The evolution of natural systems - from the point of view of a philosopher.

/ It's abridged/

I

How much long the human civilization exists on Earth, so much time there are practically continuous disputes between supporters of creationism and evolutionism. In own arguments, the former usually emphasize the astonishingly-miraculous complexity of living systems what's thereby linked to very far-fetched chance of their self-emergence. At the same time, the latter flaunt about their totally unbiased reasoning which doesn't require introduction of additional entities.

Insofar as, to a certain extent, both prove to be right, so having analyzed all the scientific information at our disposal, we decided that it would be correct to try to synthesize these opposite, at first glance, ideas into a single whole. Nevertheless the priority remains, of course, with evolutionism and therefore here we'll give it primary attention.

All without exception material (physic & biological*)* systems can develop only in their free drift – thanks to gradual adaptability to environment as well as the memory factor that a priory inherent to the system of any level. In particular, translational motion of nitrogenous bases ended with mononucleotides' appearance; the perfection of three-step nucleotides - with the formation of long chains then twisted into more durable poly-functional spirals; finally, the latters, having united with their neighbors, led to the birth of the genome, and with it new essentially vital "the first bricks" of the animate nature either.

The improvement of RNA molecules took place mainly at the nucleoprotein level since they could hardly have existed for an extended historical period without so faithful and inseparable acidic companions. In the old days single-stranded ribonucleoproteins propagated by replication using RNA-primers, and then realized themselves (or, to put it more professional, were expressed) by means of PcG proteins. In this way, the latter began to be responsible for both enzymatic reactions and long-term pre-chromosomal memory. While short-term memory, and not only nucleotic, but also of any systems, is due to underlying structures, that is, ultimately - to monads' perception.

Unfortunately, as is often the case, the subsequent integration of the primordial "chains of life" into a single proto-genome did by no means do them good. For after not far-sighted histones making and compactification of the principal hereditary material in the

form of DNA, they have completely lost own freedom. So, continually striving for improvement, the nucleosomes involuntarily (as, in theory, any systems at all) ipso facto closed the path of their evolution, since with the advent of the cell, they began to serve needs of updated team. And nevertheless, despite this, some so called small RNAs have still remained at the native command headquarters (i.e. nucleus). They most likely performed an extrasensory role there, and subsequently, being associated with the perception of light energy, began to influence also the vital rhythms of the chromosomes. However, be that as it may, but centrioles cannot play a decisive role in the process of cell maturation and division. It's clear that they receive all work orders from the nucleus, where, accordingly, the natural pace-maker (or, if you like, a chronometer) of circadian vital activity locates. For all that, it certainly can't be functionally connected with the chromatids themselves (especially if we remember how indicative they resist being pulled along different poles).

Giving a short review of cellular evolution, for a start it should be noted –it's at this level that almost all so urgent for us functional stages & processes like mitosis, meiosis, conjugation, diploidy, polyploidy (well and numerous other things which inherent also to more perfect organisms) have once upon arisen. But still the most valuable attainment in this regard should, obviously be recognized the acquisition, as their future fail-safe helpers, of rickettsias (oddly enough, largely pathogenic now) by some nucleosomes and filamentous cyanobacteria - by others.

Over time, the cells began to unite into colonies which used to form based on the division of one maternal individual (apparently, due to the adhesion of daughter ones).

As for the phylogenetic development of complex multicellular organisms, it, of course, has certain characteristics for each species. However it has been carried out according to a single principle - on basis of the given genome which had lost earlier (ie, at the previous, so to speak, already "archaic" stages of its formation) the ability for self-improvement. In addition, let's note along the way a number of important cornerstone points on which the author relies, arguing own view about the course of organismic evolution.

- *Theoretically quite valid possibility of significant anatomical & morphological changes at the level of an individual - with a strict structural constancy of the genomic apparatus in all its foreseeable ancestors.*
- *The dominant role of factors of internal self-development and natural selection as the main driving forces of progress.*

- *The complete autonomy of the above evolutionary postulates from blind mutational processes, i.e. the conceptual independence of these two directions from each other.*

