

## Planet Earth as a bologna sandwich

If you have read this far, you should now be able to understand the basic philosophical question posed in the introduction of this book: Should humankind continue along a “natural” course, or should we collectively become the noble creatures we fancy ourselves to be?

Before attempting to answer the question, it is important to understand the question itself. You must first understand that the question is posed as an either-or question with good reason. The two possible answers are mutually exclusive. If you have read this far, you should understand that if mankind continues along a “natural” course then he and most of the interesting stuff on Earth will prove no more significant than a bologna sandwich forgotten in the back of the cosmic refrigerator.

If one places some sort of leftovers (such as a half-eaten bologna sandwich) in the refrigerator and forgets about it, then one may anticipate that nature will take over. Nature’s foothold on the sandwich will at first be tenuous. There will be widely scattered colonies of various molds and bacteria. In later stages the molds and bacteria will begin to compete for increasingly limited resources such as space and food. There will even be chemical warfare as some of the molds release bactericidal compounds to better claim a portion of resources. After some period of time, the replicators will reduce the forgotten sandwich to the lowest possible energy state exploitable by the replicators and the replicators will starve. Eventually the spoiled remains of the bologna sandwich will be noticed and unceremoniously dumped into the nearest garbage can. No glory. No higher purpose. Nothing recorded for inhabitants of those bologna sandwiches which might come after.

Now think of the Earth’s biosphere as a larger version of that forgotten bologna sandwich. One species of replicator has recently gotten the upper hand and is driving out all the other replicators. The species with the upper hand is spreading chemicals to keep competing replicators in check. The wars and overpopulation of the dominant replicator further threaten the environment. If mankind does not become as wise as he fancies himself to be, then mankind will replicate himself and most life on Earth right out of a place to live - in effect destroying the Earth.

Many would object to this analogy, clinging to the rather quaint notion that mankind is too insignificant to destroy “God’s creation.” People clinging to that quaint notion need to take a look around. Virtually all the most interesting stuff on planet Earth exists within several meters of the surface. Even in places like tropical rainforests most life exists within a few dozen meters of the surface. In comparison to the Earth’s diameter of 12,750 kilometers this means

that the majority of life lives within an incredibly thin veneer. That veneer is even thinner in the pelagic oceans and across the world's steppes and deserts.

Desertification is accelerating. This creates ever larger holes in the thin veneer of life. Hypoxia affects great swaths of water in the Gulf of Mexico off the coast of Louisiana. There are other such patches of oxygen-depleted waters caused by seasonal agricultural run-off along all our coastlines. This creates even more holes in the thin veneer upon which all life depends.

You may have read about mankind's activities and how they are contributing to the erosion of the Louisiana coastline. This made the news after Hurricane Katrina breached levees around the city of New Orleans. One of the factors that made New Orleans vulnerable was the loss of wetlands between the city and the Gulf of Mexico. Many of mankind's activities have caused this loss. Pumping oil from beneath the coast contributed - as did the dredging of shipping channels that sent silt to sea rather than depositing it in the coastal marshes. It is likely that the silt and agricultural runoff are overloading the adjacent marine ecosystem. The agricultural runoff causes algae "blooms" which then die and cause hypoxic zones - not only along the coasts surrounding the Gulf of Mexico but along all our coastlines. These kinds of events are spreading and increasing in frequency all around the planet.

The atmosphere is also adversely affected by the activities of humankind. There are at least three significant types of damage being done to the air which we breathe and the atmosphere which protects us from ultraviolet radiation. High within the atmosphere ultraviolet radiation is absorbed by ordinary oxygen molecules. This results in a special type of oxygen molecule which we call ozone. Ozone absorbs more ultraviolet radiation and is thereby broken down into a free oxygen atom and an ordinary oxygen molecule. A balance is reached as these three types of oxygen molecules are acted upon by solar radiation. The result is an "ozone layer" which acts to selectively filter out much of the harmful ultraviolet radiation which would otherwise damage living things such as algae, terrestrial plants, and the cells which form our skin.

