural monopolies, excess capacity in monopolistically competitive markets, price and output of firms in oligopolistic markets, market failure under information asymmetry or externalities like pollution and so on and so forth.

The problem I find with most Managerial Economics textbooks is that they are written as economics *for* managers, not in the way discussed above, but as economics providing *tools for* the manager. In other words, we can go about using $MC = MR$ kind of rules. Consider, a popular text, “Managerial Economics: Economic Tools *for* Today’s Decision Makers” (italics my own) authored by Keat & Young. This text propagates “managerial economics as the use

of economic analysis to make business decisions involving the best use of an organization's scarce resources". The many "applications" (usually in boxes) and numerical examples are intended to make the student feel and reinforce hope that their economics tools will one day be "used" by them. However, when encountered with a problem like the one my student faced, they realize that such a Managerial Economics course is autistic. Why?

When advocating economics as a bag of tools to managers, the economist must realize that managerial economics suffers from a case of asymmetric information – what the economist works with and what a manager actually has to work with. The result: economics fails to give any answers to, even articulate, problems of managers. If managerial economics were to be used as a set of tools for managers, we need to begin with the economics of management, articulating problems confronting the manager from a manager's perspective, taking into account the constraints they actually face, which must then be related to their decision-making problems.

What is this information that an economist assumes but a manager does not have? Recall Part I of your Managerial Economics course: the *actual* demand curve. If you browse through an economics or managerial economics text, you will notice that the demand curve derived from consumer choice models is taken as the actual demand curve with a known slope and location – giving information on what consumers are willing to buy at what price. If the *ceteris paribus* assumption is relaxed, the economist also knows by how much the demand curve will shift. The economist then freely uses this demand curve when she studies firm behavior; whatever might be the market structure. She is able to know in no uncertain terms what quantity of output the firm must produce and at what price to realize its objectives.

The conventional Managerial Economics text "cheats" the student by introducing a chapter on demand curve estimation: a brief chapter, on how to estimate demand curves. Even if you are told not to attempt this exercise yourself, given the dangers of estimating a wrong demand curve, the student feels that "it can be done nonetheless". Students can then go about the rest of the course feeling assured about the usefulness of the course. Interestingly, this chapter on demand estimation is missing in many (pure) Economics texts.

As a manager or entrepreneur, are you in the economist's privileged position? Do you have the actual or estimated demand curve for your product on your table or computer screen? Obviously not. If only we think about all those cases that Jack Trout talks about in his book, "Big Brands Big Trouble": the failure of New Coke, A.1. Poultry Sauce, Xerox computers, Firestone tires. If these companies, with access to the best resources, could have estimated the demand curves for their products would they have ended in failures?

The manager does not know or can never know with certainty where the *actual* demand curve lies. In fact, if she *knows* the actual demand curve for the firm's product, there really isn't much of a management problem. With the actual demand curve, all one has to do is to apply the profit-maximizing rule ($MR = MC$) or any other rule meeting the firm's objective and the firm's balance sheet could be prepared, not just for the current year, but maybe even for the next year. A manager may still have to motivate employees or obtain raw materials from the cheapest source, but those are not usually the problems with which a manager goes to the economist.

It is useful for the economist to delve into the world of managers and entrepreneurs. Al Ries and Jack Trout provide some useful tips for the economist trying to understand the economics of management:

- You can't predict the future. So don't plan on it.

- ❑ The fatal flaw in many marketing plans is a strategy based on “predicting the future”.
- ❑ Seldom are the predictions obvious. Usually, they are so buried in assumptions that you need a degree in rhetoric to ferret them out.
- ❑ Remember Peter’s Law: “The unexpected always happens”.

There is something more that an economist needs to learn about management before theorizing about it and that is, management is not about “predicting” the future, but about “creating” the future (Ries & Trout). It is not enough that top management “sees” the demand curve for their product; they also must create it. In other words, they must not only know what people want but also make them want it - through advertising, building brands, tactics or whatever. Management decision-making is not only about setting p^* and Q^* given the demand curve but also shifting the demand curve to meet the company’s objectives. In his book on entrepreneurship, “In the Company of Heroes”, David Hall comments that “entrepreneurs do not find high profit opportunities, they create them”.

We must, however, be fair to the economist. The idea that the actual demand curve is unknown to a manager is not a novel one in economics. Diamantopoulos & Mathews quote several economists on this point:

The most challenging problems occur in attempting to estimate the firm’s demand schedule, for typically the pricing executive only knows one point in its demand curve – the number of units being sold for the existing price (Alpert).

From the standpoint of decision-making, the relevant demand curve is the one on which management basis its pricing and production decisions. This need not be the actual demand curve. From the decision-making standpoint, it suffices that management behaves **as if** it were the demand curve (Horowitz).

