

Extinction: The Probable Consequence of the Assault on Science and Reason

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Unreasoning optimism is one of humankind's greatest virtues and most dangerous foibles. Primo Levi quotes an old German adage that encapsulates our psychological resistance to the scientific warnings. "Things whose existence is not morally possible cannot exist."

Clive Hamilton
Requiem for a Species, p. xi

The first thing that struck me . . . was the magnitude of the risks and the potentially devastating effects on the lives of people across the world. We were gambling the planet.

Sir Nicholas Stern
British Economist

Humankind has ignored and attacked scientists and the evidence they have painstakingly gathered and published in peer-reviewed journals. The capacity to reason and humankind's dependence upon nature (the Biosphere) have been overwhelmed by greed, materialism, and an alienation from nature (Hamilton 2010). In the United States, scientists and their science are ridiculed and vilified in the Congress and news media with inadequate outrage on the part of the general public.

One example of humankind's break with reason is the rhetoric against windmills as an energy source. Windmills are just beginning to attract attention, mostly unfavorable in Southwest Virginia. Various criticisms have been voiced — impairing scenic views, causing airplane crashes, killing bats (even though bats use echo location to acquire small insects while flying), and causing mysterious health problems and several diseases (McKnight 2011). Consider the experiences of other nations that have significant numbers of windmills — is the ground beneath the windmills littered with small planes and bats? "Quiet windmills, thousands of feet distant, simply cannot cause any tangible medically accepted disease. Conveniently the complaints are vague, medically unverifiable and resemble the stresses of everyday life" (McKnight 2011). Windmills do not release mercury and the other toxic substances as burning coal does. Mountain top removal is not essential for placing windmills, and windmills do not emit carbon dioxide, a major greenhouse gas.

What causes unbearable sorrow is the increasingly hostile, increasingly unstable, increasingly uninhabitable planet that humankind is leaving for recently born children and their parents. Until the 21st century, this tragedy appeared to be in the distant future; however, the adverse effects of climate change and other global crises are evident right now. Many practical steps can be taken ". . . to protect our societies and our young people from the changes in our climate that are unavoidable over the coming decades" (Hertsgaard 2011). Many individuals have known for over a decade now that both the time and the will must be expended in the appropriate steps to ward off moving beyond a 2°C increase in global mean surface temperature, a threshold between "dangerous" and "extremely dangerous" climate change (Anderson and Bows 2011). Dangerous climate change is now in the very near future, and humankind has not yet demonstrated it has the will to make the necessary changes to stop violating the universal laws of biology, chemistry, and physics. What can humankind do now? It must do everything possible to ensure that future generations have a habitable planet for their entire lives and for the lives of their children. If "business as usual" continues, future generations will live in a very dangerous world.

Humankind is creating this very dangerous world by reckless use of fossil fuels, especially coal, which vastly increases emissions of anthropogenic greenhouse gases such as carbon dioxide. Deniers of the scientific evidence for greenhouse gas emissions are mostly without credentials in climate science and related fields. Through the distorted view of science by deniers, a false impression is given space in the news media

that the issue of climate change is still in doubt. However, vast numbers of credentialed scientists have shown that humans are a major factor in climate change. Scientific literacy must be increased to ensure scientifically sound policy decisions.

The fundamental question on climate change and the seven other global crises (Cairns 2010) is: “Is humankind willing to change its behavior to prevent *Homo sapiens* from becoming extinct?” Action, not words, will provide the answer to this question. Calling a lifestyle “sustainable” when it is not does not fool Mother Nature. Mother Nature is the final judge on extinction and is not influenced by international conferences on climate change, which have meager impact on global climate except to increase humankind’s carbon footprint with plane travel to attend the conference.

To live sustainably, humankind’s wastes (output) must be resources (input) for some species, as is the case in natural systems. At present, humankind’s ecological overshoot (using resources faster than the Biosphere can regenerate them) is a practice that clearly cannot continue indefinitely. Ecological overshoot is a certain path to extinction, although people do not want to face this reality. The frightening aspect of the survival crisis is that humans could do a great deal to reduce the risks of extinction if they had the political will to change group and individual behavior.

“Of the many moral conundrums presented by climate change, the issue’s intergenerational nature is perhaps trickiest to sort out. It boils down to this: We benefit mightily from burning cheap coal and will shoulder most of the expense associated with switching the global economy to low-carbon fuel sources. But our grandchildren and great-grandchildren will pay the price for our profligate energy ways and will reap the majority of the benefits of our shift to cleaner-burning fuels” (Heller and Fischer 2011). The issue cannot be treated as a primarily economic decision. The moral/ethic decision is the certainty of increasing the risk of extinction of *Homo sapiens*! Investing the money saved by delaying the switch to non-carbon energy sources to benefit our great-grandchildren is only valid if they survive to spend the inheritance.

