# Re: A Comprehensive Hypothesis of Abiogenesis

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"RetroProphet" <RetroProphet_member@xxxxxxxxxxx> wrote in message news:f3g61t02t5c@xxxxxxxxxxxxxxxxxx

> I would like to recommend the following website to
> anybody interested in the subject as I find it to be,
> despite some quirky language construction, the most
> reasonably−explicated comprehensive current hypothesis
> for Abiogenesis.
>
> Studying it diligently with an open mind will at the
> very least yield an understanding of how far thinking
> on the matter as progressed and where it will go from
> here. It is worth the considerable effort this takes.
>
> Mr. Nahle has taken great pains to frame his proposition
> within realistic limits of observability and in doing so,
> fairly and rationally dispells many of the objections that
> have been offered against the hypothesis of Abiogenesis
> by both scientific and pseudo−scientific critics.
>
> Abiogenesis or The Abiotic Origin of Life on Earth
> by Nasif Nahle
> http://biocab.org/Abiogenesis.html

A comprehensive whatsis of whatsis?

Can you just give us the gist of it? Some bullet points?
We're all busy people.

I appreciate what you're saying and considered
doing that, but I felt strongly that the man's
work needs to be studied in full to be appreciated.
But, since you asked, I will oblige you.

> Basically, he provides a theoretical model for the natural emergence of lifeforms, the initial stages taking place in space during the formation of galaxies and solar systems, and the later stages on planets from initial stage material that landed via bombardment.
>
> He describes a number of the processes involved at each stage and supports their plausibility with observational evidence that is already known and current theoretical work.

http://www.1911encyclopedia.org/James_Clerk_Maxwell
.... Clerk Maxwell ... yet showed on fit occasion his contempt for that pseudo−science which seeks for the applause of the ignorant by professing to reduce the whole system of the universe to a fortuitous sequence of uncaused events.

http://www.1911encyclopedia.org
This LoveToKnow Classic Encyclopedia project works to bring to you the renowned 1911 Edition of the Encyclopaedia Britannica.

http://www.1911encyclopedia.org/LoveToKnow_1911:About
The LoveToKnow Free Online Encyclopedia is based on what many consider to be the best encyclopedia ever written: the eleventh edition of the Encyclopaedia Britannica, first published in 1911.

> He describes quite well how difficult it will be to unravel these processes in every detail as it is the nature of the puzzle that the process itself is "irreversible" −− that is, it is not possible to follow backwards the trajectories of the interactions from what we observe today. Think of stone formations eroding and the resultant particles being swept away by the wind. It is impossible to gain back precisely the information lost and precisely reconstruct the original stone formation and the exact processes that acted on it.
>
> Fleshing out each individual stage of life formation is in a sense more difficult than that, as there are an immense number of possibilities every step of the way in terms of environmental conditions for both the space and planet phases. Temperature, pressure, density and nature of the matter present, the effects of radiation, etc.
>
> Consider how many potential pathways there are for configurations of matter to take through the effects of these myriad forces −− but one particular pathway at least must work, and the job is to find it by going

> past the seeming randomness. There is no such thing as
> randomness, there are only processes and event histories
> that you do not fully understand or have current access to.
>
> We do have the advantage of at least having very
> detailed access to the current state of the puzzle,
> across many scientific disciplines from genetic biology
> to astrophysics, and are gaining more detailed data at
> a very rapid and accelerating pace.
>
> This fact makes the puzzle easier to solve than
> the "erosion" puzzle, in fact makes it possible
> whereas the erosion puzzle isn't really solvable.
>
> My personal belief is that at some point someone is
> going to integrate all this data into a plausible
> and precise step−by−step scenario, each step being
> fully testable by experimentation. The final test
> needs to result in the ability to reproduce each stage
> of life's development from inert matter to reproducing
> matter, each stage from the previous, in order to
> successfully demonstrate the truth of the hypothesis.
>
> It will take a future genius to do, and this man's
> work does not do this, but I believe he has built the
> scaffolding upon which that future genius will work.

http://www.1911encyclopedia.org/James_Clerk_Maxwell
An exceedingly ingenious, but highly artificial, theory had been devised by W. E. Weber, which was found capable of explaining all the phenomena investigated by Ampere as well as the induction currents of Faraday. But this was based upon the assumption of a distance−action between electric particles, the intensity of which depended on their relative motion as well as on their position. This was, of course, even more repugnant to Maxwell's mind than the statical distance−action developed by Poisson. The first paper of Maxwell's in which an attempt at an admissible physical theory of electromagnetism was made was communicated to the Royal Society in 1867. But the theory, in a fully developed form, first appeared in 1873 in his great treatise on Electricity and Magnetism. This work was one of the most splendid monuments ever raised by the genius of a single individual. Availing himself of the admirable generalized co−ordinate system of Lagrange, Maxwell showed how to reduce all electric and magnetic phenomena to stresses and motions of a material medium, and, as one preliminary, but excessively severe, test of the truth of his theory, he pointed out that (if the electromagnetic medium be that which is required for the explanation of the phenomena of light) the velocity of light in vacuo should be numerically the same as the ratio of the electromagnetic and electrostatic units. In fact, the means of the best determinations of each of these quantities separately agree with one another more closely than do the various values of either.

