



The Myths of Purity

Food, Gender and Sex, Politics, etc.

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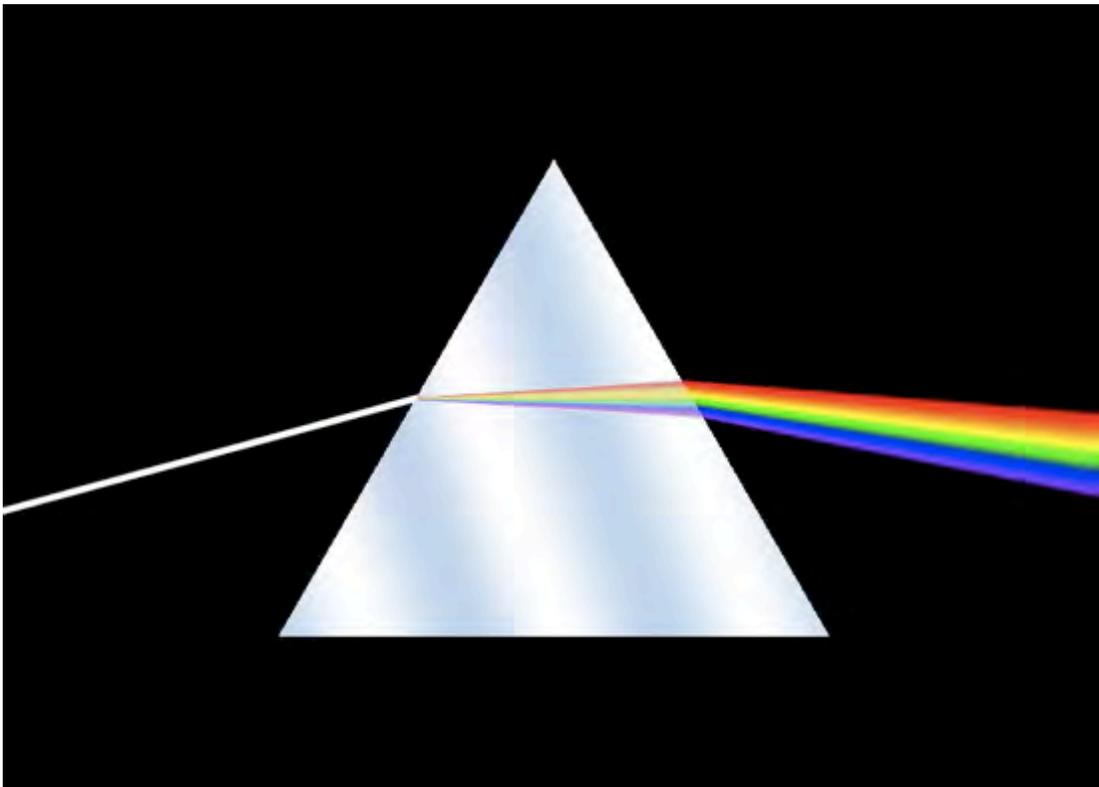
Purity is **freedom from adulteration or contamination**, “the purity of our drinking water”, **freedom from immorality**, especially of a sexual nature. “White is meant to represent purity and innocence” (Google)

Purity is the **absence of impurity or contaminants** in a substance. This term also applies to the **absence of vice in human character**. (Wikipedia)

We start with myths and conventions.

White is the color the human visual system senses when the incoming light to the eye stimulates all three types of color sensitive cone cells in the eye in nearly equal amounts. Materials that do not emit light themselves appear white if their surfaces reflect back most of the light that strikes them in a diffuse way.

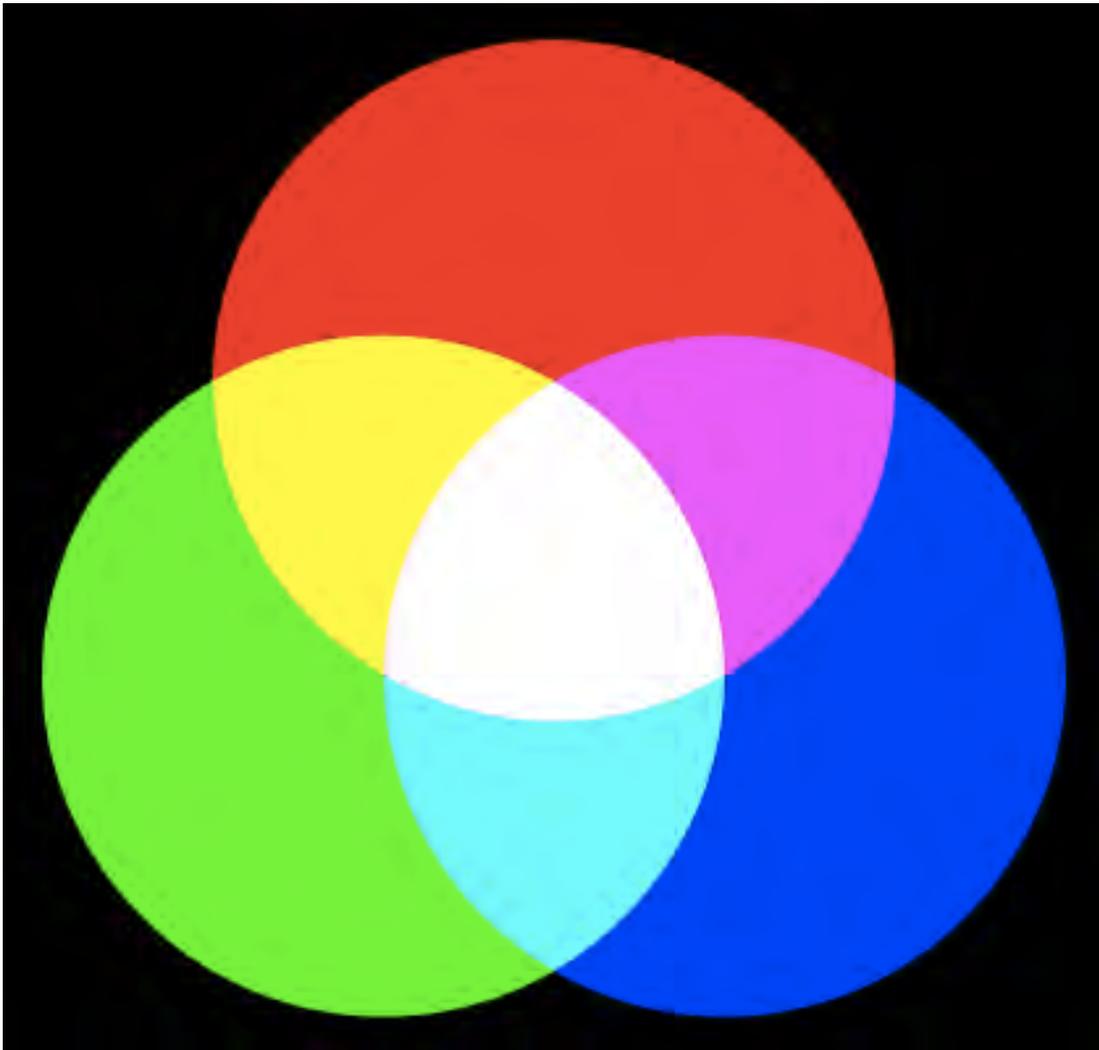
In 1666, Isaac Newton demonstrated that white light could be broken up into its composite colors by passing it through a prism, then using a second prism to reassemble them.



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On the screen of a color television or computer, white is produced by mixing the **primary colors** of light: red, green and blue (RGB) at full intensity, a process called **additive mixing**.



The International Commission on Illumination defines *white (adapted)* as "a color stimulus that an observer who is adapted to the viewing environment would judge to be perfectly achromatic and to have a luminance factor of unity. The color stimulus that is considered to be the adapted white may be different at different locations within a scene.

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Having, thanks to Isaac Newton, shot down the myth of the *color of purity*, what about *the absence of vice in human character*?

Vice is a practice, behavior, or habit generally considered immoral, sinful, criminal, rude, taboo, depraved, or degrading in the associated society. In more minor usage, vice can refer to a fault, a negative character trait, a defect, an infirmity, or a bad or unhealthy habit (such as an addiction to smoking). Vices are usually associated with a transgression in a person's character or temperament rather than their morality. The opposite of vice is **virtue**. (Wikipedia)

The Pandora's box of arbitrariness, tyranny, self-approval, despoticalness is now wide open!

Even in jurisdictions where vice is not explicitly delineated in the legal code, the term **vice** is often used in law enforcement and judicial systems as an umbrella for crimes involving activities that are considered inherently immoral, regardless of the legality or objective harm involved.

Religious police, for example Islamic religious police units or sharia police in certain parts of the Arab-speaking world, are morality squads that also monitor for example dress codes, observance of store-closures during prayer time, consumption of unlawful beverages or foods, unrelated males and females socializing, and homosexual behavior.

