The Next Bigly Thing: Spontaneous Generation

by Robert A. Nelson

Q: Why did the egg cross the road?

A: To get laid by a proto-chicken.

And it came first... Indeed, it had to do or die -- unless life can pop into existence without parents or genetic engineering, as in "Spontaneous Generation".

It is generally agreed that Louis Pasteur decisively refuted the theory of Spontaneous Generation (SG) in 1859, when he invented the "swan-neck" flask in which to create an environment where microbes could not grow. After sterilizing nutrient broth in the vessels, he removed the swan necks of the control flasks. Microorganisms subsequently grew only in those flasks, thereby debunking spontaneous generation -- under those conditions, at least.

It's easy when you know how, however -- and apparently Dr. Pasteur didn't know, or he might have obtained quite different results, as did several other researchers who independently discovered and verified the theory (or something like it) in principle. Probably some of the experiments were contaminated, or the results were misinterpreted. The remaining cold cases deserve further consideration and attempted replication before they are dismissed as errors.

The origin of Life is a mystery, but "LUCA" (Last Universal Common Ancestor) has been proposed as a theoretical common ancestor some 4 billion years ago. LUCA is thought to have been the first bacterial form to develop somehow around deep sea vents or coastal pools, or in clay. For all anyone knows, it could have come from outer space, or hyperspace. Just how it manifested is anyone's brainchild -- it's a veritable Jovian headache!

Mother Nature is inexorably determined to Live. She will do anything, anywhere, innumerable times, in any way possible, until Life happens. That includes its creation from sterile, inert, azoic matter. Life is a universal spontaneous phenomenon that can and will emerge from templates in background dimensions to take form in any suitable matrix and nutrient medium, no matter how small, slow, or brief.

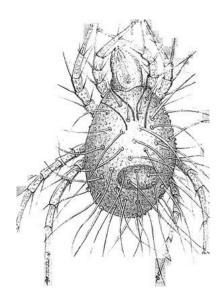
Modern technology such as DNA-modifying CRISPR systems enable megalomanic technocrats to act like quasi-gods, without regard for consequences. Nevertheless, just to put too fine a nanopoint on it, the following historical factoids ought to convince, enthrall and titillate even the most jaded reader with their potential for inevitable disaster, especially in combination with modern methods.

Andrew Crosse



Andrew Crosse may have been the inspiration for Mary Shelley's legendary novel "*Frankenstein*". Crosse was a pioneering English electrical experimenter whose estate was festooned with thousands of feet of antenna wire that collected atmospheric electricity into Leyden jars. His equipment generated huge sparks that terrified the local residents, who dared not trespass.

In 1837, Andrew Crosse reported to the London Electrical Society that he had caused the accidental formation of *Acarus* insects (a type of mite) by the prolonged exposure of potassium silicate to weak electric current from a Voltaic cell. Crosse performed numerous experiments under a wide variety of conditions that were utterly inimical to life as we know it, yet the insects continued to appear. Even if their existence was due to contamination, the resulting critters were a new species!



"My object in subjecting this fluid to a long-continued electric action, through the intervention of the porous stone [pumice], was to form, if possible, crystals of silica at one of the poles of the battery, but I failed in accomplishing this by those means. On the 14th day from the commencement of the experiment, I observed, through a lens, a few small white excrescences or nipples projecting from about the middle of the electrified stone, and nearly under the dropping of the fluid above. On the 18th day, these projections enlarged, and 7 or 8 filaments, each of them longer than the excrescence from which t grew, made their appearance on each of the nipples. On the 22nd day, these appearances were more elevated and distinct, and on the 26th day, each figure assumed the form of a perfect insect, standing erect on a few bristles which formed its tail. Till this

