

Back to Spirituality and Metaphysics thru Science

Dedicated to my brother- Yair ('will light' in Hebrew).

English translation dedicated to my friend- Pearl

Contents

Contents	1
Preface.....	2
Something out of nothing.....	3
The Universe was created with incredibly precise (physical) laws	3
The Laws of the Universe are Precisely Aligned for the Existence of Life.....	6
False materialistic rationalization attempts, versus the self-evident conclusions	8
The Truth about Reality.....	10
Human science is marred by subjectivism and authoritarianism	10
Consciousness.....	12
Adaptation, Development and Evolution.....	17
Matter is an Illusion A World of Energy and Light	19
The Separation between Physicality and Spirituality	21
Light as the Connecting Force between Matter and Spirit	21
"And God said, let there be light, and there was light:" Genesis A, 3.....	22
Light-Movement-Time	22
Light as the core and the communication medium of astronomical objects (stars).....	23
Light Connects Living-Water, and is the Basic Energetic Component of Everything.....	25
Light is the 'highest' 'freest' and 'lightest' thing: close to the metaphysical and spiritual	26
The Spiritual Light of Truth is the Good Force that Connects Living Beings and All Life.....	28
Good vs Evil, Truth vs Falsehood	28
The Light of Truth: א ה ב	29

Preface

In the beginning of the 20th century, with the rapid technological and industrial progression, there came upon many philosophical and ideological developments, which led to the post-modern philosophy of the middle of the century. The new era brought with it a weakening grip of the religious institutions (The Church), and many new opportunities available for the world's citizens ('shortened distances' as a result of advances in transportation and communication, technological methods for the exploitation and production of energy etc.).

With these new developments and the shrinking distances, human modesty also shrunk, while the human ego and perception of the individual's place in the universe expanded (especially amongst those who viewed themselves as the "elites"). Conversely, the perception of the 'magical', miraculous, the sublime and the unknown about the universe, diminished. These processes were partly natural, as part of the human historical progression, and partly driven by people of interest, seeking a new framework for controlling "the masses", after the decline of the religious institutions. Instead of the authoritarian hegemony of the church, a new authoritarian hegemony arose, that of 'the church of science and technology'.

Post-modernism is a philosophy that interprets the world in a 'cold', mechanistic manner and is supposedly bereft of a narrative, which usually gives man a sense of meaning. But in reality, the narratives remained, while only changing their dispositions and turning into tools in the hands of various "experts" and "authority figures". The loss of belief, the loss of spirituality and a sense of meaning, left a void in the human soul. The post-modern propensity toward materialism, did not fill this void, but rather put a disguise or mask upon it.

Despite the mechanistic approach that purports to explain all phenomenon in the universe using physical and material tools, modern science has opened doors to new, unknown, and

one could also say, metaphysical worlds (especially in the field of research of the smallest parts of the universe- quantum theory).

In this article, I will try to examine a few philosophical and scientific aspects about the existence of the universe and life in it; to point toward the doors that have opened into the spiritual (metaphysical) dimension, and to invite the reader to step thru these doors, toward a world that balances and combines the physical with the metaphysical, the tangible with the spiritual, and the day-to-day and mundane, with the eternal and the sublime.

Something out of nothing

The Universe was created with incredibly precise (physical) laws

The post-modern scientific trend stands for materialism and mechanism, and its proponents try to convince the public that being a rational and “enlightened” person, means to throw away past beliefs about creation and reality, and to believe in the theories and explanations that the so called “experts” raise. Thus, for example, they raise the theory of evolution to prominence, even though it is just a far-fetched estimation of the beginning of the universe. Although there are some supporting evidence to this theory (Microwave background radiation etc.), yet these are circumstantial pieces of evidence that do not come close to any sort of proof. Nevertheless, even if we accept this theory, it does not bring us closer to understanding the essence of the universe, because the theory does not explain what was before the big bang, why it happened, and why anything exists at all.

The belief that this enormous and preciously organized universe just appeared “by chance” out of nothing represents a form of “magical thinking” and an extremely irrational belief. This belief is far less rational than various religious beliefs, which explain (often-

using symbolism and metaphors) the appearance of the universe in picturesque and mythical ways, by omnipotent or supremely intelligent higher forces.

Say we were to walk in the desert together and suddenly there would appear a perfect Olympic-size swimming pool, with chairs, and tables full of food surrounding it etc. And then “people of authority” would tell us that all of it appeared by chance, without any human (or any other creature’s) intervention. It would be weird and unreasonable to believe this. Moreover, to suppose that this enormous and finely tuned universe appeared out of nowhere and with no intention or will behind it is a much more absurd thing to believe in. Furthermore, the physical laws at the root of the universe are built in an incredibly accurate and ordered way. If these laws existed before “the big bang” (before the beginning of the physical world), this means that they are not physical, but are metaphysical.¹

There are also co-dependent mathematical and geometric laws, which determine the developmental path of various phenomena. For instance, the golden ratio (a common number in nature), which is derived from the Fibonacci sequence, which combined with the Law of Seven (or the Law of Octaves) enables the formation of spiral forms (The Fibonacci spiral- is also a fractal, because it can be divided into smaller parts that are equal to the whole). The spiral form allows for very high energetic efficiency, and exist in a variety of natural phenomena, from DNA coils, through the structure of leaves and flowers (for instance, Sunflowers’ petals), and up to spiral galaxies.

