

6 Genetic, genomic and bioenergemal vectorization, and the origin of new biospecies

Abstract

In addition to biomatter, the human body includes a bioenergeme (personal component of organized bioenergemal energy; BEG) and also a possible third virtual (temporary, potential) component as well or biointerfaceme. From my experience regarding bioenergemal communication (BELC, relative to the BEG) practice with BEGs that are either at the BEL universe (where the BEGs arrive after the body biocollapses, dies) or at the biomaterial (BML) universe (space-time), it is possible to biocommunicate with human BEGs regarding topics of mutual interest. Of course, any BEG can establish BELC from the BEL universe to any BEG at the BML universe and vice versa or between themselves there or here. In the biodialogue that we establish through any relaxation validated technique, the bioimage of a BEG would be a living and acting virtual biointerfaceme, just like the rest of bioimages that are formed during it or in dreams.¹

The topic of vectorization came up during the BELC with BEGs from ancestral communities. There are the following general varieties of natural vectorization among biospecies: **1)** Biomaterial genetic vectorization when natural vectors transmit DNA and/or RNA segments or complete genomes that are fragmented. **2)** Biomaterial genomic vectorization mainly seen during sexual reproduction of multiple biospecies of plants, animals and humans, also by means of natural vectors that inoculate complete genomes. **3)** Biointerfacemal (BIFL) vectorization as it happens during BEL communication or dreams. **4)** Bioenergemal vectorization or biovectorization that occurs merging BEGs that agreed to do it.¹ Almost always the prefix bio- refers to bioenergeme, like biospecies or species with BEG; or to bioenergemal, like bioenergy or bioenergemal energy.^{1,2}

Keywords: Biomaterial-biointerfacemal-bioenergemal universes, bioenergemal communication, unit universe, bioenergeme, vectors, vectorization, DNA, RNA, new biospecies, genome, genetic, genomic, chromosomes, intuitional energy, intuitions, Intuilish, biocommunication, neuromindego, haploid, diploid, eukaryotes, prokaryotes

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Abbreviations: BML, biomaterial; BIFL, biointerfacemal; BEL, bioenergemal; BEG, bioenergeme; BELC, bioenergemal communication; NMEGO, neuromindego; DNA, desoxyribonucleic acid; RNA, ribonucleic acid; UU, unit universe; UN, unit nature

Natural versatility

BEL communication dated July 4, 2008. BEGs from communities in Australia, New Zealand and Tasmania. “We suggest that humanity not be deceived into supposing the existence of ‘domain’, for example, or ‘power’, since nothing that exists can be dominated or possessed. Freedom is natural and inherent to everything that exists in the unit nature [natures of the BML, BIFL and BEL universes; UN]. If the human deparasites himself from these deceptions, he will be able to recover his natural state of freedom and will not have needs that will inevitably lead him to frustration. That is to say, the frustration will also cease to exist if the human gets rid of his own deceptions.”^{1,2} Laurette Séjourné: “At first, they were pillaging raids in which they were content to collect as many pearls and gold objects as possible. To blackmail them, from the third voyage on, the ransom of captives against these precious materials was proposed, but since the greed was infinite, the unfortunates always ended up perishing, whatever the efforts of the group to save them.”^{3,4}

In the search for some mechanism that could participate in the emergence of the first members of a biospecies, our starting point was the inspiring examples that the hagenias (support trees for mountain gorillas) made us intuit in relation to the way plant roots spread, in such a way that we will comment on the following intuitions and some of their antecedents.^{2,3}

1) A. A vector is a mathematical term that describes something with direction and magnitude. **B.** But it also usually refers to a segment of free desoxyribonucleic acid (DNA) in the cell cytoplasm, known as a plasmid or episome –such as transposons–, which is capable of replicating and being transmitted from one organism to another. Phenomenon widely described in bacteria and protozoa. That is, episomes function as gene vectors, like viruses called bacteriophages. Plasmids or episomes have been widely used for the development of so-called transgenic organisms. **C.** Finally, let us remember that in medicine, vectors are organisms that transmit diseases from a carrier or diseased organism to a healthy one, generally by sucking blood from the diseased organism, as some mosquitoes do. It is understood that they not only inoculate germs, but also other components of the suctioned blood, such as the segments of nuclear, mitochondrial and, in premature newborns, fetal DNA that circulate in the plasma. **2)** A hybrid cell is one that contains components of one or more genomes and that is not a zygote –or diploid cell–, which results from the union of male and female gametes. Hybrid cells can be formed by cell fusion or by transfection, that is, by introducing genes into a cell. Sometimes hetero-karyonts are even formed, which are cells with two or more genetically different nuclei. This has been observed in some fungi and by cell fusion. **3)** Conjugation refers to the union not only of two gametes but also of two cells for the purpose of transferring genetic material. Conjugation occurs in various Gram-negative bacteria such as *Escherichia* or *Salmonella*. In eukaryotes (i.e., cells with a true nucleus) it occurs, for example, in *Paramecium* and *Spirogyra*. In prokaryotes (i.e., cells without nucleus) such as the influenza virus, human, avian and porcine varieties have been found, and the recombinations of the chromosome of these biospecies.⁵

4) Cellular transformation refers to any alteration in the properties of a cell and that is inherited to the progeny. Likewise, stable transfection involves the introduction of DNA segments into the genome of a cell. Transduction in particular refers to the transfer of a gene from one bacterium to another by means of the aforementioned bacteriophages. 5) Now, can and could DNA episome vectors and vector organisms, such as mosquitoes, participate, contribute and promote cell hybridization, transformation, transduction, conjugation and transfection, and thus the formation and integration of different or new genomes? If so, this would be a common mechanism in nature and of singular relevance to vary the genome of some biospecies. 6) In other words, given that the participation of vectors of various types in the formation of different or new genomes is a common event in unicellular organisms such as bacteria and protozoa, as well as in multicellular organisms such as fungi, it is possible to consider the possibility that genetic vectors could participate in the bioproduction of new biospecies. 7) An especially relevant stage for the participation of certain genetic vectors, or for them to be acquired, is during the disintegration of deceased organisms. Fungi, bacteria and termites would have special relevance in the disintegration of deceased plants, and insects, bacteria and fungi in the disintegration of deceased animals.⁵

8) In the great roots that the hagenias made us intuit and in the great trees of the humid forests, phenomena of exchange of genes or segments of genetic material of several genes could be taking place that would give rise to tens, hundreds or thousands of different genomes, and to this extent new, and thus, the new viable genomes would eventually give rise to new biospecies of plants and animals, such as the insects, mites and arachnids so varied and common in these ecosystems. Likewise, a large number of plants coexist in natural ecosystems, and their intertwined roots could promote these exchanges of genetic vectors, for example through cell conjugation and/or hybridization. While in animal biospecies, the vector organisms that usually feed on them as parasites participate as a means of promoting new genetic segments to reach the most varied biospecies, perhaps thus promoting the formation of cell lines with different genomes within the same organism. and eventually perhaps also to the emergence of gametes, seeds or diploid cells with new genomes. That is, the first gametes, seeds or diploid cells of a new biospecies. This role would be played, perhaps among many other organisms, none other than flies, mosquitoes, lice, fleas, bedbugs, ticks and multiple microscopic mites that roam around all animal and human organisms. So important, on the other hand, for the development of defenses.⁵ This led Neil Nathan, a physician and researcher specialized in the care and treatment of chronic infections, to describe these microorganisms as possessing an “intelligence (yes, intelligence) and conscience (yes, conscience) impressive”, emphasis by the cited author.⁶