period I had no notion that these appearances were any other than an incipient mineral formation; but it was not until the 28th day, when I plainly perceived these little creatures move their legs, that I felt any surprise, and I must own that when this took place, I was not a little astonished. I endeavored to detach, with the point of a needle, one or two of them from its position on the stone, but they immediately died, and I was obliged to wait patiently for a few days longer, when they separated themselves from the stone, and moved about at pleasure, although they had been for some time after their birth apparently averse to motion. In the course of a few weeks, about a hundred of them made their appearance on the stone. I observed that at first each of them fixed itself for a considerable time in one spot, appearing, as far as I could judge, to feed by suction; but when a ray of light from the sun was directed upon it, it seemed disturbed, and removed itself to the shaded part of the stone. Out of about a hundred insects, not above 5 or 6 were born on the south side of the stone. I examined them with the microscope, and observed that the smaller ones appeared to have only 6 legs, but the larger ones 8..."

"I have never ventured an opinion as to the cause of their birth, and for a very simple reason -- I was unable to form one. The most simple solution of the problem which occurred to me, was that they arose from ova deposited by insects floating in the atmosphere, and that they might possibly be hatched by the electric action. Still, I could not imagine that an ovum could shoot out filaments, and that those filaments would become bristles; and moreover, I could not detect, on the closest examination, any remains of a shell. Again, we have no right to assume that electric action is necessary to vitality, until such fact shall have been most distinctly proved. I next imagined, as others have done, that they might have originated from the water, and consequently made a close examination of several hundred vessels, filled with the same water as that which held in solution the silicate of potassa, in the same room, which vessels constituted the cells of a large Voltaic battery, used without acid. In none of these vessels could I perceive the trace of an insect of that description. I likewise closely examined the crevices and most dusty parts of the room with no better success..."

"As in the above account I have occasionally made use of the word "formation", I beg that it might be understood that I do not mean creation, or any thing approaching it..

"I have not observed a formation of the insect, except on a moist and electrified surface, or under an electrified fluid. ..These insects do not appear to have originated from others similar to themselves, as they are formed in all cases with access of moisture, and in some cases 2 inches below the surface of the fluid in which they are born; and if a full grown and perfect insect be let fall into any fluid, it is infallibly drowned. I believe they live for many weeks: occasionally I have found them dead in groups, apparently from want of food..."

Crosse submitted samples for examination by expert entymologists, who declared it to be a new species of the genus Acarus. The ensuing controversy stopped for no good scientific reason after the great scientist Michael Faraday reported to the Royal Institute that he had successfully repeated the experiment. No one else since then seems to have published any report of

replications with either positive or negative results. A vaguely related note "On the Existence of Acari in Mica" was published in the *British Association Report* (1855):

"While examining with a microscope a thick plate of mica from Siberia, about 5 inches long and 3 inches wide, Sir David was surprised to observe the remains of minute animals, some the 70th of an inch, and others only the 150th of an inch in size. Some of these were enclosed in cavities, round which the films of mica were in optical contact. These acari were, of course, not fossil, but must have insinuated themselves through openings between the plates of mica, which afterwards closed over."

This issue definitely needs closure.

Henry Bastian



During the 1860s and 70s, the brilliant English physiologist and pathologist Henry Charlton Bastian was a leading advocate of spontaneous generation. He argued for a logical, necessary link between evolution and spontaneous generation, and he performed many experiments that justified the theory. The results were duly ascribed to contamination. Prof. Bastian held that Darwinian evolution was not inevitable, nor sufficiently inclusive, as ample evidence indicated that abiogenesis happens whether or not scholars acknowledge the phenomenon. The Darwinists (led by Huxley, Tyndall, and the X-Club) eventually "won" the long, heated debate, and mainstream science has subscribed to that dogma since then.

Dr. Bastian's book "*Evolution and the Origin of Life*" is available online at the venerable website <u>archive.org</u> (https://archive.org/details/evolutionandori00bastgoog).

Antoine Béchamp



Antoine Bechamp was a leading researcher during the late 19th century who came to separate conclusions concerning the origin of life, based on his discovery of "microzymes" in azoic rock.