Richard Feynman, Nobel Prize Winner (1965) in Physics:

There can be little doubt that the most significant event of the 19th century will be judged as Maxwell's discovery of the laws of electrodynamics.

Maurice Allais, Nobel Prize Winner (1988) in Economics (About the Aether Concept, 2003):

Atoms, particles, photons are but (local) singularities of the aether which remain to be explained by differential equations.

http://www.1911encyclopedia.org/Joseph_Louis_Lagrange
At the age of nineteen he communicated to Leonhard Euler his idea of a general method of dealing with "isoperimetrical" problems, known later as the Calculus of Variations. It was eagerly welcomed by the Berlin mathematician, who had the generosity to withhold from publication his own further researches on the subject, until his youthful correspondent should have had time to complete and opportunity to claim the invention. This prosperous opening gave the key−note to Lagrange's career. ...
He made his first appearance in public as the critic of Newton, and the arbiter between d'Alembert and Euler.
.... followed, in the second volume of the Miscellanea Taurinensia (1762) by his "Essai d'une nouvelle methode pour determiner les maxima et les minima des formules integrales indefinies," together with the application of this important development of analysis to the solution of several dynamical problems, as well as to the demonstration of the mechanical principle of "least action." The essential point in his advance on Euler's mode of investigating curves of maximum or minimum consisted in his purely analytical conception of the subject. He not only freed it from all trammels of geometrical construction, but by the introduction of the symbol b gave it the efficacy of a new calculus. He is thus justly regarded as the inventor of the "method of variations" − a name supplied by Euler in 1766. By these performances Lagrange found himself, at the age of twenty−six, on the summit of European fame.
.... it was in the application to mechanical questions of the instrument which he thus helped to form that his singular merit lay. It was his just boast to have transformed mechanics (defined by him as a "geometry of four dimensions") into a branch of analysis, and to have exhibited the so−called mechanical "principles" as simple results of the calculus. The method of "generalized coordinates," as it is now called, by which he attained this result, is the most brilliant achievement of the analytical method. Instead of following the motion of each individual part of a material system, he showed that, if we determine its configuration by a sufficient number of variables, whose number is that of the degrees of freedom to move (there being as many equations as the system has degrees of freedom), the kinetic and potential energies of the system can be expressed in terms of these, and the differential equations of motion thence deduced by simple differentiation. Besides this most important contribution to the general fabric of dynamical science, we owe to Lagrange several minor theorems of

great elegance, − among which may be mentioned his theorem that the kinetic energy imparted by given impulses to a material system under given constraints is a maximum. To this entire branch of knowledge, in short, he successfully imparted that character of generality and completeness towards which his labours invariably tended.

http://www.britannica.com/eb/article−9056716/Ockhams−razor
Ockham's razor

also spelled Occam's razor, also called law of economy, or law of parsimony, principle stated by William of Ockham (1285?1347/49), a scholastic, that Pluralitas non est ponenda sine necessitate; ?Plurality should not be posited without necessity.? The principle gives precedence to simplicity; of two competing theories, the simplest explanation of an entity is to be preferred.

http://www.1911encyclopedia.org/Sir_William_Rowan_Hamilton
SIR WILLIAM ROWAN HAMILTON (1805−1865), Scottish mathematician, ... His mathematical studies seem to have been undertaken and carried to their full development without any assistance whatever, and the result is that his writings belong to no particular " school," unless indeed we consider them to form, as they are well entitled to do, a school by themselves. ...
Having detected an important defect in one of Laplace's demonstrations, he was induced by a friend to write out his remarks, that they might be shown to Dr John Brinkley (1763−1835), afterwards bishop of Cloyne, but who was then the first royal astronomer for Ireland, and an accomplished mathematician. Brinkley seems at once to have perceived the vast talents of young Hamilton, and to have encouraged him in the kindest manner. He is said to have remarked in 1823 of this lad of eighteen: " This young man, I do not say will be, but is, the first mathematician of his age." ...

The step from optics into dynamics in the application of the method of " Varying Action " was made in 1827, and communicated to the Royal Society, in whose Philosophical Transactions for 1834 and 1835 there are two papers on the subject. These display, like the " Systems of Rays," a mastery over symbols and a flow of mathematical language almost unequalled. But they contain what is far more valuable still, the greatest addition which dynamical science had received since the grand strides made by Sir Isaac Newton and Joseph Louis Lagrange. C. G. J. Jacobi and other mathematicians have developed to a great extent, and as a question of pure mathematics only, Hamilton's processes, and have thus made extensive additions to our knowledge of differential equations. But there can be little doubt that we have as yet obtained only a mere glimpse of the vast physical results of which they contain the germ. And though this is of course by far the more valuable aspect in which any such contribution to science can be looked at, the other must not be despised. It is characteristic of most of Hamilton's, as of nearly all great discoveries, that even their indirect consequences are of high value.

