

# Germ Theory Denial, Anti-Vaccination and COVID-19

Elliot Benjamin\*

Department of Psychology, Capella University, Minneapolis, USA

## Abstract

In this article the author describes his perception of the relationship of germ theory denial to anti-vaccination and COVID-19. After initially conveying the basic features of germ theory denial and terrain theory, he discusses these features in detail in a number of germ theory denial books, inclusive of their anti-vaccination content, and how this detrimentally affects the fight against the COVID-19 pandemic. In particular, the author describes the wealth of important information in Dawn Lester and David Parker's 2019 germ theory denial book *What Really Makes You Ill? Regarding the deadly dangers of toxic chemicals in a wide range of uses that span medicines and vaccinations for a multitude of diseases, as well as its pervasive use in many areas of everyday life, inclusive of what Lester and Parker refer to as manufactured poisons and applications, poisoned food, poisoned water, and poisoned bodies.* The author also conveys Lester and Parker's description of the destructive consequences from electromagnetic radiation exposures, as well as from globalization and vested interests. In addition, utilizing a number of relevant examples through referenced excerpts, the author offers his own perspective on what he views as the narrow-minded, complete, and absolute adherence to germ theory denial in all the books he discusses, with disastrous consequences in regard to our current deadly worldwide COVID-19 pandemic.

**Keywords:** Germ • Denial • Anti-Vaccination • COVID-19

## Introduction

In the United States at the current time, June, 2021, the anti-vaccination movement has had a powerfully detrimental and destructive impact upon the prospect of reaching herd immunity to finally end the COVID-19 pandemic. Nearly half of Republicans refuse to be vaccinated, and the reason attributed to this has been described as "a steady stream of conspiracy theories and false information designed to make the vaccine seem either ineffective or downright dangerous" [1]. A Facebook survey has found that "Vaccine confidence in the US has been slowly but steadily going down since February," and health experts say that we need "at least 70-85% of the US population immunized to reach herd immunity" [2]. Furthermore, "The longer people stay unvaccinated, the more chances a virus has to mutate. And if the mutations are significant, they could lead to more troubling strains that might evade vaccines [2]. Although there are recently signs that opposition to vaccination may perhaps be starting to reverse course [3]. The anti-vaccination movement has undoubtedly had a prominent effect on the phenomenon of people refusing to get vaccinated, which has resulted in continued sickness and death from COVID-19, both in the United States and worldwide [4-6]. Furthermore, the movement of germ theory denial is inextricably entangled with anti-vaccination and conspiracy theory and all of this is resulting in an escalation in the refusal of more and more people to get vaccinated against COVID-19 [3,7].

Recently written a four-part essay series to explore the COVID-19 vaccination dilemma, with a focus upon the 2018 scholarly anti-vaccination book by sociologist Mateja Cernic [8-13]. Furthermore, I have alluded to the assumed germ theory denial basis of Cernic's anti-vaccination book, as described in Richard House's extended review of Cernic's book [11,13]. After describing the Terrain Theory approach as relating to the "characteristics of the individual and the population, "House (2021) made the following assumption that I think is quite reasonable:

This kind of "Terrain Theory" approach to infectious diseases (as opposed to the conventional "Germ Theory" that underpins mainstream allopathic medicine and vaccination ideology) represents the kind of holistic scientific thinking to which Cernic no doubt subscribes [14-16].

Now explored the germ theory denial approach to explaining illness from House's (2021) above recommended readings, inclusive of the over 700 pages of text from the book by Lester and Parker (2019), and from some additional readings. In the remainder of this essay I will convey my thoughts in regard to germ theory denial in the context of anti-vaccination and COVID-19.

## Germ Theory vs. Terrain Theory

In 1923, Ethel Douglass Hume, a British anti-vivisectionist, germ theory denier, animal welfare writer, and traveler, published a controversial book entitled *Béchamp or Pasteur? A Lost Chapter in the History of Biology* [14,17]. Hume's book was reinforced and updated with an enhanced anti-vaccination stance in 1942 by Pearson, entitled *Pasteur: Plagiarist, Impostor: The Germ Theory Imploded.* Antoine Béchamp, a well-respected French medical biochemist who produced a great deal of scientific work in the mid-1800's, was a contemporary and apparently a competitor of Louis Pasteur, the latter being credited with historical accolades as the dominant proponent of the modern science of germ theory and vaccination, that is claimed to have resulted in saving millions of lives and minimizing the disastrous effects of a multitude of diseases [17,18]. However, both Hume maintained that the central place of honor given to Pasteur was seriously misplaced, and belong instead to Be champ. Furthermore, they argued, through a multitude of detailed historical accounts, that while Be champ was a brilliant, genuine, and modest scientist who was dedicated to the development of his scientific work for noble causes, Pasteur was predominantly interested in his own personal fame and fortune, and stole a number of his ideas from Béchamp, portraying them as his own discoveries [17,18].

Given that I am not a biochemist, medical practitioner, or historian (neither was Hume for that matter), certainly am in no position to decide upon the merits of these claims in regard to Béchamp and Pasteur. However, must admit that reading through these books gave me pause, and did make me wonder about the historical accuracy of ignoring Béchamp and placing Pasteur at the pinnacle of the basis of what the world views as our modern scientific achievement through germ theory and vaccination.