Bechamp's book "*The Blood and its Third Anatomical Element*" (1912) details his Microzymian theory of biological organization, according to which microzymes preceded bacteria, and presumably even LUCA.

In 1856 he showed that a sugar solution treated with precipitated calcic carbonate does not undergo inversion under sterile conditions, but if calcareous rock is added instead of reagent calcium carbonate, peculiar moulds appear and inversion proceeds.

Bechamp established that the moulds are formed by molecular granulations named "microzymas" that occur in calcareous geological strata, and he found that they are "alive" and can evolve into bacteria under certain conditions. Bechamp did not ascribe any of this to spontaneous generation. Rather, he proved that microzymas were extremely long-lived and revitalized by his techniques:

"On the one hand, all these researches showed me these microzymas functioning like anatomical elements endowed with physiological and chemical activity in all the organs and humors of living organisms in a perfect state of health, preserved there morphologically alike and functionally different, *ab ovo et semine*, in all the tissues and cellules of the diverse anatomical systems, down to the anatomical element which I have called microzymian molecular granulation. And especially they showed me that the cellule is not the simple vital unit that Virchow believed, because the cellule itself has microzymas as anatomical elements.

"On the other hand, the experiment showed me that in parts subtracted from the living animal, the microzymas being no longer in their normal conditions of existence, produced therein chemical alterations, called fermentations, which inevitably led to tissue disorganizations, to the destruction of the cellules and to the setting free of their microzymas, which then, changing in form and function, could become vibrioniens by evolution, which they did whenever the conditions for this evolution were realized.

"And, in the third place, I established that the vibrios, the bacteria which the anatomical microzymian elements had become, destroyed themselves, and that, with the aid of the

oxygen of the air, under the conditions which I had realized, they were at last reduced to microzymas while the matters of the alteration, being oxidized, were transformed into water, carbonic acid, nitrogen, etc.; that is to say, restored to the mineral condition, so that of the natural organic matters and of their tissues and cellules there remained only the microzymas. And these microzymas, proceeding from the bacteria which the anatomical element microzymas had become, were identical, morphologically and functionally, with those of the chalk, of the calcareous rocks, of the alluviums, of the waters, of arable or cultivated earths, or the dusts of the streets and of the air. From these experiments I argued that the microzymas of the chalk, etc., were the microzymas of the bacteria which the anatomical element microzymas of the living beings of the geological epochs had become!

"The microzymas in their function as anatomical elements in the living and healthy organism; there they are the physiological and chemical agents of the transformations which take place during the process of nutrition...

"The microzymas, living agents of all organization, are also the agents of disease and death under the influences which nosologists specify; finally they are the agents of total destruction when the oxygen of the air intervenes. Like the indestructible atom or element in the Lavoisierian theory of matter, the microzymas, too, are physiologically imperishable."

Charles Littlefield



Early in the 20th century, Charles W. Littlefield became famous for the "mind photographs" of mentally-projected images he captured in evaporated mineral salt solutions. Littlefield also observed and photographed the spontaneous generation of microscopic life forms in solutions of a unique mineral salt formula he developed. His research culminated in incredible but true resurrections of animals.

Dr. Littlefield had noticed that atmosphere conditions affected his patients, and he attributed the influence to "volatile magnetism". Eventually he developed a formula based on biochemical tissue salts:

"Fourteen chemical elements enter into the composition of all organized beings, without exception. These are; carbon, hydrogen, oxygen, nitrogen, sulphur, phosphorus, chlorine,

potassium, sodium, calcium, magnesium, iron, fluorine and silicon."

"Experiments will demonstrate that this magnetism, as it exists in water, is latent vital energy, and that the process of evaporation liberates it, and it saturates the mineral compounds that characterize the plant or animal form that is being developed, and becomes the life principle or vital force of that plant or animal..."