Christians believe there are two kinds of vice:

- Vices that come from the physical organism as instincts, which can become perverse (such as lust),
- Vices that come from false idolatry in the spiritual realm.

The first kind of vice, though sinful, is believed less serious than the second. Vices recognized as spiritual by Christians include blasphemy (holiness betrayed), apostasy (faith betrayed), despair (hope betrayed), hatred (love betrayed), and indifference (scripturally, a "hardened heart"). Christian theologians have reasoned that the most destructive vice equates to a certain type of pride or the complete idolatry of the self. It is argued that through this vice, which is essentially competitive, all the worst evils come into being. In Christian theology, it originally led to the Fall of Man, and, as a purely diabolical spiritual vice, it outweighs anything

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else often condemned by the Church. The Roman Catholic Church distinguishes between vice, which is a habit of sin, and the sin itself, which is an individual morally wrong act (Wikipedia).

Now you get the picture: the powerful, rich, crushers and plunderers, slave traders, Renaissance popes, condottieri, colonial settlers, and many more set the rules, the law, the taxes including tallage, tithe, socage, burgage (and many more).

The poor were kept in ignorance, crass illiteracy, subjected to looting, rape, pillage, and essentially nothing left. They were forbidden to learn anything but the diktats of the local church, mosque or synagogue; while the powerful basked in art, palaces, riches beyond belief –while peaching *purity* and *virtue*.

According to Eamon Duffy, *"the Renaissance papacy invokes images of a Hollywood spectacular, all decadence and drag. Contemporaries viewed Renaissance Rome as we now view Nixon's Washington, a city of expense-account whores and political graft, where everything and everyone had a price, where nothing and nobody could be trusted. The popes themselves seemed to set the tone."*

For example, Leo X was said to have remarked: *"Let us enjoy the papacy, since God has given it to us."* Several of these popes took mistresses and fathered children and engaged in intrigue or even murder. Alexander VI had four acknowledged children: Cesare Borgia, Lucrezia Borgia, Gioffre Borgia, and Giovanni Borgia before he became Pope.



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But the carving of Africa, Southeast Asia, Latin America by the European colonialists are possibly the most egregious example of this kidnapping of inane *rules of law, purity* and *virtue* by the 'haves' over the 'have nothing'.

For instance, the injustice of about a hundred years would leave a great mark upon the Congo. King Leopold ruled with an iron fist exploiting the Congo, keeping the Congo out of the public mind, and in turn forcing the Congo economy to almost completely collapse due to the Congolese never actually seeing a scent of the "trade" the Belgians claimed they were taking part in with the Congo. Injustices like this didn't just happen in the Congo, but almost all over Africa. It is truly disappointing to see how the human race socially constructed this idea that not only were Europeans higher than the people that they colonized but also that they should mistreat a group of people in some of the most horrible ways in order to achieve something of economic gain. Imperial powers' greediness completely offset and disregarded the future stability and well-being of the colonized countries. This ignorance will forever hinder the strength of the Congo's both in their economy and their social

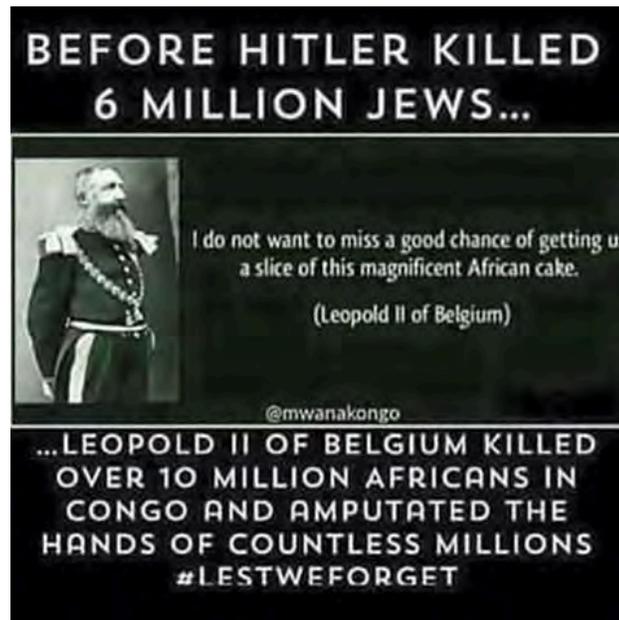


development.

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“King Leopold II was the King of a European nation called Belgium and played an inevitable and integral role in the European carving of Africa for the purpose of continental colonization. Congo was a Belgium colony and plutocracy in which one



man controlled the rubber production, wealth, minerals and resources in the largest landmass on the continent of Africa. Leopold mandated the malicious raiding and pillaging of the African tribes for ownership of resources and wealth of the Congo. King Leopold's army, agents and constabulary in the Congo forcibly chopped off hands and reproductive organs of men, women and children for the purpose of punishing and intimidating Congolese people who lacked efficiency in their rubber production. Thanks to the journalist ED Morel and the Black Howard University journalist and alumnus, George Washington Williams for researching the Genocide in the Belgium Congo which lead to the murder of about 10 million Africans from 1890 to 1908 and exposing this atrocity to the masses!!! This lead to global protests and the Belgium Empire buying the Congo Free State from King Leopold II. Let's never forget!!!” (#Leopoldsghost)

And now, in 2019, most countries seem ready to be ruled by the holy alliance of the military and the clergy, with regimes based on arbitrary, discriminating executive orders, laws that entrench inequality and plutocracy, and abandon of social justice, human basic rights and –most importantly- women’s rights. No wonder that George Orwell’s *Nineteen Eighty-Four* (published in 1949) visionary novel is the current best seller on Amazon.



Purity of Life

Maybe it wasn't the organic chemicals that came first, but the process of self-organization. There are examples of inorganic chemicals and metals that can organize themselves under the right conditions. The process of metabolism came first, and then organic chemicals adopted this process.



It's even possible that life formed multiple times on Earth in different eras. Although all life as we know it is related, there could be a shadow ecosystem of microbial life forms in our soil or oceans that is completely alien to us.

So how did life get here? We just don't know.

Maybe we'll discover life on other worlds and that will give us a clue, or maybe scientists will create an experiment that finally replicates the jump from non-life to life.

We may never discover the answer.

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But according to Casey Kazan (http://www.dailygalaxy.com/my_weblog/2011/01/) there is now a growing body of evidence suggesting that the first proto-genes and the first forms of proto-life may have been fashioned around 10 billion years ago, or within a few billion years thereafter. Many scientists also believed that these first proto-life forms or actual living cells were spread from star system to star system and from planet to planet via mechanisms of panspermia. It has been proposed life on Earth may have been encased in meteors, asteroids, and broken planets ejected from a "parent" solar system during the red giant phase of the central star's death, which was then followed by supernovas. Some of this life containing debris fell to Earth and became part of this planet.

In fact, Earth has 92 stable elements that were a product of a supernova explosion that was trapped by the sun about 9 Gyrs after the Big Bang.

However, this finding does not support what has been described as "hard panspermia", that is, the transfer of fully formed life to this planet, but the possibility that life on Earth originated on Earth; perhaps following the delivery of proto-cellular material (via "soft panspermia") which led to an RNA world and then complex DNA-based cellular life.

Which begs the question: what unique conditions on Earth would have triggered the formation of fully formed life?

The emergence of complex cellular life in the Earth could have been produced early in the history of this planet when the water temperature on Earth was around 320 K and the Universe age was 9.8 ± 0.43 Gyrs. It is now well established that a variety of complex single celled microbes, including archae and thermophile bacteria, can thrive and reproduce at extremely high temperatures, dying (or forming spores) only as temperatures approach 394 K. *"Does this mean that hyperthermophiles were created during these high temperatures?"* asks the researchers. *"Not necessarily. However, what it tells us is that similar forms of life could have also been fashioned, perhaps from proto-cells during the early phases of this universe, such as during phase transitions involving rapid temperature changes. Thus, it is possible that life has had several genesis events."*

In addition to stars, another source of energy that permeates the universe is "dark energy." Dark energy is a hypothetical form of energy that is believed to permeate

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the entire universe and to contribute to its expansion and to the dynamic nature of this universe, preventing matter from clumping together, and filling all of empty space. The existence of a dark and unclustered energy component responsible for more than 70 % of the overall density of our universe is supported by the latest cosmological data.

The consensus of opinion is that the onset of the dark energy phase took place around 4.4 ± 0.2 Gyrs and this has been accompanied by an epoch of universe acceleration starting at 6.9 ± 0.2 Gyrs after the Big Bang. This is well within the range of time that many are now estimating that life or protolife may have first began to form in this universe, i.e. around 10 billion years ago.