“Preliminary analysis suggests impacts from climate change could run twice as high as previous estimates, potentially giving regulators more firepower to justify emissions-cutting regulations. . . . Last year the Obama administration pegged the average impact of greenhouse gas emissions at \$21 per ton of carbon dioxide (CO₂) emitted, based on its analysis of three widely used models” (Fischer and Heller 2011). However, these estimates do not factor in the probable loss of the present Biosphere or crossing the threshold from dangerous to extremely dangerous. In short, the worst case scenarios are far from being worst case.

The huge problem with economic models is that they treat the universal laws of nature as if they were externalities. In economics, an externality is a cost or benefit not transmitted through prices or the cost or benefits of a transaction to parties who do not directly participate in it. For example, burning coal produces more greenhouse gas emissions per unit of energy produced than either petroleum or natural gas. Atmospheric carbon dioxide and other greenhouse gases determine Earth’s climate. Climate change, at present, is diminishing agricultural productivity and raises food prices, which has a disproportionate effect upon the world’s poor. These factors are not included in the cost of energy produced with coal. “The consequences of this food crisis go far beyond economics. After all, the big question about uprisings against corrupt and oppressive regimes in the Middle East isn’t so much why they’re happening as why they’re happening now. And there’s little question that sky-high food prices have been an important trigger for popular rage” (Krugman 2011). Of course, the usual “blame game” is occurring on the cause of higher food prices, “But the evidence tells a different, much more ominous story. While several factors have contributed to soaring food prices, what really stands out is the extent to which severe weather events have disrupted agricultural production” (Krugman 2011). And what causes weather? Natural laws cause climate change. Any human policy that ignores universal laws will fail, and the consequences will be increased human suffering and death.

Another consequence of ignoring the universal laws of nature is failed states:

Failed states have made a remarkable odyssey from the periphery to the center of global politics . . . Among the top 20 countries on the 2010 Failed States List, all but a few are losing the race between food production and population growth . . . After a point, as rapid population growth, deteriorating environmental support systems, and poverty reinforce each other, the resulting instability makes it difficult to attract investment from abroad. Even public assistance programs from donor countries are sometimes phased out as the security breakdown threatens the lives of aid workers (Brown 2011).

The World Wide Fund for Nature’s Energy Report (Energy Report 2011) states: “The world needs to transition from its current unsustainable energy paradigm to a future powered by entirely renewable energy supply. . . . The world can no longer afford to hang on to its old energy paradigm, and its dangerous

dependence on fossil fuels.” The report scenario only considers currently available technologies and has a goal of 100% renewable energy by 2050.

Global crises are worsening rapidly and major global societal and ecological tipping points may be both numerous and close. The preponderance of peer-reviewed scientific evidence demonstrates that humans are a major factor in global climate change. Risks are high and increasing rapidly, and a reasonable approach would be to use the robust scientific evidence to make policy/political decisions. However, little action has been taken to reduce anthropogenic greenhouse gas emissions because a small, strident but well funded group has launched a vigorous attack on scientists and their science.

“The trauma arising from recognizing the gap between our self-concept and the disrupted future we now face can be thought of as an instance of ‘positive disintegration’ the term used by psychiatrist Kazimierz Dabrowski to capture the idea of our world ‘falling apart’ when the situation makes untenable the assumptions we have used to construct an integral sense of self” (Hamilton 2010). In addition, discussing the probability of the extinction of humankind is taboo: “Climate disruption has the smell of death about it. It threatens to bring to the surface that which we work so hard to suppress. Fear of death, wrote Ernest Becker, is the main-spring of human activity – activity designed largely to avoid the finality of death, to overcome it by denying in some way that it is the final destination for man” (Hamilton 2010). “In the case of climate change, victory may come too late. A sudden awakening in a decade by governments and the people of the dangers of climate change will be too late; the global climate system will have shifted course and the future will have been taken out of our hands” (Hamilton 2010).

The consequences of the assault on science and reason that has successfully blocked the transition from an unsustainable, consumer culture (which is destroying the biospheric life support system) to one that nurtures the life support system is increasingly likely to be far too late. A new Biosphere will evolve, consisting of mostly new species, and life on Earth will continue.

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