

Humanity's collective future animates environmentalism

A response to the lecture of Sam Scheffler, December 4, 2013, Princeton University

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I know exactly when I first became aware of controversy concerning our collective afterlife. Peter Singer was hosting two guests at the same time, about four years ago. One was a speaker at a seminar series he and I co-led on ethics and climate change; I forget who he or she was. The other was Rivka Weinberg, a philosophy professor at Scripps College. We combined the hosting into a single dinner at Prospect. Professor Weinberg and I were at opposite ends of a long table. She and some Princeton people were discussing Derek Parfit's *Reasons and Persons* and the non-identity problem, and, faintly, I heard them debating whether, if humanity were to cease to exist painlessly, there was truly any loss. With some intensity I expressed dismay that anyone could regard the continuity of human activity on the planet other than as an intrinsic good. And I realized that I would need to contend with my own unexamined assumptions.

It is not surprising that I was startled. My two professional interests – physics and climate change – deeply embed humanity's multi-generational continuity. The grandeur of natural science is enhanced by its deep incompleteness. The underlying strategy of natural science is cumulative learning. The social hierarchy of natural science treats the clever science student like the heir to a kingdom. Sam knows all this. Using synecdoche, he invokes the quest for a cure for cancer whenever he wants his reader to think about multi-generational science.

As for climate change analysis, the field's featured word is "sustainability." Environmental economics dominates climate change assessment, and its most used tool is the integrated assessment model, which in effect maximizes the welfare of a population of immortal individuals. More generally, environmental analysis puts front and center the damage those alive today may cause those who are not yet alive. High on the list of concerns is irreversibility (for example, the extinction of some species), sometimes because of the intrinsic value of what could be lost, but sometimes because future generations are deprived of experiences. Environmental analysis not only values future generations, it asks how much the current generation should sacrifice on their behalf. Could the quest to understand what our generation owes the future make the slightest sense if we didn't give a damn about the existence of future generations?

Thus, essentially everyone I have ever worked with would strongly concur with Sam's contention that "human life is a thriving ongoing exercise" (p. 59) and that "humanity itself as an ongoing project provides the implicit frame of reference for most of our judgments about what matters" (p 60).

One might guess, from the centrality of future generations in environmental analysis, that reasoning about future time in the environmental domain would by now be sophisticated and nuanced. Alas, nothing could be further from the truth. Environmental analysis presumes human continuity, but it is in a muddle about implementation. I wrote recently (*Vanderbilt Law Review*, 2012): "At present, there is little capacity to distinguish between what we owe our grandchildren's generation and more distant

future generations.” For more than half a century environmental analysis has been at sea, rudderless, when seeking to compare damage inflicted 50 years from now, 500 years from now, and 5000 years from now. For example, in a quest for ethically responsible nuclear waste disposal, policy-makers sixty years ago used the half-lives of long-lived isotopes to establish the relevant time frames. Notably, they used plutonium-239, whose half-life is 24,100 years, with the result that substantial resources are allocated to the prevention of a cancer tens of thousands of years from now. By contrast, the iconic 2006 *Stern Review on the Economics of Climate Change* uses a 0.1% per year probability that the human species will go extinct, an estimate that, I gather, represents mainstream thinking in economics. With that assumption, there is only one chance in 30 billion that human beings will be around in 24,100 years. Should we be working so hard to protect human beings tens of thousands of years from now from getting cancers from our radioactive isotopes?

Numbers are treacherous, especially exponents. If Lord Stern’s extinction probability had been one chance in a million, I doubt that his fellow economists would have demurred. But at that rate, there is only one chance in forty that human beings will *not* be around in 24,100 years.

Similar dilemmas are arising as environmental analysts assist governments seeking to write regulations for carbon dioxide placed deep underground. What rate of leakage is too fast? A maximum leakage rate of 0.1% per year is sometimes proposed. (Hmmm. Should we tune carbon dioxide leakage rules so that they match our best estimate of our collective survival?) Then there is sea level rise. Most of the public discussion concerns the rise by 2100, which the latest IPCC report reports could be as much as a meter. But the same report suggests, with even less confidence, that the rise could be as much as 6 meters by 2500. How much do we care, and should we care, about 6 meters in 2500 versus a meter in 2100?

