

Grounding the conversation to ensure a better textbook

A comment on: "Is There Life after Samuelson's Economics? Changing the Textbooks", *post-autistic economics review*, issue no. 42, 18 May 2007, pp. 2-7.

Tom Green¹ [University of British Columbia, Canada]

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Klamer, McCloskey and Ziliak promise a new economics textbook, *The Economic Conversation*, to help displace the Samuelson knockoffs that so impede post-autistic courses in introductory economics. The authors have courageously invited criticisms and contributions to their work-in-progress through a website.²

In *The Economic Conversation*, the authors use dialogue as a means to "show economics... to be a controversial and conversational subject, thoroughly 'rhetorical' ... where people start in disagreement with one another, and seek to persuade more or less reasonably to an end of at least mutual understanding." Yet while humans can and do disagree over the best way to understand, to analyze, to shape and to evaluate the performance of the economy, rhetoric and disagreements do not allow humanity to escape biophysical constraints. The draft text by Klamer, McCloskey and Ziliak, like its Samuelsonian counterparts, currently conceptualizes the economy as existing independently of the biosphere.³ Unless students seek to understand the limitations of the text, they risk being handicapped in trying to make wise and informed choices on critical matters of public policy when they take on positions of power and influence.⁴

To be relevant and useful to students, textbooks need to address the world that students will be facing. *The Economic Conversation* is coming out in 2008, not 1948. Students are coming of age in a world with alarming ecological trends that suggest ever more challenging conditions for achieving human wellbeing and economic security. For instance, the level of carbon dioxide in the atmosphere has climbed from pre-industrial levels of 280 ppm to 379 ppm in 2005. It is now higher than at any time in the past 650,000 years, and is climbing at 1.9 ppm per year. Under business as usual, there is a 50% risk of average global temperatures climbing by 5°C in coming decades, taking humanity into unknown territory and catastrophic change.⁵ Stern's recent report

¹ Consultant in ecological economics; Ph.D. student at UBC as of fall 2007. Correspondence: viableeconomics@yahoo.com.

² www.theeconomicconversation.com. My review of their material is based on what was available on their website as of May 25, 2007.

³ For a recent critique see: Reardon, Jack 2007. "How green are principles texts? An investigation into how mainstream economics educates students pertaining to energy, the environment and green economics", *International Journal of Green Economics*. 1(3/4):381-393.

⁴ While 40% of American students are exposed to an undergraduate economics course, only about 2% major in economics. Siegfried, J. J. (2000) 'How many college students are exposed to economics?' *Journal of Economic Education*, vol. 31, pp. 202-4. So for a large proportion of the student population, the introductory economics course is likely to be very influential on their subsequent economic thinking.

to the UK government noted that climate change “presents a unique challenge for economics: it is the greatest and widest-ranging market failure ever seen.”⁶

While the whole text is not yet available for review, material on the authors’ website shows that at least from an ecosystem-economy linkages perspective⁷, there are indications that the text will not live up to its “post-autistic” billing.

In *The Economic Conversation*’s concluding section, the authors sum up the key take home lessons for students:

“If you remember only one picture from this book, make it the circular flow. Everything, as Bob Marley sings in a song, “goes around and comes around.” What shows up as production on one side of the economy also shows up as income on the other side. Expenditure equals income. Gross Domestic Product equals total national income (ignoring a few *The Economic Conversation*’s adjustments). What goes around comes around, as shown by the circular flow.”⁸

The circular flow has an honoured place in introductory economics textbooks and *The Economic Conversation* promises to be no different, as the authors promote their use of the diagram as a unifying analytical device.^{9,10} The circular flow conceptualizes the economy as existing in isolation from the environment, omitting the natural resources the economy consumes, the fossil energy that powers it, the extensive area of habitat it takes over or degrades, and the wastes it creates. The circular flow diagram thereby teaches students to believe economies are perpetual motion machines.

⁵ See Intergovernmental Panel on Climate Change, Working Group 1: The physical basis of climate change’s fourth assessment report (2006) at: <http://ipcc-wg1.ucar.edu/wg1/wg1-report.html> (accessed May 26, 2007) and Stern, Nicholas. 2006. *The Economics of Climate Change: The Stern Review*. Cabinet Office - HM Treasury. London. There may be even less time for humanity to act to forestall disaster, if global warming causes feedback effects such as the rapid conversion of the Amazon rainforest into a savannah, with the large store of carbon released through fires pushing the climate out of control. Amazon rainforest ‘could become a desert’, *The Independent*, July 23, 2006.