These events raise the question of whether an increase of dark energy in the universe at that time could have an influence on the emergence of life.

Dark energy is related to the whole universe and can affect multiscale phenomena ranging from microscale to nanoscale, so why not life the team asks?

Correlations or associations, however, are not causation. Nevertheless, there is a growing consensus that life did not begin on Earth, that life may be widespread throughout the cosmos, and that life, or at least proto-life, may have had its onset billions of years before the formation of this planet and possibly 4 billion or more years after the Big Bang. Therefore, it is imperative, the physicists add, that we ask what unique conditions may have prevailed during this time and how might these conditions have contributed to the origin or multiple origins of life?

They conclude that, first, the proximity between the time onset of the emergence of life and the time onset of the dominance of dark energy in our Universe and the rapid phase of star formation and supernova, and second, the similar interaction energy scale supports the hypothesis that dark energy, coupled with the nuclear synthesis of all the necessary elements for life, may have played an unknown but significant role in the origin and stability of living biological systems and may have contributed to the origins of life.

Then, how did *life arise on earth*?

Earth is estimated to be about 4.5 billion years old, and for much of that history it has been home to life in one weird form or another.

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Indeed, some scientists think life appeared the moment our planet's environment was stable enough to support it.



Stromatolites — like these, found in the World Heritage Area of Shark Bay, Western Australia — may contain cyanobacteria, which were most likely earth's first photosynthetic organisms. Stromatolites have been found that date back to about 3.7 billion years ago.

Credit: Rob Bayer/Shutterstock.com

The earliest evidence for life on Earth comes from fossilized mats of cyanobacteria called stromatolites in Greenland that are about 3.7 billion years old. Ancient as their origins are, these bacteria (which are still around today) are already biologically complex—they have cell walls protecting their protein-producing DNA, so scientists think life must have begun much earlier. In fact, there are hints of life in even more primeval rocks: 4.1-billion-year-old zircons from Western Australia contain high amounts of a form of carbon typically used in biological processes.

But despite knowing approximately *when* life first appeared on Earth, scientists are still far from answering *how* it appeared.

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"Many theories of the origin of life have been proposed, but since it's hard to prove or disprove them, no fully accepted theory exists," said Diana Northup, a cave biologist at the University of New Mexico.

The answer to this question would not only fill one of the largest gaps in scientists' understanding of nature, but also would have important implications for the likelihood of finding life elsewhere in the universe.

Today, there are several competing theories for how life arose on Earth. Some question whether life began on Earth at all, asserting instead that it came from a distant world or the heart of a fallen comet or asteroid. Some even say life might have arisen here more than once.

"There may have been several origins," said David Deamer, a biochemist at the University of California, Santa Cruz. *"We usually make 'origins' plural just to indicate that we don't necessarily claim there was just a single origin, but just an origin that didn't happen to get blasted by giant [asteroid] impacts."*

Most scientists agree that life went through a period when RNA was the head-honcho molecule, guiding life through its nascent stages. According to this "[RNA World](#)" hypothesis, RNA was the crux molecule for primitive life and only took a backseat when DNA and proteins—which perform their jobs much more efficiently than RNA—developed.

"A lot of the most clever and most talented people in my field have accepted that the RNA World was not just possible, but probable," Deamer said.

RNA is very similar to DNA, and today carries out numerous important functions in each of our cells, including acting as a transitional-molecule between DNA and protein synthesis, and functioning as an on-and-off switch for some genes

But the RNA World hypothesis doesn't explain how RNA itself first arose. Like DNA, RNA is a complex molecule made of repeating units of thousands of smaller molecules called nucleotides that link together in very specific, patterned ways. While there are scientists who think RNA could have arisen spontaneously on early Earth, others say the odds of such a thing happening are astronomical.

"The appearance of such a molecule, given the way chemistry functions, is incredibly improbable. It would be a once-in-a-universe long shot," said Robert Shapiro, a chemist

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at New York University. *"To adopt this [view], you have to believe we were incredibly lucky."*

But "astronomical" is a relative term. In his book, *The God Delusion*, biologist Richard Dawkins entertains another possibility, inspired by work in astronomy and physics. Suppose, Dawkins says, the universe contains a billion billion planets (a conservative estimate, he says), then the chances that life will arise on one of them is not really so remarkable.

Furthermore, if, as some physicists say, our universe is just one of many (multiverse), and each universe contained a billion billion planets, then it's nearly a certainty that life will arise on at least one of them.

As Dawkins writes, *"There may be universes whose skies have no stars: but they also have no inhabitants to notice the lack."*

Shapiro doesn't think it's necessary to invoke multiple universes or life-laden comets crashing into ancient Earth. Instead, he thinks life started with molecules that were smaller and less complex than RNA, which performed simple chemical reactions that eventually led to a self-sustaining system involving the formation of more complex molecules.

"If you fall back to a simpler theory, the odds aren't astronomical anymore," Shapiro told Live Science.

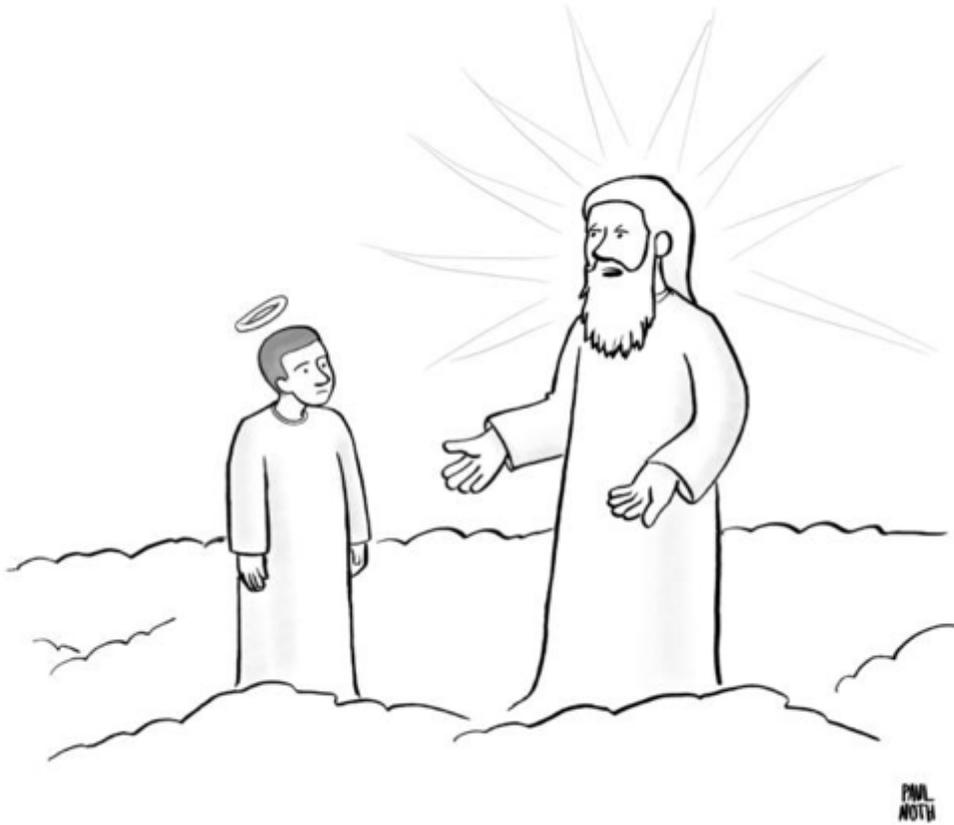
Trying to recreate an event that happened billions of years ago is a daunting task, but many scientists believe that, like the emergence of life itself, it is still possible.

"The solution of a mystery of this magnitude is totally unpredictable," said Freeman Dyson, a professor emeritus of physics at Princeton University in New Jersey. *"It might happen next week, or it might take a thousand years."*

Since the first organisms carrying life were bacteria, so much for the 'Purity' of Life!



The Purity of Humans



“Look, if I have to explain the meaning of existence, then it isn’t funny.”

(St.) Francis de Sales (1567-1622) wrote: *“PURITY is the lily among virtues — by it men approach to the Angels. There is no beauty without purity, and human purity is chastity. We speak of the chaste as honest, and of the loss of purity as dishonor; purity is an intact thing, its converse is corruption. In a word, its special glory is in the spotless whiteness of soul and body.*

No unlawful pleasures are compatible with chastity; the pure heart is like the mother

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of pearl which admits no drop of water save that which comes from Heaven, — it is closed to every attraction save such as are sanctified by holy matrimony. Close your heart to every questionable tenderness or delight, guard against all that is unprofitable though it may be lawful and strive to avoid unduly fixing your heart even on that which in itself is right and good.”