The pollution from the activities of humankind includes chlorinated fluorocarbons - typically found in refrigerants and industrial solvents. When these chlorinated fluorocarbons reach the height of the "ozone layer" then they are broken down by ultraviolet radiation - releasing free chlorine atoms. These free chlorine atoms upset the ozone balance because they act as catalysts - breaking down ozone faster than it is created by ultraviolet radiation. This means more ultraviolet radiation gets through the depleted ozone layer and reaches living things at the Earth's surface.

Many pollutants are released when coal is burned. One of these is sulfur. Once released into the atmosphere, the sulfur reacts with atmospheric moisture to

create sulfuric acid. Normal precipitation becomes more acidic. In many cases this leads to visible damage to trees and other living things. Over time acid rain changes the Ph balance of un-buffered lakes - resulting in beautiful clear lakes scrubbed clean of fish, insects, algae, or any other living thing. Many lakes are "buffered" by naturally occurring limestone. What we commonly call limestone is really calcium carbonate - mostly composed of the skeletons of tiny creatures like corals and diatoms which lived long ago. The presence of calcium carbonate stabilizes the Ph of a lake as the acid reacts with the calcium carbonate. This allows life to continue in the lake - but also results in the release of large quantities of carbon dioxide gas.

As many people are aware, carbon dioxide gas traps heat near the Earth's surface resulting in global warming. The carbon dioxide gas released when acid rain dissolves limestone is only one source. More carbon dioxide is released when acid rain dissolves our concrete sidewalks and buildings. Much more carbon dioxide is released by slash and burn agriculture, deforestation, and burning of fossil fuels such as petroleum and coal.

Methane is another greenhouse gas. We are likely to hear much more about Methane as a greenhouse gas. This is because methane traps heat in the lower atmosphere much more effectively than carbon dioxide - and unimaginable quantities of methane are about to be released.

Tremendous quantities of carbon are locked away in the permafrost which surrounds much of the Arctic Ocean. There is a thin veneer of life covering the permafrost which we call tundra. The thin veneer is composed mostly of moss and other vegetation. Over millions of years the vegetation has mingled with snow to form layer upon layer of dead vegetation locked in ice. The ice preserves the vegetation by locking out the oxygen needed by aerobic bacteria. Without oxygen the vegetation does not decompose. However as the permafrost melts bacteria are able to begin decomposing the vegetation. This will most likely result in a regenerative feedback loop the likes of which mankind has never before experienced. First methane is released as bacteria act upon the vegetation exposed by melting permafrost. That methane will trap more heat in the lower atmosphere. The warmer atmosphere will melt more permafrost making it possible for bacteria to decompose ever more of the vegetation which had been preserved in the frozen tundra. That will result in more methane and the cycle will accelerate from there.

There is one demographic which overwhelmingly rejects all this science and all this evidence. That demographic is composed of people who are infected with religion. Adherents of the doomsday religions are especially troubling because they relish all the destruction as signs of the "end times." Judaism is essentially a fertility cult. The messianic cults of Judaism collectively known as "Christianity" add doomsday memes - making Christianity a doomsday fertility

cult. Like Christianity, Islam emphasizes fertility and a “Day of Judgment” - thus Islam is also a collection of doomsday fertility cults. Likewise, Mormonism is really just a bizarre mutation of the Christian doomsday fertility cults from which it was derived.

Adherents of these irrational belief systems are likely to place little or no value on the environment. Many wrongly believe a deity is variously going to set it all right or smite everything. In either event the religious tend to see no reason to invest in environmental stewardship.