To be sure, decisions with long time horizons are not confined to the environmental domain. “Roads and pipelines, parks and wilderness areas, historical buildings and institutional endowments—all of these raise issues with long time horizons” (*Vanderbilt*). How do we think – and how *should* we think – about such decisions? It could be that what is missing from climate change analysis is precisely Sam’s kind of disciplined thinking about the future. Sam, can you help us? Can you imagine a use-driven research project where environmental analysts and philosophers team up to sort out this territory?

In these remarks I have been appropriating *Death and the Afterlife* for purposes that, I am pretty sure, Sam did not intend. *Death and the Afterlife* is not a handbook for futurists, even if it can help them sort out how hard to work to preserve national parks and to protect the reputation of Princeton. Rather, it flushes out of the undergrowth a source of meaning for our lives. Not only does our connectedness to future generations affect what we value as individuals and collectively. Our connectedness provides a secular explanation for why we exist, an explanation less encompassing than those provided by traditional religions but nonetheless one that, in Sam’s apt phrase, “staves off nihilism” (p. 69). “Seeing oneself as a participant in a collective, temporally extended project” (p. 185) brings calm, and even joy.

As not all of you know, *Death and the Afterlife* contains not only Sam’s Tanner Lectures but also four substantial comments by philosophers and his rejoinder to their comments. One of the commentators is in the room, Harry Frankfurt. Professor Frankfurt engages Sam with the following intriguing question:

How much does it matter to us that future people will be like us? Professor Frankfurt thinks it matters a lot. “What matters *is that there be other people who are in some way aware of us,*” he writes (p. 137, his italics). Moreover, we are not enriched by “the mere existence of the afterlife... We do not depend on the existence of people who are *inert* to our activities and their products” (p. 138, his italics). Among the “products” Prof. Frankfurt has in mind, I infer, are Mozart’s symphonies. Given the importance I attach to the multi-generational continuity of natural science, I concede that I too would reduce the value I attach to human continuity if I were to know, somehow, that quite soon in the future, say by 2100, all scientific activity would cease, even though human beings would continue to flourish.

Professor Frankfurt’s insight bears on how we should exercise costs-benefit economics. This methodology provides no cut-off date, after which we no longer need to take into account the consequences of our actions. Our moral intuition tells us that the damage we inflict and the benefits we provide to more distant generations should count less for us than the same impacts on nearby generations. We believe this even when we discard the usual assumption that future generations will be successively wealthier. A better basis for our intuition, and more robust, is the conviction that the further we look into the future, the less our confidence in our ability to imagine what capabilities human beings will have and what they will desire.

I am trying to imagine a granddaughter of my grandson Stephen, flourishing in 2100. Let’s call her Amy. Amy uses the reproductive technology of her day to have 17 identical children. Her favorite way of spending time is to live underground in the desert with minimal stimuli, and she does this for years at a time. Am I excited that she will exist? Yes. Do I care less about injuring her as a result of some specific action of mine, because she is so different from me? No. But I do care less about my action’s consequences because I know I can’t figure out whether what I consider injury she will also consider injury? Yes.

Perhaps I will change my mind, but right now I think that Professor Frankfurt’s thrust needs more to be parried than accepted. We do not want to control even our own children’s life choices. If we wish human beings to flourish for thousands of years, that wish cannot be dependent on distant generations resembling us.

Why are we discussing our collective afterlife now, early in the 21st century? I think future historians will see in the past half-century a dramatic expansion of our self-consciousness of both time and space. We know now that there was a Big Bang and when it happened. Geological ages are no longer hard-to-learn words, like Cretaceous, but are bounded by a beginning and an end a specific number of millions of years ago. Our thinking about the extinction of *homo sapiens* has been stimulated by detailed knowledge of slow and fast extinctions in the past and also by the failure of human society, thus far, to delegitimize the use of nuclear weapons. The human project of understanding who we are has been abetted by seeing Earth from space and (only very recently) detecting planets on other stars. As I wrote recently (*Vanderbilt*): “In the past fifty years, thanks to science, we human beings have become far better informed about the history of our universe, our earth, and life. But we have become hardly at all more intelligent about *future* time. In particular, we have not devoted any systematic thought to our collective destiny as a species on this planet. Traditional religions dwell on what happens to us as

individuals long-term, in heaven or hell, but not on what happens to humankind here on earth long-term. A new academic discipline may develop as scholars pursue the art and science of looking ahead. Perhaps it will be called Destiny Studies.”

Sam is a pioneer of Destiny Studies.

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