\*Address for Correspondence: Benjamin Elliot, Department of Psychology, Capella University, Minneapolis, USA, Email: ben496@prexar.com

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And I must also say that found it especially disturbing to see the graphical detrimental effects of vaccinations in the late 1800's and early 1900's, portrayed by Hume and especially by Pearson. Now it goes without saying that any historical data is open to refutation and an alternative perspective, and found a great deal of this kind of refutation and alternative perspective in the case of Mateja Cernic's anti-vaccination research, as previously described [8-11]. However, have not been able to find this kind of refutation and alternative perspective in regard to the above claims of detrimental effects of vaccinations in the late 1800's and early 1900's, and consequently must conclude that it is plausible that the early vaccines may very well have been less effective than is generally assumed, and quite possibly in a number of cases counterproductive. This also goes along with Cernic's description that many diseases in the early 1900's had significantly reduced mortality rates by the middle 1900's, before the use of particular vaccines were implemented to thwart these diseases, which she accurately attributed to striking improvements in health and living conditions, inclusive of water quality, housing and sanitation, food and nutrition, work environments, child labor laws, etc. As previously argued, believe that Cernic has made a number of important points that should be taken seriously when evaluating the dangers of vaccines, but that generally speaking the pros outweigh the cons for getting vaccinated, especially in our current debacle of the COVID-19 pandemic. And this leads us right into the whole germ theory vs. terrain theory debate.

However, before doing so, it is important to note that the perspective of Hume and Pearson in regard to Béchamp and Pasteur is quite controversial, and has been criticized by historians [17]. In a 1924 review in the *Nature* journal, Hume's book was criticized as follows:

The solid fact remains that most of [Be champ's] work has been discredited as inaccurate, and although he wrote an immense amount, he plunged deeper and deeper into error. However high the opinion of the author is on the virtues of Béchamp, he [the reviewer was not aware that Hume was a female] has utilized a fair part of the book to exploit his own antimicrobial and antivaccination views [17].

In a 1934 review in *The Quarterly Review of Biology*, Hume's book was criticized even more harshly:

The emotional basis, the intellectual feebleness, and the anti-scientific and anti-social character of the whole anti-medical movement is superbly illustrated in the motivation and in the pseudo-scientific and of times painfully unintelligent content of this subsidized book of propaganda [17].

To give further insight into a perspective on Be champ and Pasteur that differs markedly from that of Hume and Pearson and also sheds much light on the germ theory vs. terrain theory debate, here are some excerpts from a 2021 article by surgical oncologist David Gorski, entitled *Germ Theory Denial in the Age of the COVID-19 Pandemic*. First, Gorski described the basic framework of terrain theory, in its opposition to germ theory:

Antoine Béchamp. Postulated nearly the exact opposite of what Pasteur did: that microorganism were not the cause of disease but rather the consequence of disease, that injured or diseased tissues produced them, and that it was the health of the organism that mattered, not the microorganisms. In other words, the "terrain" was all by far the most important determinant of whether or not a person gets sick. As a result, they [germ theory denialists] claim that eating the right diet, doing the right exercises, and taking the right supplements will protect

You against disease as well as any vaccine-better, in fact, because supposedly you're not injecting all those "toxins" from vaccines into your body. But what I especially appreciated in Gorski's article is how he arrived at the same response to this debate that I did: namely why not "both" terrain theory and germ theory working in conjunction with each other? "Why not both? We don't have to use just one (vaccines) or the other (sanitation, better diet, etc.). Science-based medicine uses anything that sciences show to be effective and safe". But Gorski presented a succinct description that Be champ was certainly not of this opinion: "Be champ argued vehemently against vaccines, asserting that 'the most serious disorders

may be provoked by the injection of living organisms into the blood.' Untold numbers of researchers have agreed with him". And Gorski concisely summarized the views of Hume and Pearson in regard to the relative merits of Béchamp and Pasteur as follows:

Its conspiracy theories all around, be they that of the "deathbed conversion" of Louis Pasteur or the claim that the only reason Pasteur's theory ultimately won out over the ideas of Bernard [a contemporary of Béchamp who had beliefs that were similar to those of Béchamp] and Béchamp is not because he was right but rather because his ideas were more profitable and he was politically well-connected. And this advocacy of germ theory denial is intimately related to the whole anti-vaccination movement and consequently to the continued devastation from COVID-19: Antivaxxers so frequently lapse into germ theory denial and invoke Béchamp and/or Bernard. If SARS-CoV-2 is not the "main" cause of COVID-19 and severe illness, then all those public health interventions, such as masking, "lockdowns," and vaccines become superfluous and unnecessary, if not actively harmful.

Finally, formulated some significant conclusions on the pitfalls and destructive consequences of germ theory denial. First he described the "all or nothing" mentality of germ theory denialists: Basically, germ theory denialists seem to think that anything less than a 100% infection and illness rate in people exposed to a pathogenic organism means that that organism doesn't cause the disease, and don't even get them started on asymptomatic transmission, as is common with SARS-CoV-2. It's an example of all-or-nothing thinking that's so prevalent in promoters of pseudoscience and is very much akin to how antivaccine zealots argue. Pre-pandemic, the attractiveness is that "terrain" theory allowed its believers to labor under the delusion that, if only they ate the right foods, lived the right lifestyle, did the right things, and was, from a health standpoint, virtuous, they would be virtually immune to infectious disease. And Gorski concluded with an important and impactful description of what he referred to as "soft" germ theory denial:

These days most germ theory denial is not absolute. Far more often, germ theory denial is "soft" in that it takes the form of a (usually weak) concession that microbes can under certain circumstances (basically only if the host is already sick) cause disease, but with the caveat that the disease is so much less likely to take hold or so much less likely to be deadly if you only live a virtuous life in terms of diet, exercise, and lifestyle. There is, of course, a grain of truth here in that debilitated people and people with comorbidities are far more likely to die of COVID-19 (for example), but in the hand of "soft deniers" of germ theory that grain of truth results in the delusion that they can't get seriously sick from COVID-19 because they are so healthy and that they are thus not a danger to those who are particularly susceptible to coronavirus. Finally, this "soft" germ theory denial provides a reasonable seeming pretext to oppose masks, any sort of "lockdown," and, of course vaccines. A decade ago, germ theory denial was largely viewed as no more than a "curiosity," a quirky idea held by few and likely not of much consequence or likely to cause much harm. Few other than those of us who recognized how such denial fueled the antivaccine movement recognized it as a problem. Unfortunately, the COVID-19 pandemic has made it very clear how deadly such ideas are.

