

Pascal's Wager: Betting On the Future

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Editor's note: We asked David Schejbal, chair of the 2012 UPCEA Annual Conference, to address the subject of environmentalism and the role of continuing education.

What motivated you to suggest the theme of sustainability for the annual conference?

There are two answers to this question. The first is much more mundane than the second. From the perspective of conference pragmatics, sustainability fit the bill. Portland, the site of the 2012 conference, is regularly lauded as one of the most sustainable cities in the world; the issues of sustainability and related challenges like global warming have gotten a lot of press; and a number of universities had expressed interest in sustainability initiatives and programs. In brief, sustainability seemed to be the perfect thematic fit for the venue and times.

My second answer is both more personal and more universal. I have been interested in the human-environment interface for many years. When I had time to teach, I taught environmental ethics and environmental policy. As I moved through the administrative ranks, I led various campus sustainability efforts, raised funds to increase the use of clean energies, and developed academic degree programs to help students better understand what sustainability is and how they could become leaders in the drive for greater global sustainability.

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A quick aside: It might be useful to define what I mean by sustainability. I accept the common working definition formulated in 1987 by a special committee of the United Nations. In writing about sustainable development, the committee report defines sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”¹ This general concept of sustainability—that we should live so as not to undermine the prospects of future generations—has remained as the working definition of sustainability, and it is a very useful way to formulate what it means to be sustainable. Over a beer, I’d say that sustainability means not screwing up the future for those who have to live in it.

The challenges to sustainability are truly daunting because humans are an especially successful species. Although our bodies are rather weak and fragile, our minds are exceptionally powerful, and we use our minds to help us alter our environment to overcome our physical limitations. We literally remake the world in our own image.

This evolutionary advantage has allowed the human population to experience uncontrollable growth. By historical standards, that growth is a very recent phenomenon. Humans have been around for about 200,000 years. At the time of Christ, there were only about 300 million of us on the planet. That population grew slowly and steadily, so at the beginning of the industrial revolution, the number of people on Earth was around 1 billion. From 1800 to 1900 the human population nearly doubled. Then the bottom fell out. In the 20th century and in the first decade of the 21st century, humans bred at an unprecedented rate. On Halloween 2011, the human population of the Earth reached 7 billion.² There are no signs of it slowing down.

The consequences of human population growth are becoming painfully clear: global warming, deforestation, desertification, ocean acidification, resource depletion, pollution, and the list goes on. There is no solution to this problem, and I doubt that even the most pollyannaish among us believe that we (people) will have a sudden collective realization of the mess that we are in and then suddenly begin to do something about it. The collective wellbeing of all people in the world isn’t in our individual best interest. We—especially those of us in the first world—would have to give up far too much. And those in the developing world are scratching and clawing to be like us. It is time to accept that with a lot of work we might be able to slow down the rate of environmental degradation, but we cannot stop it. Hence, we must develop strategies to adapt.

The key to human adaptation is education. So now I'll come back to the question: Why sustainability as a theme for the UPCEA conference? Because we are continuing *educators*. We develop programs to teach people all sorts of things, and we desperately need to help people understand how the environmental, social, and economic systems that make the world go round interact with and impact one another, and how that manifests itself in the lives and jobs of students. In my view, teaching students about how financial markets work, for example, without getting them to clearly understand how environmental and social systems directly determine the functions of those markets is to teach students something of little importance. Where natural, social, and environmental systems interact is where the action is, and by understanding those processes and phenomena, students are much better prepared to make positive impacts on the world around them and to be more resilient in times of change. I thought that helping UPCEA colleagues understand this and then helping them to translate that understanding into their programmatic efforts would be of tremendous interest.

It appears that not everyone shared your commitment, judging by what happened at the UCPEA conference.

What was most interesting about the 2012 UPCEA conference for me as the program chair was what didn't happen. Jim Shaeffer, Bob Hansen, and I began to work on the 2012 conference in earnest shortly after the conference in Toronto. Bob was the new executive director, and Jim had just started his one-year presidential stint. We wanted to leave our mark on the organization by making the 2012 conference different from years past and creating a new experience for UPCEA members. I had pushed hard to have sustainability be the theme of the conference, and I persuaded Jim to go along. In further discussions with Bob, we settled on a more general theme, resilience, and kept sustainability as a "special topics" conference track.

Each of the six conference tracks had a small planning committee. I led the sustainability track committee. I corralled like-minded colleagues, and as we planned the track program, our main concern was whether we would be able to accommodate all of the attendees. After all, the sustainability track would undoubtedly be the most popular of all of the conference tracks because in our view sustainability was the most important of the conference topics.

And that is what didn't happen. The sustainability track was not well attended. Of the nearly 500 attendees, the sustainability track attracted only

about three-dozen people. Those who came were committed to the topic, highly engaged, and interested. However, they were in the vast minority.