The laws of nature are not only co-dependent but incredible accurate. The accuracy of the creation is so high that if even one law of nature- one physical law was slightly different,

¹ Sheldrake, Rupert. “Part I: Mind, Memory, and Archetype Morphic Resonance and the Collective Unconscious.” *Psychological Perspectives* 18, no. 1 (March 1987): 9–25.
<https://doi.org/10.1080/00332928708408747>, <https://sheldrake.org/research/morphic-resonance/part-i-mind-memory-and-archetype-morphic-resonance-and-the-collective-unconscious>

The Laws of the Universe are Precisely Aligned for the Existence of Life

“The remarkable fact is that the values of these numbers seem to have been very finely adjusted to make possible the development of life.” Stephen Hawking⁷

One of the unique characteristics of the phenomenon of life is the ability to organize matter, to produce “free” energy, and to delay entropy, energy loss and material disintegration and decay.⁸ In order for there to be a chance for the existence of life, the universe must have very special and accurate physical conditions. If, for example, the third lowest energetic state of the nucleus of Carbon-12 was lower than 7.3 or higher than 7.9, there wouldn't be enough carbon to allow the existence of life. In addition, the strong nuclear force has to be tuned at a level of precision of at least 0.5% and the electromagnetic force at least 4%, in order to allow the production of enough carbon and oxygen to sustain life.⁹ Furthermore, if the oxygen levels on earth were higher by a few percentages than the current levels (21%), multiple spontaneous fires would erupt all over the planet, while if the levels were too low (say at 15%), there wouldn't be enough oxygen to sustain many life forms, including human beings.¹⁰

There are about 122 physical constants that allow for the existence of life [‘Anthropic Constants’]. According to the calculations of astrophysicist Hugh Ross, the probability that these constants would exist today by chance for any planet in the universe (assuming

⁷ Stephen Hawking. *A Brief History of Time*. Bantam Books, 1988. ISBN 0-553-05340-X, pp. 7, 125.

⁸ Schrödinger, Erwin, Erwin Schrödinger, and Erwin Schrödinger. *What Is Life? The Physical Aspect of the Living Cell ; with, Mind and Matter ; & Autobiographical Sketches*. Canto Classics. Cambridge ; New York: Cambridge University Press, 1992.

⁹ “Fine-tuned universe”, Wikipedia, https://en.wikipedia.org/wiki/Fine-tuned_universe

¹⁰ Geisler, Norman L., Frank Turek, and David Limbaugh. *I Don't Have Enough Faith to Be an Atheist*. 64813th edition. Wheaton, Ill: Crossway, 2004. Cited in: “Anthropic Principle: The Design Is In The Details”, In Plain Site, https://www.inplainsite.org/html/anthropic_principles.html

there are about 10^{22} planets in the universe), is 1 in 10^{138} . This is a much larger number than the total (estimated) number of atoms in the entire universe (10^{70}).¹¹

Here are some examples of the delicate balance that is necessary for the existence of life:

The centrifugal force balances the gravitational force between the sun and the planets, enabling the elliptical movement of the planets around the sun. The large planets in their current positions (mainly Jupiter), absorb the majority of asteroid and comet collisions, thus enabling the existence of life on earth. The precise location of earth: the distance from the sun, at the outer realms of the spiral arms of the galaxy (far away from dangerous phenomena such as supernovae), at the part of the galaxy that permits the creation of heavy metals, and finally, at a safe distance from the dangerous galactic center.

Meanwhile, on the earth's surface, water supports life in a unique and perfect way. If the polarity of the water molecule was greater or smaller than it is, the level of heat causing diffusion and evaporation of water would be different and would not be suitable for life.¹²

Other physical constants that are necessary for life are, for example, the exact ratio of gravitational force between earth and the moon, which balances earth's weather and affects the atmosphere and the oceans' tides. Earth's rotation speed that is precisely tuned to a level that allows for less extreme differences between daily and nightly temperatures, and that prevents the formation of extreme atmospheric wind velocities, and Earth's axis tilt of 23 degrees, which prevents extreme surface temperatures. These constants depend on each other and on the way light operates. The delicate balance between the physical

¹¹ Hugh Ross, *The Creator and the Cosmos*, 3rd ed. (Colorado Springs, CO: NavPress, 2001), 224.

¹² Jay W. Richards, "List of Fine-Tuning Parameters", Discovery Institute, January 14, 2015, <https://www.discovery.org/a/fine-tuning-parameters/>

constants would be violated, thus the possibility of life prevented, if there was but a slight change in the value of the speed of light.¹³

False materialistic rationalization attempts, versus the self-evident conclusions

Of course, the followers of the mainstream scientific narrative did not give up without a fight; attempts were made to explain the well-tuned universe in a way that would fit the post-modern, mechanistic, atheistic and materialistic worldview. The worst attempt is the one that attempts to argue that our worldview is tainted with survivorship bias, in the sense that we are asking this question about the universe just because we can- because our universe is stable and organized sufficiently to allow life and us asking this question. But this is a circular argument, and in addition, it does not explain the causality and extremely low likelihood of such a universe just appearing out of nowhere by chance (although it is true that our thinking is wrought with biases, survivorship and many others, but statistically and logically the question regarding our universe still stands).

Another attempt, by Hawking and Hertog, introduces the notion that in the beginning, our universe was in a quantum state of superposition- of multiple initial potentials and possibilities. This is an interesting proposition, but it does not explain why the universe

¹³ Geisler, Norman L., Frank Turek, and David Limbaugh. *I Don't Have Enough Faith to Be an Atheist*. 64813th edition. Wheaton, Ill: Crossway, 2004. Cited in: "Anthropic Principle: The Design Is In The Details", In Plain Site, https://www.inplainsite.org/html/anthropic_principles.html

“settled” in the (ordered) way that it is,¹⁴ and of course does not explain why there is a universe in the first place.^{15 16}

Finally, there is the theory of parallel universes or the multiverse. According to this theory, there are countless or infinite universes, each one built by different laws, and we are “by chance” in a universe where the laws are wondrously coordinated and tuned. This is an interesting theory but it still contains an unreasonable logical leap because it does not deal with the infinitely small probability that our universe in particular is the one that is so wondrously tuned, and certainly does not address the reason why this universe or any of the countless universes exist at all.

So we are left with the great mystery of the miraculously fine-tuned universe and all of life’s existence, including us, in it. The creation is rare, original and one of a kind, while human science and technology did not invent anything new. There is no new creation. Everything is an imitation and use of that which already exists, in a different way.

Is the foregone conclusion that world religions are right about the existence of a Creator? Apparently, the claim about the Creator of the world is one of the only things that can be agreed upon amongst most world religions. I will not address this issue here, and I do not intend to push a certain narrative or to convince anyone. However, it is advisable that the people who cling to the mainstream scientific narrative, and the “people of authority”, will at the very least, adopt a more modest approach to their world view, because as we have seen, the belief that all of this is totally “by chance” is a lot less rational and logical than other beliefs.