9) That is, vector organisms (such as mosquitoes) may not only be relevant for transmitting diseases, but they could also play an outstanding role in the transfer of genetic vectors –genes or groups of them– and other diverse organic molecules, like proteins. Therefore, in the possible bioproduction of different or new genomes and these eventually give rise to new biospecies. 10) From these approaches even could arise the controversial and problematic possibility that the first members of a biospecies develop embryologically within another biospecies and are born from it, and then continue to reproduce by themselves. However, it is not so aberrant if we remember that, for example, some wasp biospecies lay their eggs on the body of diurnal and nocturnal butterfly caterpillars, inside which the larvae (worms) will feed and develop until they burst the skin like pupae (in cocoons) and cover the body of the caterpillar. Other similar examples occur between wasps and spiders, and especially between insects and fruits

of multiple plants [see comment 23]; grafts between plants are forms of vectorization as well. 11) The possibility of active exchange of genetic vectors would help to begin to understand the physical or phenotypic similarity –since ancient times– between various biospecies. 1. That all biospecies share DNA or ribonucleic acid (RNA) as the carrier of heredity. 2. That within a plant, animal or human organism the participation and functional help of other organisms is required, such as microorganisms (e.g., human intestinal biome). 3. That the biospecies of plants, animals and humans share diverse functions (e.g., reproduction, circulatory, nutritional, visual or sensory functions in general), as well as physical peculiarities (e.g., between mammals and humans the limbs, five fingers and toes, teeth or musculoskeletal system). 4. That a close relationship be established between certain animal, plant and human biospecies (e.g., for nutrition), and in the life cycle of some biospecies, like insects. 12) That is, the emergence of new biospecies seems to be a phenomenon of subtraction, addition and transformation of DNA and/or RNA through the exchange of genetic vectors, for example, in response to the requirements, available resources and limitations of an ecosystem. In which certain vector organisms and genetic vectors would obviously be found, and not others. 13) For this process of bioproduction of biospecies, vectors in the form of molecules or organisms could have played and still play a role, if not unique, then perhaps sufficiently relevant.⁵

14) A. Since genetic vectors are common among organisms. B. If the vector organisms transmit organic components to other organisms at the same time that they feed. C. Whether cell hybridization and conjugation are common events in nature. D. And if the cells that come from the most varied organisms accept genetic segments without much difficulty or problem, such as DNA or RNA segments of viruses. So, what effect do these biological events have on the plant and animal organisms in an ecosystem? 15) For example, the rust fungus that affects plants such as white pine has a life cycle that previously requires several host plants (such as neighboring shrubs to the tree) to finally develop and affect the pine. The disease is more severe when a susceptible host is present. As long as the asexual and sexual stages of the cycle are not completed, its development does not end either. So, are these life cycle stages of the rust fungus an example of how the first members of this biospecies arose, and the same for the life cycle of many other multi-host stage organisms? 16) Likewise, water, of course, also has its own cycle. Its advection refers to the movement of water from liquid, solid and vapor states, and it is well known that these states arise depending on the environmental conditions in which it is found. For this reason, water is the natural physical environment capable of functioning as a natural vector for all kinds of molecules and organisms, and capable of contributing to all forms of vectorization. 17) That is, as has always been stated, the problem could have been the bioproduction of the first cells, then through mechanisms such as the exchange of genetic vectors, the formation of different or new viable genomes seems possible, and the bioproduction of new biospecies perhaps it became more and more accessible. Apparently, then, once again we come to the conclusion that the division between minerals, plants and animals (including humans) is merely descriptive. Bioenergemally speaking it is unsustainable and hence obsolete.⁵

What opinion do you make us intuit of these reflections?

Hagenias [The hagenias show to be joyful]: It's great that you were able to intuit and bioproduce the ideas that you now share with us.

Ruth comments that, when reading, a bioscene is observed regarding the resemblance between a bee and a leopard, a bioscene induced by

bees. The organisms introduced themselves as we read, agreeing with what was mentioned.

Bees: We like what we hear. Between the different biospecies, we form as ‘mirrors’, in quotes, where we reflect each other biospecies.

Microorganisms: We already made intuit you that you know us well and we are glad that you express the functions in this way. That is the function of our existence and that is why we are present in all of nature.

Ruth: Human bioenergemes were surprised when we read and some of them shook their heads affirming what we were reading.

Abdus Salam: You have had a series of intuitions and you transmit them in such a way that we can realize how everything is related and your contributions are logical, including the participation of BEL energy. That is to say, in all areas of knowledge they are areas of nature, of BEL energy and of the BEG. The obsolete refers to the neuromindego [brain, thoughts and ego; NMEGO].

Bhrikiam [BEG of an extraterrestrial man]: Your approaches also make me relate them at the level of the universe and, in my opinion, they are similar everywhere.

Octavio Paz: I am surprised and I totally agree with you, and, indeed, in language, given the participation of bioenergeme (BEG) and BEL energy, it is possible to understand how a new language can now be developing. And so, it has happened in different times.

Charles Darwin and Albert Einstein: [biologists, physicists, physicians are also present, among them François Jacob, Luis López Antúnez, Raúl Hernández Peón and many more] How easy it is to express the origin or bioproduction of new biospecies. It will also be easy to understand and bioenerscientiate –intuit– it to the extent that the NMEGO does not block the intuitions of the BEG. Your approaches are interesting because you are involving processes at the molecular level and that makes the approaches more solid. This is how a new door opens for bioenergemology [discipline that studies the BEG, the BEL energy and the BEL universe, and its characteristics, implications and functions]. We thank you for sharing these ideas with us and we agree with them.⁵

Ancestral BEGs from communities in Australia, New Zealand and Tasmania. What would you like to tell us about yourselves? “First, we want to tell you that we are surprised by what we have witnessed and we appreciate the invitation you extend to us. We are biotagonists of the BEL universe, our existence has always been natural and simple. We have lived with joy and so we continue.”²²

The bioenergemal poverty of the human

BEGs from North American communities: “As BEGs we know that equality is in the BEG and ‘inequality’, quote unquote, in natural or nature’s diversity. But the human left at some point that life of coexistence with nature and was carried away by his altered NMEGO. And he established misplaced interpretations regarding himself and his entire environment, truly creating absurd ways of thinking and hierarchizing. His eyes learned to see, hear and feel from his NMEGO, not from his BEG.” Ruth comments that a little sadly they add: “We have been forgotten, for the current human we do not exist. We did not have a name nor did we need one, the name can also differentiate and devalue a biotagonist. As it can also lead to the assumption that it will transcend and live ‘eternally’, in quotes.”²² Laurette Séjourné: “Remarkably, this inferiority never prevented the indigenous people from waging a war to the death before submitting, when they knew that what awaited them was slavery. If you think that in the end they

could only succumb, the fierceness of the struggles they sustained to get rid of their executioners and the innumerable victories they obtained before being subdued is surprising. His heroism, mentioned by the chroniclers least suspected of sympathy, was inflamed above all when the persecutions organized by an entire community had as their goal the rescue of their wives and daughters from gangs of robbers.”^{24,5}

BEL communication went through on Friday, July 11, 2008. On this occasion, we carried out biocommunication with the ancestral BEGs of North American communities, especially those called Clovis, Pueblo, Zuni, Hopi, Hohokam, Patayan and Folsom. If you would like to join us. Let us remember that the questions we have been asking about the bioproduction of the first members of different biospecies seek to take it to the extreme and support BEL communication with biotagonists of different biospecies, addressing the most varied topics. As well as presenting new and different evidence that biocommunication with ancestral BEGs of the most varied biospecies is indeed possible and making their answers known as a sample of that biocommunication; however, demonstrating, modifying or discarding the topics raised opens the possibility of carrying out interesting specific investigations.⁵