More recently, in the same vein: *“But when we are pure, the Soul always leads the way. We no longer need triggers to be connected and receive authentic guidance. We become connected at all times, the Soul being the one guiding us as we ascend the spiral of the Spirit. We clearly start seeing and feeling the way of the Spirit in every breath that we take, in every move that we make. Our mind only becomes a powerful tool that co-creates with the Heart on our path of the Soul. When mind and Soul merge, we remember our multidimensional Nature, we come into our Essence once again. From there on, we have complete Faith and Trust, that all that we do and is happening to us in our reality, is being arranged by us and for us. We feel that every experience of feeling our consciousness Presence, is the Will of the Divine, because our will and the Divine Will merge. From there on, all of our experiences change profoundly, but not really because of the experiences themselves, but because our perception has shifted completely. We merge with our authentic spiritual Essence and start walking the ultimate path of service to others through the Divine Grace within us.”*

This verbiage is the terrorist language that led (and still leads) to demonization, excommunication, Inquisition, “witch” trials and burning on pyre. The critical idea behind all this is **Sin**. Sex is **sin**. Pleasure is **sin**, but if the person who writes such absolute condemnation exists, where, how was **he** (always a *male!*) conceived? I know: there is the *Immaculate Conception!* But the four children of Pope Alexander VI were –apparently- the result of carnal, lustful, sublimely pleasant orgasm and ejaculation, i.e. unprotected sex.

More recently the concept of *Genetic Purity* came to the forefront; it was one of the pillars of Nazi faith. Blood purity was very important to the leaders of Nazi Germany. According to Hitler, blood purity would ensure the survival of the Aryan race and the ‘1000 Year Reich’. Laws were introduced to ensure blood purity within Nazi Germany and anyone who acted outside of these laws was deemed to have committed the crime of ‘*rassenschande*’, which translates roughly as ‘racial pollution’ or ‘racial crime’.

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The Nazis used public displays to spread their ideas of race. The chart shown here is titled "**The Biology of Growth**," and is labeled "**Stages of Growth for Members of the Nordic Race.**"

But there is such a thing as "*genetic purity*" in a functional sense in biology. It simply means that an animal is homozygous at all alleles (animals have two copies of each gene, one maternal, and one paternal, "*purity*" here would mean having two of the same copy for each gene) and has a breeding partner with the same genetic makeup. It is the product of *extreme* inbreeding, meaning sibling to sibling over many, many generations. Many research strains of mice are "genetically pure" in this sense, and this is probably the only appropriate sense of the term. The animals exhibit a great many abnormalities as a result however, such as tendencies for cancer, autoimmunity, as well as growth or behavioral defects as a result of this lack of genetic diversity.

"*Genetic Purity*" with respect to people is an artificial concept. Most people are highly outbred and exhibit a large degree of genetic diversity. Ethnic or genetic "*purity*" is

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an oversimplified assessment of gross physical characteristics or heritage and has very little to do with our modern understanding of genetics.



But are we **just** Humans? As of 2014, it was often reported in popular media and in the scientific literature that there are about 10 times as many microbial cells in the human body than there are human cells; this figure was based on estimates that the human microbiome includes around 100 trillion bacterial cells and an adult human typically has around 10 trillion human cells. In 2014 the American Academy of Microbiology published an FAQ that emphasized that the number of microbial cells and the number of human cells are both *estimates*, and noted that recent research had arrived at a new estimate of the number of human cells at around 37 trillion cells, meaning that the ratio of microbial to human cells is probably about 3:1.

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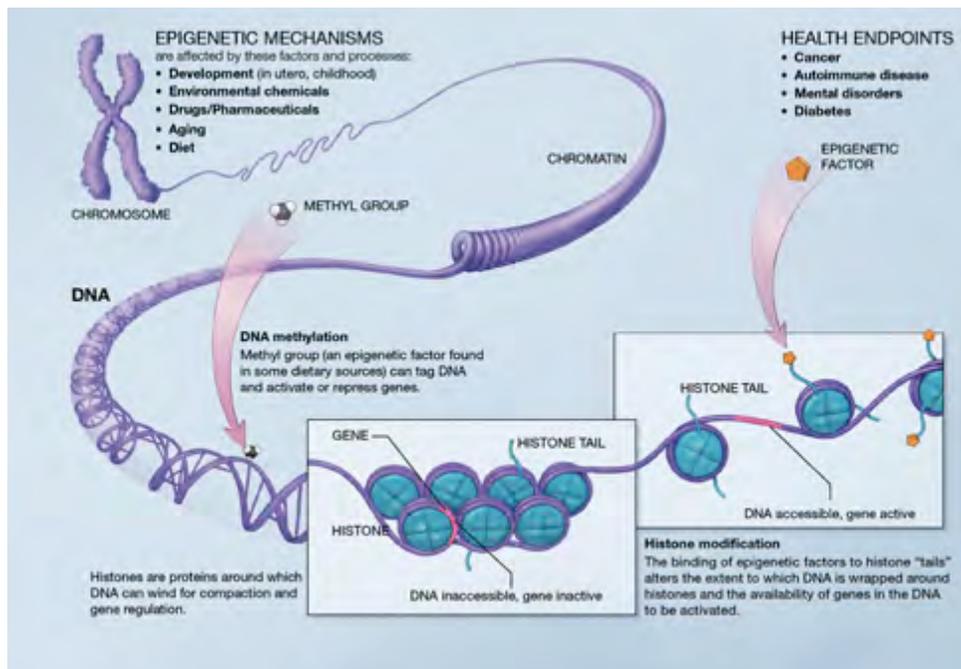


Some microbiota that colonize humans have not merely a commensal (a non-harmful coexistence), but rather a mutualistic relationship with their human hosts. Certain microbiota perform tasks that are known to be useful for the human host.

Still, as living human beings we are three times more microbial than purely 'human'.

So much for *purity* of humans!

Besides there is **Epigenetics**: in 2008, a consensus definition of the epigenetic trait, "*stably heritable phenotype resulting from changes in a chromosome without alterations in the DNA sequence*", was made at a Cold Spring Harbor meeting. More typically, the term is used in reference to systematic efforts to measure specific, relevant forms of epigenetic information such as the histone code or DNA methylation patterns.



Epigenetic changes modify the activation of certain genes, but not the genetic code sequence of DNA. The microstructure (not code) of DNA itself or the associated chromatin proteins may be modified, causing activation or silencing. This mechanism enables differentiated cells in a multicellular organism to express only

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the genes that are necessary for their own activity. Epigenetic changes are preserved when cells divide. Most epigenetic changes only occur within the course of one individual organism's lifetime; however, if gene inactivation occurs in a sperm or egg cell that results in fertilization, then some epigenetic changes can be transferred to the next generation. This raises the question of whether or not epigenetic changes in an organism can alter the basic structure of its DNA, a form of [Lamarckism](#).

Foods are known to alter the epigenetics (of rats, so far) on different diets. Some food components epigenetically increase the levels of DNA repair enzymes such as MGMT and MLH1, and p53. Other food components can reduce DNA damage, such as soy isoflavones and bilberry anthocyanins.

But due to the early stages of epigenetics as a science and to the sensationalism surrounding it, surgical oncologist David Gorski and geneticist Adam Rutherford caution against the drawing and proliferation of false and pseudoscientific conclusions from new age authors such as Deepak Chopra and Bruce Lipton.

Plasticity –for survival- is a key word, and the *complexity* of the issue is antithetic to the concept of *purity*.



Purity of Water and Food

Life (on earth, at least) would not be possible without *water* and *food* (a.k.a. *energy*).

Many commercial interests have promoted the recent obsession with cleanliness. The phobia of germs is just one example –with disastrous consequences. Most people ignore what was mentioned above, i.e. we can live (or survive) because of our *microbiota* i.e. microbes. But *pure* water is often associated with a commercial product: ***purified*** water.

Distillation removes all minerals from water, and the membrane methods of reverse osmosis and nanofiltration remove most, or virtually all, minerals. This results in demineralized water, which has not been proven to be healthier than drinking water. The World Health Organization investigated the health effects of demineralized water in 1980, and its experiments in humans found that demineralized water increased diuresis and the elimination of electrolytes, with decreased serum potassium concentration. Magnesium, calcium and other nutrients in water can help to protect against nutritional deficiency. Recommendations for magnesium have been put at a minimum of 10 mg/L with 20–30 mg/L optimum; for calcium a 20 mg/L minimum and a 40–80 mg/L optimum, and a total water hardness (adding magnesium and calcium) of 2–4 mmol/L. For fluoride, the concentration recommended for dental health is 0.5–1.0 mg/L, with a maximum guideline value of 1.5 mg/L to avoid dental fluorosis.