¹⁴ Thought they claim the universe “selects” for realities with the present conditions- this claim is highly speculative and does not have any hard evidence behind it. Their attempts to explain the beginning by ‘taking for granted’ the present and going back in time, is in a way a reversal of causality and the use of circular logic. While quantum mechanics is a fascinating field that expands our view on reality, the quantum world does not always lend ‘its logic’ to the macro world of large phenomenon and systems.

¹⁵ Philip Ball, “Hawking rewrites history... backwards”, Nature, 21 June, 2006, <https://www.nature.com/news/2006/060619/full/news060619-6.html>

¹⁶ “Fine-tuned universe”, Wikipedia, https://en.wikipedia.org/wiki/Fine-tuned_universe

As Frankel wrote in "Man's search for meaning", finding a meaning is very important to human beings, and can be a matter of life or death. Actually, some of the forces that are pushing for a mechanistic and materialistic worldview are coincidentally uprooting the perception of meaning from many people's souls, causing depression, de-moralization, and thus making the "masses" easier to be controlled.

Is the compatibility between the belief in spirituality and the sublime, and receiving a sense of meaning and optimism, also completely accidental? Of course, there are psychological explanations as to why people would prefer to think that there is more meaning, depth, and mystery to their world, but that does not necessarily mean they are deceiving themselves. Their intuitive feelings could be correct, while the aggressive push of a mechanistic narrative could be mistaken and misleading. In any case, there is no doubt that it is best to maintain a sense of awe about the universe and our existence within it, and to keep a sense of gratitude for the physical laws and forces that watch over us like guardian angles wherever we go...

[The Truth about Reality](#)

Human science is marred by subjectivism and authoritarianism

Human science is far from objective. Science progresses from one "preferable" narrative to another or from one consensus to another. There are many examples of the scientific community rejecting proper scientific theories, just because they did not fit the current "desirable" narrative. Galileo, Giordano Bruno and many others encountered violent resistance to excellent scientific ideas, which they brought before figures of authority who weren't interested in changing the current paradigm.

A lesser-known example is the rejection of Poucher's theory regarding the spontaneous appearance of life in favor of Pasteur's theory, by the French scientific establishment. Poucher and Pasteur were struggling to get their theories accepted by the French scientific committees, and at the end, what determined the "winning side" in the dispute was not logic and data, but people's biases, political manipulation, the use of ridicule, and recruitment of farmers and doctors for Pasteur's objective. In addition, because at the time Poucher's theory about the spontaneous appearance of life was seen as supportive of Darwin's theory of evolution, the scientific consensus of the time (including Pasteur), which opposed Darwin, preferred to reject Poucher's theory.¹⁷

Another example is the violent opposition to Semmelweis' theory regarding the necessity of hygiene in operating rooms. Dr. Semmelweis noticed that mortality rates in the delivery rooms increased after medical students and doctors performed autopsies in addition to their other duties. Semmelweis hypothesized that the students were transmitting harmful particles from the cadavers in the morgue to their patients. He then ordered the students and doctors to wash hands before attending to their patients, and a significant drop in mortality rates followed.¹⁸ Disregarding the clear positive outcome of his live experiment, scientists and the scientific establishment of the time rejected his theory and ridiculed him to such an extent, that he fell into bouts of severe depression.¹⁹ Eventually he was enticed to visit a mental institution, and when he tried to leave, he was beaten so severely that he fell ill and died two weeks later.²⁰

¹⁷ Collins Harry, Pinch Trevor, "The Golem: what everyone should know about science", Cambridge UP, 1993, 1998

¹⁸ Leslie S. Leighton, "Ignaz Semmelweis, the doctor who discovered the disease-fighting power of hand-washing in 1847", The Conversation, April 14, 2020, <https://theconversation.com/ignaz-semmelweis-the-doctor-who-discovered-the-disease-fighting-power-of-hand-washing-in-1847-135528>

¹⁹ The Semmelweis effect/reflex, named after Dr. Semmelweis, is a psychological phenomenon and cognitive bias, where people reject information if it opposes their current opinions or worldview.

²⁰ Zoltán, I.. "Ignaz Semmelweis.", Encyclopedia Britannica, <https://www.britannica.com/biography/Ignaz-Semmelweis>.

Like many other people, the scientists in Semmelweis' time preferred to deny the Truth, hurt the innocent, and continue to risk human lives, than to objectively examine a new or different idea, admit they were wrong and to change directions.

Consciousness

"Consciousness is a precondition of being"

C.G. Jung²¹

According to Jung, without consciousness, practically speaking the world would not exist, because the world exist as it is only while it is reflected and expressed thru consciousness. Research on unexplained phenomena, such as near death experiences,²² and research on expanded modes of consciousness and extra-sensory communication (Rupert Sheldrake), are conducted using the scientific method and show impressive results. Yet, because they are not aligned with the "dry" narrative of mainstream science, these fields (and the scientists that deal with these fields) are not promoted, and remain mostly unknown to the public.

Professor Rupert Sheldrake works on (evidence-based) theories, which imply that the entire universe is full of different levels of consciousness ('Panpsychism'), pointing to the possibility that heavenly bodies such as the sun also have consciousness.²³ I continued his line of thought and asked in an article, whether the sun is alive (in a non-biological way), and proposed a theory regarding the symbolism and the metaphysical roles of astronomical bodies, mainly that of stars, which produce and send life-giving light through

²¹ Jung, Carl Gustav. *The Undiscovered Self*. New York: Signet, 2006.

²² Newton, Michael. *Journey of Souls: Case Studies of Life between Lives*. 1st ed. St. Paul, Minn: Llewellyn, 1994.

²³ Rupert Sheldrake, "Is the Sun Conscious", *Journal of Consciousness Studies*, 28, No. 3–4, 2021, pp. 8–28

the universe (Sheldrake kindly read the article, corrected a few errors, and gave his blessing).²⁴

Sheldrake also studies the field of extra-sensory communication, and 'Morphic Resonance', which gives rise to the phenomena of collective memory, as a continuation and substantiation of Jung's idea of collective unconscious. Sheldrake asks how plants and living creatures develop from seeds or genetic material to very precise forms. DNA provides information regarding manufacturing of the body's building blocks (proteins etc.), but the same genetic material is found in all parts of the body, while each part (hand, leg, heart) develops into a very different structure. According to Sheldrake, the missing link that can explain how organisms and organs develop, resides within the framework of his theory regarding 'Morphic Fields', which exist inside and around organisms, and contain their structure and structural memory.