## The reinforcement of Germ Theory denial and promotion of Terrain Theory

The denial of germ theory and promotion of terrain theory is currently represented in a number of medical fields, inclusive of dentistry. In a 2012 book entitled *Cure Tooth Decay: Heal and Prevent Cavities With Nutrition*, Ramiel Nagel who has a background in natural healing (and not dentistry) built upon earlier work in holistic dentistry as he argued that germs are not the "cause" of tooth decay. Nagel attributed dental problems to a lack of adequate food and nutrition, advocated for a heavy meat-eating diet, and made various detailed food and nutrition suggestions. One can certainly debate the merits of a meat-eating diet vs. a vegetarian or vegan diet, but for the purposes of this present essay, suffice it to say that I believe that generally speaking there is much value in what Nagel promoted in

regard to improving the condition of one's teeth and gums through making improvements in one's diet. However, once again, in the same way that I have previously described in regard to the anti-vaccination research of Mateja Cernic, Nagel is not interested in any kind of "both" perspectives here. For Nagel, germ theory is all "wrong," and bacteria are only found in tooth decay because the tooth has already decayed due to poor food and nutrition. This is indicative of the promotion of terrain theory and the reinforcement of germ theory denial in its essence [8-11].

In a 2006 book with a title that leaves nothing to one's imagination: *Good-Bye Germ Theory: Ending a Century of Medical Fraud and How To Protect Your Family*, chiropractor William Trebling made an ardent case that germ theory and its consequential development through extensive worldwide vaccination have been the cause of incalculable human suffering and death. Although the core anti-vaccination message of Trebling is similar to that of Cernic, there is a world of difference in the scholarly and academic level of their presentations. Whereas Cernic labored through numerous academic citations and references, regardless of the merits and completeness of some of her citations and references, Trebling comes across to me as more of a "rabble-rouser," with minimal generic references, a beginning section of the book entitled *When You Need A Quick Fact In A Hurry!* That contains 30 questionable anti-vaccination "facts," and the ending of the book with 45 pages of forms to equip anti-vaccination parents to go to legal battle against the establishment in order to preserve their right to not have their children vaccinated. I have no interest in discussing each one of Trebling's "facts," as similarly to how I described the strengths and weaknesses of Cernic's anti-vaccination research yes I do think there are some valid concerns about vaccination that Trebling has described, in spite of his offensive (to me) proselytizing writing style that continuously bombards the reader with anti-vaccination dogma. But just to illustrate a glimpse of Trebling's misleading and one-sided anti-vaccination "facts," I will choose three items from what he presented that at first glance certainly looks like vaccination debacles, one of which I must admit raised eyebrows for me when I first saw it [8-11].

The first item is essentially repeated in a few of Trebling's "facts," but for simplicity I'll just use his "fact" that states: "In any given population, the majority of people who become ill are those who are vaccinated". I think the best way to counter this "fact" is to offer some different perspectives, as I have done in one of my previous articles and which I will reproduce here:

When there's an outbreak of a disease that's rare for a given area, such as measles in the United States, unvaccinated people aren't the only ones at risk. Because no vaccination is 100% effective, some vaccinated individuals will get the disease as well. In fact, during an outbreak, the number of vaccinated individuals who get sick will often outnumber the unvaccinated people who get sick. This, however, is not because vaccines are ineffective, but because there are so few people who avoid vaccination in the first place. History of Vaccines, Claim: Vaccinated children are more likely to have adverse health outcomes like developmental delays, asthma, and ear infections compared to unvaccinated children. Inadequate Support:

This claim is based on a single study which used highly biased methods. Rigorous and large-scale studies have not found a greater likelihood of adverse health outcomes in vaccinated children. Misleading: The claim is based on a study which used questionable methods of selecting a study population and which failed to control for confounding factors in its comparison of vaccinated and unvaccinated children [19].

The second item is Trebling's following assertion that links vaccines with cancer: Fact of the matter is, the vaccination campaigns that have been hoisted upon the American public over the past 50 years are directly responsible for the astronomical increases in cancer we are seeing today. Diet and environmental toxins are also a piece of the cancer puzzle, but they shy next to this vaccination component.

Is there a grain of truth here? What appears to be the basis of concerns about a possible link between vaccines and cancer stems from the finding that the Simian virus 40, which was found in the original polio vaccines in the 1950s and 1960s, may have been associated with human tumors,

based upon experimental animal studies [20]. However, this possible association has not been established as having actually occurred, and the contamination is no longer present in the modern-day polio vaccines that are provided to patients. And here is a very significant and entirely contrasting perspective on the link between vaccines and cancer, supported by a number of recent academic studies:

Now that we have taken a look at a publication that did cause a cancer scare among people who received a very specific type of vaccination, we want to turn our focus toward more recent studies. One thing that is noted recently is that many studies are actually starting to provide evidence that vaccines could be good in terms of lowering the risk of cancer. Additional evidence strongly support that current HPV (human papilloma virus) vaccination, reduces the likelihood of developing cervical cancer, anal cancer and or pharyngeal cancer in both men and women [20].