What accounts for the disconnect between the enormity of the environmental challenges and the (dis)interest/(in)action on the part of the public? Ignorance? Denial? Inertia? Despair? Blind optimism?

I think that it's mostly the enormity of the challenge and the unpleasantness and difficulty of dealing with it that stops us from doing something about it. And maybe even more importantly, the problems just don't *feel* pressing. David Hume was fond of writing that reason is the slave of the passions, and he was obviously right. We do what feels good whenever we can; the rational is not what drives us. There's an analogy here with our obesity epidemic. Every reasonably educated individual knows what it takes to live a healthy life, and we know that a good diet and exercise are essential parts of that process. We also know that weight control is a very simple process: don't consume more calories than you burn. There is absolutely nothing more to it. Yet, many Americans are fat, getting fatter, and increasingly unhealthy. Why? I'm neither a psychologist nor a sociologist, but some things are obvious. We don't like to delay gratification; we seek pleasure at the expense of nearly everything else; we expect that technology and medicine will fix our transgressions; and we loathe long-term planning, especially if it requires short-term pain for long-term gain. Of course, our descendants will inherit what we leave for them, and whether it is our fat, sick, old bodies to take care of or a degraded environment, we are sticking them with it. Yet the discomfort of doing something about it is apparently too great for action.

I realize that this is an unpleasant answer to the question, but unfortunately, I'm pretty certain that it's accurate. And it gets played out in so many different scenarios. Our national mania about lowering taxes at the expense of the common good is just another example on a very long list. The value of doing something for others that we don't know, supporting the children of people we have never met, and using less of what we use so that we all benefit down the line is a value that we no longer commonly share.

There are simple ways to get people to behave more sustainably. For example, we know that when the price of gasoline exceeds \$4, people tend to use public transportation more, drive less, and buy more fuel-efficient cars. If we increased the gas tax by \$2 per gallon nationwide, not only would gasoline consumption radically drop, the willingness of the public

to expedite technological innovation to create sustainable modes of transportation would be overwhelming. This in turn would drive new markets and generate sufficient revenues to invest in research and development to move the nation away from consuming oil. But this is short-term pain for long-term gain, and we don't have the stomach for it.

So, we are left with adaptation as our reaction to the negative impacts that we cause. Some will accuse me of being a pessimist, but this is simply realism, not pessimism. Let's face it, does anyone really believe that we will slow—let alone stop—global warming and all of its consequences? Are there realistic voices out there that can tell us how to solve overfishing and ocean degradation? Is there anyone on the planet who has proposed an implementable solution to human population growth?

What is the role of continuing education in all of this? What are specific courses, programs, initiatives that exist as models?

At the risk of redundancy, I repeat what I wrote above: to adapt we must understand the world around us, and understanding the world around us requires education. In my view, this is where hope lies. As continuing educators, we have both the opportunity and the responsibility to help provide that education. There is no time to waste. We need to get moving.

A number of universities have developed new programs in sustainability, environmental education, etc. Although these efforts are fine, they don't address the main challenge. We need to educate a lot of people now, and we need to build a systems understanding of economic, social, and environmental forces. Surprisingly, most continuing education units have not capitalized on this opportunity.

At the University of Wisconsin-Extension, we brought four UW campuses together and launched a bachelor of science in sustainable management program in 2009. Currently, enrollments are 685, and the program is financially in the black. The demographics of students in the program are exactly what we had hoped that they would be: the average age of students is 37 years; the male-female ratio is 49 percent male, 51 percent female; nearly all of the students in the program work; most have families; and 75 percent are from Wisconsin. The following story about a recent graduate is instructive. Gary began early in the program. A married father of two, he was working full-time when he started. He was very unsure about going back to school. The time commitment and the coursework were a big concern. After two semesters in the program, he quit his job so he could

concentrate on finishing the degree quickly. He graduated after the fall 2012 semester and landed what he describes as his dream job. The employer that supervised his capstone project hired him. For his capstone project, Gary conducted a bio-gas audit on a dairy farm in Wisconsin. The USDA provided the tools that Gary used in conducting this audit. The audit estimated available bio-gas production from manure, provided estimates for electricity production revenue, and enabled the farmer to understand financial payback information as well as to perform a net-present-value analysis for an investment in an anaerobic digester. The digester drives a turbine that produces energy that feeds the electricity grid. Hence the farmer has diversified his operation and become a mini-utility. That creates more revenue for the farmer and more energy security for the community. Gary continues to work with dairy farmers in Wisconsin and the Midwest, and his work not only reduces greenhouse gas emissions, it helps farmers develop new revenue streams by creating energy from sustainable sources.