Experiments show that when animals learn a new "trick" in one part of the world, animals from the same species in the opposite side of the world, soon learn to do the same, even though they had no physical connection between them. A similar thing happens with materials. When a new material is made to crystalize for the first time, it is very difficult, but as the material "gets used" to crystalizing, similar materials around the world crystalize faster and with less resistance.

Sheldrake's theory of 'Morphic Resonance' explains how information travels to similar materials and organisms. Energy fields surround us and broadcast to all directions, and our nervous systems and brain receive the information from these fields. Sheldrake presents the television device as an analog to our brain, in the sense that when we watch TV programs, the information or programs do not reside within the TV device, but rather are received by the TV's "antenna". Likewise, our memories do not reside inside our brain;

²⁴ Schmuuel Schperling, "Is the Sun Alive?", Researchgate, January 2022, https://www.researchgate.net/publication/357811784_Is_the_Sun_Alive

instead, our brain perceives these memories from energetic fields and translates them to our 'language' (way of thought etc.). When the TV receiver is damaged, the channel might change or there could be disruptions in the broadcasts, and the same principle applies to our brain. Moreover, we also perceive social patterns and structures of experiences and thoughts from all humanity, through the morphic fields. These memory structures are the archetypes, humanity's collective memory, which is similar to Jung's principal of the collective subconscious.²⁵

The mainstream, materialistic, scientific narrative, attempts to explain and reduce the human experience to electro-chemical processes in the brain and nervous system. According to science, the brain processes information and then releases 'drugs', hormones and various signals, which cause the living being to feel something. Many studies show and reinforce the claim regarding these processes. I do not deny them, but I want to change the viewpoint, and the causal interpretation of these processes.

What comes first- the consciousness, the feeling and our will, or the electricity and chemistry that 'make' us feel? What comes first- the egg or the chicken? (It is not necessarily a matter of speed but of primacy, of essence). I argue that our 'inner' will is the primal essence and our physical vessels are tools for this essence. The primal and most essential element is exposed by the fact that while the mechanical-physical mechanisms can be changed or damaged, there will still be some functionality (So the physical is not the most primal essence). However, if the will or the spirit is not there, the body ceases to function altogether.

²⁵ Shel Drake, Rupert. "Part I: Mind, Memory, and Archetype Morphic Resonance and the Collective Unconscious." *Psychological Perspectives* 18, no. 1 (March 1987): 9–25.
<https://doi.org/10.1080/00332928708408747>, <https://shel Drake.org/research/morphic-resonance/part-i-mind-memory-and-archetype-morphic-resonance-and-the-collective-unconscious>

Our soul is ancient and primal, while physical manipulations and processes are a reaction to our will power. The spirit- the will decides, and then the body translates that to electrical and chemical signals. Materialistic science is trying to remove the metaphysical will from the equation, but our experience and awareness teach us that there is a will, and that the activation of will power is one of the primary things that characterizes the world of the living.

Every person who chose to make a great effort and felt the inner struggle, knows by his inner experience that will power is a real thing, and since personal experience (and not theories and narratives) is our most primal-basic thing in this world (but not across all metaphysical worlds), we are left to consider it gravely.

Beyond the attempt to eliminate the metaphysical factor of will from the equation, mainstream science tends to reject entire fields of research as pseudo-science. An example of such a field is homeopathy, which uses water with a nearly non-existent amount of other material, for the treatment of various health problems. I am also skeptical about this field, however, following my introduction with scientific discoveries about water, I now doubt my own skepticism. Masaru Emoto's experiments have shown that human consciousness can change the molecular structure of water,^{26 27} but his work was attacked with much criticism, that claimed his experiments did not meet scientific standards.²⁸

Emoto was not considered a 'full-fledged' scientist, but it is difficult to say the same thing about the Nobel Prize winner in physiology or medicine, Luc Montagnier and other researchers, who found that DNA of certain types of bacteria and also of human beings,

²⁶ Emoto, Masaru, and David A. Thayne. *The Hidden Messages in Water*. New York: Atria Books, 2011.

²⁷ Bhavika, "Dr Masaru Emoto on Human Consciousness and Water", Fractal Enlightenment, <https://fractalenlightenment.com/14121/spirituality/dr-masaru-emoto-on-human-consciousness-and-water>

²⁸ "Masaru Emoto", Wikipedia, https://en.wikipedia.org/wiki/Masaru_Emoto

transmit ultra-low electromagnetic waves (light).²⁹ The scientists concluded from their experiments that water has nanostructures, which produce light (electromagnetic radiation). Furthermore, they found that that the genetic information- the DNA of the living being that is in the water, is broadcasted thru the light (the electromagnetic waves) to “clean” water (that contains no genetic material) nearby, and after the DNA is transmitted to the clean water, the water also begins to “sing” (broadcast) the “music of life” (the genetic information). In other words, the genetic information of the DNA is somehow imprinted in the water itself, creating a form of ‘water memory’. This discovery reinforces Sheldrake’s theory about morphic fields, which are transmitted by organisms.

Light transmits the genetic information from water to water;

Light distributes life and tells life to grow...

But that’s not all. In order to transfer the genetic information to water with light, a resonant alternating magnetic field is required. This magnetic field can be formed by the nervous system and the brain of highly developed living beings, such as human beings. The human brain can produce waves in the range of 7 Hertz (back to the number 7 and the law of seven and the octave). These waves are called “Delta Waves”, and they are produced during deep sleep or (possibly, deep-) meditation. Other, simpler organisms, such as bacteria, probably use natural environmental fields, such as the 7 Hertz “Schumann field” (created by lightning), which resonates naturally between Earth’s surface and the outer atmospheric layer- the Ionosphere.³⁰

²⁹ Electromagnetic radiation is actually light, which exists in a spectrum according to wavelength. From very long waves, including radio waves, to microwaves, and the very narrow range of visible light, and on to short, energetic waves such as X rays and gamma rays.

