

Environmental Economics

The Cromulent Economics Blog

May 30, 2008

A Pause for Thought

This post is slightly philosophical (no gas prices here!), so put on your thinking cap.

And stop for a moment to imagine what kind of philosophical question would appear on this blog.

Hold that thought. If I don't get to it, feel free to ask your question in the comments.

So -- I want to talk about pauses and information.

The pause refers to stopping to consider what has just been asked of you. William Buckley was a master of the pause, stoners are good at pauses, kids often make you pause, and most professors know about that terrifying (for them? for the students?) pause following their question.

What happens during that pause is that someone is *thinking* about something they have not previously considered. They are putting the question in a context that combines their knowledge, opinion, belief and audience. A thoughtful answer will illuminate the question (and the respondent) to the questioner and bystanders. Socrates had it right.

Apply this notion to environmental topics. The first thing you know is that many people do not pause on environmental questions. This may be because they are expert on the topic (and do not have to pause) or because they are opinionated (and do not want to pause). Those who do pause before responding (and blog readers often do -- because words are patient) often learn while teaching.

The reason that pauses matter more with respect to environmental topics (as opposed to, say, which motor oil to use) is that we have so little information on the environment, which brings me to a related issue.

On global warming, water quality, or GMO foods, we know very little. We can model dynamics *as if* we know (setting parameters, guessing variables, assuming functional forms, etc.), but our information environment is worse than the case with blind men and an elephant. We are many men who do not know (or believe) they are blind, cannot talk to each other, and are feeling different elephants.

The information problem (or knowledge problem :) is absolutely profound in environmental studies, and environmental economics in particular. That's because most environmental science does not include human behavior. Economics, as a social science, must include human actions and reactions as an endogenous component that will not only complicate calibration (how will humans respond?) but also alter the system from within (Heisenberg Uncertainty Principle on steroids).

It gets worse. People have strong emotions about the environment and opinions on what is true, false, good and bad (the morality!). From this, we know that they will acknowledge or ignore information in proportion to its contribution to their beliefs -- reinforcing, rather than reducing prejudices. This behavior is not economical (since the gains to trade among different views are largest when there is little common knowledge), but that does not stop people from acting that way. (Not us, of course!)

The "solution" to the resulting problems (people talking past each other and deadlock) is a greater respect for, and use of, the pause.

Bottom Line: Think about it.



Posted by [David Zetland](#) on May 30, 2008 at 10:22 AM in [Government Policy](#), [Research](#), [Teaching](#) | [Permalink](#)

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tidal said...

Great post.

"Pausing" might be one of the solutions for the present, but here is my modest goal for the future that I truly believe would help: The required curriculum for undergrad economics degrees must include physics and some type of earth sciences course, preferably to the second year level.

Not to create scientific expertise per se, but to establish (1) the common language, baseline knowledge to interact with the physical, resource and environmental scientists - a skill set that is only going to increase in importance; and (2) to expose economics students to issues of scale, laws of thermodynamics, material cycles, biogeochemical cycles, etc. I'm not just talking about environmental or ecological economics grads either. I think these courses should be core economics curriculum. I know that is not a particularly blazing insight - "enhance cross-disciplinary expertise!" - but I think the need in economics is particularly acute because we need so urgently to expedite the interdisciplinary communications going forward.

Based on what I heard in an interview, I think that Eric Roston will be restating the case in his forthcoming book "The Carbon Age". (Although I think he recommends "Geology" or his personal framework, "Carbon Science", as the complementary study courses...).

And now, hopefully not undermining all that I have said above, and hopefully to amuse, I'll share this: *A very old joke involves a pre-med taking Physics 101 and repeatedly challenging his instructor about its relevance to a medical education. Each time, his professor replies, "Physics saves lives." Exasperated after half a dozen such exchanges, the student finally asks, "Professor, just how does physics save lives?" "Why, by keeping the morons out of medical school!"*

Again, great post. Lots to think about.

May 30, 2008 at 12:42 PM



joshua corning said...

I will pause to look at this graph that shows the last decade of global cooling:

<http://data.giss.nasa.gov/gistemp/graphs/Fig.C.lrg.gif>

May 30, 2008 at 01:09 PM



gormk said...

Joshua – Here are 3 questions for you (and others) as we pause to think:

1. What does the Y-axis measure in the graph, what's the zero base all about?
2. What conclusions is the report, from which the graph comes, making about climate change in general, for the world and United States?
3. What's the warmest year on record, where is that on the x-axis of the graph you linked to?

David - Awesome post! Well-worth advice even for so-called experts.

May 30, 2008 at 02:52 PM



Dano said...

Exactly how many years of global cooling (oh, sorry - the dry side says GLOBUL COOLIN) have we had?

Exactly zero.

Yes, no cooling today. Nor yesterday.

Best,

D

May 30, 2008 at 06:01 PM



john said...

Isn't this, in effect, the precautionary principle.

May 31, 2008 at 01:27 AM



Lynne said...

Thanks for the link, David! Your guest posts here have been awesome, and Aguanomics is great too.

John, this is not the precautionary principle. The PP refers specifically to erring on the side of accepting the worst-case estimate in the face of uncertainty (where we don't know the probability distribution). What David's talking about here is the beneficial cognitive process that occurs when someone takes the time to consider new ideas, new information, new ways of thinking about a problem, and playing around with how those new ideas confront their preconceptions and firmly-held beliefs.

June 02, 2008 at 10:34 AM

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