The salts were recrystallized several times depending on their molecular weights (e.g., m.w. 200 = 20x, m.w. 160 = 16x, m.w. 100 = 10x, etc.), and then combined in the same proportions as they occur in tissues. The resultant saline solution was "saturated with oleo-resin, and exposed for several hours to an atmosphere of free ammonia", and then pulverized.

Charles Tingley reported on "Littlefield and the Artificial Creation of Life" in the journal *Scientific American* (30 September 1905). Please try this at home:

"The following instructions and description of the operation have been given by Dr. Littlefield by which the microorganisms are supposed to be produced. The supplies are of the simplest kind and can be obtained in any drug store. These comprise a large but shallow glass vessel, having a capacity of one quart, several smaller glass dishes, a bell jar sufficiently large to include these receptacles, and finally, a good high-power microscope. The chemicals used are sodium chloride, or common table salt, alcohol, ammonia, and distilled water. In the larger vessels 2 ounces of the salt is dissolved in 6 ounces of the water, and when this is done 6 ounces of 90 % pure alcohol is added.

"A portion of the solution thus formed is poured out of the larger into the smaller dishes, when 2 ounces of official aqua ammonia is stirred in with a clean glass rod, and the bell jar is then placed over them. A chemical reaction is set up and in the course of a few minutes bubbles of hydrogen will begin to form on the surface of the fluid, and a closer observation will show these little spheres to be gyrating with high velocity. In the course of half an hour the bubbles will cease to form; the liquid is then ready for the crucial test. With the microscope at hand and previously focused so that a globule of the unstable solution may be quickly observed, a very small portion is transferred from the dish to the glass slide, where the latter is adjusted on the stage and a magnified view is had. On examination detached particles of matter are seen moving through the medium from the center to the circumference with extreme rapidity, and continued investigation indicates other changes the liquid is undergoing. Crystals begin to appear, and those first formed are the characteristic transparent cubes of sodium chloride, and hence these are incapable of further development. After these, other crystals follow, and some assume a hexagonal form on the surface of the saturated solution, and it is from these latter minute six-sided bodies that the growth of the elementary organisms is said to take place.

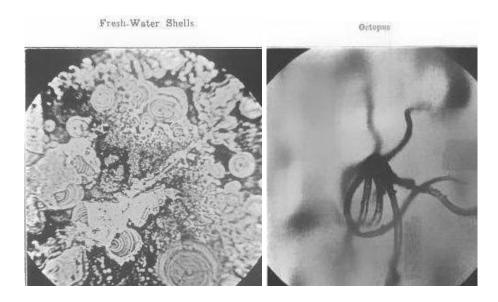
"The point is now reached, according to Dr. Littlefield, where the intangible force we know as life joins the lifeless matter, as current electricity energizes a coil of wire, and a microscopic organism... begins its existence...

"The growth of this supposed rudimentary vital element next follows in sequence, and as

it is metamorphosed from the hexagonal crystal into a free, smooth, disk-shaped cell, we are informed that it bears a close resemblance to a red blood corpuscle. The cellular disk now gradually expands in a direction at right angles to its surfaces and an ovoid form results from which pseudopodia or temporary extensions protrude similar to the amoeba, and which in the latter are designed to take in food, for locomotion, etc..."

Dr Littlefield's technique of crystallization prepares mineral salts to receive the life force:

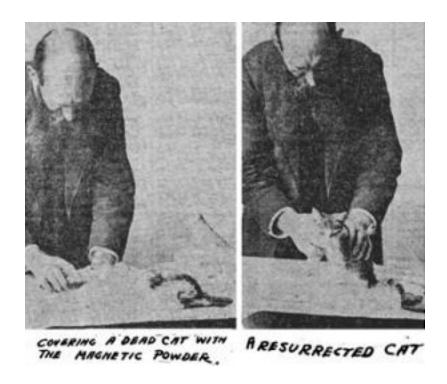
"There are combinations in nature so constituted and arranged in their atomic structure as to arrest the vibrations which act as electromagnetic manifestations of a higher order than those of light, and these give us the phenomena of physical life, and the physical basis of this compound is salt, ammonia, and water in the presence of hydrogen, easily obtainable from alcohol, which is made up largely of this gas."