“Electromagnetic Spectrum”, Encyclopedia Britannica,
<https://www.britannica.com/science/electromagnetic-radiation#/media/1/183228/1367>

³⁰ Montagnier, L, J Aissa, E Del Giudice, C Lavallee, A Tedeschi, and G Vitiello. “DNA Waves and Water.” *Journal of Physics: Conference Series* 306 (July 8, 2011): 012007. <https://doi.org/10.1088/1742-6596/306/1/012007>, <https://iopscience.iop.org/article/10.1088/1742-6596/306/1/012007>

There are studies that show that 7 Hz waves accelerate the activation of genes related to DNA repair and other cellular functions.³¹ Other studies indicate that exposure to very low electromagnetic waves (around 12 Hz) can improve brain function, including memory.³²

Our brains produce delta waves (light in the 7Hz frequency, which is not visible to the human eye) when we are in a very specific state of consciousness. When we are in this state, we produce light in a similar frequency of that produced naturally by the Earth's atmosphere (7 Hz). This natural atmospheric field enables light to transmit genetic information to water. Sounds like a fairy tale...

What is the correlation between consciousness and memory, and the energy of light and life?

This scientific field deserves much more research, but what is certain is that there is much 'more than meets the eye' (much like the spectrum of light), and that reality and the universe are much more magical and wonderful than seen (visible) by some people.

Adaptation, Development and Evolution

'Reality is not what we see. What we see is an adaptive fiction.'

Donald Hoffman³³

Reality is very different from the information we process through our senses. According to Hoffman, we see what we need to see in order to guide adaptive behavior. Much like the icons on a computer's "Desktop" aren't real tangible objects, but rather symbols that help

³¹ Sanie-Jahromi, Fatemeh et al. "Effects of extremely low frequency electromagnetic field and cisplatin on mRNA levels of some DNA repair genes." *Life sciences* vol. 166 (2016): 41-45. doi:10.1016/j.lfs.2016.10.006, <https://www.sciencedirect.com/science/article/abs/pii/S0024320516305884?via%3Dihub>

³² Kazemi, Masoomeh et al. "Effects of the Extremely Low Frequency Electromagnetic Fields on NMDA-Receptor Gene Expression and Visual Working Memory in Male Rhesus Macaques." *Basic and clinical neuroscience* vol. 9,3 (2018): 167-176. doi:10.29252/NIRP.BCN.9.3.167, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6037432/pdf/BCN-9-167.pdf>

³³ Hoffman, Donald D. *The Case against Reality: Why Evolution Hid the Truth from Our Eyes*. First edition. New York: W.W. Norton & Company, Independent Publishers since 1923, 2019.

us use the operating system, so the objects in our life don't really exist as objects, but we perceive them as such in order to operate or use them. We see a table. Something exists there; some form of energy, some organization of atoms or electromagnetic forces, but there is really no table as it seems to us.

Reality is too complex, that is why our senses perceive only certain information and our brain translates it into something very abstract. When we try to write an email on a computer, we are basically 'playing' with, or changing electric currents, but if we had to do this without an operating system, it would be too complex and impractical. Likewise, when we write on a piece of paper, and insert it into an envelope in order to send it by mail, we are 'playing' with energy (electromagnetic and other kinds), using icons - symbols of paper, pencil and an envelope, but in reality they do not exist as it appears to us. This is reminiscent of Plato's world of forms or ideals, and the concept of geometric forms that are the symbols for-that represent the forms in the physical world.

In addition to the illusion of the physical forms and structures, human beings hold an illusion regarding their understanding of the cause and building method of these structures. The theory of evolution, for example, as smart as it is, cannot fully explain the basic questions behind the existence and development of the living world. Why does life exist at all, and is so different from the inanimate, and why does life strive to develop (will). It is difficult to explain away the incredible and genius complexity of organisms and organs, even if they are given millions of years to develop 'by themselves' by way of natural selection.

If creatures from another planet/world were to arrive on Earth and come across wild wolves, and dogs, would they speculate that dogs evolved naturally from wolves? Would they estimate that dogs adopted very different gestures, a different culture, and even values of loyalty [not to mention the vast genetic diversity, sizes and breeds (-a word that holds a clue to this question)] without any intervention? And if these aliens would come

across monkeys and humans, would they also believe that human development occurred in a totally natural and random manner?

evoLev as doG

Matter is an Illusion | A World of Energy and Light

Our illusion regarding the material world is greater and more elementary, and is related to our most primal sense- touch (the first sense that the fetus develops, and which exists in all living creatures). As is well known, atoms and electrons are very small (regarding water for instance, an atom size is about 0.1 nanometers, and an electron size is about 0.00001 nanometers). The distance between atoms and between electrons is relatively large [regarding water, the distance between atoms is about 0.31 nanometers (nanometer=a millionth of a meter), while the distance between electrons is almost 0.1 nanometers]. This means that at the core of what we call "matter" there is about 2-3 times empty space than something physical. In other words, most of the physical "is" is empty space.

Material	Atom size (nm)	Distance between atoms (nm)	Ratio of distance to atom size
Air	0.1 nm	10 nm	100
Water	0.1 nm	0.31 nm	3.1
Copper	0.127 nm	0.361 nm	2.86
Carbon	0.071 nm	0.154 nm	2.1
Diamond	0.154 nm	0.154 nm	1
Material Type	<u>Molecule</u> size (nm)	Distance between <u>Molecules</u> (nm)	Ratio of distance to <u>Molecules</u> size
Gas	0.01-10	1-100	100-1000
Fluid	0.1-100	0.01-0.1	0.1-10

Solid	0.1-10	0.001-0.01	0.1-10
-------	--------	------------	--------

Atom sizes and the distances between them. Courtesy of Google's AI- 'Google Bard'³⁴

What we feel when we touch a "solid" object, is not the atoms themselves but the electromagnetic resistance (in the form of an electron cloud) between the atoms of our body (our skin) and the atoms of the object. Meaning, that the electromagnetic force is the one that makes us feel the separation between objects in the physical world. We interpret this as there being "solid" objects, and it seems to us that we are touching something solid and steady, but in reality, (most of) the physical world is not solid and not static – everything is energy.