But Trebling's "fact" that I found particularly disorienting is what he claimed about the famous and celebrated polio vaccine originator, Jonas Salk: "Jonas Salk, national hero and creator of the famous 'Salk' polio vaccine made a public statement in 1976 that two thirds of the cases of polio which occurred between 1966 and 1976 were caused by his vaccine". This claim was certainly new to me, and I felt that it warranted an explanation and deeper research to uncover exactly what the basis was for this disturbing claim. As it turns out, as part of Trebling's scant, inadequate, and academically lacking references, although he did not give a citation for his Salk "fact," he did include the following Law reference at the end of his book: "Polio Immunization Program, Hearings before the Subcommittee on Health of the Senate Comm. on Labor and Public Welfare, 94th congress, 2d Sess. 6 at 5-6". It would have been helpful if Trebling had also included a website to locate the hearing, but with a good deal of effort I was able to find a record of the Senate hearing although unfortunately I am not having any luck finding it again at this time (and for the reader who is interested in trying to locate the document, I believe the "2d" was a typo for "2nd"). But the crux of what this was all about can be seen from the following description:

Just weeks after the Salk vaccine had been declared safe; more than 200 polio cases were traced to lots contaminated with virulent live polio strains manufactured by the Cutter Laboratories in Berkeley, California. Most taken ill became severely paralyzed. Eleven died. In the haste to rush the vaccine to the public, the federal government had not provided proper supervision of the major drug companies contracted by the March of Dimes to produce 9 million doses of vaccine in 1955. Although the United States surgeon general ordered all inoculations temporarily halted, Americans continued to vaccinate themselves and their children. Outside of the "Cutter Incident," not a single case of polio attributed to the Salk vaccine was ever contracted in the United States [21,22].

We thus see that yes Salk made the statement that Trebling unethically used in his book to promote his anti-vaccination manifesto, with a complete and inexcusable hiding of the true "facts." Salk was referring to the tragic Cutter Laboratory error in using virulent live polio strains in their vaccines, and consequently this resulted in the findings that two-thirds of the deaths from polio from 1966 to 1976 was caused by the Salk polio vaccine. But the correct interpretation of this data, in conjunction with firmly established data that demonstrates how the Salk polio vaccine essentially vanquished the disease of polio, is that the Salk polio vaccine, when used correctly, was enormously effective. And in this regard the above statement from Klein bears repeating: "Outside of the 'Cutter Incident,' not a single case of polio attributed to the Salk vaccine was ever contracted in the United States" [23]. I have no wish to go through any more of Trebling's anti-vaccination "facts" and claims, but suffice it to say that although he brings up some vaccination issues that I think need to be carefully examined, just as I have recommended for a number of the vaccination issues that Cernic has brought up, Trebling's book is very far removed from being anything that even remotely resembles a reputable academic exploration of the complexity of the vaccination dilemma [8-11].

Moving onward, in spite of the significant faults in their book, I found a great deal more merit from the last proponents of germ theory denial that I will

discuss in this essay, Dawn Lester and David Parker, who have backgrounds in the fields of accountancy and electrical engineering, respectively, and wrote the 2019 book entitled *What Really Makes You Ill? Why Everything You Thought You Knew About Disease is Wrong* [16]. Lester and Parker's book is more along the lines of the scholarly but biased academic treatment in Cernic's (book, but with a much more expansive range of topics that includes an anti-vaccination perspective as part of a number of factors that comprise terrain theory and germ theory denial. Although I found Lester and Parker's narrow-minded and repetitive continuous complete germ theory denial statements to be wearisome and totally lacking in academic integrity, I must also say that I am quite impressed with the tremendously expansive range of their topics to promote, in particular, their terrain theory thesis, with over 700 pages of text in their book, a respectable number of academic author references in their bibliography, and numerous internet website references given for each of their 10 chapters. Lester and Parker have about twice as many total references as the more than 500 references of Cernic, though their chapter references (largely internet website references) and citations within their text are less academically substantial and detailed than Cernic's citations and references. But what is most important in regard to my evaluation of the scientific merit of their work is that they share with Cernic the major flaw of only using references that promote their generic perspectives: anti-vaccination for Cernic and germ theory denial (inclusive of anti-vaccination) for Lester and Parker.