The Journal of General Internal Medicine (2001) published a study on the mineral contents of different waters available in the US. The study found that "*drinking water sources available to North Americans may contain high levels of calcium, magnesium, and sodium and may provide clinically important portions of the recommended dietary intake of these minerals*". It encouraged people to "*check the mineral content of their drinking water, whether tap or bottled, and choose water most appropriate for their needs*". Since distilled water is devoid of minerals, supplemental mineral intake through diet is needed to maintain proper health. The consumption of "*hard*" water (water with minerals) is associated with beneficial cardiovascular effects. As noted

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in the American Journal of Epidemiology (1971), the consumption of hard drinking water is negatively correlated with atherosclerotic heart disease.



In 2012, I wrote an Op-Ed for *Flavour*, a highly recognized and respected scientific journal on...flavors, i.e. what makes food palatable, attractive and easier to digest and benefit us. The title says it all: *"We only eat what we like" or do we still?* [You'll find it on www.drgeorges.net]. I wrote *"...Ignoring the basic foundations of physiology (and survival) in the name of "science" perverted into "faith" is the perfect recipe or (criminal) failure! Eating/drinking is one of our basic needs; the others being sex, shelter, family/social support and skills. This did work pretty well in the pre- and early industrial age, but with industrialization of the food supply (agriculture, etc.), based on only limitless profit, we witnessed a tectonic perversion in politics, policies, physiopathology, epigenetics, and ultimately public health. The current quasi-unanimous attitude is to blame the victim (for example, the obese) and/or the messenger (for example, maybe this author)"*.

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One of the great myths of contemporary American culture is that the United States' food supply is the safest in the world because the government works to guarantee food safety and enforce certain standards on food producers, processors, and distributors. In reality U.S. food safety administration and oversight have remained essentially the same for more than a century. The Progressive and Pure Food movements combined forces to pass and implement the country's first food safety legislation: the **1906** Pure Food and Drug Act and the **1906** Federal Meat Inspection Act. In the name of food purity, both laws prohibited the adulteration of food products. They were revolutionary for their time because they empowered the federal government to protect consumers from unwholesome and misbranded foods. The story continues throughout the century as changes in food production and distribution alongside scientific revolutions in biology and chemistry transformed our understandings of "safe food" and thus challenged the 1906 framework.

When today's consumers think about food safety, they are far more likely to think about microbial contamination than they are to think about food adulteration. However, the regulatory environment that governs food safety has not changed, despite advances in science and shifts in public perception. In short, at the turn of the twenty-first century, over a hundred years after the first food safety laws were passed in the United States; federal regulators could prevent peanut butter producers from adulterating their products with sawdust but could not prevent them from selling products contaminated with *Salmonella*. Why? How is it possible that the U.S. food safety regulatory regime remained unchanged for a hundred years? Why did the United States remain beholden to nineteenth-century notions of purity and wholesomeness while other developed countries have done much, much better. In fact, federal agencies are fundamentally limited in their power to safeguard the food supply.

Food poisoning has been recognized as a disease since as early as Hippocrates. The sale of rancid, contaminated or adulterated food was commonplace until the introduction of hygiene, refrigeration, and vermin controls in the 19th century. Discovery of techniques for killing bacteria using heat, and other microbiological studies by scientists such as Louis Pasteur, contributed to the modern sanitation standards that are ubiquitous in developed nations today. This was further underpinned by the work of Justus von Liebig, which led to the development of

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modern food storage and food preservation methods. In more recent years, a greater understanding of the causes of foodborne illnesses has led to the development of more systematic approaches such as the Hazard Analysis and Critical Control Points (HACCP, 1997), which can identify and eliminate many risks.

Recommended measures for ensuring food safety include maintaining a clean preparation area with foods of different types kept separate, ensuring an adequate cooking temperature, and refrigerating foods promptly after cooking.

Foods that spoil easily, such as meats, dairy, and seafood, must be prepared a certain way to avoid contaminating the people for whom they are prepared. As such, the rule of thumb is that cold foods (such as dairy products) should be kept cold and hot foods (such as soup) should be kept hot until storage. Cold meats, such as chicken, that are to be cooked should not be placed at room temperature for thawing, at the risk of dangerous bacterial growth, such as *Salmonella* or *E. coli*.

Today, the majority of American farmland is dominated by industrial agriculture—the system of chemically intensive food production developed in the decades after World War II, featuring enormous single-crop farms and animal production facilities. Back then, industrial agriculture was hailed as a technological triumph that would enable a skyrocketing world population to feed itself. Today, a growing chorus of agricultural experts—including farmers as well as scientists and policymakers—sees industrial agriculture as a dead end, a mistaken application to living systems of approaches better suited for making jet fighters and refrigerators.

The impacts of industrial agriculture on the environment, public health, and rural communities make it an unsustainable way to grow our food over the long term. And better, science-based methods are available.

At the core of ubiquitous industrial food production is monoculture—the practice of growing single crops intensively on a very large scale. Corn, wheat, soybeans, cotton and rice are all commonly grown this way in the United States. Monoculture farming relies heavily on chemical inputs such as synthetic fertilizers and pesticides. The fertilizers are needed because growing the same plant (and nothing else) in the same place year after year quickly depletes the nutrients that the plant relies on, and these nutrients have to be replenished somehow. The pesticides are needed because monoculture fields are highly attractive to certain weeds and insect pests.

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In the industrial system of meat production, meat animals are "finished"—prepared for slaughter—at large-scale facilities called CAFOs (confined animal feeding operations), where their mobility is restricted and they are fed a high-calorie, grain-based diet, often supplemented with antibiotics and hormones, to maximize their weight gain. Their waste is concentrated and becomes an environmental problem, not the convenient source of fertilizer that manure can be for more diverse, less massively scaled farms.

No matter what methods are used, agriculture always has some impact on the environment. But industrial agriculture is a special case: it damages the soil, water, and even the climate on an unprecedented scale.

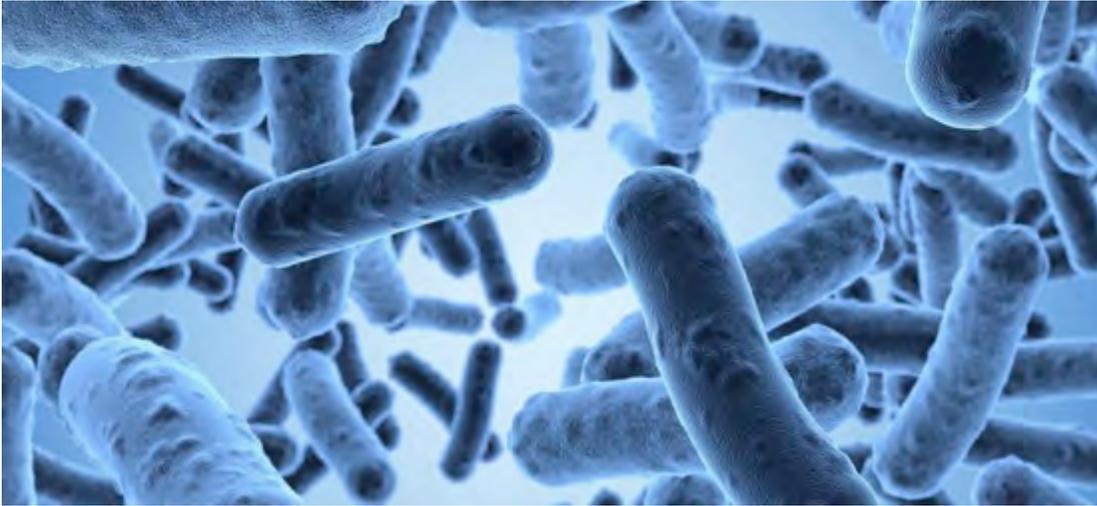
Intensive monoculture depletes soil and leaves it vulnerable to erosion. Chemical fertilizer runoff and CAFO wastes add to global warming emissions and create oxygen-deprived "dead zones" at the mouths of major waterways. Herbicides and insecticides harm wildlife and can pose human health risks as well. Biodiversity in and near monoculture fields takes a hit, as populations of birds and beneficial insects decline.

Whenever we attack a population of unwanted organisms (such as weeds or bacteria) repeatedly with the same weapon, we give an evolutionary advantage to genes that make the organism less vulnerable to that weapon. Over time, those genes become more widespread, and the weapon becomes less useful—a phenomenon

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called *resistance*. Industrial agriculture has accelerated resistance problems on at least two fronts.



Overuse of antibiotics in meat production (in the U.S., *more* antibiotics are consumed each year by healthy animals than by sick humans) has contributed to a growing problem of antibiotic resistance that is having a serious impact on the treatment of infectious diseases. And a similar over-reliance on the herbicide glyphosate (marketed by Monsanto Co. as *Roundup*) has spawned a burgeoning population of Roundup-resistant "superweeds" that has become a scourge for farmers in many areas of the U.S., especially the South and Midwest.