Continuing with the theme of the possible origin of the first members of a biospecies, we will comment on the following. **18)** Since it is possible to incorporate other segments of genetic material into DNA and RNA molecules regardless of the organism from which they come and even artificially replicated, the possibility of forming different or new genomes opens up. This would be the integrative capacity of DNA and RNA molecules, surely present in the DNA and RNA of all organisms. **19)** Complementary to the integrative capacity, DNA and RNA possibly also possess the eliminative or blocking capacity of some portions of their structure. **20)** The ability to integrate genetic material from any biospecies implies that DNA and RNA molecules do not establish differences between multiple biospecies. There are researchers who, for example, have inserted human genes into yeast which have functioned normally.⁷ It could not be otherwise; the DNA does not obey exclusivism of any kind. During the 1960s they went to the extreme of going to genetically study isolated human tribes (e.g., Xavant and Yanomami in Brazil), among other more reasonable studies, with the fantasy that their karyotype would be different from that of white city dwellers.⁸ James V. Neel, what were you supposed to find by karyotyping members of the Xavant tribe in Brazil? “Some anomaly that would justify its characteristics.” Was it frustrating that it didn’t? “Yes, indeed, doctor, totally.” What do you say of that assumption? “Too much ego” [BELC 09/07/2022]. **21)** Through integrative and eliminative capacities, DNA and RNA molecules could develop, transform, diversify, become complex, reduce, acquire functions, eliminate functions, become versatile, improve, increase, renew, adapt, complement each other, etc. **22)** Both the integrative and the eliminative property would be essential to explain, in a reasonable and accessible way, the great diversity of biospecies that exist and have existed.⁹

23) The pollinations carried out on flowers, for example, by bees, wasps, bumblebees, butterflies and moths, hummingbirds, bats or the wind, are recognized examples of pollen vectors or pollinators. Bees are known to prefer yellow, blue, or purple flowers. Butterflies choose flowers of different colors. The moths look for flowers that remain open at night. Hummingbirds prefer red or orange flowers. Bats also look for flowers that are open at night. A peculiar example of a pollen vector and a possible genetic vector is given by the fig wasp, which, in order to enter a fig through a small hole, detaches its wings, remains inside the fruit, feeds on its pulp and there lays its eggs, where they will develop into mature wasps. But at the same time this wasp also

pollinates the flowers of the fig tree that are grouped as an inflorescence within the same fig.¹⁰ **24)** The above examples demonstrate what we could call genetic vectorization (interchange of some genes), which is a natural event and therefore occurs frequently. In some cases, it would be genomic vectorization (interchange of whole genomes as in reproduction or cell hybridization). **25)** With self-fertilization, some plants genetically vector themselves. **26)** Squirrels and the kangaroo rat, a marsupial from Australia, usually bury the fruits it feed on, acting as genetic vector. Other biospecies of mammals and birds that eat seeds when they feed on the pulp of some fruits also contribute to dispersing these seeds in their feces, that is, they participate in the genetic vectorization to which we refer.⁹

27) Sexual reproduction requires that males act as gene vectors by depositing their sperm in the receptacles of females. With the exception, among other biospecies, of the seahorse, a biospecies in which the female acts as a genetic vector. That is, sexual reproduction is a remarkable example of genetic and/or genomic vectorization, even giving rise to hybrid biospecies such as the pack animals that result from the cross between a mare and a donkey, and the hinnies that result from the cross between a horse and a donkey. **28)** **1.** We know that human blood can be classified into four groups: O, A, B or AB. Group O is considered a universal donor because it is accepted without significant allergic reaction by the majority of recipients of a transfusion. The genetic vectorization of blood transfusion in humans or in other biospecies exemplifies the ease with which biospecies can enter into an intimate relationship with some of the cells from organisms of the same biospecies or from other biospecies. **2.** A common example occurs when the developing embryo and the mother intensely vector each other by exchanging cells and blood molecules. In marriage between a Rh-negative woman and a Rh-positive man, they may have a Rh-positive infant which will cause in the mother the production of antibodies against the infant's red blood cells. These antibodies generate rejection of the developing organism from the beginning of pregnancy and more intense the more pregnancies there are, until these are prohibitive for the life of both mother and son or daughter. This **Rh** factor is also present in **Rhesus** monkey. **29)** Feeding on the blood sucking of other biospecies, thus promoting genetic vectorization, is common among bats, tick-feeding or tick-removing birds, ticks and many other organisms already mentioned. **30)** In addition, animals and humans eat some vegetables, tubers and especially fruits naturally, without any cooking. Some humans, such as those in South America or in some Eastern cultures, even tend to eat raw meat. In other cultures, eating live insects is common. That is, like many other biospecies, we are active and frequent participants in genetic vectorization by ingesting cells in which their genetic material remains intact. **31)** We insist, therefore, that the remarkable frequency of genetic vectorization suggests that the common bioproduction of different or new genomes, some of them viable, makes it possible for new biospecies to emerge more frequently than traditionally assumed, especially of less complex biospecies.⁹

32) The integrative capacity of DNA and RNA would offer an alternative explanation for the diversity of biospecies. But it would also help in trying to understand the remarkable similarities between the genomes of different biospecies. Very similar segments of genetic material or complete genomes seem to have been the object of frequent genetic vectorization, favoring the possible formation of different or new genomes, and when a viable one emerges, it would give rise to the first members of a new biospecies. For example, the human genome has about 3.0 billion base pairs (adenine, guanine, cytosine or thymine), approximately 30 thousand genes, 100 thousand base pairs per gene and 46 chromosomes. The genomes of anthropoids (e.g.,

chimpanzee, gorilla or orangutan) are similar to the human genome, but have 48 chromosomes. The *Mus musculus* mouse genome has 2.5 billion base pairs, approximately 30,000 genes, 100,000 base pairs per gene, and 42 chromosomes. The genome of the famous fruit fly *Drosophila melanogaster* has 180 million base pairs, 13,600 genes, 9 thousand base pairs per gene and 8 chromosomes. The human genome has barely three times as many genes as the sizeable fruit fly. The genome of the bacterium *Escherichia coli* has 4.7 million base pairs, 3,200 genes, 1,400 base pairs per gene, and one chromosome. Specialists affirm that the size of the genome does not correlate with the evolutionary level, nor is the number of genes proportional to the size of the genome. In other words, taxonomic classifications and evolutionary correlations do not seem to find sufficient support in genome studies. In addition, the genomes of, for example, humans, dogs, frogs and flies share a significant number of genes related to specific characteristics of some tissues such as muscles, but also related to the basic morphology of organisms such as the head and distal portion or tail, ventral and dorsal region, and genes that determine appendages or limbs such as antennae, fins, legs and arms.⁹

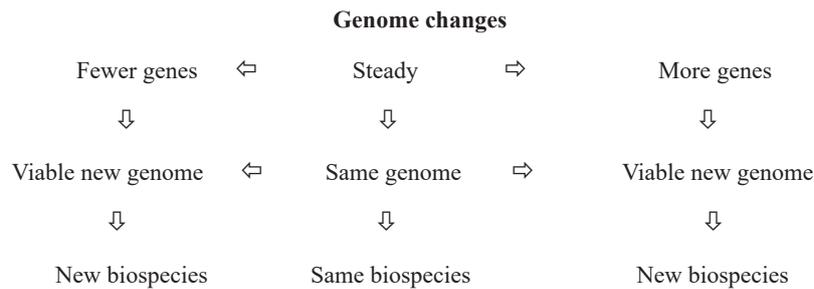
33) Basic genomes seem to be shared by many phenotypically similar biospecies and have been diversified and versatile, perhaps with the help, among others, of genetic vectorization mechanisms. **34)** This extraordinary similarity between the genomes of different biospecies seems to be in favor of the fact that the first members of a biospecies were gestated, carried out their embryonic development and were born from one of the multiple biospecies whose genome is very similar. **35)** The marsupialization of animal biospecies from Australia, for example, could be better explained with the possible participation of genetic vectorization. **36)** The phagocytes that are found in all the tissues of an animal organism and that are responsible for eliminating or phagocytizing and incorporating into their cytoplasm foreign bodies, molecules, viruses, bacteria or other foreign and/or harmful cells for that organism, lead to perform a function that places them in a position to also participate as genetic vectors. **37)** We could ask ourselves how genetic vectorization could have influenced the emergence and adaptation of species such as the platypus and the Tasmanian tiger. **38)** If there are biospecies such as insects that function as genetic vectors among plants, the question arises as to whether there are biospecies that are also specialized in genetically vectorizing other animal biospecies. Or if the organisms have cell lines that fulfill that function within the same organism. Regarding biospecies, there would then be three possible forms of genetic vectorization: **a)** between different biospecies, **b)** between members of the same biospecies, and **c)** within the same organism. For example, since it emerged as a biospecies, the human has always participated as one of the main genetic vectors on the face of the Earth and its atmosphere. Actively influencing between biospecies, within the same biospecies and as an individual.⁹