In terms of Lester and Parker's anti-vaccination component of their germ theory denial tome, I could once again evaluate any number of their specific claims in a similar way to how I have done in regard to the claims of Cernic, inclusive of Lester and Parker's claim that there is a link between vaccines and cancer, which they share with Trebing as described above. But to cut to the chase, Lester and Parker include a chapter entitled *Vaccinations: Ineffective and Dangerous* with sections on smallpox, polio, and cervical cancer; a chapter entitled *The Germ Theory: A Deadly Fallacy* with sections on viruses, bacteria, "antibiotics, resistance, and 'superbugs,'" fungi, protozoa, and worms; a chapter entitled *"Infectious" Diseases: Dispelling the Myth* with sections on smallpox, childhood diseases, leprosy, syphilis, the 1918 Flu, the Black Death, tuberculosis, and HIV/AIDS; a chapter entitled *Animals and Diseases: More Medical Myths* with sections on rabies, Bovine Tb, BSE (Bovine Spongiform Encephalopathy), myxomatosis, anthrax, and vibriosis; a very extensive chapter entitled *Poisoning The Planet: Science Gone Awry* with sections on what they view as natural poisons: lead, mercury, arsenic, and uranium; what they view as manufactured poisons and applications: chemicals, ionizing radiation, non-ionizing radiation, hydraulic fracturing (fracking), and geoengineering; what they view as poisoned food: manufactured food products, food additives, food coloring, food flavoring, monosodium glutamate (MSG), food preservatives, salt, sugar, artificial sweeteners, saccharin, aspartame, and genetically engineered food; what they view as poisoned water: water chlorination and water fluoridation; what they view as poisoned bodies: household products, cosmetic and personal care products, clothes, and dentistry; a chapter entitled *"Non-Infectious" Diseases": More Medical Misconceptions* with sections on cardiovascular diseases, multiple chemical sensitivity, electromagnetic hypersensitivity, Gulf War Syndrome, autoimmune diseases, diabetes, multiple sclerosis, Guillain-Barré Syndrome, allergies, eczema, asthma, arthritis, endocrine diseases and disorders, birth defects, Down's Syndrome, spina bifida, sudden infant death syndrome, autism, and cancer; and chapters that describe global issues and vested interests, which include a number of additional communicable diseases to what they previously discussed, such as hepatitis, influenza, malaria, and parasitic diseases, non-communicable diseases with an emphasis on mental health, and reproductive health, industry and development, poverty, hunger and malnutrition, globalization and the control agenda, and promulgating deception; and finally a chapter entitled *The Real Nature and Causes of Illness* that includes sections on what they view as *The Four Factors* that affect human health: nutrition, toxic exposures, electromagnetic radiation exposure, and stress.

Lester and Parker's book is in one sense an amazing tour de force of toxic chemical exposures, but unfortunately their impressive accomplishment in this sense is severely compromised by their narrow-

minded and repetitious absolute and complete adherence to germ theory denial, inclusive of sharing common ground with some aspects of conspiracy theory, that I will describe in the concluding section of this essay. To give a brief glimpse of my perspective of their "narrow-minded and repetitious absolute and complete adherence to germ theory denial" the following are some relevant descriptions of their perspective on the causes of the 1918 Flu and the Black Death, inclusive of their repetitious to ad nauseam phrase "Nothing could be further from the truth":

The influenza epidemic of the early 20th century that is generally referred to as the "1918 Flu" is claimed to have been responsible for the loss of many millions of lives. In marked contrast with other outbreaks of "influenza," seasonal or otherwise, this epidemic had a far greater impact on a completely different demographic, as it mainly affected adults between the ages of 20 and 40. Despite the severe nature of these symptoms and its impact on young adults, rather than those in "high risk" groups, the medical establishment maintains the assertion that this was an epidemic of "influenza" and that it was caused by a virus. Nothing could be further from the truth: a non-living particle cannot have a "descendant." The refutation of the "germ theory" means that no type of influenza can be caused by a virus and this, in turn, means that there must be other more compelling explanations for this epidemic of allegedly "infectious" diseases.

"The origin of the influenza pandemic has been inextricably linked with the men who occupied the military camps and trenches during the First World War." There are genuine explanations for the illness that existed in the military camps and in the trenches; however, although related to a certain extent, these explanations do not rely on the theory that the troops were responsible for the spread of an "infectious" germ. One of the contributory factors for the ill-health suffered by the troops is vaccination; all soldiers received a number of vaccines against a variety of diseases they were thought likely to encounter.

One of the consequences of the war was the need for a constant supply of new recruits to replace the soldiers who had been injured or killed. This need for additional troops meant that entry requirements for admittance to the military were, by necessity, lowered. The inevitable result of this was that the new recruits were not necessarily as fit and healthy as the men they replaced, and they were therefore more vulnerable to the effects of the toxic vaccines and medicines and to the appalling conditions they had to endure. In addition to providing aspirin as treatment for "influenza," the medical establishment also attempted to develop vaccines to combat as well as prevent the disease, which was originally believed to be caused by a bacterium.

The "war effort" inevitably created a substantially increased demand for the industrial manufacture of machinery, equipment and weapons, many of which needed to be welded; welding is another hazardous occupation. It is clear that many factors can produce severe illness and symptoms that may have been attributed to influenza. The war veterans talk about the atrocious conditions they had to endure; that they were often up to their stomachs in water and that their dugouts were just mud and filth. They report that in the freezing winter weather their wet boots froze overnight on their feet, leading to the numbness that is referred as "trench foot." Some also described how they were "casual" in their latrines and "casual" in burying their dead. They also provide useful insights about the poor diet they endured, stating that it consisted of a little meat, bread, chocolate and cheese; in addition, most of them smoked. They carried their water in petrol cans and occasionally had a rum ration; they claim that the quantity of food they had was poor, but clearly the quality was extremely poor. It should be obvious that many of the conditions they suffered can be likened to the insanitary and unhygienic conditions that prevailed in the centuries before sanitary reforms were introduced. It is therefore unsurprising that many men were ill and died as the result of the years they spent living in such conditions; it seems remarkable that any men were able to survive such atrocious conditions.

The audio recordings also explain that, as well as those who were directly involved in the war, there were others, women mostly, who assisted the war effort by working in munitions factories, for example.