But will still find it hard to avoid the 6,000 food additives – flavorings, glazing agents, improvers, bleaching agents and more – that are routinely employed behind the scenes of contemporary food manufacture. That upmarket cured ham and salami, that “artisan” sourdough loaf, that “traditional” extra-mature cheddar, those luxurious Belgian chocolates, those specialty coffees and miraculous probiotic drinks, those apparently inoffensive bottles of cooking oil: many have had a more intimate relationship with food manufacturing than we appreciate.

When you try to dig deeper, you hit a wall of secrecy. For at least the past decade, the big manufacturing companies have kept a low profile, hiding behind the creed of commercial confidentiality, claiming they can’t reveal their recipes because of competition. Instead, they leave it to retailers to field any searching questions from

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journalists or consumers. In turn, retailers drown you in superfluous, mainly irrelevant material. The most persistent inquirers may be treated to an off-the-peg customer reply from corporate HQ, a bland, non-specific reassurance such as,

“Every ingredient in this product conforms to quality assurance standards, EU regulations, additional protocols based on the tightest international requirements, and our own demanding specification standards.”

The history of food processing is littered with ingredients that were initially presented as safer and more desirable, yet subsequently outed as the opposite. Hydrogenated vegetable oils, or margarine, were actively promoted as healthier than the natural saturated fats in butter. High fructose corn syrup, once marketed as preferable to sugar, has now been identified as a key driver of the obesity epidemic in the US.

We all eat prepared foods made using state-of-the-art technology, mostly unwittingly, either because the ingredients don't have to be listed on the label, or because weasel words such as “flour” and “protein”, peppered with liberal use of the adjective “natural”, disguise their production method. And we don't know what this novel diet might be doing to us.

Food manufacturers combine ingredients that do not occur in natural food, notably the trilogy of sugar, processed fat and salt, in their most quickly digested, highly refined, nutrient-depleted forms. The official line – that the chemicals involved pose no risk to human health when ingested in small quantities – is scarcely reassuring.

Safe limits for consumption of these agents are based on statistical assumptions, often provided by companies who make the additives.

Manufactured foods often contain chemicals with known toxic properties – although, again, we are reassured that, at low levels, this is not a cause for concern. This comforting conclusion is the foundation of modern toxicology and is drawn from the 16th-century Swiss physician, Paracelsus, whose theory “*the dose makes the poison*” (i.e. a small amount of a poison does you no harm) is still the dogma of contemporary chemical testing. But when Paracelsus sat down to eat, his diet wasn't composed of takeaways and supermarket reheats; he didn't quench his thirst with canned soft drinks. Nor was he exposed to synthetic chemicals as we are now, in traffic fumes, in pesticides, in furnishings and much more. Real world levels of exposure to toxic

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chemicals are not what they were during the Renaissance. The processed food industry has an ignoble history of actively defending its use of controversial ingredients long after well-documented, subsequently validated, suspicions have been aired.

The precautionary principle doesn't seem to figure prominently in the industry's calculations, nor – such is their lobbying power – does it loom large in the deliberations of food regulators. If it did, then steering clear of manufactured products would be a lot easier.

The pace of food engineering innovation means that more complex creations with ever more opaque modes of production are streaming on to the market every day.

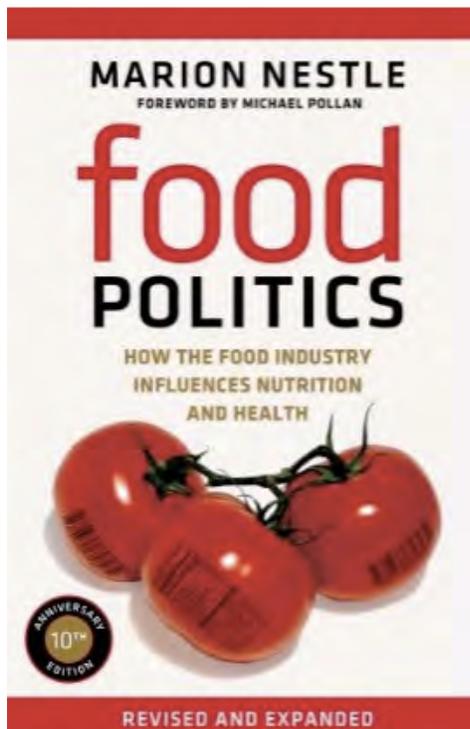


We all witness, in advertising and on supermarket shelves, the fierce competition for our food dollars. In an engrossing expose, *Food Politics*, Marion Nestle goes behind the scenes to reveal how the competition really works and how it affects our health.

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The abundance of food in the United States - enough calories to meet the needs of every man, woman, and child twice over - has a downside. Our over-efficient food industry must do everything possible to persuade people to eat more - more food, more often, and in larger portions - no matter what it does to waistlines or well-being. Like manufacturing cigarettes or building weapons, making food is big business.



Food companies in 2000 generated nearly \$900 billion in sales. They have stakeholders to please, shareholders to satisfy, and government regulations to deal with. It is nevertheless shocking to learn precisely how food companies lobby officials, co-opt experts, and expand sales by marketing to children, members of minority groups, and people in developing countries. The food industry plays politics as well as or better than other industries, not least because so much of its activity takes place outside the public view. Editor of the 1988 *"Surgeon General's Report on Nutrition and Health"*, Nestle is uniquely qualified to lead us through the maze of food industry interests and influences. Food politics in action are: watered-down government dietary advice, schools pushing soft drinks, diet supplements promoted as if they were First Amendment rights. When it comes to the mass production and consumption of food, strategic decisions are driven by economics - not science, not

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common sense, and certainly not health. No wonder most of us are thoroughly confused about what to eat to stay healthy.

Caveat emptor!

Hence there was never a **pure** food, and that's normal and reasonable: we are made of innumerable components, and need to replenish with *complex* mixes of carbohydrates, lipids, proteins, mineral, etc. that will provide fuel to our cells and our indispensable microbiota. But we must be aware of the evolution of food production, processing, distribution and transformation that must keep playing its role for our benefit –and not only for the profit of soulless corporations.



Purity Politics



“

“Politics is the art of the possible, the attainable — the art of the next best”. **Otto von Bismarck**

Political purity, in any form, is both impossible and undesirable. People who put their faith in an individual or an ideology that promises to remedy all evils and achieve an ideal society are not only setting themselves up for a disappointment, they are also guilty of a form of moral blindness, which prevents them from seeing either the good

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in their political opponents or the weaknesses in their own side.

The political career of Maximilien Robespierre, one of the most important and divisive figures of the French Revolution, provides a powerful illustration of the destructive effect of the *politics of purity*. Having given celebrated speeches in defense of freedom of speech and minority rights in the National Assembly, Robespierre was to use his authority on the Committee of Public Safety to advocate a purge of his political opponents, and the removal of a defendant's right to a fair trial. The closer he came to believe that France required 'purification' in order to revive a lost spirit of civic virtue, the more he became, in Peter McPhee's words, "*prone to understanding the revolutionary world in terms of a binary opposition: the good and the evil, 'patriots' and 'counter-revolutionaries'*". Mirabeau said of Robespierre: "*This man will go far: he believes everything he says.*"



However, Robespierre's early political career offered little indication of his later willingness to act ruthlessly in pursuit of his ideals. A man of austere habits and strongly held principles, Robespierre was no spittle-flecked ranter; instead, his oratorical style was measured and sincere. Before being drawn in to the maelstrom

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of Parisian politics, he had been a relatively unknown provincial lawyer, and this enabled him to present himself as an independent-minded and impartial voice above the political fray. This gave weight to Robespierre's claim to speak on behalf of the ordinary people of France, rather than the gilded members of the aristocracy, clergy or bourgeoisie. Robespierre's most celebrated early speeches to the National Assembly attacked privilege, upheld freedom of conscience and attacked the compromises made by the revolution's self-appointed leaders. He criticized the death penalty and, later, the drive for war against France's external enemies. In a speech praising him: *"In the midst of corruption, you have remained the unshakeable support of truth... you have fought to maintain the purity of a constitution dictated by philosophy for the good of humankind."*

Robespierre's idealism was founded above all on the work of two great writers, Rousseau and Plutarch, who both attacked the perceived corruption around them by sanctifying an earlier, idealized social order. Jean-Jacques Rousseau argued that human society had once been based on virtue and brotherhood, but these principles had been eroded by the pursuit of ambition and material wealth. Centuries earlier, the Roman historian Plutarch praised the courageous and self-sacrificing defenders of liberty who had struck down internal enemies and would-be tyrants in order to preserve the Roman Republic. As the political crises facing the revolutionary state deepened between 1792 and 1794, Robespierre used speech after speech to set forth his vision of a purer, ennobled society that would truly meet the high-minded aspirations of 1789. To his supporters, he became '*L'incorruptible*'-the deputy who could not be swayed by calls for calculation or compromise. As a warning, Pierre Vergniaud, in a speech to the National Convention in January 1793 shouted: *"Citizens, there is too much reason to believe that the Revolution, like Saturn, will progressively devour all of its children..."*