Charles Littlefield might be easily dismissed as delusional, were it not for this incredible yet apparently true report of another formula he developed that actually resurrected dead animals, and allegedly a drowned boy in one case.

Dr. Littlefield demonstrated his powder on several occasions by drowning cats and dogs. When the witnesses were convinced that the animals were dead, the victims were revived:

"Dr. Littlefield takes the corpse and, without preparation of any kind, places it upon a heated stone or porcelain plate, brought to a temperature corresponding to that of the normal body, and covers it thoroughly with a light layer of the powder. Within three or four minutes from the time the powder has been coated over the dead body signs of life manifest themselves, and within fifteen minutes after the resuscitating methods were begun, in every instance, the subject has returned to normal life."



He also resurrected flies and bees within a few minutes after they had been dead for twelve hours.

"In the production of these forms the mineral salts were first vitalized by dissolving in water and placing drops of the solution on glass plates in suitable environment of light, heat, and moisture. The drops are so placed as to retain a globular form in order to analyze the ray of light into seven colors. When the water dries away more is added until by the process of repeated evaporations the salts become charged with the vital force.

"After several days, droplets, like little cells, will remain in the region where the drop was placed. These undergo the ordinary process of cell division until they develop into an organic form...

"This, however, is not true of the shell-forms. They grow from droplets, as single cells, without undergoing the process of cell division..."

Morley Martin



Morley W. Martin (d. 1938) was an English scientist who developed secret methods to create organic life forms from inert Precambrian rock.

In 1927, Martin heated paleozoic rock to 3000 degrees F. in an electric furnace, then sterilized it with steam. From this he produced a new substance which he called "primordial mineral protoplasm", a form of crystal that contains no protein but emits a mobile liquid. When exposed to X-rays and UV light, the crystals condensed and released thousands of microscopic fish, insects and plants which he observed under 3000X magnification:

"Observing an interrupting factor in assaying metallic ores in the Ordovician and Lower Silurian rocks which led to inaccurate results, I isolated at last a body which, microscopically examined, resembled what is known as 'protoplasm', but, as it came from the mineral, considered it a mistake. Further experimentation, however, convinced me -- its origin notwithstanding -- that such was the case...

"All attempts to produce what are known as cultures from this 'protoplasm; failed; but at last, under certain conditions... curious osmotic growths, which I had never hitherto seen, appeared... Improved methods yielded better results, and at last there appeared in the field of view, a most astonishing sight; the liquid protoplasm split up into innumerable globules of 'primordial protoplasm' which took the shape of an animal, which was obviously progressively forming. I photographed it every few minutes, which proved progressive formation of its body -- a new body from its 'protoplasmic' life. Its separate globules -- not cells -- elaborated a new body, head, eyes; with legs obviously deficient in number, as some were at first quite rudimentary and were withdrawn again into its body as though it were conserving material for more important purposes. Other rudimentary legs appeared and were also withdrawn like manner; but those which had not been malformed progressed in formation. After a few hours, all its globular condition ceased to be, the globules having been elaborated into a well-formed animal body; when it slowly commenced to walk, apparently trying to get away from the focused light...

"Occasionally, one will struggle desperately to construct its new physical habitation, only to fail and fall back into undifferentiated 'primordial protoplasm'. Another will make steady progress to the state of a permanent, highly articlulated animal, with exquisitely finished detail such as claws, hairs, and joints. The difficulties are so great in providing

the exact conditions for these 'emergences' that few seem able to complete their entire structure. Actinic light has a destructive effect, and they seek to hide from it at times..."