This example is one among many about how environmental science, economics, and community development can intersect in interesting and highly productive ways to affect not only the bottom line for those engaged, but also environmental and social wellbeing for a much larger network. It is also an example of a small adaptation to the very large issue of the limits and hazards of using fossil fuels for electricity production. The real strength of the sustainable-management program is its interdisciplinary focus. The academic course mix closely resembles the three legs of the sustainability stool: economy, society, and environment. Courses range from "Triple Bottom Line Accounting for Managers" to "Systems Thinking to Global Environmental Chemistry."

Mary Walshok, a panelist at the UPCEA conference, noted that at the University of California San Diego, they don't approach sustainability as yet another subject like English or biology, but rather as an element in most disciplines. It takes real work to build that into established curricula, and it takes tremendous will to influence university culture. As continuing education professionals, we are in positions to be players in that endeavor.

Perhaps a fruitful way to think about incorporating sustainability into the curriculum is as if it were *the* new gen education. However, in the realm of the world, sustainability isn't just the new gen ed, it is the gen ed. Understanding how we can live sustainably and then acting on it is the only gift worth leaving for our descendants, and to do that, we have to *learn* to

do it, and then we have to *teach* it to others. This is where we as continuing educators come in. We are program builders, educational entrepreneurs, risk takers, and boundary pushers. We are experts at developing pilot programs to try out new subjects, new ways of teaching, and new ways of building curricula. It is time to offer much more sustainability education. We can do this; we must do this.

If questions remain about the practicality of incorporating systems thinking and sustainability into what we teach, it is instructive to consider the perspective of the US Armed Services. Rear Admiral of the US Navy David Titley put it this way:

I don't look at climate change as good or bad. It's simply change, and if a military is to prevail, it has to adapt to change. Our battle space is changing, and we have to adapt. I expect sea levels to rise at least three feet by the year 2100. For American taxpayers, this is going to be a very big deal.³

Sustainability is a matter of competitive advantage, it is a matter of tactical advantage, it is a matter of national security, and ultimately, it is a matter of survival. Any solution to this problem must begin with education.

WHERE DOES PASCAL FIT IN?

Blaise Pascal, the seventeenth-century French mathematician, physicist, and inventor, became passionately religious toward the end of his life. Like a number of his contemporaries, including John Locke and René Descartes, Pascal was keen to find a justification for believing in the existence of God. Pascal approached this issue from his unique mathematical perspective and appealed to pragmatic probability. Simply stated, Pascal argued that if you believe in God, and God exists, then you will be blessed with an "eternity of life and happiness."⁴ However, if you don't believe in God and it turns out that God exists, then you will not be privileged to this benefit. That would be a tremendous price to pay. If you do believe in God and God does not exist, then you lose nothing. Hence, it's in each person's best interest to believe in God. Put differently, "even under the assumption that God's existence is unlikely, the potential benefits of believing are so vast as to make betting on theism rational."⁵

We can construct a similar and less ontologically challenged wager for sustainability. It is possible that the challenges to sustainability noted

above are overstated. Maybe people will be able to multiply indefinitely, consume more, and pollute more. Maybe the Earth will suddenly cool, or maybe global warming isn't really happening at all. Or *Homo sapiens* are such an intelligent species that they will recognize the dangers around them and collectively adjust as needed.

If you were a betting person, would you bet on everything being fine without any change in behavior? Or would you put your money on proactive solutions and adaptive strategies? This is the bet that every one of us is making by the way we live every day. In part we are making the bet for ourselves, but mostly we are gambling on the future of our children and grandchildren. And there is no sitting out the bet. Not acting is acting.

If we change our behavior now—being smarter and more restrained consumers; recognizing and protecting the services that nature provides; limiting our reproduction; and educating for a more comprehensive, systems-based understanding of the world—then we are setting up ourselves and our children to live in a more sustainable world. If the world turns out fine even if we continue to live the way we do now, we will have lost very little. If we don't change our behavior and we begin to experience greater impacts of global warming, overpopulation, and eventual systems collapse, then we will have lost the evolutionary game. The risks of not changing far outweigh the risks of changing. Or put differently, the benefits to changing far outweigh the benefits to not doing so. 🤖

ENDNOTES

1. UN General Assembly.
2. Population Reference Bureau, retrieved May 10, 2012 from <http://www.prb.org/Publications/Datasheets/2011/world-population-data-sheet.aspx>.
3. Rear Admiral David Tittle, Oceanographer and Navigator of the Navy; Director, Maritime Domain Awareness and Space, US Navy, speaking at the 12th National Conference on Science, Policy, and the Environment, January 18-20, 2011, Washington DC.
4. *Stanford Encyclopedia of Philosophy*.
5. *Internet Encyclopedia of Philosophy*.