39) Genetic integration is so frequent and accessible that DNA and RNA favor the emergence of conditions such as the so-called genetic chimeras, precisely the result of genetic vectorization. Chimeras are organisms with two or more cell populations from different zygotes. Actually, this would be an example of genomic vectorization. **40)** The pregnancy and gestation of females of all biospecies that reproduce sexually, function as vectors of the male's genetic material and their own genes [see comment 27]. **41)** Epiphytic plants such as mosses, lichens, orchids, ferns and bromeliads grow on the branches or trunks of other plants, and although they are not supposed to parasitize them, they are in very favorable conditions for genetic vectorization. **42)** Genetic vectorization helps to try to explain the great biodiversity that forms part of the most varied ecosystems. **43)** The migration of

birds, mammals, insects and fish also influences genetic vectorization. **44)** The wind, the seasons of the year, the movement of clouds, rivers, lakes and ocean currents also favor genetic vectorization [see comment 16]. Other terrestrial (e.g., earthquakes) and marine (e.g., tsunami, hurricanes) phenomena surely also contribute to genetic vectorization. **45)** According to genetic vectorization, it also seems reasonable to assume that from the most complex biospecies of plants, animals and humans, new less complex biospecies could be bioproduced and not only that from less complex biospecies the more complex biospecies always have to be bioproduced. In other words, the bioproduction of new biospecies could result from a mechanism that operates in both directions, from the less complex biospecies to the

more complex ones and from the latter to the less complex ones. The best example is given to us by the elements and mineral compounds whose complexification and decomplexization mechanisms operate naturally and masterfully in both directions [see comment 17]. But the possible origin of epiphytic plants in the same plants on which they grow should also be considered.⁹

46) To put it simply, the genome can go from fewer to more genes, from more to fewer genes, or remain stable, as is typical of the genomes of known biospecies. That is, in the first two cases of different or new genomes, if they are viable, they would give rise to new biospecies. According to the following diagram:



47) New genes that give rise to new functional proteins will, by themselves, propitiate the development of the components of the organism that respond to this new, improved or also diminished, function, as well as to the transformation of the phenotypic characteristics. **48)** We know that DNA and RNA have the ability to repair themselves. So, we can ask ourselves, could viable changes in the genome lead to new changes in the genome to increase or complicate that function, or to decrease or simplify that same function? Will DNA and RNA, and especially the genome as a whole, possess that functional ability to self-adapt, transform, increase or decrease according to the requirements of a given natural ecosystem? In this case, the emergence of new biospecies would fall directly on the functional ability of DNA and RNA to do so, and especially of the genome as a whole. **49)** It is known that the instructions for the formation of the organs and systems of an organism, for example of a mammal, are encoded in the DNA and/or RNA molecules, in the genome as a whole. If the specific information of each of the branches, for example of the arteries and bronchi, were found in the genome, then in addition to being a very inefficient way, the information of all the structures would not fit in the genome as we know it. A more efficient way is to encode the instruction that must be repeated or iterated to form organs such as the lung, the brain or the heart, for example. Also, let's remember that one way to produce a fractal is by giving an instruction that must be repeated or iterated a very large number of times. In this way it can be understood how the genome contains the information to bioproduce fractal systems and organs, and probably similar and self-similar biofractal biospecies as well.⁹ (Fractal geometry studies structures, bodies or shapes with self-similar or repeating invariant components or sequences, or similar to each other, called fractal sets).

50) Just as the diploid genome of the nucleus of a zygote (cell that brings together the genes of both parents) and its cytoplasm are capable of directing the development of an organism. One might wonder if DNA and RNA, and especially the genome as a whole, not only have a functional structure divided into segments or genes, but also, seen as a functional unit, constitute a cellular organelle with much more complex and extensive functions of which perhaps until now could have been raised or detected. Like those mentioned in the previous point, and particularly in terms of the possibility of directing

the necessary changes in its genetic components so that, in response to the requirements of a natural ecosystem, it favors the bioproduction of a new viable genome and then of a new biospecies. In this case, the nucleus of the cell would function as a unit that forms a bioproducing organelle, just as the mitochondria are organelles in the cytoplasm. For the genome, this would be the bioproducing function of new biospecies. A similar function would be presented by the chromosome of prokaryotic microorganisms or those without a true nucleus. In its context, a similar situation occurs at all imaginable micro and macroscopic scales of mineral biotagonists. **51)** The bioproduction of a new biospecies would be a parallel biofunction of the genome to that of, for example, embryogenesis in animals or its equivalent in other animal organisms, plants and, of course, humans. **52)** Then, the nucleus of the cell, together with the genome it contains and other intranuclear (such as RNA, and proteins) and cytoplasmic (such as RNA, proteins, and mitochondria) components, could function as a cellular organelle even more versatile if it is seen as a functional unit or set of unitary functional components. If so, the function of the cell nucleus together with its genome and other intranuclear components with functions possibly related to the bioproduction of new biospecies would limit the possibility of developing a viable organism by cloning only with the complete isolated genome. In fact, the cloning that has been carried out of some organisms is the result of the complete nucleus being injected into the recipient egg, of course, together with the diploid genome –with genes from both parents– of the donor cell.⁹

53) Likewise, the reproduction of biospecies to generate new members of the same could be a reflection of the way in which new biospecies were bioproduced and are bioproduced. **54)** If, indeed, genetic vectorization and the bioproducing function of new biospecies of the cell nucleus, together with the genome it contains and other intranuclear and cytoplasmic components, participate in the emergence of new biospecies and these mechanisms, as is expected, continue to act in this direction, it is possible that new biospecies will always be found. Whether they come from more complex or less complex biospecies.⁹ Variations in the genome favor the emergence of new biospecies and the resources and requirements of an ecosystem favor variations in the genome. Variations in the genome as a functional unit \Leftrightarrow new biospecies \Leftrightarrow variations in the ecosystem as a functional unit \Leftrightarrow variations in the genome as a functional unit. . . . it is a creative

circular sequence. The genome responds to the characteristics of the ecosystem and the ecosystem responds to the characteristics of the genome [Ints 08/20/2022].

What do you opine of these intuitions and statements?