In previous chapters I have noted many characteristics of the human brain which would tend to make the brain more easily controlled by religion. There is at least one more. That characteristic is an inability to perceive religion for what it is. It is clear that people lacking these faculties of perception breed much more often than people with those perceptive faculties. That means each generation has a significantly higher proportion of people genetically predisposed to fail to identify religion as mental “spam.” That is basically saying these people are too stupid to realize that they have been made slaves to religion. But they are slaves - slaves which will steadfastly vote for everything from “faith-based initiatives” to insane war machines.

Dawkins noted “It is almost as if the human brain were specifically designed to misunderstand Darwinism, and to find it hard to believe...” - there is a reason for that. The evolutionary processes which once selected for ever more intelligent and inquisitive minds have been reversed. Once minds became inquisitive enough to begin to learn the real answers to questions then the environment for religion changed - this idea will be expanded upon soon - in the meantime read the essay titled “Why ask why?”

Religions also enforce stupidity - by censoring information which conflicts with maintaining control of brains. Many writers make the mistake of assuming humankind will continue to advance toward more sophisticated technology and greater wisdom in the areas of moral behavior. It would be comforting to know that at some point in the future we would have a society as envisioned in *Star Trek: The Next Generation*. But the reality is that we are not moving toward a future where technology is harnessed for the common good. Mankind is on something more akin to a rollercoaster ride and we are near the top of the highest point. What comes next is a dizzying descent which will plunge us back into the primordial soup at the end of our ride.

This chapter is in early draft form and has many points which should be expanded upon - so it will be improved later with many things: such as damage done by religiously motivated wars. A major theme will be the side effects of religiously enforced stupidity.

The “Quiverfull” movement believes in maximum reproduction - with each additional child representing “an arrow in the quiver of God’s army.” “Home schooling” is favored by this group. “Home schooling” typically replaces science with dogma - and is thus antithetical to actual schooling. Rational schooling must emphasize critical thinking - which is deadly to religious dogma.

Evidence of our collective stupidity: an inability to perceive our military industrial complex as the global extortion racket which it is.

Evidence of our collective stupidity: all the whining about “health care costs” while very rarely questioning why we allow corporations to conspire to make us all sick. (Corporations make us all sick for short-term profit - convincing us to eat huge quantities of unhealthy food laced with high fructose corn syrup and other processed additives, to smoke cigarettes, to breath exhaust fumes while stressing out in our motor cars, to rely on pharmaceuticals for everything, to sit in front of the television instead of exercising, to persuade women that to be attractive they must apply dangerous chemicals around the mucus membranes of their eyes and apply more dangerous chemicals around their nose and lips thus causing those women to breathe and ingest carcinogens - just to name a few of the means by which corporations poison us.)

The debate concerning healthcare reform actually contains many more examples of irrational belief systems held as fact. These are most likely enabled by characteristics of the brain which have been altered to better harbor the irrational belief systems which we know as religion. Typical is belief in “death panels” which would presumably decide when to cut off medical treatment to senior citizens and the disabled. Believers manage to ignore the fact that there are real “death panels” in existence now - conveniently disguised as the corporate boards of the health insurance industry. Another favored belief is that healthcare will be “rationed”. Again the ironic truth is that healthcare is already rationed - not necessarily to those who could be restored to happy productive lives, but to those with power and money.

An even more bizarre belief is exhibited in those who believe they believe in the power of faith and prayer, yet complain about things like healthcare insurance. If these people truly believed what they believe they believe then they would simply accept their deity’s plan for them. They would do this with the full knowledge that no amount of earthly healthcare could thwart their deity’s plan for afflictions. True believers would also “know” that if their deity planned a long and healthy life for them, then that is what they would get - without wasting time and effort on trivial distractions such as earthly health insurance. This same line of inquiry reveals that people who believe they believe in the power of prayer do not actually believe in prayer. If they truly believed in the power of prayer then they would not seek medical insurance or even medical services. They could simply have good health through the very

economical method of prayer. That they do not trust in “faith” and “prayer” reveals that these people do not actually believe what they believe they believe.

Have we devolved into *Homo cidicus*? *Homo sprawlus*?