The electromagnetic force is the one that creates electromagnetic radiation- light. From what we know, light (photon particles) is created in a number of ways. Either as a result of particles coming together (nuclear fusion or an existing photon that collides with an atom), or by an energetic movement of a single particle (when an electron changes its energetic state as a result of heat, or chemical reaction, or when the electron is accelerated). The electromagnetic force is at the core of the process of the creation of light particles (photons). Photons are the smallest particles of an electromagnetic field, and are emitted from the field when there is an energetic change. When charged particles are accelerated, they emit electromagnetic radiation in the form of photon particles- light.³⁵

The electromagnetic force that creates light, is also the force that creates our sense of separation; our physical sensations. The electromagnetic force actually constructs our reality. At the core of the force that creates and organizes our reality, that separates and connects, is light

³⁴ <https://bard.google.com/>

³⁵ The energy of the photon or its wavelength equals to the difference in energy- to the change in energy that is created in the field. The higher amount of energy of the particles, the higher the frequency of the electron and the shorter its wavelength. Thus, in order to create short waves such as X rays, more energy is needed.

The Separation between Physicality and Spirituality

“And God said, there will be a firmament in the water and it will separate water from water:” Genesis A, 6

In the book of Genesis, it is told that before the creation of the firmament that separates water from water, the land was in “chaos”, “and darkness over the abyss”. After the Creator made the firmament, which separated “between the water that is below the firmament and the water that is above the firmament”, a separation was made between the atmospheres- between the water and the sky. The skyline -the waterline (the firmament) separating the sea and the air above, symbolizes the line that separates the physical world and the (‘lighter’ and more open-) spiritual world from above.

There are animals (dolphins) that are capable of jumping above the waterline to the air above, hover for a few seconds in the air and see that there is a different reality (in a paraphrase of Plato’s allegory of the cave). But even before the animals jump above the firmament, they see and feel the light that penetrates down to their reality, to the depths. Living beings have clues and evidence of the forces of the spiritual world “from above”, and moreover, the light “from above” is part of their lives “below”. The (spiritual) light from above, heats, illuminates and gives life (to the physical world). Meaning, there is no real separation between the spiritual and the material worlds; there is a skyline (firmament) that presents a “soft” separation, but the light of Truth connects the two worlds in perpetuity.³⁶

Light as the Connecting Force between Matter and Spirit

³⁶ We can continue the symbolism and say that the firmament (in Hebrew has the base word “Reka” meaning background) is the string net (string theory), which resides at the base and throughout space, and connects and separates objects in space (the electromagnetic force?).

“And God said, let there be light, and there was light:” Genesis A, 3

As I described in the previous section, light comes from the upper spiritual world (in our analogy- from the sky) and penetrates into the lower material world (in our analogy- into the sea). It follows that the light connects between the spiritual and the material worlds.

Light-Movement-Time

The force that produces light, the electromagnetic force is a background-force, or the ‘firmament’ that delineates objects and creates the illusion of space. When movement is added to this background force- a time dimension is added (movement creates changes between what was before and after the movement, thus are causality and time created).

The particle, which delimits time (and is the fastest- it defines the “allowed” speed limit) - is that which comprises light – the photon. Therefore, the electromagnetic force, which light (photon) is its fundamental energy particle, creates the illusion of space; and the fundamental energy that derives from this force, light- creates (the illusion of) time.

One of the most fundamental things in the universe and in our existence as physical beings is time and causality. We live in the present: things that happened before affect us, and things we do now will affect things that will happen in the future. Light symbolizes the limit of speed and time in the material world, and this is also our limit as beings that are living in a physical reality.

But every law, every boundary, has an exception or something that breaks the law, the framework. Outside the boundary of the speed of light, there is the other side of light, where the physical light becomes the spiritual or metaphysical light, and the boundaries of space-time dissolve into complete freedom – the spiritual world. If we pass the boundary of the speed of light – we reach a reality of ‘over-time’, a reality that is close to the metaphysical reality where the past- present and future coexist simultaneously- are one. This unity is the reality of eternity- the divine reality.

Light as the core and the communication medium of astronomical objects (stars)

Light is the fastest thing in the universe and is also the connecting force, between matter and spirit, and between living beings. The fastest way to transmit information and communicate with each other, is thru light, and thus light is the principal, most effective uniter and connector.

The primary point of production and distribution of light is inside stars. There is a theory by Matloff, which states that stars are conscious, and can direct their way thru the galaxy by their electromagnetic jet streams.^{37 38} Taking this theory further, we can speculate that the stars can use the light, which they emit, as a means for communicating with each other (star to star).

Rupert Sheldrake, in his article about the possibility that the sun is conscious, suggests that the electromagnetic field of the sun is like its 'sense organ', by which the sun receives information about the surrounding world and reacts to it (not unlike the way in which our electrically charged brains, nervous systems, and neurons operate).³⁹

If light is really the force that connects the spiritual to the material, and if light waves carry energy that is derived from the metaphysical light, changes in the intensity and frequencies of light waves should affect the feeling, excitement and behavior of human beings. The sun is the main source of light in our world, and the solar cycles affect humanity significantly. Throughout human history, the climaxes of the Sun's activity cycles coincided with grave occurrences, such as diseases (pandemics), revolutions, wars

³⁷ Matloff, G. (2015) *Starlight, Starbright: Are Stars Conscious?*, New York: Curtis Press.

³⁸ This theory can explain how galaxies stay "connected" despite the fact that there isn't enough matter-(and therefore gravitational force) to keep them together, and thus cancel the need for the theory of "dark energy".