Almost all progressive natural macro-shifts (such as: the transformation of scales into feathers, and fins into limbs; the creation of collective intelligence in ants and bees; radical rejection of the tail and preparation of the articulatory apparatus for meaningful speech among prehistoric apes) /are more-less connected with outside interference, an adequate interpretation of which the author devoted a whole book in his time. So in this abridged version of the article, it makes sense to dwell only on the quite obvious circumstances of the everyday (albeit maybe subtle) adaptive perfectioning of organisms. In the modern scientific world, the opinion got somehow tacitly established that they all occur allegedly due to the phenomena of psycholamarkism or at least selective gene methylation. Well, for most earthly species, this seems to be the case. But for cnidarians, comb jellies and some other invertebrates, the decisive factor in their successful survival may be the scattering of the radial nervous net able to retranslate to the gonads the information about the main events that were fixed (for transfering the accumulated experience to offspring). Echinoderms tend to multiply through the regeneration of the whole body from one segment, and this, in all likelihood, also leads to the preservation of the acquired parenting qualities for the descendants. As for the type of arthropods, no other organism has such a complex & refined control over the entire living system from the side of the primary chromosome. Let’s remember, at least in this regard, extremely punctual and in their own way wise social insects!.. And hence, they personify a certain special vector of evolutionary development, having managed at the same time to penetrate almost to its the very heights. Finally, it’s known that episomal & plasmid transfer of genetic material from one cell to another is an essential importance to prokaryotes' life. So it can be hypothesized that in higher plant taxa, similar adaptive-hereditary interspecific exchange will be fixed too. After all, as noted earlier, the settling of qualitatively different plastid and mitochondrial symbiont-bacteria in separate cells, obviously, has also played significant role in terms of processes of cardinal divergence between plants and animals. Akin to plasmid transfer also the phenomenon of transductional integration of genomes, whose protagonists are retroviruses that live and reproduce based on peaceful coexistence with more developed organisms.

Mutations are known to be a blind factor of evolution, but also have a certain value in the nature around us. However, for some reason, quite possible breakdowns sat the sub-nucleotide level are rarely mentioned in scientific literature (probably due to their frequent

culling). Although by the way, it was such an early deep mutation that resulted in the emergence of 2-deoxyribose *(*and as a consequence - the current DNA-strands*)*.

II.

Observing the evolution of nature allows us to formulate the law of the via-couple (synonyms: *intermittent, triadic*) similarity. Its practical value lies in the fact that it zooms the horizons of knowledge, giving one the opportunity to penetrate into such spheres which are not yet available for targeted laboratory researches. This is especially true of the initial stages of Universe's development, since the future with its close to perfection evolutionary macrostructures, in principle, is quite predictable with the help of other already well-tried means either.

Briefly, the essence of the law of triadic similarity can be formulated as follows: each new system is built from the subunits of the previous one but according to a rough plan (or, if you like, the algorithm) tested at even earlier hierarchical levels. That is, if to be more exact - at the third, counting from itself backward (i.e. pre-fore-previous). Videlicet here it is only about the general ontogenetic scenario, since any attempt to behold the specific direct ancestor of a certain live creature among the retrospective bio-constructs will look mystical and even ridiculous. After all, then, say, we'd have to admit that the human genome originated from vanadium, and the cell - from some of its complex hydrogen compounds like hydride. While, in fact, the human cell has a proven genetic relationship only with the corresponding chromosomes and mitochondria, but the first have diploidly doubled as a result of the meeting and conjugation of two haploid cells (following the example of the formation of the diatomic molecules of simple substances); and the second were attached along the periphery like hydrogen ions in an ethylene molecule.

Comparing the above law with one or another theoretical postulates as well as phenomena amenable to direct observation, we have the opportunity to clarify and correct something in these common provisions (especially with regard to the structures and processes reigning in the microcosm inaccessible to naked eye). So, for example, we can ascertain with full confidence that the proton and neutron differ little from each other in terms of the number and nature of their constituent subparticles. Although, as everyone knows, the lifetime of a neutron in a free state is incommensurably shorter than of its nuclear tribesman. Which means the whole problem here is in some additional entities that accelerate the existence of the first of them or, conversely, patronize the second. And these provoking factors are obviously brought in from the outside; but, true, given circumstances can also be caused by the instability of a certain combination of monads (i.e., in this concrete case – quarks) or, less likely, by their different position in space. However if we will take into account the skill of wonderworkers to bypass the laws of gravity by sending volitional impulses, and sometimes even to break intranuclear

connections then, perhaps, we should accept the version about lepton nature of such influence.