Their jobs included filling the shells with cordite or “the black powder” as they called it. They also worked with hazardous substances like TNT, which is trinitrotoluene, a highly toxic substance. It is abundantly obvious that the “epidemic” represented a unique time in history; that it involved the sickness and death of many millions of people. It is also abundantly obvious that these high levels of morbidity and mortality were not due to a disease caused by a virus, but that there were many contributor 6y factors that acted together and synergistically. “If the ‘epidemic influence’ were the cause of the epidemic then all who come within its range would develop the ‘epidemic disease.’” This clearly did not occur during 1918 and 1919. Eleanor McBean, who was a child during the epidemic and assisted her parents to care for the sick, reports that she failed to become ill despite her close proximity to many people with the allegedly “infectious” disease. It is abundantly obvious that there was no “epidemic disease.” The stresses of war and combat, the multiple toxic vaccinations, the use of toxic “medicines,” the appalling conditions in which soldiers lived and fought, the exposure to deadly chlorine gas and other toxic materials provide ample evidence to adequately explain the epidemic of illness and the devastating loss of life. These factors, which acted synergistically, provide a compelling explanation for this singular event without the need to invoke the existence of an elusive virus.

It is generally claimed that the [14th century] Black Death erupted spontaneously; that it spread rapidly around the world; and that it caused millions of deaths; the WHO [World Health Organization] fact sheet claims that total mortality to have been an estimated 50 million people. A new hypothesis about the likely causes of the Black Death has been developed by a dendrochronologist, a scientist who studies tree-rings to identify different growth patterns and included the study of ice-core data. “There have been masses of dead fish, animals and other things along the sea shore and in many places trees covered in dust And all these things seem to have come from the great corruption of the air and earth.”

The corruption of the atmosphere certainly must have been extremely severe to have been able to generate a “clear environmental trough”; it was sufficiently severe to have been able to cause death from respiratory problems. It is clear therefore that “something” must have occurred to have caused such a severe corruption of the atmosphere over a large portion of the world. One interesting and undisputed fact is that a major earthquake erupted in Europe on 25th January 1348. The presence of “evil-smelling chemicals” would certainly explain the documented reports about the “corruption of the atmosphere”; their toxicity also explains how these chemicals would have caused severe respiration problems and rapid death from asphyxiation for those people in close proximity to the dense atmospheric poisoning. These conditions can be explained by comets, comet debris and earthquakes; they cannot be explained by rat fleas “infected” with disease-causing bacteria.

The evidence from contemporary records as well as tree-rings and ice-core data demonstrates the existence of a “corrupted atmosphere” during the 14th century. The earthquakes and impact of comet debris provide credible explanations for that corrupted atmosphere and for its ability to have permeated a significant portion of the planet. The toxic substances known to be associated with comets and comet debris provide an extremely compelling explanation for the rapid onset of severe respiratory problems, asphyxiation and death. The medical establishment theory about fleas infected with bacteria that were spread by small animals to humans is entirely unsupported by the evidence; the theory that the Black Death, or any other epidemic of “plague” can be caused by a bacterium is shown to be fatally flawed.

I think that Lester and Parker have furnished us with creative ideas about possible causes that contributed to the Black Death and especially the 1918 Flu. However, their determination that this is compelling evidence for the complete dismissal of germ theory and the evidence for bacteria and viruses causing infectious diseases is in my opinion a poor and exceedingly dangerous misrepresentation of science, which has deadly current implications in regard to people getting vaccinated against COVID-19, as I have described above. Nevertheless, these authors have presented a

substantial wealth of material in regard to the dangers of toxic chemicals in support of their promotion of terrain theory, supplemented with their concerns about the damaging effects from chemically processed food and electromagnetic radiation, and their exposure of governmental and organizational vested interests that they claim to have resulted in adverse and deadly medical consequences for people in both “developed” and “developing” countries. I will therefore conclude this brief description of their work with some relevant passages in this regard, which also includes their minimization of the damaging and deadly effects of climate change.

The plethora of substances that are inherently toxic include, not only the vast majority of the chemicals and compounds synthesized in the laboratories of the chemical industry, but also a number of naturally-occurring substances that have been exposed or brought to the surface from deep underground by the activities of various industries. Their inherently toxic nature means that these substances are incompatible with the human body’s biochemical processes that sustain life; which means that they should not be ingested, inhaled, injected or otherwise absorbed into the body at any dose or exposure level. Although different substances may cause different degrees of harm, they all cause damage at the cellular level, because the mechanism by which most, if not all toxic substances cause harm, is through the generation of free radicals that induce oxidative stress and lead to damage to the body’s cells and consequently to tissues and organs.

The growing body of evidence that recognizes oxidative stress to be the underlying mechanism common to most chronic health problems further demonstrates that the relationship between “toxic substances” and “disease” is direct and causal.

The ability to expel toxins and regenerate the liver are two of the reasons that the human body is able to withstand certain levels of exposures to toxic substances. Unfortunately, one class of “toxic substances” that are known to cause damage to the liver are the pharmaceutical products used as “medicines” to treat diseases, including diseases that affect the liver. More than half of all Americans take at least one prescription medication. Americans take far more “pills” than the people of any other country. If pharmaceutical drugs were safe and effective, as the medical establishment claims them to be, then Americans ought to be the healthiest people in the world, but this is not the case reports that show Americans to be some of the least healthy population of a “developed” country “Almost 1.3 million people went to U.S. emergency rooms due to adverse drug effects in 2014, and about 124,000 died from those events.”. Another group of “harmful substances” to which people are commonly exposed are those collectively referred to as pesticides, the intended purpose of which is to destroy a wide variety of living organisms considered to be pests.