³⁹ Rupert Sheldrake, "Is the Sun Conscious", *Journal of Consciousness Studies*, 28, No. 3-4, 2021, p. 21

and destruction in the human world. 'It ain't necessarily so' –but too many people throughout history have directed their activities toward egoistic and materialistic aims, and when the Sun adds energy ('to the fire'), man's activities intensify toward these aims.⁴⁰

The Russian scientist that lived during the Soviet era (and suffered greatly from it), Tchijevsky, explored the effects of the Sun's energy (light) on human beings. Tchijevsky showed that changes in the Sun's electromagnetic radiation, change the electrical charge of Earth's atmosphere, and that our nervous system is affected by this (especially in highly sensitive people), and thus our mood and behavior are affected. Furthermore, Tchijevsky and others, have shown that there is a meaningful statistical correlation between our Sun's solar cycles (mainly the shorter 11 year cycles), and significant historical events (Tchijevsky investigated the history of 72 countries) that occurred in close proximity (about 5 years) to the solar maximum.⁴¹

Sunlight not only affects and affected our spirit and behavior throughout history, but also actually formed our planet and us. According to modern scientific theory, the light of a young star (which formed from a solar nebula) heats the gas and particles in its area, consequently forming a disk around the star. This disk of gas and raw materials is transformed over time (and by gravitational forces) into planets. We humans and all the living creatures are the products of this ancient light.

The energy of sunlight created the earth, the chemical elements and the atoms that comprise our bodies. Elements such as calcium, magnesium, silicon, iron and copper, which were formed by the Sun's energy, and are essential for our bodies' development

⁴⁰ George M. Young, "Do Solar Storms Influence Our Behavior?", huffpost.com, Feb 2, 2013, https://www.huffpost.com/entry/solar-storms-behavior_b_2220034

⁴¹ Alexander Tchijevsky, "physical factors of historical process", 1926, Translated by Vladimir P. de Smitt, Cycles 1971: 22 pp. 11–27. First sketch published in 1924 In Russia.

and operation. The astronomer, scientist and author, Carl Sagan, said that we are actually "Star stuff".⁴²

Light Connects Living-Water, and is the Basic Energetic Component of Everything

Montagnier's experiments indicate that water molecules are not held together just by static electro-chemical bonds (Hydrogen bonds etc.), but their bond is caused or supported by light (by a "time-dependent radiative long range em field").⁴³ Furthermore, the experiments show that light (electromagnetic waves) is the connecting force, in that light transmits, in an incomprehensible or metaphysical way, the 'manufacturing instructions' (the DNA) of an organism to water. Light maintains the essential bedrock for life-water, and through it, distributes life.

The electromagnetic force produces light (emits photons). The Photon is the smallest, most fundamental energy particle at the core of the electromagnetic force. Perhaps the electromagnetic force is actually light in a different 'aggregate state', and when we change the energetic state of this force, part of it changes its 'aggregate state', manifesting in light. This is similar to what happens when we perform a process of electrolysis of water, causing oxygen and hydrogen to be emitted from the water. The oxygen and hydrogen are the basic building blocks of water; they are not by-products of raising the energetic state of water by the electromagnetic force (with electrolysis). Maybe in the same way, photons are not a by-product of the electromagnetic force, when its energetic state is changed, but the basic component of this force. If this is true, then light (the connecting force), is the basic component (but maybe not the only one) of the electromagnetic force. This means

⁴² Janek, Vanessa, "What Does It Mean To Be 'Star Stuff'?", Universetoday.com, December 22, 2014, <https://www.universetoday.com/117494/what-does-it-mean-to-be-star-stuff/>

⁴³ Montagnier, L, J Aissa, E Del Giudice, C Lavallee, A Tedeschi, and G Vitiello. "DNA Waves and Water." *Journal of Physics: Conference Series* 306 (July 8, 2011): 012007. <https://doi.org/10.1088/1742-6596/306/1/012007>, <https://iopscience.iop.org/article/10.1088/1742-6596/306/1/012007>, Page 5

that all the objects in our world (including us), and that the whole world itself is fundamentally composed of, and full of Light

Light is the 'highest' 'freest' and 'lightest' thing: close to the metaphysical and spiritual

The fundamental particle of light, a photon, is a particle that has no mass. In this regard, light is something 'lightweight' and 'heavenly' – an energy that is not directly affected by gravity and other limitations of 'regular' matter.⁴⁴ The main elements that comprise the sources of light in the universe (and the entire universe itself) - stars, are also 'light' (lightweight). Hydrogen is the most common element in the universe and also in stars (stars are about 70% hydrogen). Hydrogen is the element with the smallest atomic mass (about one atomic mass unit: 1 AMU). The second most common element is helium (stars are about 27% helium). Helium is the element with the second smallest atomic mass (about 4 AMU). So two of the most fundamental and common elements, that comprise the structures, which produce and distribute light in our world, have the smallest atomic masses; and they too, like photons, are 'lightweight', and 'heavenly'.

In the famous 'Double Slit Experiment', researchers tried to gather evidence regarding the old controversy regarding light: is light made of particles (photons) and is limited to behave as a particle, like other elements in nature, or is it a sort of wave or something else. The researchers found that light behaves both as if it is made of particles and as a wave, and were left wondering- is light both a particle and an energy wave simultaneously? Furthermore, when they connected a measuring device to the experiment, it change the behavior of light to that of particles only. The conclusion from this experiment is that light probably behaves as a probability wave, and does not have a fixed tendency. In this sense,

⁴⁴ Light can be affected by gravity in an indirect way, as a result of the bending of space-time, thru which light travels.

light resembles an overtone that is heard when a string vibrates. Maybe there are different kinds of invisible "strings", which hold light from both ends?

Subsequent experiments, such as Wheeler's experiment,⁴⁵ and others, have shown that not only does light change its behavior or state according to changes in space (as a result of adding a measuring device), but the future state of a photon (of light) affects the state of a photon that is entangled with it.^{46 47} In other words, an action or choice that are made in the present affect the past (a reversal of causality).^{*48} Does this show us how light touches upon the limits of the eternal- even surpassing the locality of the physical world, towards the world of eternal being- the spiritual-the metaphysical, where the past and the future combine with the present?

Light, in its various forms, is the energy closest to the metaphysical-to spiritual energy in the physical dimension. According to many wise people, including Rabbi Kook, light is as a gateway to the spiritual realm, and a symbol of the existence of the good and sacred.⁴⁹

Following Plato's idea about the world of forms/ideals, I proposed, in a previous article of mine, a picture of reality that connects the spiritual dimension to the material one. It could be that stars function as a form of a (bi-directional) communication vessel (or receptacle) between the dimensions. In the spiritual dimension, there are fundamental energetic

⁴⁵ "Wheeler's delayed-choice experiment", Wikipedia, https://en.wikipedia.org/wiki/Wheeler%27s_delayed-choice_experiment

⁴⁶ Arvin Ash, "Delayed Choice Quantum Eraser: Does the Future Affect the Present?", Youtube Video, 12.4.2019, 10:28, <https://www.youtube.com/watch?v=0ui9ovrQuKE>

⁴⁷ The phenomena of particle entanglements in quantum theory, where particles are affected by one another thru vast distances in space, is in itself a testimony to the magical cosmic forces.