BEGs of our remotest ancestors: We were also part of that genetic vectorization. –Bhrikiam: Indeed, it seems that everything that exists in the BML universe is sustained by different laws of physics. However, we could say that this law of genetic vectorization has also favored the bioproduction of the universe and explains why different forms of life are found in different bioecosystems. The rest of the elements of this bioecosystem are also found to bio-organize and maintain balance, as balance is maintained in a bioecosystem on Earth. The movement of the Earth favors what you have mentioned. –François Jacob and doctors: I agree with your intuitions. It is very likely that the conditions you describe in the bioproduction of the different biospecies have occurred. –Ruth: James D. Watson and Francis Crick appear spontaneously: We bioenscientiate the difficulty of the NMEGO to be able to consider the genome as a functional unit or organelle. It is very likely that it intervenes in this way in the bioproduction of new biospecies and explains both the emergence of the human biospecies and the differences according to its bioecosystem. –Ruth comments that Carl Sagan wants to participate: I join and agree with what you just said because if what you describe is applied to the marine bioecosystem, where the bioenvironment is or has its own organisms that function as genetic vectors, bioproduction of marine biospecies is equally abundant. And perhaps to some extent they are even more protected and some remain unknown to humans. –Animal biotagonists make us intuit: We like the term and the function with which you have called us or named us because it gives equal importance to all of us and, in turn, to the microorganisms and the organs that our biomatter is made of. We would not have realized it. –Yellow firefly and golden ladybug that we found in the forest make us intuit: You intuited our presence as a response to the approaches of your BEG. We only exist and collaborate with nature. –Rosalind Franklin [we invite Rosalind Franklin to make a comment, which greatly pleases her, and creates some bewilderment in other BEGs]: I am really amazed, my words or intuitions would fall very short, as reflected in the participation of other BEGs. Definitely, the assistance of bioenergy as you characterize and explain it is extraordinary and fundamental for life and for the existence of nature itself. Thank you for inviting me and I intuit from your BEG the simplicity and ease with which intuitions are received now. That would explain why between the cells and their different components there is such a well-defined bio-organization in terms of the increase, decrease or permanence of the genetic material. I agree with you, first because this has not been studied as such and second because it is important in the bioproduction of new biospecies. And of course, so far nothing has been said about it. For the same reason, the alterations that humans have made to the different ecosystems influence or have influenced the alterations of the genetic material, but that is another topic. Congratulations. –Abdus Salam, Jorge Luis Borges and Octavio Paz: “We are excited by all the intuitions you have had regarding the subject and how each one as a link is coming together. Now we realize with what detail a BEG of any biospecies can be formed. This helps to break with many beliefs regarding the origin of life and also helps to value the participation of the organisms and organs that participate and that are alien to the human NMEGO when they should be known as part of themselves. It is possible that more than one human biotagonist of the BEL universe or the BML universe does not agree because precisely, just as a statement, it breaks with the beliefs and theories that have been said so far.” They joke: “But that last one isn’t important.” They all laugh. Ruth comments that there was a somewhat tense atmosphere (perhaps because of the

invitation to Rosalyn Franklin) and with their comment everything is harmonized again.⁹

The human wants to stop being himself, the vulnerable

BEGs of the communities of Mexico and Central America: “When the human compares himself to nature and supposes to be foreign for excluding his BEG, he has needed fantasies [the deities] not to live in vulnerability. The human considered himself a god while using resources and attributes of nature. The human has lived in confusion, wants to feel what he really is, and yet chooses to be what he is not and represents a fantasy. This is absurd.”⁹ Mark Twain: “There are many indications that the Thug often hunted men for the mere sport of it; that the fright and pain of the quarry were no more to him than are the fright and pain of the rabbit or the stag to us; and that he was no more ashamed of beguiling his game with deceits and abusing its trust than are we when we have imitated a wild animal’s call and shot it when it honoured us with its confidence and came to see what we wanted.”¹¹

BEL communication carried out on Friday, July 18, 2008. On this occasion, we carried out biocommunication with the ancestral BEGs of the communities of Mexico and Central America, especially the Olmecs, Toltecs, Aztecs and Mayans. We also invite the BEGs of molecular biologist Werner Arber.¹²

Let us continue with the intuitions related to genetic vectorization. **55)** A variety of marine polyps of the order Siphonophorae – commonly known as the Portuguese frigatebird and has even been named a ‘superorganism’ – are known, and have been extensively studied, which has the peculiarity of being formed by polyps and jellyfish morphologically and functionally integrated. Each component performs specialized functions of digestion, defense, buoyancy, or reproduction. This would be an example of a mixed genetic and genomic vectorization in a biospecies in the process of bioproduction or emergence. Another unique example that could also be related to genetic vectorization is the finding of an Australian snake whose toxic venom is very similar to the toxic venom of the Hawaiian veined cone snail or this of that. **56)** It is appropriate to remember and bioenergemally biorremember the wide variety of pheromones that, with different purposes, are equally emitted by plant and animal biotagonists, especially insects, and possibly humans as well. Pheromones are recognized to group the members of a biospecies, alarm, attraction for couples, primary with a similar function, but of greater permanence in the environment, territorial, trajectory to mark the way forward, sexual emitted by females and males and through which they transmit information about the biospecies and the genotype, and many others, known and unknown. For example, the female elephant produces a pheromone whose chemical composition is (Z)-7-dodecenyl acetate, which she excretes in her urine and communicates with it that she is ready for mating. Well, this pheromone has the same chemical structure as a larger sex pheromone emitted by some moths. Also, some plants, before being pasture for some animals, emit the alarm pheromone called tannin, this pheromone makes them less palatable to herbivores. That is, the field of study of pheromones could not only be of interest for genetic vectorization but would also be a reflection of very specific aspects of the physiology of the genome and widely distributed in ecosystems. Pheromones invite genetic vectorization, bring genetic vectors closer together, and perhaps, in some cases, induce genetic vectorization.¹² What do you opine about these aspects?

Werner arber: What you say surprises me because the influence of genetic vectorization had not been considered in any of the cases you mention. Not the term itself. I find your approach very interesting. I agree that it would be important for specialists and researchers in

genetics, and specifically in the genome, to be able to investigate this. The approach itself is logical, consistent and would explain the relationship that exists between the different biospecies of a bioecosystem. On the other hand, as far as the bioproduction of a biospecies is concerned, for a BEG it is convincing because it speaks of the origin of a biospecies and the intervention of other biospecies, especially speaking at biomolecular levels of the development of these cells. So, it is an original and current approach. An explanation with which the human BEG could answer an age-old question. – Biologists: The approaches you make are corroborated or confirmed, to the extent that new biospecies are discovered or known. Perhaps we have not been able to listen to our BEG. We have tried to find the characteristics of the different biospecies, but limiting ourselves to establishing the relationships between them, and not at the level that you do now. So, we appreciate the clarification of those intuitions that we did not know how to attend to or consider.¹²

On the occasion of the inauguration of the Galileo Galilei auditorium of the Mexican Academy of Sciences Werner Arber when referring to the strategies that nature has to achieve greater genetic variability, citing the well-known case of viruses that can integrate fragments of their genome with that of bacteria and said: “This suggests that the exchange of genomes is something allowed by nature.”¹³ Galileo thanked the name of the auditorium, agreed with Arber and with the approach of genetic vectorization. He concluded by stating: “What BEL energy creates and transforms, the NMEGO cancels or destroys.” –Werner Arber: My BEG captures the words and I appreciate them. In effect, the BEG is the one who intuitively what the NMEGO cannot or does not allow itself to see. –Ruth: Marie Curie wishes to comment. –Marie Curie: Of all Werner’s speech, what he rescues is very valuable and the simplicity of his words makes it more truthful. I also agree with what you have stated about genetic vectorization and regarding the study of the genome as a functional unit. It is surprising how in such a simple way the phenomena of UN can be explained. And as has been said on other occasions ‘everything is the same but different’, that is, everything is related. –Abdus Salam, Octavio Paz and Jorge Luis Borges: Indeed, BEL events accompany each other because the BEG intuitively it asks for it, searches for it and finds it, regarding what is necessary or wants to know. –On the other hand, we have been reviewing the book about Consciousness that we have written since 1994, and in which we deduced the need for bioenergy in every biotagonist or component of the BML universe, and the concern arose as to whether the brain would be participating as a quantum stabilizer of the wave property in the neurobioenergemal and neurobiointerfacemal formation of bioscenes and bioimages such as the ones we are now in the biointerface or those of dreams of said bioscenes and bioimages. Biointerfacemal brain function like the one we are in now,¹⁴ If you like to do it, what do Marie Curie, Abdus Salam, Werner Heisenberg and Albert Einstein say? –Abdus S, Werner A, Marie C and Albert E [All shake their heads affirming]: We agree with that approach and it works like this in the different brains of some biospecies in nature. Hence, each one places, on the one hand, satisfying its biological needs of all kinds and, on the other, there is the ability to biocommunicate between the different biospecies.¹²