Despite the incessant media reports which erroneously claim that climate change due to high atmospheric levels of carbon dioxide poses the most serious threat to humanity, there is a small, but growing level of public awareness that the very real and far more serious threat to humanity is posed by environmental pollution caused by the toxic substances produced, used and discharged by many different industries. As previously discussed, he body possesses innate mechanisms to expel toxins, repair damage and restore health. Although these mechanisms and the processes they regulate will be damaged and their effectiveness weakened by continual exposure to toxic substances, this damage can be mitigated, but it requires ongoing efforts to minimize exposures to toxic substances. It also requires efforts to maximize the intake of nutrients, especially antioxidants to counteract free radicals and prevent them from causing damage within the body. Toxic chemicals are entirely unnecessary for the manufacture of a huge variety of products. There are safer, less toxic alternatives for many of the products people use on a regular, if not daily basis. It is equally clear that choosing safer alternatives will contribute to a significant reduction in each person’s level of toxic exposures.

Electromagnetic radiation is a form of energy that extends over a range of frequencies and wavelengths collectively known as the electromagnetic spectrum. Although different sections of the spectrum have been given

different labels, such as visible light and microwaves, for example, all forms of electromagnetic radiation are categorized as either ionizing or non-ionizing according to the intensity of the energy they possess. Environmental levels of ionizing radiation have continued to rise mainly as the result of the ongoing operations of the nuclear industry, especially nuclear power plants. The natural electromagnetic environment has also been altered by “unnatural” non-ionizing radiation, the level of which began to increase after the introduction of AC (alternating current) electricity as the main power source for virtually all machines and equipment, both domestic and industrial. It is clear that the Earth’s electromagnetic environment has been irrevocably altered at an incredibly rapid pace and over the course of an incredibly short period of time. The problem with this man-made sea of energy is that it interferes with the functioning of the natural electrical systems of living organisms, especially humans. Human health can be adversely affected by exposures to “harmful influences,” such as “man-made” electromagnetic radiation, as well as “harmful substances,” such as “man-made” chemicals.

“Everything,” including the human body, is electro-chemical in nature. Ionizing radiation possesses sufficient energy to break molecular bonds and release free electrons. Those produced by ionizing radiation are far more dangerous to living cells. “Acute health effects such as skin burns or acute radiation syndrome can occur when doses of radiation exceed certain levels.” In common with all other “harmful substances and influences,” electromagnetic radiation exerts its adverse effects through the mechanisms of oxidative stress that induces free radical damage at the cellular level; EM [electromagnetic] radiation is, however, particularly detrimental to the organs and systems that operate electrically. One of the main organs that function electrically is the heart; it is therefore unsurprising that a relationship exists between exposures to EMFs [electromagnetic fields], oxidative stress and cardiac problems of particular concern, however, is that EM radiation has been shown to affect the blood-brain barrier.

The classification of RF [radio frequency] and ELF [extremely low frequency] as merely “possible” carcinogens is no longer tenable; there is a large body of evidence, which demonstrates that a relationship exists between EM radiation and oxidative stress, cellular damage and cancer, and this relationship is both direct and causal have shown radiofrequency radiation to increase the risk of cancer. Unfortunately, the continually growing body of evidence that demonstrates exposures to non-ionizing EM radiation to be associated with serious adverse health effects, is largely ignored by the telecommunications and related industries that are preparing for the imminent introduction of 5G, the fifth generation of wireless infrastructure, which is intended to facilitate the implementation of the Internet of Things (IoT). According to the WHO, most exposures to ionizing radiation are the result of medical examinations and diagnostic procedures; X-rays and CT scans for example; these exposures are avoidable. All electrical equipment and appliances produce electromagnetic fields in the ELF (extremely low frequency) range that interfere with the body’s delicate electrical system and are associated with a number of adverse health effects, including leukemia and brain tumors.

The most widely used device is the mobile phone, it is also the most widely studied; the adverse effects on the brain, especially tumors, are well documented. Safer alternatives exist “Worldwide, many regions are investing in wired, fiber optic connections which are safer, faster, and more reliable, provide greater capacity and are more cyber-secure.

The real reasons that people, both young and old, experience cognitive impairments and neurological problems that may be diagnosed as “mental disorders,” are many and varied; but, like all other “diseases,” they are caused by exposures to various combinations of stressors, both physical and emotional. All stressors increase the utilization of the body’s supply of antioxidants. This inevitably places even greater emphasis on the importance of good nutrition and the regular intake of antioxidant-rich foods to “scavenge” free radicals before they cause harm, and to provide support for the body’s endogenous antioxidant production system. The nervous system, and especially the brain, can also be protected by avoiding or at

least minimizing exposures to substances and influences known to have harmful neurological effects [21-26].

## Conclusion

From the preceding descriptions of a number of germ theory denial books, inclusive of their promotion of terrain theory and an anti-vaccination perspective, there emerges a complicated picture of many legitimate concerns about the dangers of toxic chemicals, coupled with an unscientific and harmful narrow-minded promotion of an anti-vaccination stance. In particular, in Lester and Parker’s extensive work, clearly there is a great deal of important, valuable, and lifesaving information in regard to what the authors perceive as the destructive and deadly consequences from the widespread use of toxic chemicals and electromagnetic radiation. I think that these authors have made a very strong case for the continued investigation of both these factors, and especially the factor of toxic chemicals, with a much greater promotion of public awareness. However, at the same time, these authors, along with the other authors discussed in this essay, have conveyed their repetitive, narrow-minded, complete and absolute denial of germ theory as the cause of disease, and this is where I believe they significantly falter and seriously detract from some of the merits of their books. The bottom line for me is that I think it is a matter of “both and” rather than “either or,” as I have previously described in my essays related to Mateja Cernic’s anti-vaccination book. In other words, yes it is undeniable that poor living conditions contribute greatly to disease, and I think Lester and Parker’s indictment of toxic chemicals in particular is very warranted in this regard. But at the same time, I think that all of these authors’ complete denial of germ theory, inclusive of their complete condemnation of the effectiveness of vaccinations, does not accurately reflect our current scientific knowledge or the tremendous benefits that vaccinations have been demonstrated to have in regard to combating many diseases, inclusive of our current COVID-19 pandemic, and that their germ theory denial is having disastrous consequences in regard to our current fight against COVID-19.

