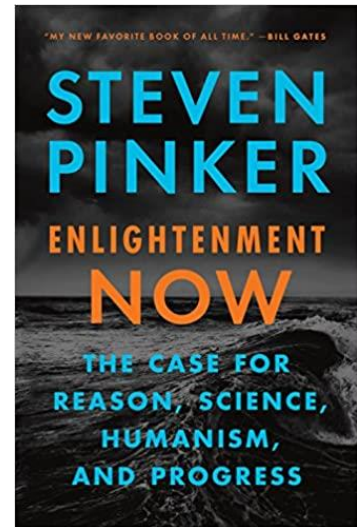


“Fails to Understand Biophysical Economics”
a review by Dick Burkhardt of

Enlightenment Now

The Case for Reason, Science,
Humanism, and Progress

By Steven Pinker (2018)



Steven Pinker does a great job laying out the statistics of global progress over the last couple of centuries in many areas, such as food, health, safety, education, peace, human rights, and democracy. And he is certainly correct that technological advancement and economic growth have made this possible. But will all this continue, as he assumes?

Unfortunately, despite his amazing erudition, Pinker fails to understand the fundamental driver of all economic growth, from indigenous societies to the present. This driver is “cheap energy”, which is well explained in “Energy and the Wealth of Nations: An Introduction to Biophysical Economics” by Charles Hall and Kent Klitgaard. Pinker focuses only on technology, which is embedded in the word “cheap”, not on the natural resources, which are embedded in the word “energy”, mostly fossil fuels in today’s context.

Energy-wise geologists understand that the era of cheap fossil fuel energy is over, at least after the boom and bust cycles are averaged out, and that global peak of fossil fuel energy is nigh. This means little surplus to drive economic growth, since comparable substitutes, such as nuclear fusion, are all highly speculative. Note that even today’s high-tech wind and solar power is built on the back of fossil fuels. That is, these renewable technologies don’t reproduce themselves, so their current low cost will not hold as they are scaled up and the reserves of cheap energy decline.

However, in Pinker’s defense, most economists also fail to understand the basics of real-world economics, in contrast to their neoclassical theory, which is based on the “magic of the market”, assuming that adequate alternatives to depleted resources will always be found. A prime example is the orthodox economist William Nordhaus, whose “DICE” model for forecasting the economics of climate

change is ludicrous, almost beyond belief, to an applied mathematician and computational scientist like myself. Pinker needs to talk to the heterodox economist Steve Keen, who actually understands the mathematics of complexity and the critical role of energy and has critiqued Nordhaus's work.

In particular, without cheap energy, we can expect that much of this progress will turn toward stagnation, then decline, despite all the best efforts of technologists. It will be harder just to maintain, let alone replace, our current infrastructure. This is called the "energy trap" – just when we need lots of cheap energy to rebuild for renewables and carbon sequestration, it's not there.

We'll have to clamp down hard on non-essential uses of fossil fuels and other key resources, which in turn means some very nasty politics. Trump is only the latest sign that our halcyon days are coming to an end. And note that evolutionary biology has countless examples of species whose population has boomed in more fecund circumstances (new capabilities or sources of food or energy) but then crashed after over exploitation.

Another place where Pinker goes wrong, despite his psychological expertise ("cognitive behavioral therapy"), is the way he discounts the role of inequality. That is, it's not so much the absolute level of inequality that causes the most trouble but noticeable increases in inequality. When people see others rising as they are falling or barely hanging on, they can get quite unhappy and angry, as in "deaths of despair", downplayed by Pinker, despite his admiration for Deaton's work.

On the other hand, I'm totally with Pinker on his revival of Enlightenment values – reason, science, and humanism. However, none of these says we need to put on blinders (confirmation bias) or succumb to the hubris of the Greek heroes. Quite the contrary, we should be very skeptical of facile projections, positive or negative. Instead keep an open mind and dig down into the fundamentals – first the physics, biology, and chemistry, then the social sciences, but with a sharp eye for dubious ideologies and cheery-picked evidence.

Pinker's critique of postmodern philosophy is, of course, right on. But what I found more interesting were the surveys he cited - that phenomena like "climate change denial" are not based on bad reasoning but on political ideology – going with the flow of others in your political bubble just to avoid trouble. Or "while some of the conspiracy theorists may be genuinely misinformed, most express these beliefs for the purpose of performance rather than truth: they are trying to

antagonize liberals and display solidarity with their blood brothers” (p 359), a kind of inverted “virtue signaling”. Or “engagement with politics is like sports fandom...: people seek and consume news to enhance the fan experience, not to make their opinions more accurate” (p 360).

Another interesting point is that “superforecasters” – who do far better even than better known experts or pundits – are “pragmatic experts who draw on many analytical tools”, not gut hunches disguised as wisdom. They are “humble about particular beliefs” and constantly ask themselves “are there holes in this reasoning?” (p 369) and take seriously the wisdom of crowds.

But such level-headed people are increasingly rare in certain parts of academia, where the vitriol has reached new heights in the form of cancel culture. Pinker says “anyone who disagrees with the assumption that racism is the cause of all problems is called a racist” (p 373), an ideological position called “race reductionism” by the courageous black academic Toure’ Reed. Another black academic, John McWhorter refers to this ideology as “woke racism” and likens it to a religion.

With allies like this in the background, Pinker takes a firm stand: “Mendacity, truth-shading, conspiracy theories, extraordinary popular delusions ...are as old as our species, but so is the conviction that some ideas are right and others are wrong” (p 375). And he sees hope in the rise of fact-checking enterprises and a new interest in critical thinking skills in learning, dialogue, and decision making. But the real key is that “issues should be depoliticized as much as is feasible” (p 382), a monumental task since extremists at both ends of the political spectrum have become very skilled at politicization and it makes big money for certain media.

Pinker’s final chapter is on humanism, which is often contrasted with theism, and can be thought of as a religious or philosophical version of Enlightenment values. Yet, “it is vehemently opposed not just by many religious and political factions but, amazingly, by eminent artists, academics, and intellectuals”. Pinker points out that “impartiality underlies many attempts to construct morality on rational grounds” (p 412), starting with the Golden Rule.

Yet such rules are rather abstract and don’t directly address the “wants, needs, and experiences that define human flourishing” (p 413). He concludes that what is needed is deeper analysis of conflicting desires within individuals and of trade-offs within societies. That is, humanism has a “utilitarian flavor”, or “consequential core”, where values and principles guide practical deliberations and investigations. The Universal Declaration of Human Rights is a humanist manifesto that

elaborates on those values and principles as they apply to diverse aspects of human life.

Pinker goes on to describe in great detail the fatal flaws of “two perennially seductive alternatives” to humanism: (1) “theistic morality” and (2) “romantic heroism”. He really digs into the dysfunctions of dogmatic versions of both Christianity and Islam, then into the fascism inspired by Nietzsche and its echo in postmodernism.

Pinker concludes that “We will never have a perfect world, and it would be dangerous to seek one. But there is no limit to the betterments we can attain if we continue to apply knowledge to enhance human flourishing” (p 453). Yet isn't the vision of “unlimited betterments” itself a kind of perfect world, one that ignores the rise and fall of past civilizations and myriad species?