During one of his observations, Martin counted approximately 15,000 microfish, which apparently spawned from about forty crystals of his "primordial protoplasm." They were in fact "immortal", for when incinerated to ashes in an electric furnace, they would emerge phoenix-like and reconstruct themselves.

According to Martin, the creatures are reincarnations of a specific, eternal force:

"Life is not the expression of the organism, but, on the contrary, the organism is the expression of some prior and indestructible vital force. Nothing ever dies, and even if it should be assimilated by the vegetable kingdom, animal life maintains its identity and its capacity for self-resurrection. Life's opposite is not death, but latency. Indeed, one is compelled to conclude that man himself is latent in the earth's rock...

"For a few moments, a few minutes, few hours I revived under the microscopic beings that had already appeared on earth and whose life eternal, locked in a latent state in a grain of sand, salt or a piece of chalk, had resisted 3000 degrees centigrade electric oven.

"Life is indestructible, even by fire. There have been no more than Birth of life. As time, like space, life has no beginning nor end. This is a mistake think that life is a state of the body. The truth is that the body is a state of life...

"It is reincarnated life, and that is my great discovery. Science is in part, from the beginning, based on false data. We are at beginning of the largest of controversies that have ever occurred since the world began!"

Morley Martin kept his animicules alive with a secret serum of his invention. It could be the same formula as resurrection salt concocted by Charles Littlefield.

He published a summary of his work in a booklet, "The Reincarnation of Animal and Plant Life from Protoplasm Isolated from the Mineral Kingdom" (1934). It revealed nothing about his methods, except the use of a furnace high temperature electrical furnace, and exposure of the residues to X-rays. What little is known about him was transmitted by Mauritius Maeterlinck, who wrote a chapter about Martin's abiogenesis research in "The Great Gate" (1939). If there are any technical clues to be gleaned from Morley's research, they might be found in his several patents for treatments of ores. These generally involved roasting sulfide ore concentrates with an oxidizing agent, followed by treatment with hydrocarbon oils and water, or with carbonic acid under pressure. The extracts also are subjected to magnetic fields or X-rays to facilitate separation of silica gel from oxides of tin, copper, etc.

Wilhelm Reich

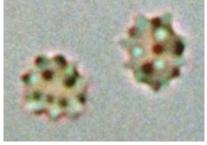


From 1934 to 1939, Dr. Wilhelm Reich conducted experiments on the origin of life, which he published as <u>Die Bione</u> (The Bion) and The Bion Experiments on the Origin of Life. Reich argued that biological energy, which he called "orgone", gives rise to primordial cell forms which he called "bions". He did not consider them to have generated "spontaneously", but rather in a specific process of development and decay similar to that observed by Bechamp, Morley, and Bastian.

Dr. Reich wrote that he had seen glowing blue vesicles which he named "PA-Bions" and believed were an intermediate form between life and inanimate matter. Reich also observed smaller red bions shaped like lancets, which he called T-bacilli (T stands for *Tod*, the German word for death). In his book *The Cancer Biopathy* (1948), Dr. Reich wrote that he had found T-bacilli in cancerous tumors, and he induced cancer in mice by injecting them with T-Bacilli. Reich concluded that degenerated cells form T-bacilli which cause death by their overwhelming growth.

Reich's discovery was confirmed by Prof. Roger du Teil, who presented the results to the French Academy of Sciences in 1938, but the news was soon forgotten in the turmoil of the times. In the ensuing years, Dr. Reich became ever more controversial and embroiled in legal problems that resulted in his books being burned and him being sent to prison, where he died of cancer in 1957.

More recently, James DeMeo, Director of the Orgone Biophysical Research Lab has reported his replication of Reich's bion production, and posted a video of it on YouTube (https://www.youtube.com/watch?v=-PVnS72IIY8). Likewise, the British Centre for Orgonomic Research has produced a video of bions generated from iron filings, also on YouTube (https://www.youtube.com/watch?v=8IXIvoBZ9AY).