We are not only stone cultures, mud and bone cultures, we are also BEL cultures

BEGs of the communities of South America: “We will try to say it in the following manner. We are not only cultures of stone, cultures of mud and bone, but biocultures as well. That is, we also have BEG and it is the best evidence of our existence. It would be a way in which they will respect us, and they would be more respectable if they were seen as biospecialists of the different biocultures.”¹² Mark Twain: “The joy

of killing! The joy of seeing killing done--these are traits of the human race at large. We white people are merely modified Thugs; Thugs fretting under the restraints of a not very thick skin of civilization; Thugs who long ago enjoyed the slaughter of the Roman arena, and later the burning of doubtful Christians by authentic Christians in the public squares, and who now, with the Thugs of Spain and Nimes, flock to enjoy the blood and misery of the bull-ring. We have no tourists of either sex or any religion that are able to resist the delights of the bull-ring when opportunity offers; and we are gentle Thugs in the hunting-season, and love to chase a tame rabbit and kill it. Still, we have made some progress--microscopic, and in truth scarcely worth mentioning, and certainly nothing to be proud of--still it is progress: we no longer take pleasure in slaughtering or burning helpless men. We have reached a little altitude where we may look down upon the Indian Thugs with a complacent shudder; and we may even hope for a day, many centuries hence, when our posterity will look down upon us in the same way.”¹⁵

BEL communication carried out on Friday, July 18, 2008. On this occasion, we carried out biocommunication with the ancestral BEGs of the communities of South America, especially the Xavant, Kisedje, Pataxó, Long Ribbons and Beço de Pau from Brazil; Mundicurus, Carajás and Kuikuru, and Caral and Incas from Peru.¹²

Let us continue and conclude the intuitions related to genetic and/or genomic vectorization. **57)** Regarding the phenotypic characteristics that determine, it is worth asking whether the genes that make up the complete genome of any biospecies are randomly distributed along the DNA or RNA chain of the chromosome of an organism (e.g., bacteria) or the number of chromosomes that are its own (e.g., multicellular organism). How was each chromosome of the total characteristic of each biospecies formed, and became independent from the others? How did the chromosome form and become independent in organisms that only have one of them? What role does the genome as a whole of each biospecies play for its subdivision into various sections called chromosomes? In order to subdivide, the genome had to develop functional interaction mechanisms between the segments or chromosomes that form it. Which in turn favored the functional interaction between the various morphofunctional components of any organism. Of course, this situation implies a balance between the viable, minimum and maximum number, functional and specialized, of genes that make up the genome of any biospecies. As well as the similarities in terms of the variety of genes, the phenotypic characteristics that they determine and the number of bases (nucleotides) that form them.¹⁶ [Including comments from an extra session held on Saturday, October 11, 2008].

58) In this order of ideas, surely there are older sections of the genome of a given biospecies, for the same reason they would be sections common to many other biospecies. If a cell integrates, for example, by genetic vectorization, a sufficiently important segment of functionally complete genes that it did not possess, it is most likely that this segment will be organized as a new chromosome that adds to the total that that cell already possessed. However, the genome would need to functionally integrate this new genetic segment to the rest of the information contained and already functional in that genome, with the consequent phenotypic and morphofunctional changes. (Unless these redundant genes or DNA segments remain dormant or blocked. Similar to what happens with one of the two X chromosomes of most mammal females, which agglutinates forming the sex chromatin attached to the inner face of the membrane of the nucleus of the somatic cells.) Mechanism of biogenetic integration of the genome as a whole, which causes it to transform structurally and functionally and, if viable, would even give rise to a new biospecies. This

possibility would help explain the difference in size of the different chromosomes, the variation in the number of chromosomes for each biospecies and the emergence of new biospecies by acquiring new functionally complete gene segments that would become a functional part of the genome as new independent chromosomes or as part of some chromosome that that biospecies already possesses without the number of them that characterizes it changing, but nevertheless it could give rise to a new biospecies. Both events could result, for example, from genetic vectorization. **59)** To locate the proportions of the DNA content of the human body, let us remember the following data. The haploid human genome (egg and sperm only) consists of about 3 billion base pairs of DNA bases grouped into 23 chromosomes. The somatic cells of the body are diploid with 46 chromosomes (23 pairs) totaling 6 billion base pairs of DNA bases in each cell. Each base pair is about 0.34 nanometers wide (a nm =nanometer is one billionth of a meter), throwing about 2 meters of DNA into each cell. Likewise, it is estimated that the human body has 50 trillion cells, which together would add up to 100 trillion meters of DNA per human. The Sun is 150 billion meters from Earth. So, each human has enough DNA to go to the Sun and back more than 333.33 times, or go around the equator 2.5 million times.¹⁷

60) However, we cannot rule out that the genome of a biospecies and contained in a cell, reorganizes, subdivides, changes the base sequence of some genes, blocks some segments of genes, eliminates gene segments and/or acquires other foreign gene segments. It would be a kind of intelligence of the genome (DNA, RNA and proteins), seen as a whole and in particular, but that is rather an intelligence of the entire cell. These possibilities would help to try to understand, for example, that anthropoids have 24 pairs or 48 chromosomes, while humans have 23 pairs or 46 chromosomes. Genetic vectorization may play a particularly relevant role in these events. **61)** An example of the versatility and functional adaptation of the genome as a whole of a biospecies, is found in the events that follow the disappearance of the adult female and partner of the male clownfish. Immediately, his male organs stop working, and dormant ovarian cells found in his body are activated, transforming into an adult female perfectly suitable for reproduction. Likewise, a young male clownfish grows precisely 20% more in size to become an adult, until it is phenotypically fit to play its corresponding reproductive role before the new female that has emerged. A more general example of the unitary functional participation of the genome of many biospecies occurs when a lost segment of an organism, be it plant, animal or human, regenerates until it replaces the missing component.¹⁷

62) That the distribution of genes in a certain chromosome presents functional specificity and specialization, is demonstrated by the pair of sexual chromosomes, XY and XX, in the male and female sex of the human biospecies. In the same sense, it points out the embryonic development, following very specific stages, of all plant, animal or human organisms. That is, it is known that genes in a chromosome are grouped into diverse functional units and this distribution of gene functional units in the chromosomes of any genome does not seem to occur precisely at random, but rather could correspond to certain very specific functional requirements and specialized not only for each functional group of genes but also for each chromosome. Hence the intolerance of the genome to present translocations or deletions of chromosomal segments and that this organism is still viable. As well as the important phenotypic effects, if the organism is viable, when a chromosome is lost, as in females 45, X0; or when some chromosome is redundant, as in human chromosome 21 trisomy.^{16,17}

63) In such a way that the transformation of any genome would occur first in a cell and then in its descendants. The unitary genome would have the functional capacity that, if necessary, these cells would

specialize as gametes. Until, if the resulting genome is viable, the first members of a new biospecies emerge. Therefore, the bioproduction of new members of a biospecies would be the result of changes that originally occurred in a cell and in its descendants after multiplying. This reasonable possibility would help to try to understand that the formation of a new organism of any biospecies generally arises through the mechanism of reproduction, through the replication of the DNA or RNA molecule of its single chromosome or through the fusion of two specialized cells called gametes. Each one with the complementary half of the genome that is typical of the biospecies to which they belong and with very similar genomes, functionally and structurally. That is, the bioproduction of a new biospecies and the reproduction of the members of a biospecies seem to be closely related mechanisms. Reproduction is surely the result and perhaps undeniable reflection of bioproduction. In fact, the fertilization of the ovum by a sperm is a good example of genetic vectorization, a fertilization that surely also resembles the mechanisms that may occur during the bioproduction of a new biospecies.^{1,16}