⁶ Stern, 2006.

⁷ I concur with the arguments of Costanza, Daly and others that if economics is to be post-autistic, it needs to address insights from ecological economics. See for instance, Robert Costanza, “Ecological Economics is Post-Autistic”, *post-autistic economics review*, issue no. 20, 3 June 2003, article 2, <http://www.paecon.net/PAEReview/issue20/Costanza20.htm>

⁸ *The Economic Conversation*, Chapter 34 preview: <http://www.theeconomicconversation.com/book/ch34.2.php>.

⁹ *The Economic Conversation*, Preface to teachers, <http://www.theeconomicconversation.com/teachers.php>.

¹⁰ See Daly, H. E. 1991. “Towards an Environmental Macroeconomics”, *Land Economics*, Vol. 67, No. 2, pp. 255-259 and Ehrlich, P. R. 1989. “The limits to substitution: Meta-Resource depletion and a new economic-ecological approach.” *Ecological Economics* (1) 9-16.

Contrast the above with the treatment of the circular flow diagram in a recent, post-autistic textbook, *Microeconomics in Context*:

...the circular flow diagram is a little like a “perpetual motion machine”; the economy it portrays can apparently keep on generating products forever without any inputs of materials or energy. The necessity of resource maintenance activities is ignored....¹¹

How well will the textbook help students understand and anticipate ecological threats and declining flows of natural resources and ecosystem services? ¹² A search of the material now available on *The Economic Conversation* website is less than encouraging. Searches for the terms “ecosystem services,” “atmosphere,” “fish,” “soil,” “trees,” “forest,” “biodiversity,” “ecological limits,” “limits to growth,” “ecology,” “thermodynamics” come up empty.¹³ “Global warming” merits a mention as one of the issues to which economics can bring insights. “Ecological” brings up a discussion on how property rights can affect the resulting “ecological balance” under cattle grazing. Searches for the terms “pollution” and “externalities” do a little better, with almost a dozen hits each; these references involve narrow expositions of externalities, optimality, property rights and the first and second Coase theorems. Searching for “oil” produces some hits, but none that I could find that hinted of the problems humanity faces with peak oil and a carbon constrained future; “non-renewable resources” and “fossil fuels” come up empty.¹⁴ The word “environmental” comes up in the preface, where the authors suggest that in working at places like the “Environmental Defense Fund,” students will need to be able to persuade other people. In a discussion on growth, the text concedes:

...not everyone likes what comes with economic growth. A new highway means a loss of unspoiled countryside, or a stressful drive in the car instead of a leisurely walk to the old neighbourhood grocery store. A bigger city means more traffic congestion. Increased production means more air pollution. Some people take the view... that economic growth means a bad trade-off between quality of life and quantity produced.¹⁵

¹¹ Goodwin, N., Nelson, J., Ackerman, F and Weisskopf, T. 2005. *Microeconomics in context*. Boston: Houghton Mifflin Company. Page 44.

¹² See my comparison in the popular press of two textbooks that do address the ecological fundamentals against the Samuelson genre. Green, Tom 2006. “The revolution will begin with a textbook”, *Adbusters* vol. 69.

¹³ Sixteen years earlier, Daly (1991) reported that he found no entries in the indexes of three leading macroeconomic textbooks for the terms “natural resources”, “environment”, “depletion” and “pollution.”

¹⁴ Relying on unconventional oil and coal in a carbon constrained world and alternative fuels all present their own challenges and ecological impacts. As the Danish Board of The Economic Conversationhology concluded, “History may reveal that the prevailing axiom of sustainable economic growth is a theoretical derivative of cheap-oil.” Danish Board of The Economic Conversationhology and the Society of Danish Engineers, 2004. *Oil-based The Economic Conversationhology and Economy Prospects for the Future*. Available at: http://www.tekno.dk/pdf/projekter/p04_Oil-based_The_Economic_Conversationhology_and_Economy.pdf (accessed May 26, 2007). Even optimistic assumptions show a need for urgent transition to alternative energy sources. See: Greene, David, Hopson, Janet and Li, Jia 2006. “Have we run out of oil yet? Oil peaking analysis from an optimist's perspective.” *Energy Policy* 34 (5): 515-531.