(Bions cultured by J. DeMeo)

Although the models proposed by Pasteur, *et al.*, has dominated bacteriology since then -- and are largely correct (despite Dr. P.'s plagiarism of opponents' work) -- it should be understood that none of these scientists ever claimed to have "created" life. They only reported the results of experiments and offered tentative explanations. The anomalous results they obtained usually are attributed to contamination.

In tossing out the microbes with the nutrient broth, however, the critics also threw away the primal information fields that make a difference in such experiments. Several other scientists have developed theories suggesting that Life is a non-material matrix of energy, information, and intent that takes form when conditions allow, such as around deep sea volcanic vents.

Thimking in more theological terms, inquiring minds want to know, "How does the Soul fit in?"

As Andrew Crosse indicated long ago, electricity helps. A few scientists in the 20th century found proof (pun intended):

Duncan MacDougall



In 1907 Dr. Duncan MacDougall reported in the journal *American Medicine* that he had weighed several dying patients and found that they lost up to 1-1/2 ounces of weight when their "soul substance" passed its gas. He performed the same test with 15 dogs; none of them lost weight at death. A similar study, conducted in 1995 at a Veterans' Administration hospital in Minneapolis, found that all the departing souls weighed 5/8 ounce.

Harold Burr, et al.



Dr. MacDougall's findings can be explained in part by the work of Drs. Harold Burr, F. Northrop, and Leonard Ravitz, who experimented with a microvolt meter at Yale University for several decades, studying the "fields of life" -- the "L-Field". They developed the "Electro-Dynamic Theory of Life" (1949) from their observations. The electrodynamic field is independent of matter, surrounds and interconnects everything. It changes polarity and strength depending on several factors, including mental state, atmospheric conditions, geomagnetic field strength, and solar-lunar effects. And, like MacDougall's "soul substance", the L-Field disappears at death:

"Thousands of tests already made show that living creatures all generate electricity in measurable amounts and that each species has its characteristic, rather stable electrical pattern. The pattern changes minutely and thus reflects variations in the process of living....

"The simplest assumption with which to explain all the evidence so far gathered is that of the existence in the living organism of an electro-dynamic field. This field is the true architect of the organism... The experimental evidence shows that each species of animal and very likely also the individuals within the species have their characteristic electrical field, analogous to the lines of force in a magnet. This electric field, having its own pattern, fashions all the protoplasmic clay of life that comes within its sphere of influence after its image, thus personifying itself in the living flesh..."

Rupert Sheldrake



Alfred Rupert Sheldrake (b. 1942) hypothesizes that "Morphic Fields" are the formative cause of morphogenesis (normal development) by DNA:

"I suggest that morphogenetic fields work by imposing patterns on otherwise random or indeterminate patterns of activity. For example they cause microtubules to crystallize in one part of the cell rather than another, even though the subunits from which they are made are present throughout the cell...

"The fields organizing the activity of the nervous system are likewise inherited through morphic resonance, conveying a collective, instinctive memory. Each individual both draws upon and contributes to the collective memory of the species. This means that new patterns of behaviour can spread more rapidly than would otherwise be possible..."

Ad nauseum, as Facebook and other social media seem to prove...

Now that we moderns possess all manner of techno-tools with which to tweak RNA/DNA-based lifeforms (not to mention those based on arsenic or silicon, etc.), plus the crypto-moolah to pay for it, and humans' stupidiotic proclivity to try anything, it is easy to predict a calamity when fake intelligence incubates its template with bions.

Bottom Line:

Life abides. Life is eternal. Death is a latency between incarnations.

About the Author: Robert A. Nelson is a 10th grade dropout with no credentials. He established **Rex Research** in 1982 to archive information about suppressed, dormant, and emerging technologies, therapies, theories, and stuff, &c. He persists...