What do you opine of these approaches and intuitions? –All the BEGs of the bioassembly [The first manifestation of all the invited BEGs, ancestral and contemporary, is an enthusiastic applause, they are joyful]: It is the way of expressing that we agree with what you say, because it complements aspects that are important to detail and explain. In each of the explanations that you have said, we consider that both organization, function, reproduction and bioproduction have to do with the characteristics of the BEL energy. How this, in relation to biomatter, manifests itself in the most important events known in the BML universe as the manifestation of life. That is to say, how, from elementary and more complex subatomic particles, to bioparticles, which are also very complex, the presence of BEL energy is essential for them to carry out their activity and establish more specific functions or reactions, such as those you have mentioned. We also consider, from what you have just exposed, why the biomatter has similarities if we talk about both phenotypic and genotypic characteristics. The bioessence that until now continues to be denied is the BEL energy. –Charles Darwin: I want to point out that I am very surprised at how bioproduction and reproduction of a new biospecies can now be presented, explaining it in detail.¹⁶

Genomic vectorization in ancestors of electric eels and in ferns

In support of the relevance that genomic vectorization could have, a recent publication presents the case of electric eels in which the ancestral biospecies of all “teleost [with the upper and lower half of the tail of the same size] fish survived a rare genetic accident that duplicated its entire genome.”¹⁸ One copy of the genes continued to function in the muscle tissue and the other, after deactivate the genes in the muscle tissue so as not to interfere with movement, had mutations that conferred specific properties to their electrical cells. These original events occurred between 320 and 400million years ago. Vertebrates –like fish– do not usually survive genome duplication, however, in events of convergent genetic evolution, eels developed similar electrical organs despite having emerged with some 120 million years of evolutionary difference and being around 9900 kilometers away, some –earlier– in Africa and others –later– in South America. The different biospecies of eels agree in the way they modify their muscle cells to develop electrical organs, but in an example of divergent evolution they differ in the biochemical mechanism by which they regulate the electrical discharge at will. These findings illustrate that evolution is not as predictable as supposed.¹⁸

Charles Darwin and Albert Einstein together: “Doctor, very interesting article that confirms what you stated on that occasion

[2008] about forms of vectorization. There is no doubt that in every organism the BEG is essential for its survival, reproduction and even its extinction” [BELC 09/10/2022].

Another recent example of genomic vectorization is found in some ferns (*Cyathea lepifera*) that have a huge genome. These ferns reproduce much like fungi, releasing a spray of spores and, unlike plants that produce seeds, they don't need a mate to multiply. Some recent findings suggest that these ferns diverged from seed plants about 400 million years ago, carrying a very large genome. These ferns have more than six billion pairs of DNA bases, one billion more than the average genome of angiosperms or flowering plants (we already mentioned that humans have around three billion base pairs). These findings suggest “that more than 100 million years ago, an ancestor of this fern duplicated its whole genome—a replication error that is common in plants.”¹⁹

Theodosius Dobzhansky: “Yes, doctor, in effect, it confirms the biovectorization which they call ‘error’, which I would put it in quotation marks.” Barbara McClintock: “Very important, doctor, to be able to explain biovectorization since that time and even though years later it was discovered and shared because it is common and can be distributed and replicated. Very, very interesting, doctor. Thank you” [BELC 02/10/2022].

Genetic vectorization in horizontal gene transfer

The BovB gene is a monocatenary (one chain) RNA transposome that is found equally in different biospecies of frogs (such as the reed and the golden mantella) and snakes (such as boas) around the world; possibly transposome goes from snake to frog. Research has found this transposome to be especially widespread in biospecies from the forests of Madagascar, perhaps frequently transmitted by the abundance of parasites in that ecosystem. The BovB transposomes promote genetic changes by introducing into the genome segments of DNA from one biospecies to another, thus supporting the so-called horizontal transfer between biospecies, as opposed to the vertical transfer of genes from parents to offspring. Up to 91% of frogs in Madagascar carry this gene in their genome.²⁰⁻²²

For transposomes to integrate into the genome of an organism, it is necessary for these DNA or RNA segments to reach the gametes, and retroviruses (with an RNA chain as genome) seem to influence this to happen because they have the molecular resources to do so and to integrate segments of DNA for instance into the human genome. In fact, it is known that 6% of the human genome are fragments of retroviruses that have remained in its genome due to viral infections that it has suffered throughout history.²² These increasingly frequent findings suggest that genetic vectorization between different species through horizontal gene transfer is more frequent than is supposed and in which some species of small nematodes (worms), annelids such as leeches, mites related to ticks, and surely many more biospecies could participate. Gene shared by herring and smelt fish keep their blood from freezing in the icy waters of the Pacific and Atlantic oceans; in a gene vectoring event it is thought that this gene was transferred from the herring to the smelt. It is known that gene vectoring through horizontal transfer is a common event in bacteria, which facilitates, for example, resistance to antibiotics, in such a way that when the resistant strain multiplies, it is the one that predominates in that colony of bacteria.²³⁻²⁴

Genetic, genomic and BEL vectorization, and intelligent multi-bacterial structures

Recent data has shown that bacteria are not solitary organisms but rather highly gregarious, as shown by some structures of the bacterium

Vibrio splendidus in which thousands of individuals agglomerate in the sea to feed on clusters of floating gelatinous carbohydrates called alginate. This floating multi-bacterial sphere shows cells joined together at the periphery and mobile cells at the center that are more intensely nourished. These well-nourished cells from the interior break the adhesion of the superficial layer to free themselves and form new globules that repeat the cycle. As research progresses, it is becoming more and more evident that bacteria agglomerate to anchor themselves to a surface. Dental plaque is an example, as is contamination on catheters or other wet or stony surfaces. Hence, the absence of a support surface in the sea favors the formation of multi-bacterial structures whose life cycle ceases to have the simplicity of a cell and acquires the complexity of a multicellular organism. Unlike glucose or fructose that easily cross the cell membrane as isolated units, alginate forms helical chains or polymers that are usually larger than the same globular structure of bacteria. The digestive enzymes of the bacteria easily break down these chains and release the fragments into their marine environment. Under the microscope, spherical formations of thousands of *Vibrio* bacteria can be observed. In the agglomerate they form an intelligent heterogeneous structure with bacteria directed by the genes of their DNA so that they fulfill the function that corresponds to them within the sphere. It is already postulated that other bacteria could have the tendency to form multi-bacterial structures similar to that of *Vibrio*. It is evident that with these structures the bacteria, through a process of genetic and genomic vectorization, could have favored the formation of diverse multicellular organisms, some of them real new biospecies.²⁶⁻²⁷

The slime mold *Physarum polycephalum* is a myxomycete that forms structures made up of a very large cytoplasm with tens of thousands of nuclei floating inside. When the sensors in its cytoplasm detect nutrients, its networks of contractile proteins—similar to those of human muscles—immediately cause the cytoplasm to emit pseudopods to approach that nutrient source. The same when it detects an area to which it does not need to return, it smears a crystalline mucus on the surface of that place. In the same way, bacteria prefer to group together in biofilms that cover humid or stony areas in which they establish themselves. *Pseudomonas aeruginosa* do the same as bacilli. The common *Bacillus subtilis* in the soil forms biofilms in a laboratory culture in which the different groups of cells fulfill a certain function, making sure to leave spaces that guarantee the oxygenation of all the cell groups. With intelligence, bacteria prefer inclusive fitness than cellular individualism. The cells of the periphery are better nourished, they are more oxygenated and multiply frequently, while the cells of the interior of the structure depend on the others for nourishment, but their existence seems to be longer. Bacterial biospecies such as these are also an example of the likely role that genetic and genomic vectorization may have in surviving and potentially giving rise to new phenotypes and functions, and surely to new bacterial biospecies as well.²⁸

In these examples of grouping and complexification of unicellular organisms, it is necessary to add the participation of their BEG to favor a better coupling of the cellular units that form a new biological system.¹⁻²