The demand curve whose image spurts entrepreneurial action will be referred to indiscriminately as the subjective, or imagined, or anticipated demand curve. It may even be called the ex ante demand curve (Weintraub).

McKenzie & Lee also point out the problem in knowing the actual demand curve:

Saying that the firm must choose the ‘right’ price is easier than actually choosing it ... Managers can never be completely sure what the demand for their company’s product is”.

The average-cost pricing model in economics recognizes the impossibility of a determinate demand curve:

Tastes in the market change continuously and the reaction of the competitors is impossible to predict. Thus firms cannot estimate their future demand. Past experience does not help much in reducing uncertainty, because extrapolation of past conditions in the future is hap hazardous given the dynamic changes in the economic structure. Given this uncertainty average-cost pricing theorists reject the demand schedule as a tool of analysis, thus abandoning half the apparatus of the traditional theory of the firm (Koutsoyiannis).

But outright rejection of the demand curve really “reduces” the manager to an accountant. All

she must do is to compute average cost and add required mark-up, leaving it to the market to determine sales. Do managers then sit back and do nothing? Don't they engage with the market? Try to influence demand for their products? A Post-Autistic (Neoclassical) Managerial Economics course needs to consider these facts to become less autistic and more useful to managers.

Chamberlin also talks about an actual demand curve and an expected demand curve, the latter being more elastic than the former. This notion of an expected demand curve assumes a manager to be a naïve individual, always repeating the same mistake of not considering the actions of rivals. Once again this approach may be acceptable if managerial economics is about telling managers what economists think of them. But the real world is not this way. Else most companies would have economists as their CEOs.

To conclude, teaching Managerial Economics needs to take a clear stance: is it economics *for* managers based on an economics *of* management? If not, there is no need to restrict course contents to neoclassical theory and one should include a wider understanding of economies and economics. If one were to look at Managerial Economics as the economics *of* management, then a neoclassical approach could be useful but is currently inadequate for direct application to business management. We need a theory based on an unknown or uncertain demand curve. The present approach of masquerading neoclassical economics with determinate demand curves as economics *for* managers is certainly autistic.

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Capabilities: From Spinoza to Sen and Beyond

Part I : Spinoza's Theory of Capabilities

(Part II: A Spinoza-Sen Economics Research Program will appear in the next issue)

Jorge Buzaglo (University of Gothenburg, Sweden)

In a recent article in this review, Emmanuelle Benicourt (2002) challenges heterodox economists to explain why they consider Amartya Sen's theoretical approach a real force for reform in economics. I would like to communicate here what I see as a real force for change in Amartya Sen's approach to the economic dimension of human development. I would like to describe some of the genealogy of the approach, and also to show the potential that this critical tradition has for the renewal of economics.

Before I embark in my task I would like to refer to Emmanuelle Benicourt's orthodox/heterodox partition of economics, which I do not think is very useful. Both categories are too heterogeneous to be helpful. If we consider what I think is a more useful categorization, that between conventional and progressive economics (or similar characterizations, such as conservative/radical, bourgeois/socialist, etc.), we will find orthodox and heterodox economists in both categories. Amartya Sen, for instance, is an orthodox economist, as both he and Emmanuelle Benicourt point out (Amartya Sen says "mainstream economist"). He is an orthodox economist because he uses the conventional apparatus of ordinary neoclassical theory. But as I see it, he is a *progressive* orthodox economist, since he applies this conventional apparatus to the advancement of a progressive cause, namely, the cause of equality.¹ The equality he advocates is not merely economic/utilitarian, but refers also to all other dimensions ("functionings") of human existence. A quite radical message indeed, articulated in the suave and diplomatic language of neoclassical economics. One can only speculate if this is an Aesopian strategy of telling subversive truths in covered language, or if it would be better or more effective to develop a more appropriate heterodox idiom to say the same thing. But it must be admitted that many a heterodox economist would shy away from so radical an objective for economic science and human development.

I will argue here that Sen's radical approach to human welfare is not new, and that the original source of the approach contains other important and deep insights. I will also argue that this same source inspires some present-day approaches to natural science, and could also inspire the renewal of economics that Emmanuelle Benicourt longs for.