But almost from the moment that Robespierre began to articulate this powerful vision, he and his supporters were faced with a nagging problem. Purification is an all-encompassing process; half-measures are impossible, and there is no place for small doubts or skeptical analysis. Any challenge to Robespierre was interpreted as an attack on his integrity and, since he was the courageous truth-teller who was liberating France, such an attack was also aimed at destroying the revolution as a whole. Cautious, detached critics who warned about the radical pace of change were

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no better than the most ardent conservatives, indeed they were in practice worse, since they disguised themselves as radicals only in order to prevent a true transformation from taking place, and thus to protect their own positions. As the revolution radicalized, so the apparent conspiracy worsened; more of Robespierre's former colleagues and allies expressed doubts and urged caution. All traitors, all hypocrites, all, one by one, destined for the scaffold. Condorcet said: "*He has all the characteristics, not of a religious leader, but of the leader of a sect.*"

You do not have to search far to find the same kind of political dynamic working itself out in contemporary –think US 2016! - politics (even if most of the violence is now online). The champions of 'anti-politics' are, in one form or another, descendants of Robespierre: not all are great orators, nor as austere, nor as astute, but all claim to speak on behalf of the marginalized and ignored, envisaging a society in which corruption can be defeated by the force of their idealism. Their devoted supporters will seize on the merest scraps of evidence to legitimize their political program and use personal insults or violent rhetoric to trash anyone who challenges them. The purification of politics ensures that there can be no compromise with the status quo and no room for doubt. Complex questions are simplified into a binary choice, and those on the wrong side of the debate are vilified and purged. In the end, the trouble with the politics of purity is that everyone ends up covered in filth.

Now back to today: in her book *Against Purity: Living Ethically in Compromised Times*, Alexis Shotwell argues that "*personal purity is simultaneously inadequate, impossible, and politically dangerous for shared projects of living on earth.*" Focusing on maintaining your own innocence or goodness is counterproductive to actually fixing the world's problems.

Instead, "*if we want a world with less suffering and more flourishing, it would be useful to perceive complexity and complicity as the constitutive situation of our lives, rather than as things we should avoid,*" she writes. We can't help that we've inherited these problems—a warming Earth, institutional racism, increasingly antibiotic-resistant bacteria—nor can we help sometimes perpetuating them. Better to stop pretending at purity, own up to our imperfections, and try to create a morality that works with them.

The book talks about a lot of different things, but the common thread is basically that purity is an illusion that can never be achieved. And yet there's a lot of ways that

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people act as though there's some natural state of purity that we could be living in if we just tried hard enough.

Every ethical system that we have starts from the view that we're all in the world with other beings, we're embedded in the broader world. We're connected, we're implicated, and that's why we need to think about ethics. People who are trying to wrestle with that, both professional ethicists and everyday people, turn very quickly to focusing on what we personally, individually can do to either manage our responsibility or to protect ourselves from how hard it is to be in this world. We say, *"Oh we're so connected, and it's so complicated,"* and then the first thing we do is try to manage our own personal situation in relation to our ethical system. It's a scope-limiting impulse that tries to deal with the stuff that we actually can deal with. We think, *"I can at least work on my own lifestyle,"* or *"I can at least work on my own responsibility."* But thinking about our own individual responsibility is a bad approach for two reasons. The first one is just a true thing about the world—that it's not possible for us to achieve personal purity. For example, you might want to say, *"I am profoundly concerned about racial injustice, and so the way I'm going to manage that is to try to never say or do anything that contributes to racial injustice, I'm even going to take up positive duties of figuring out how I can contribute to racial justice in my world,"* and those are all really good things to do. But as soon as we think, *"Oh, my personal behavior is going to eliminate racial injustice,"* we can say, *"Oh no, I'm still benefitting. I'm a white person, I'm still benefitting from racial oppression. I can't. Just walking down the street, white supremacists will look at me and not harm me, because they read me as white. So, there's not a way that I can individually be absolved from the social relations of racism."* It's just impossible.

The second thing is that it's not politically useful. It doesn't do us any good to aim for individual purity. When we start doing that, we become solipsistic, we become narcissistic, we become very focused on our own personal little thingy and that means that we don't aim to make systemic, bigger changes. Aiming for that kind of individual absolution—as soon as we mess up, and as soon as someone points out that we're actually still connected and implicated, we might be tempted to give up at that point.

Robert Crawford wrote, crafted the word *Healthism* (1980), then Petr Skrabanek published in 1994 his book *The Death of Humane Medicine and the Rise of Coercive*

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Healthism, a must-read book that attempts to differentiate the Hippocratic notion of *health* (υγεία), a natural state from the perverted, mercantile ideology of a statistics-based notion of an abstract modern paradisiac dream.

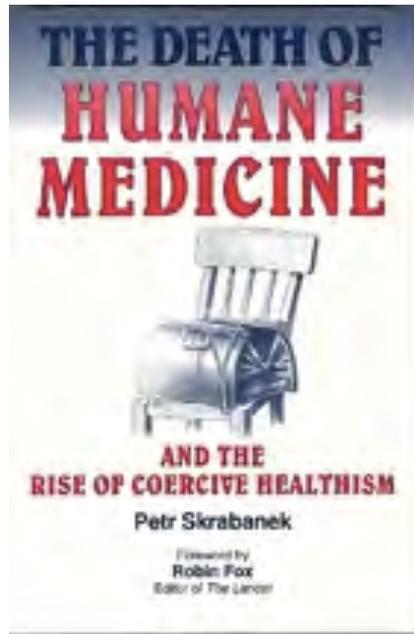
Indeed, healthism represents a particular way of viewing the health problem and is characteristic of the new health consciousness and movements. It can best be understood as a form of medicalization, meaning that it still retains key medical notions. Like medicine, healthism situates the problem of health and disease at the level of the individual. Solutions are formulated at that level as well. To the extent that healthism shapes popular beliefs, we will continue to have a non-political, and therefore, ultimately ineffective conception and strategy of health promotion. Further, by elevating health to a super value -a metaphor for all that is good in life- healthism reinforces the privatization of the struggle for generalized well-being. According to Skrabanek, "healthism" begins when the government begins to use propaganda and coercion to establish norms of health and begins to attempt to impose norms of a "*healthy lifestyle*." All human activities are weighed in the balance of their real or imagined effects on health: all human activities are divided into "healthy" and "unhealthy", prescribed and proscribed, approved and disapproved, responsible and irresponsible, based on this measure. In Skrabanek's view, "healthism" goes hand in hand with what he calls "*lifestylism*", another neologism, which Skrabanek uses to describe the view that most diseases are the result of unhealthy habits or behavior. Skrabanek notes that, while "lifestylism" is ostensibly founded on a basis of mathematics and statistics, it nevertheless has a strong moralistic flavor. Skrabanek cites a British epidemiologist, Geoffrey Rose, as expressing the belief that most people live "*unhealthily*" and constitute a "*sick population*". But since (according to Skrabanek) this message would lead to a fatalistic rejection of the lifestyle doctrine, it must be recast to be socially and politically acceptable, quoting Rose for the view that the "sick" society must be re-educated in its "*perception of what is normal and acceptable*."

Ultimately, Skrabanek claims that "*healthism*" either leads to, or is a symptom of, incipient totalitarianism. Skrabanek claims that healthism justifies racism, segregation, and eugenic control; for the healthist, what is "*healthy*" is moral, patriotic, and **pure**; while what is "*unhealthy*" is foreign, polluted, and **impure**. The doctrine of "*lifestylism*" suggests that state actions to prescribe what is healthy or

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forbid what is unhealthy are limitless in scope and offer no grounds for privacy.



There were all kinds of things happening coming out of the '60s and the massive social justice movements that really made people feel like we can make this world a place for everyone to live and flourish. Then there was a turn toward thinking you are personally responsible for your sickness. Whether you get cancer, whether you get diabetes, this is your fault, and if you're not living well, you're actually morally culpable for your own sickness. I think of that as a purity politics of despair. When you think about everything that could go wrong and you then say, "*The bounds of my skin are the relevant unit of analysis,*" then everyone's also responsible for his/her own problems. This means you don't have to feel bad about other people getting sick and dying because they're living downstream from a factory. They should've done something about that; they should've eaten more antioxidants (or some other expensive placebo!).

It fundamentally comes back to the idea that the individual is a self-governing unit who can make decisions about what comes in and what goes out. Of course, boundaries are really important. But boundaries are there because we're porous; we're available to the world. So, what a boundary means, actually, is connection,

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being next to something or being with something that's potentially part of you or it's already part of you. In the West, there's this purity ideal that imagines that's not true. It imagines that we have these walls that nothing could or should cross.