Their characterization of the growth-environment nexus is limited to an environment-as-amenity perspective and focuses on how growth can impinge quality of life¹⁶. They ignore how worsening ecological and resource trends are related to exponential growth in the scale of the economy relative to the encompassing ecosystem: from collapsing fish stocks¹⁷ to loss of forest cover¹⁸, humanity is living beyond its ecological means and is degrading the very ecosystems on which its wellbeing depends.^{19, 20} In a passage that could be lifted from a mainstream text, students are left with no doubt as to the officially sanctioned belief: “essentially every economist agrees that the macroeconomic promised land has ... a high rate of economic growth per capita.”²¹

In one of the dialogues, McCloskey argues “It’s good that we [economists] are around to point out that cleaning up the environment has costs which, if considered well, may not always be worth the cleanliness.”²² Using a “cleanliness” lens shows a lack of sophistication. Most environmental issues, such as overfishing, biodiversity loss, the invasion of exotic species, or habitat fragmentation, can be characterized as an issue of “cleanliness” or “cleaning up the environment.” Cleanliness focuses us on litter, on the condition of the local park: it is the view of the environment as an amenity, rather than something we are ultimately dependent upon. Also, given current ecological crises, why does McCloskey focus on the cost of overacting? If the last

¹⁵ From chapter 20, Section 7 – Issues in Macroeconomics: Economic Growth and Development.

¹⁶ Even from the narrow quality of life / amenity standpoint, the desirability of growth is questionable since with more growth industrialized countries are achieving declining (if not negative) marginal benefits, and increasing marginal costs. But much more important is the danger that further growth accelerates degradation of the planet’s capacity to supply desired resources, ecosystem services and viable living conditions. The authors later they mention Herman Daly as an economist concerned about growth and the field of “ecological macroeconomics.” It is curious that they don’t refer to ecological economics in their text, or in their website invitation to “Frustrated neoclassicals, feminists and libertarians, empirical Marxists and post-modern Keynesians, and everyone in between” to comment on their text. While it was not the focus of my review nor my area of expertise, it seems to me that *The Economic Conversation* could better address issues raised in feminist economics.

¹⁷ Worm, B., Barbier, E., Beaumont, J. et al., 2006 “Impacts of Biodiversity Loss on Ocean Ecosystem Services” *Science* 314 (3 November 2006).

¹⁸ Food and Agriculture Organization (FAO) (2007). *State of the World’s Forests*.

¹⁹ United Nations Environment Program (UNEP) (2005). *Living Beyond Our Means: Natural Assets and Human Well-Being*. Statement of the Millennium Ecosystem Assessment Board. UNEP.

²⁰ Rees, W. 2002. “An Ecological Economics Perspective on Sustainability and Prospects for Ending Poverty,” *Population and Environment* 24(1): 15-46.

²¹ *The Economic Conversation* chapter 20, section “Six Macroeconomic Goals of the Promised Land.” This reference to the promised land reminds me of Galbraith’s comment: “Saint Peter is assumed to ask applicants only what they have done to increase GDP,” Galbraith, John K. 2007 [1967]. *The New Industrial State*. Princeton University Press. Page 497.

²² *The Economic Conversation*, Chapter 34.

half-century is any indication, and due in no small part to the contribution of mainstream economics, there is little risk that humanity will act too aggressively to improve ecological prospects.

While the authors' intentions are commendable, students studying economics circa 2008 deserve conversations grounded in biophysical reality and in the ecological predicaments of our era. One would expect that a new economics textbook that promised to be post-autistic would address the relationship between the economy and the environment at the foundational level, rather than continuing to add the environment in as an afterthought through the limiting lens of externalities.²³ Hopefully my critique will not apply to the final product.

²³ Herman Daly has written, "...which we classify as 'external' costs for no better reason than because we have made no provision for them in our economic theories." Daly, H.E., 1992. *Steady State Economics: Second Edition with New Essays*. Earthscan, page 88. While an externalities approach may have once been a sufficient approximation due to the relatively small economy of times past, the global economy has grown by a factor of 40 since 1820, while the Earth's dimensions have been rather stable.

Author contact: yiableconomics@yahoo.com

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