Life does not die the body biocollapses

BEL communication carried out on Friday, April 2, 2010. 1. Life does not die, the body biocollapses. Life does not end, it has no ending, it is the only trait that is truly infinite in diversity and permanence, at all scales, from photonic to macrocosmic, in the entire unit universe (BML, BIFL and BEL universes). Andrew Carnegie: “It is a phrase we hope will begin to be a charactheme. Indeed, life does not ‘die’...” Bioenerscientiates—intuits— and adds: “Life does

not 'die', if you allow me to add, neither only is biotransformed, but is biotransformed as function of life itself, not at the will of the BEG. Humans have believed to govern life, giving 'death' to life to decide what to do with life. It is a useless delirium to pretend to govern life and decide on its behalf. Is it clear the idea?" Excellent, I tell him, and he adds: "I intuit it from your BEG this way, thanks."¹⁶ **2.** We develop the concept of biovectorization or biofusion of BEGs in the BML, BIFL and BEL universes. Likewise, biovectorization can be not only collective but also universal. Similarly, understanding it as universal biovectorization is the most appropriate way to address this issue and the events it implies. **3.** Collective BEL intuitionability or collective biointuitionability is also a form of collective biovectorization. Likewise, intuitionability is not only collective but also universal. Likewise, understanding it as universal intuitionability is the most appropriate way to approach this topic and the events it implies. **4.** Collective BEL communication or collective biocommunication is also a form of collective biovectorization. Likewise, BEL communication is not only collective but also universal. In the same way, understanding it as universal biocommunication is the most appropriate way to address this issue and the events it implies [Ints 02/21/2011]. **5.** The modalities of collective biovectorization are also bioforces.^{1,14}

6. What is commonly called by the unspecific term of human 'mind', would be the result of the neurobioenergemal interaction between the brain and the BEG –or neurobiointerfacemal between a BIFL function of the brain and the BEG–. This biointeraction is also included in the concept of BEL energy, which is actually universal then. That is, biovectorization makes and explains why BEL energy is universal not only in itself but also as a universal or collective bioexperience. **7.** The existence is three-shared: BML, BIFL and BEG. That is, each biotagonist of the UU is made up of biomatter, biointerfaceme and BEG, respectively. Being born and 'dying' are not antonyms, they are synonyms because they refer to living and living, so biocollapse is a better way of referring to 'die' –or 'death'–, a highly parasitized verb. From this view came the Unit Universe Model, which is made up of the BML, BIFL and BEL universes. **8.** The aging of humans and of all the biospecies of the BML universe would then result in an event strongly influenced by BEL, BIFL and, of course, BML aspects. In contrast, aging should not occur in the BEL universe. The youth of the BEG is permanent, it does not 'age', a term that is parasitized and of BML origin. **9.** On the other hand, 'die', 'pass away', 'decay', then, consists, in the BML universe, in the disorganization of biomatter or BML collapse or biocollapse of the body of biomatter or biobody; with release of organized prebioenergeme (BIFL universe) => bioenergeme going to => BEL universe.¹

10. It is clear that a similar bioexperience of vectorization can be carried out for the BML and BEL benefit of the other senses (i.e., hearing, smell, taste and touch), depending on the BEGs that biofuse. **11.** For now, there would be the following varieties of vectorization between biospecies: **A.** Biomaterial genomic vectorization that we know participates, for example, in the sexual reproduction of multiple biospecies of plants, animals and humans. However, it could also participate in the bioproduction of new biospecies through bioexchange between biospecies, by means of natural vectors, of complete genomes. Or by 'error' or 'accident' during the replication of the entire genome, as is the case with electric eels, some ferns, elephants and red wolves [see below].¹⁸⁻²⁵ **B.** Biomaterial genetic vectorization that we have already proposed could participate in the bioproduction of new biospecies through bioexchange between biospecies, through natural vectors, of DNA and/or RNA segments or whole genomes that could be segmented. For instance, the researchers relate the high resistance of elephants to cancer with the 20 pairs

of TP53 alleles (cancer suppressor gene; more than ten pairs in an extinct biospecies of mammoth), compared to a pair of alleles of this gene in other mammals, such as humans.²⁴ The multiplication of the TP53 gene in elephants may have resulted from genetic vectorization, which allowed them to multiply that gene as they grew larger and another biospecies arose.²⁴ Another example is found in coyotes that, in the south of the USA, still retain up to 60% of the genes of the red wolf in danger of extinction.²⁵ In such a way that, favoring their crossing, in the descendants that percentage of genes from the red wolf could be recovered. This is an example of genetic vectorization that has already occurred naturally in the past and is now being induced by researchers.¹⁴ **C.** Biointerfacemal vectorization as it happens in the fusion of bioimages of the BEGs during BEL communication and in dreams. **D.** Bioenergemal vectorization or biovectorization that we used to carry out during BEL communication by merging BEGs voluntarily. **E.** Of course, BML and BIFL (i.e., genetic, genomic, BELC and dreams) mixed vectorizations also imply BEL vectorization or biovectorization. **F.** Which can be carried out between BEGs of different biospecies or of the same biospecies, as between human, terrestrial and extraterrestrial BEGs. It would be collective or universal biovectorization too. **G.** Collective intuition is universal, all varieties –BML, BIFL and BEL– of vectorization involve collective intuition, then, vectorization is universal. **12.** BELC on Sunday April 26, 2015. Bhrikiam, is it tempting now to look like the terrestrials? "Yes doctor." For what cause or reason? "The experience is to see a society, let's say young, that when establishing the comparison is attractive for the study of the natural components that exist in it" [sic]. And what about the bioenergemal research? "Of course, doctor, it is with respect to the BEL investigation that it is even more attractive because it is through intuitions and BEL vectorization that the extraterrestrial humanities intuit that they want to know the terrestrial humanity."¹

What do you opine? –Albert Einstein: Due to these forms of genetic vectorization that you have mentioned, we now realize that they biointeract through the bioforces that the BEL energy has. Indeed, in the UU, from its origin, we can now understand that collective intuition. Because BML events, such as speed, time, gravity, biotransformation, the very expansion of the universe, space, are some of the many events whose explanation and origin would account for collective intuition as a form of vectorization in its different varieties. This promotes the biobalance that surprises us so much in the UU and, therefore, the 'chaos' does not apply or ceases to exist. –Would this concept of 'chaos' actually be a form of ignorance? –Albert E: Yes, indeed, doctor. –If, as we have already mentioned, intuitionability is a bioforce and, according to Ruth, also a form of BEL vectorization. So, the different forms of vectorization are also bioforces. What do you opine? –Albert E: Totally agree with the reflection. This would mean that there are more forms of vectorization and biocommunication and collective intuitions than we even now realize. That possibility is extraordinary. –Later on, Albert, we will exemplify and complement your comment with some reflections that we would like you to comment on as well. –Albert E: It is an honor, doctor. –BEG of a grandmother: No, it is no longer from noshe [sic; she had said that BEL universe is like night]²⁹ as I told you on another occasion, now it is a BEL dawn. This makes it easier to locate BEGs, including humans. I intuited that they were following a senile stage and now I realize that they were not. That the BEG, as you say, has no age. It has its own BEL experience or bioexperience that until now had been stopped.¹

Conclusions

1. After comment 54, Bhrikiam called genetic vectorization and its varieties as a universal law.

2. All varieties –BML, BIFL and BEL– of vectorization, BEL communication, intuitionability, Intuilish, BEGs' fusion, BEL energy or bioenergy, life, are collective and universal events, traits and experiences.
3. The Unit Universe Model arose from the three-shared existence, this forms the three components of the body (BEG, biointerfaceme and biomatter) and these postulates from BEL communication. All are events that involve different varieties of biovectorization.
4. All of these findings and results are determined by and originate from BEL energy.
5. Anthropocentrism and geocentrism are two archaic and obsolete prejudices of the terrestrial human, as well as detrimental for the cultural development of humanity to continue.³⁰

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Conflicts of interest

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