^{* 48} This issue is controversial and there are several different interpretations to the experiment: Colm Bracken and Jonte R. Hance and Sabine Hossenfelder, "The Quantum Eraser Paradox", Arxiv, 2021, <https://arxiv.org/abs/2111.09347> Sabine Hossenfelder, "The Delayed Choice Quantum Eraser, Debunked", Youtube, 30.10.21, 12:50, <https://www.youtube.com/watch?v=RQv5CVELG3U>

⁴⁹ Rabbi Kook, "The sacred lights", 1950

הרב קוק, "אורות הקודש", 1950

forms/entities that emit spiritual light, which passes thru the “receptacle”, and is translated to physical light in our dimension. The higher forms embody the essence of our basic values in our world. The most basic ‘form’ – Truth, and other forms, such as justice, liberty and will, are translated to basic ideal values, to energy, and to the physical forces of this physical dimension.⁵⁰

The Spiritual Light of Truth is the Good Force that Connects Living Beings and All Life

The Light of Truth Illuminated, is Illuminating and
will illuminate (- “Yair” in Hebrew) our world

Good vs Evil, Truth vs Falsehood

“And God saw the light is good, and God separated between the light
and the darkness:” Genesis A, 4

Light gives life and illuminates our way (pillar of fire) in the path of Truth. Light is the symbol of good, which reveals the true and deep reality of our lives, and declares the world to be good. The sacred light illuminates the Truth about the world, and the good that is at the core of creation. In contrast, the evil is the lie that darkens, incites, misleads, and masks the Truth from our eyes and our consciousness. Evil is like filth - that interferes and distorts the natural Truth of reality.

⁵⁰ Schmuël Schperling, “Is the Sun Alive?”, Researchgate, January 2022,
https://www.researchgate.net/publication/357811784_Is_the_Sun_Alive

We need to be wary of the evil – of the lie, but we must not be afraid, because the good light, the light of Truth, is infinitely greater, all-encompassing and stronger than any evil. When the light of Truth- the absolute good meets the evil- the lie, the filth disappears without a trace, and the light of Truth purifies and embraces all. The deep meaning of Truth, as a basic principal, is the recognition of reality, the recognition of creation. Resistance to the distortion of reality- to the lie, means to accept and sanctify existence- sanctify the creation, and to acknowledge that at its core there is the absolute good...

The Light of Truth: אהב

Light gives our main sense (vision) the possibility of understanding reality. Light reveals to us the Truth (even if only its edge or outline symbolically). This shows that at the core of the symbolism of light as a good thing, there is a deeper Truth. When living beings look at each other's eyes, it is considered as intimate. In nature, it could be considered "breaking the border", and can provoke an aggressive response, especially if the other side is unfamiliar or a stranger. The physiological explanation for this, has to do with the sense of vision being our main sense for building a "world view", and that the eyes are sensitive organs, which lead, unprotected, directly toward our most important organ- the brain. Yet, is there also an explanation that leans toward the metaphysical- the spiritual?

The light that penetrates our eyes and bodies has a broad spectrum, and we are not limited to absorb and recognize only the narrow range of visible light. Studies show that our brains are capable of identifying light even when our eyes are damaged (among blind people),⁵¹ and that light in the non-visible spectrum, affects many cerebral functions such as sleep and wakefulness, concentration and danger detection.⁵² Other studies show that

⁵¹ Ariel Van Brummelen, "How Blind People Detect Light", Scientific American, May 1, 2014, <https://www.scientificamerican.com/article/how-blind-people-detect-light/>

⁵² Gilles Vandewalle, Olivier Collignon, Joseph T. Hull, Véronique Daneault, Geneviève Albouy, Franco Lepore, Christophe Phillips, Julien Doyon, Charles A. Czeisler, Marie Dumont, Steven W. Lockley, Julie

blind people (whose visual area of the brain is damaged) are capable of identifying obstacles in their way (while walking) and capable of accurately (90% accuracy rate) identifying objects that are projected onto a screen. These results raise questions about the connection between light, the brain and consciousness.⁵³

The light of Truth is the connecting force between the spiritual and the material, and the core of the spiritual light is the connecting force, that forms and gives life to everything. We can view this force as 'the living code of our universe'.⁵⁴ The sacred light of Truth connects consciousnesses, living beings, and existential experiences. This is in actuality, the divine creating force that spreads and threads (connects) life.

When entity א connects, with the
divine force-ה

to entity ב, we get the root of the word (and world) in the sacred language.

When the connection is tied (when the string is threaded) at its end with the
divine force-ה, in a pure, deep and spiritual way, we get the word (and world) itself, which
is the expression of the force, the sanctity and the light of the universe that connects all.

Light Will Shine on Yair and on Humanity's Pearl, the House of Israel

Schmuel Schperling

שמואל שפרלינג

19.7.2023

ו

א' באב ה'תשפ"ג

Carrier. "Blue Light Stimulates Cognitive Brain Activity in Visually Blind Individuals.", *Journal of Cognitive Neuroscience*, 2013; 2072 DOI: [10.1162/jocn_a.00450](https://doi.org/10.1162/jocn_a.00450)

⁵³ Henry Taylor, "Blindsight: a strange neurological condition that could help explain consciousness", *The Conversation*, July 2, 2020, <https://theconversation.com/blindsight-a-strange-neurological-condition-that-could-help-explain-consciousness-141625>

⁵⁴ "מהו הקוד של ה"סימולציה" שלנו? הקוד החי של היקום שלנו.", *Researchgate*, 8.8.2020, https://www.researchgate.net/publication/343303832_mhw_hqwd_sl_hsymwlzyh_slnw_hqwd_hhy_sl_hyq_wm_slnw