The "hideous hypothesis" of *The Ethics*

The source I am thinking of is *The Ethics* of Baruch de Spinoza.² Spinoza's doctrine of capabilities in *The Ethics* prefigures rather explicitly Amartya Sen's ideas, but it does not seem that Sen was aware of it. For one thing, Amartya Sen is very open and magnanimous with his sources and credits — he refers to Aristotle's *Nicomachian Ethics*, Marx's *Manuscript of 1844* and Adam Smith's *Wealth of Nations* as sources of inspiration.³ Also, the doctrine of capabilities, in spite of its crucial importance in Spinoza's message, is barely mentioned, is not given the importance it deserves in most of the expositions, commentaries and criticisms of *The Ethics* I am aware of.⁴ This was perhaps due to the fact that the doctrine appears among what are considered the most difficult and "mystical" propositions of the last half of Part 5, which usually repulse narrowly conceived positivism. In these last propositions Spinoza explains when and in what sense the human mind can be said to be eternal.

In effect, in 5.39 (Part 5, Proposition 39), Spinoza affirms that

*He, who possesses a body capable of the greatest number of activities, possesses a mind whereof the greatest part is eternal.*⁵

Let us recall that *The Ethics* is composed in the axiomatic-deductive mode, with all propositions deduced from preceding propositions, lemmas, axioms and definitions.⁶ Proposition 5.39 is demonstrated as follows.

Proof. He, who possesses a body capable of the greatest number of activities, is least agitated by those emotions which are evil ([by proposition] 4.38) — that is (4.30) those emotions which are contrary to our nature; therefore (5.10), he possesses the power of arranging and associating the modifications of the body according to the intellectual order, and, consequently [5.14, missing in the Elwes version], of bringing it about, that all the modifications of the body should be referred to the idea of God [or Nature, or Substance; i.e. self caused, infinite, eternal being]; whence it will come to pass that (5.15) he will be affected with love toward God, which (5.16) must occupy or constitute the chief part of the mind; therefore (5.33), such a man will possess a mind whereof the chief part is eternal. QED.

The first proposition referred to in the proof is crucial for the understanding of Spinoza's doctrine of capability. Proposition 4.38 states that

Whatsoever disposes the human body, so as to render it capable of being affected in an increased number of ways, or affecting external bodies in an increased number of ways, is useful to man; and is so, in proportion as the body is thereby rendered more capable of being affected or affecting other bodies in an increased number of ways; contrariwise, whatsoever renders the body less capable in this respect is hurtful to man.

Proof: Whatsoever thus increases the capabilities of the body increases also the mind's capability of perception (2.14); therefore, whatsoever thus disposes the body and renders it capable, is necessarily good or useful (4.26, 4.27); and is so in proportion to the extent to which it can render the body capable; contrariwise (2.14, 4.26, 4.27), it is hurtful, if it renders the body in this respect less capable. QED.

That is, the proof says that whatsoever increases the capabilities of the body also increases the mind's capability of understanding. And what increases our power of understanding is certainly good.

In order to prove that whatsoever increases the body's capabilities also increases the capabilities of the mind, the proof uses Proposition 2.14, which states that

The human mind is capable of perceiving a great number of things, and is so in proportion as its body is capable of receiving a great number of impressions.

Spinoza could also have stated that the reciprocal statement is also true; that whatsoever increases the capabilities of the mind augments also the capabilities of the body. That is, the proof could have used the often quoted Proposition 2.7, base of Spinoza's so called body/mind "parallelism" theory:

The order and connexion of ideas is the same as the order and connection of things.

The Note to this proposition further affirms this same idea, that is, that

[...] *substance thinking and substance extended are one and the same substance* [God or

Nature], *comprehended now through one attribute, now through the other. So, also, a mode of extension and the idea of that mode are one and the same thing. This truth seems to have been dimly recognized by those Jews who maintained that God, God's intellect, and the things understood by God are identical.*

Now, we know also from the Note to Proposition 2.1 that

[...] *in proportion as a thinking being is conceived as thinking more thoughts [or, what is the same, as an extended being is conceived as capable of more activities], so it is conceived as containing more reality or perfection.*

This relationship between increased capabilities and increased perfection or reality can be used for an alternative explanation of our starting Proposition 5.39, on the relationship between capability and eternity. Spinoza affirms in the same Note to 2.1:

Therefore a being which can think an infinite number of things in an infinite number of ways [or, what is the same, which can perform infinite acts in an infinite number of ways], is, necessarily, in respect of thinking [or in respect of extension], infinite."

Infinite thoughts are timeless, eternal thoughts. A being capable of thinking infinite thoughts would be thinking eternal thoughts. Such a being would be so sharing, as to say, in eternity, insofar as it thinks infinite/eternal thoughts.⁷ Also, psychophysical identity ("parallelism") would suggest that a mind which is thinking infinite thoughts has an extended correlate which is performing infinite acts. This would be one way of interpreting the relationship between capability and eternity in Proposition 5.39.