Right now, in the USA, on the left, a lot of the time what happens is that people try to have only the right words, the right views, the right lines. They develop a kind of party line that they try to hold to, and then spend quite a lot of time disciplining other people's behavior and speech. It's not that we want to say harmful things or have bad views.

But this turns into purity politics when that self-monitoring or disciplining other people's speech or behavior is all they end up doing.

So, one needs to figure out: What does a politics of imperfection look like? What happens if messing up is not the worst thing that could happen? We say, *"I'm going to work on this thing and I'm definitely going to make a mistake. I'm already part of a really messed up situation, so I'm not going to be able to personally bend the arc of the universe toward justice. But I might be able to work with other people so that all together we can do that."*

We need this right now. We're looking at the rise of really intensely racist, xenophobic, anti-disability, anti-poor expression. A lot of people are responding to that by saying, *"That's not the world that I want."* They're trying to come into politics. In fact, we should be interested in politics based on acknowledging imperfection and work together anyway.

Everything we have is a product of history, and some of us are benefitting from it; some of us are still being harmed by it. Most of us didn't choose it. We inherit history. We're historical beings and the world is a product of history, so everything that's happened in the world has this material manifestation now—in the distribution of who owns houses, in the distribution of which places are sickening for beings to live in. We receive all of that. And yes, one impulse is to say, *"I am not responsible for that. I didn't do that."*

What does it mean for us to understand that we're a product of ongoing colonialism and genocidal plans for indigenous people of this continent? How do we not be guilty about that but instead recognize that we can take responsibility for that history? Taking responsibility for history doesn't mean going back to change what happened.

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It means acknowledging this history, how do we move forward?

The current president of the US, Donald J. Trump's slogan is *Make America Great Again*. That call —let's return to the past, let's return to this mythical time where everything was wonderful— forgets that it was only wonderful for **some** (few, and always the same rich & powerful) people. And in fact, most of the time on this continent since colonization, life has been really *awful* for many people. The kind of responsibility for the future that we should be interested in is one that's grounded on different histories that also are present. Those are histories of workers' struggles for everyone to be able to have a dignified wage and a workday. And there are really profound experiments in public education. So, there are all these amazing histories. We can always look at whose better time are we invoking when we say something like "*make America great again*." You always have to ask, "**Who** are we going to make great?"

[Note: *America*, and for that matter the earth and the *World*, are changing, evolving every fraction of a second in a myriad of interconnected (but mostly unknown, and certainly unpredictable) directions. Claiming to go back to a fabricated, manageable past is such nonsense, that it blows any mind!]

Most of the things that are wrong in the world need collective coalitional responses. But we're individual people who still need to make decisions.

So, what does it mean to not aim for personal purity?

It means two things. One is an attitude of self-forgiveness. That means recognizing that we've messed up in the past, we've made mistakes, and that we can still be of benefit. We can move forward. We can be helpful. One prong of personal purity imagines that people are fundamentally bad and they're never going to be able to clean that up. It's kind of like an original sin version of morality.

Giving up personal purity allows us to confront the possibility of being shamed and not have that destroy us. If you're doing antiracism work, especially if you're a white person, you're going to mess up and someone's going to say that you're racist. What happens if that doesn't mean that you then never do any antiracism work again?

Instead you say, "*I did a racist thing, I messed that up, let me figure out how I can repair.*" Which doesn't mean getting the kind and generous person of color who told you you did a racist thing, to work it through with you.

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The second thing that giving up personal purity gives us is it liberates us from feeling like we have to do everything ourselves. Giving up personal purity allows us to recognize that there are a whole lot of things we are not going to be able to solve.

Like we can't personally solve the problem of antibiotic-resistant bacteria. There are people who are overprescribing antibiotics; there are feedlots where animals are being fed antibiotics because they also increase meat production. We can't personally solve that. We can worry about it, we can hope. There are, though, probably things that we personally can work on. Some people think about this as cleaning the floor where we're standing. We should think about this as distributed ethics. The ethical obligation becomes not "*How am I going to solve all these huge and enormous things,*" but instead "*What can I work on? What's within my reach? What am I connected to?*"

Kant thought we have an ethical obligation to develop our capacities and our skills. And that might actually mean that we need to take care of ourselves in order to still be able to do the work. So, giving up individual purity frees us from that feeling that any mistake is a catastrophe, and it opens us to the possibility of being better able to identify the things we can actually change.



Les Mains Sales (Dirty Hands) is a play by Jean-Paul Sartre first performed on 2nd April 1948 in Paris, at Theatre Antoine.

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The action takes place in Illyria, a fictional Eastern European country, during the latter stages of World War II. (*Illyria was an actual country of classical antiquity, whose territory included modern Albania and surroundings.*) The country, an ally of Nazi Germany, is on the verge of being annexed to the Eastern Bloc.

A young Communist, Hugo Barine, is told that Hoederer, a party leader, has proposed talks with non-Socialist groups, including the Fascist government and the liberal- and Nationalist-led resistance. The idea is to set up a joint resistance group opposing the Germans, and plan for a post-war coalition government. Hugo feels that Hoederer's policy smacks of treachery. Louis, another party leader, has decided that Hoederer must die. He grudgingly agrees to let Hugo -who has more commitment than experience- do the job.

Hugo and his wife Jessica move in with Hoederer, who is charming and trusting by nature. Hugo becomes his secretary.

Hoederer's plan is to enter government with the other parties but to leave them with the key ministerial posts. Once the war is over a number of unpopular but necessary policies will have to be implemented in order to rebalance the economy. This will cause problems for the right-wing government, allowing the left wing, including the Communists, to take over more easily. At the moment, the Communists do not have the necessary support to gain power, and the expected arrival of the Soviet forces may only make things worse. Hoederer points out that people do not like occupying foreign armies, even liberating ones, and the feeling will be passed on to the government introduced by the invaders.

Hugo insists that the party must remain pure. Power is the goal, but Hoederer's expedient methods are not acceptable, especially as they involve collaborating with "class" enemies and lying and deceiving to their own forces. Once they are alone Jessica tries to convince Hugo that he was taken in by Hoederer's point of view, but he twists this around saying that it is all the more the reason to kill Hoederer since he could convince others.

Over time, however, both Hugo and Jessica has succumbed to Hoederer's charm and manner. Although he disagrees with Hoederer's policies, Hugo seems to think that Hoederer could help him cross from boyhood to manhood and sort out his internal conflicts. Hoederer, who is now aware that Hugo is there to kill him on Louis' orders,

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is willing to help the young man sort out his problems. Eventually Hugo kills Hoederer (by jealousy: he catches Hoederer kissing his wife Jessica).

However, the policy that Hoederer proposed has been adopted after all. On **Moscow's** orders, the party has formed an alliance with the other groups. In fact, Hugo realizes that the very setup that Hoederer was negotiating in his presence, and which he was supposed to prevent, has been carried out. The whole thing was over a matter of timing: Hoederer's initiative was too premature, so the party had to kill him. Later, after Hoederer's plan was adopted, the party rehabilitated his image and after the war he will be remembered as a great leader and hero.

The critical scene is in Act V when Hoederer says to Hugo:

*Right! Today it's the best means. [A pause.] How you cling to your **purity**, young man! How afraid you are to soil your hands! All right, stay **pure**! What good will it do? Why did you join us? **Purity** is an idea for a yogi or a monk. You intellectuals and bourgeois anarchists use it as a pretext for doing nothing. To do nothing, to remain motionless, arms at your sides, wearing kid gloves. Well, I have **dirty hands**. Right up to the elbows. I've plunged them in shit and blood. But what do you hope? Do you think you can govern innocently?*



“On ne fait pas de politique sans se salir les mains” L.A.L. de Saint-Just

Everywhere, every moment, politics is *getting your hands **dirty***.

We are judged –much later, when we have been dead for eons- by history.



Acknowledgements

This essay was triggered by the US presidential election of Donald J. Trump. It did remind me of Sinclair Lewis' *It Can't Happen Here* (that I am rereading) and George Orwell's *Nineteen-Eighty-Four*. These are critical times, and everyday bring its lot of abhorrent news.

I do share my concerns with my family and find support in my wife Emiko; our daughters Emmanuelle and Emilie, and one of our grandsons, Marin, a junior at the University of California Santa Cruz; Timur Kouliev, MD, and the amazing team assembled by Jan W. Vasbinder at the *Para Limes* Institute for Complexity, Nanyang Technological University of Singapore, notably Andrew LY Sheng, Jonathan Sim, Brian Arthur; and many more there and elsewhere.

The usual sources that I pilfered are Wikipedia, *The Atlantic* and many other –often *verbatim*- that are listed below in the ***References and Credits***.

Yves P. Huin has been the indispensable editor, superb director and Webmaster *par excellence*.

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