The other great contribution made by Hamilton to mathematical science, the invention of Quaternions, is treated under that heading.

http://en.wikipedia.org/wiki/William_Rowan_Hamilton
The other great contribution made by Hamilton to mathematical science was his discovery of quaternions in 1843.

Hamilton was looking for ways of extending complex numbers (which can be viewed as points on a 2−dimensional plane) to higher spatial dimensions. Hamilton could not do so for 3 dimensions: in fact later mathematicians showed that this would be impossible. Eventually Hamilton tried 4 dimensions and created quaternions.

....

The quaternion involved abandoning commutativity, a radical step for the time. Not only this, but Hamilton had in a sense invented the cross and dot products of vector algebra. Hamilton also described a quaternion as an ordered four−element multiple of real numbers, and described the first element as the 'scalar' part, and the remaining three as the 'vector' part.

In 1852, Hamilton introduced quaternions as a method of analysis. His first great work is Lectures on Quaternions (Dublin, 1852). Hamilton confidently declared that quaternions would be found to have a powerful influence as an instrument of research.

2 The same light which enlighteneth your eyes quickeneth your understandings, saith the Lord, and is the law by which all things are governed, and which, saith the Lord, changeth not, but remains constant, that ye may have a standard by which to judge truth, and which constant is called the law of light.

3 And it is that science, saith the Lord, which abrogates or does away with the basis of true science, or, saith the Lord, that which is known as physics and mathematics, which are my statutes, or the laws by which the planets as wheel upon their wings in the immensity of space, is it not false?

Revelations of Jesus Christ 159:2−3

http://en.wikipedia.org/wiki/Occam's_Razor
The term "Ockham's razor" first appeared in 1852 in the works of Sir William Rowan Hamilton (1805?1865), long after Ockham's death circa 1349.

http://en.wikipedia.org/wiki/William_Rowan_Hamilton
Quaternions

.... According to the story Hamilton told, on October 16 Hamilton was out walking along the Royal Canal in Dublin with his wife when the solution in the form of the equation

$i^2 = j^2 = k^2 = ijk = -1$

suddenly occurred to him; Hamilton then promptly carved this equation into the side of the nearby Broom Bridge (which Hamilton called Brougham Bridge.)

http://www.hypercomplex.com
"Is there not an analogy between the fundamental pair of equations ij=k ji=−k, and the facts of opposite currents of electricity corresponding to opposite rotations?" −− W. R. Hamilton, June 1845, BAAS.

http://www.hypercomplex.com/education/intro_tutorial/nabla.html
Hamilton's interests in metaphysics gave him an appreciation for the extensive reverberation simple themes and elementary principles expressed throughout nature. And when he came to construct ideas in mathematics, he sought to once again to echo the universal principles in his conceptual and symbolic constructions.

91 For true science and true religion, are they not the same things, O man?

92 For I the Lord God am the author of all truth, which cometh from me.

Revelations of Jesus Christ 3:91−92

The Principle of Least (more generally, Stationary) Action, or the Law of Economy of Heaven, is the ultimate Ockham's Razor and an antidote to the redtroll or Keynesian principle of least reflection.

reflection, n.
1. (b) The reverting of the mind to that which has already occupied it; continued consideration; meditation; contemplation; hence, also, that operation or power of the mind by which it is conscious of its own acts or states; the capacity for judging rationally, especially in view of a moral rule or standard.

Journal of Discourses, Vol.1, Pg.203, Brigham Young, April 6, 1852:

The Millennium consists in this−−every heart in the Church and Kingdom of God being united in one; the Kingdom increasing to the overcoming of everything opposed to the economy of heaven, and Satan being bound, and having a seal set upon him.

JJ Cale:

When you think you're going backwards
It's all in vain, it seems insane
When you ask, nobody knows

When all our days are gone
You can catch us with a song
Something that seemed almost right
We've known love and joy
Eternity's been our toy
Something to play with in the night

Journal of Discourses, Vol.16, Pg.108, Brigham Young, June 27, 1873:

A great deal is said to the Latter−day Saints concerning our religion, which does in reality incorporate and circumscribe the whole life of man. We need teaching. We are like children with regard to learning. If we could understand the effects of the fall or of sin upon intelligence, we would see that its tendency is downward, that it is retrograde in its nature. The things pertaining to life are of the opposite character−−they are exalting, increasing, multiplying, gaining, receiving a little here and a little there−−our minds and understandings expanding by that which we learn by reading, by the seeing of the eye and the hearing of the ear.

retrograde, adj.
1. going backward, retrograde motion.
2. reverting to an inferior state.

Walking in the Light of the Gospel of Jesus Christ is the optimal path of least action.

28 ¶ Come unto me, all [ye] that labour and are heavy laden, and I will give you rest.

29 Take my yoke upon you, and learn of me; for I am meek and lowly in heart: and ye shall find rest unto your souls.

30 For my yoke [is] easy, and my burden is light.

(New Testament | Matthew 11:28 − 30)

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