Spinoza's demonstration of 5.39 quoted above recurs to his idea of *scientia intuitiva*. The proof says that the larger the capabilities of the body, the greater the faculties of the mind (and vice versa, we should add); in particular, the greater is the capability of the mind of rationally comprehending its emotions. The mind will be thus more able to form clear and distinct ideas; that is, ideas that can be referred to the idea of God or Nature, since whatsoever is (or is conceived in the mind), is in God or Nature. Spinoza calls this ability of the mind *scientia intuitiva*, and this type of knowledge *third kind of knowledge*, by which the mind conceives things under the form of eternity (*sub specie aeternitatis*).⁸ Now, the mind, regarding its own power of comprehension, is affected of pleasure, being this pleasure accompanied by the idea of God or Nature (so much the more in proportion as it understands itself and its emotions). According to Spinoza, pleasure accompanied by the idea of an external cause is love. Pleasure accompanied by the idea of God or Nature is what Spinoza calls *intellectual love of God*. This intellectual love is an activity whereby God or Nature — insofar it can be explained through the human mind — regards itself accompanied by the idea of itself. Since God or Nature is an absolutely infinite being, this love of the mind is part of the infinite love wherewith God or Nature loves itself. This love, this knowledge *sub specie aeternitatis*, is possible for the mind insofar as it conceives its own body under the form of eternity. And this idea, which expresses the essence of the body under the form of eternity, is necessarily eternal.

The above ideas are indeed difficult and mind-boggling.⁹ They nevertheless clearly point towards the idea of human growth or human perfection as the increasing realm of human capabilities of thought and activity, that is, of effective freedom (cf. Sen 1999). Human perfection depends on expanded domains of activity for every individual on every conceivable dimension of human existence, which implies also increased domains of knowledge and understanding in enlarged dimensions of thought. Human development does *not* depend on increased levels of "utility" derived from consumption.¹⁰

Notes

1. There are many well known economists in this category. Serge-Christophe Kolm could for instance be mentioned, as a continental member of this class.
2. The “hideous hypothesis” of “that famous atheist” was “the doctrine of the simplicity of the universe, and the unity of that substance, in which he supposes both thought and matter to inhere” (Hume 1911 [1739-40], p. 229). (I must say that I do not agree with the word “simplicity” in Hume’s description; the reasons why will be apparent in what follows.) According to Jonathan Israel (2001, p. 159) “hideous” could had been an ironic characterization. Hume belonged in fact to the same banned category of radical Enlightenment thinkers such as Diderot, Voltaire and Spinoza himself (Israel 2001, p.109). Curiously, Diderot’s article on Spinoza in the *Encyclopédie* could be also said to be “ironic.”
3. See for instance Sen (1988). By the way, the young Marx was a dedicated student of Spinoza (see e.g. Rubel 1978). Aristotele’s ideas do not exactly prefigure Sen’s (or Spinoza’s) notion of capabilities — see e.g. the discussion of the “Aristotelian Principle” in Rawls (1999, § 65).
4. As an assiduous reader of Spinoza literature, I know that I am aware of only one small portion of it. According for instance to the Swedish bibliographic database (www.libris.kb.se) there are 743 Spinoza related books in Nordic libraries — 42 of them published in 2001-2002. (Journal articles must most probably be counted in the thousands. There are also several Spinoza websites.) The increasing rate of publication may perhaps be announcing the near fulfilment of Lichtenberg’s (1990 [1800-1806], p.115) famous prediction: “If the world should endure for an incalculable number of years the universal religion [ethics] will be a purified Spinozism. Left to itself, reason can lead to nothing else and it is impossible that it ever will lead to anything else.”
5. I quote from the Elwes’ version in compact disc in *Lire l’Éthique de Spinoza*, Phronésis, Paris, 1998.
6. The title of *The Ethics* in the original is *Ethica ordine geometrico demonstrata*. Possibly Spinoza chose this mode of argumentation because of its overwhelming power of conviction. For many centuries *The Elements* of Euclid was second only to *The Bible* in number of extant copies. Also, the prominence of mathematics and natural science was rapidly growing in XVIIth century Europe.
7. For a suggestive comparison of this insight with the insight of meditation, see Wetlesen (1977).
8. Spinoza’s first and second kinds of knowledge can be succinctly described as hearsay or opinion and science respectively.
9. *But all things excellent are as difficult as they are rare.* Spinoza’s own reply in the last words of *The Ethics* comes naturally to the mind.
10. Increased levels of *passive* consumption or leisure, from *The Ethic’s* perspective, might indeed be seen as *lessening* human perfection. Cf. Proposition 5.4: *In proportion as each thing possesses more of perfection, so is it more active, and less passive; and, vice versa, in proportion as it is more active, so it is more perfect.* But of course in most cases increasing capabilities involve increased consumption and/or investment.

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(Part II: A Spinoza-Sen Economics Research Program will appear in the next issue)

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