Further, it is clearly seen that:

a) *each monad has at least three independent characteristics besides female-male polarity which determines the mutual pairwise attraction between ones;*

b) they can all emit and absorb energy;

c) the interplay between monads in quark triplets is many orders of magnitude stronger than their adjacent bonds in the nucleus.

Of particular interest is the fact that some analogs of isotopic hydrogen fold into rings, quite unambiguously passing over to purely contemplative practice; others (namely, linear), typical representatives of which are omni-potent viruses, lead a hyperactive, downright pirate lifestyle. There are several formal reasons for that: the first *(*ring) DNA are a part of the cellular structures, while the latter, in this regard, have a fairly wide autonomy. They also, by the way, lack histone octamers and that could affect the spatial configuration and the main characteristics of viral acids too. But the true reason is generally one, and in this case it's still precisely hidden from us.

Although it is quite clear that some specific features inherited from the underlying (possibly, even subatomic) modus vivendi must be involved here. For it's difficult to believe that polynucleotides closure into a ring (in bacteria, cyanophytes, archaea as well as contemporary plastids) could only be associated with the transition to the cellular form of existence. In this plan, I would like to note that the nature of sub-strand contacts in mitochondria is albeit a distant but absolutely true analogue of cronyism, mutual responsibility, easy accessible sex and the other relative mess being prevalent in many unofficial religious communities. Not to mention the global assignment of any formations of this kind - active absorption of inexhaustible vital energy from the surrounding cosmos.

By the way, nematodes whose genomes are structured similarly to hydrogen molecules thrive in all parts of the world and in any environment but like these molecules themselves, alas, do not last forever either. While crystallomorphic viruses, thanks to their inherent a priori inner eternity, had an unlimited possibilities of constant elaboration and, therefore, represent (relative to the average standard of polynucleotides) the pinnackle of development among all living systems that once existed or will do. In any case a person will never attain their heights: this is maybe within the power only for robots which, nevertheless, are not live beings. Here some of the readers, a true, could argue that the molecules of silicic acid and natural rubber are also capable of unlimited growth and multiplying through regeneration. But they however, firstle, have an inactive lifestyle;

secondly, are getting old; well and finally, for their reproduction something like a meteor shower is required, and such conditions are known to be absent on Earth.

In the course of their prehistoric (but really epoch-making!) coevolution, viruses have improved in the usual way - due to the gradual accumulation of vital structural links. But wherein, their primarily ancient /so called *archetypal*/ genetic segments, and even perhaps single nucleotides, at the same time are the most important, i.e. regulatory. After all, just such a development of events would, in our opinion, be optimal and logically consistent from the point of view of system evolution.

III.

So, according to the scientific data available to us, it is the permanent improvement of species with an additional stimulation of this process from the outside that should be considered as the main reason for polymorphism of nature.

But is it still possible to contrast something to this (even, at least, with elements of a sane fancy)? Well, such options are formally at our disposal either. Firstly that is the giving to proteins (allegedly recasting independently own computer-management network) by a self-sufficient, almost mystical organizational content. Which, in turn, should be directly related to the adequate launch of the hardest mechanism of ontogenesis. Of course, it is not easy for any sober-minded scientist to believe in such idea, but nevertheless...

The another alternative version looks much more sound in appearance. We are talking about the transfer of the role of an active evolutionary subject from an omni-recognized organismic factor to Universe time itself, in relation to which life in this case will automatically take the position of a first-order attribute. As for the true (ie. not intersected with space) time, then it obviously is here likened to an unified divine beginning. However it’s no longer that blind scholastic approach to the interpretation of the concept of "God", which is so well known to many from the childhood but more or less, after all, scientifically grounded! By the way, let's add that the time of movement, what is just usual for us, associated with overcoming (and sometimes - at wonderworkers - transformation) of space, refers to the truly one as a function does to an argument.

Unfortunately both of the above versions are not sufficiently relevant for current science, at least because they apparently can neither be confirmed nor refuted. From this point of view, the creationist position is more methodologically acceptable, since over time the higher evolutionary hierarchs can be, in theory, discovered by an instrumental way. Besides only this concept helps to resolve the eternal philosophical question "What is Universe's meaning of our obviously meaningless life?" And sadly enough the answer here inevitably suggests itself unambiguous: we are all destined to be in the service of the higher hierarchs!

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