In regard to the above concerns that I have described in Lester and Parker’s book, as a basis for their germ theory denial beliefs they gave much tribute to long term virus denialist and conspiracy theorist Stefan Lanka, and for their link of vaccinations to autism they gave much tribute to the debunked and invalidated research of Andrew Wakefield. They also made the unfounded claim that is apparently lacking in any supporting evidence, that the 5G technology “will, unless prevented, generate a considerable increase in a variety of adverse health problems”. These associations are concerning and cast even further doubt for me on the scientific merit of their work, a doubt which I certainly have in regard to all the germ theory denial books that I have discussed in this essay. Thus in conclusion, I believe that there is a good deal of very important information to seriously consider in all the germ theory denial books that I have discussed here, but that the basic germ theory denial premise of all these books is unscientific, invalid, and dangerous.

## References

1. Sumner, Mark. “Fox News is playing a Deadly Game with its Viewers and Death is Winning.” *Daily Kos* (2021).
2. Yan, Holly. “COVID-19 Myths: these Reasons for not getting a Shot Don’t hold up in Fact, They’ll Set us back.” *Eyewitness News* (2021).
3. Sumner, Mark. “Vaccines Work, the Vaccinated Can Drop Their Masks and More Republicans are Finally Joining In.” *Daily Kos* (2021).
4. Federico, Germani and Nikola Biller-Andorno. “The Anti-Vaccination Infodemic on Social Media. a Behavioral Analysis.” *PLoS One* 16(2021): e0247642.
5. Peter, Hotez. “COVID Vaccines: Time to Confront Anti-Vax Aggression: Halting the Spread of the Coronavirus will Require a High-Level Counteroffensive Against New Destructive Forces.” *Nature* (2021).

6. Maxouris, Christin, Holly Yan and Claire Colbert. "US Coronavirus: As Vaccinations Keep Rising, So Do Covid-19 Hospitalizations Among Those Who Aren't Vaccinated." *Health* (2021).
7. Gorski, David. "Germ Theory Denial in the Age of the COVID-19 Pandemic." (2021).
8. Benjamin, Elliot. "COVID: To Get Vaccinated or Not to Get Vaccinated: Stimulated by a Sociologist's Scholarly Anti-Vaccination." (2021).
9. Benjamin, Elliot. "COVID: To Get Vaccinated or Not to Get Vaccinated: Stimulated by a Sociologist's Scholarly Anti-Vaccination Part 2." (2021).
10. Benjamin, Elliot. "COVID: To Get Vaccinated or Not to Get Vaccinated: Stimulated by a Sociologist's Scholarly Anti-Vaccination Part 3." (2021).
11. Benjamin, Elliot. "COVID: To Get Vaccinated or Not to Get Vaccinated: Stimulated by a Sociologist's Scholarly Anti-Vaccination Part 4." (2021).
12. Mateja, Cernic. "Ideological Constructs of Vaccination. Vega Press." (2018).
13. House, Richard. "Book Review Summary: "Ideological Constructs of Vaccination" by Mateja Cernic, Ph.D." (2021).
14. Ethel, Hume. "Béchamp or Pasteur? A Lost Chapter in the History of Biology." *Distant Mirror* (2017).
15. Trebing, William. "Good-Bye Germ Theory: Ending a Century of Medical Fraud And How to Protect Your Family." *Xlibris* (2006).
16. Lester and Parker. "What Really Makes You Ill? Why Everything You Thought You Knew about Disease Is Wrong." *Amazon* (2019).
17. Douglas Hume. "Mr. Douglas W. Hume". *BMJ* (2021).
18. Robert Baille Pearson. "Pasteur: Plagiarist, Impostor: The Germ Theory Imploded. A Distant Mirror." *Amazon* (2017).
19. Health Feedback. "Significant Methodological Flaws in a 2020 Study Claiming to Show Unvaccinated Children are Healthier." (2020).
20. Preventive medicine + Cancer Care. "Do Vaccines Cause Cancer? is there A Link?" (2019).
21. Klein, Christopher. "8 Things You May not Know About Jonas Salk and the Polio Vaccine." *History* (2020).
22. Jennifer, Bleyer. "Divided We Fail. It wasn't so Long ago that Polio Terrorized the Nation, Yet we Seem to Have Already Forgotten the Lessons Learned from our Own Victory." *NYU Education* (2021).
23. Visser. "Stefan Lanka's Vanishing Virus Act: The Corona Conspiracy Part 7." (2021).
24. Visser. "Corona, Oxygen And 5G: The Paranoid Worldview of David Icke: The Corona Conspiracy, Part 1." *Integral World* (2021).
25. History of Vaccines. "Misconceptions about Vaccines." (2018).
26. Nagel, Ramiel. "Cure Tooth Decay: Heal & Prevent Cavities With Nutrition. Golden Child Publishing." *Amazon e-books* (2012).

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