

# Meaningful Evolution, Abiogenesis and Life Solved through Gimmel: Translating from the Infinite Continuity to the Discrete Finite by Applying the Neppe-Close Triadic Dimensional Vortical Paradigm (TDVP)

Vernon M. Neppe MD, PhD, FRSSAf  
With Edward R. Close PhD, PE<sup>abcd</sup>

## ABSTRACT<sup>e</sup>

We examine three kinds of evolutionary models namely Darwinian Evolution (DE), Intelligent Design (ID) (Fred Hoyle 1982; Phillip Johnson 1991) and Meaningful Evolution (ME) (Vernon Neppe 2019).

DE appears based solely on our experiential 4D model of physics and biology. The key principles involve ‘random’ events producing ‘gradualism’— gradual variations and ‘mutations’ in nature over very extended time as opposed to large steps, ‘natural selection’ producing ‘survival of the fittest’ and ‘abiogenesis’ with life arising from the inanimate.

ID posits the existence of a higher force such as God as an instrument to ensure evolutionary changes occur:

---

<sup>a</sup> Vernon M. Neppe MD, PhD, Fellow Royal Society (SAf) \*\*, DSPE, DPCP (ECAO). MMed. Pacific Neuropsychiatric Institute, Seattle; and Exceptional Creative Achievement Organization (ECAO) (Distinguished Professor). For perspective, Prof. Neppe is a Dimensional Biopsychophysicist; Behavioral Neurologist, Neuropsychiatrist, Psychopharmacologist, Forensic specialist, Psychiatrist, Physician, Phenomenologist, Neuroscientist, Epileptologist; Consciousness Researcher, Philosopher, Research Methodologist, Creativity expert and Playwright. His CV includes 10+ books ([www.brainvoyage.com](http://www.brainvoyage.com)), 2 plays, 800+ publications, 1200+ invited lectures and media interactions worldwide (<http://www.vernonneppe.org/>).

<sup>b</sup> Edward R. Close PhD, PE, DSPE, DF(ECAO) is Dr. Neppe’s research partner and a Physicist, Mathematician, Dimensional Biopsychophysicist, Cosmologist, and Environmental Engineer. One of his 8+ books include *Transcendental Physics* ([www.erclosetphysics.com](http://www.erclosetphysics.com)). These books include Neppe and Close: *Reality Begins With Consciousness: A Paradigm Shift that Works* ([www.brainvoyage.com](http://www.brainvoyage.com)) (Editions 1 through 5).

<sup>c</sup> This material in this article has been extensively peer-reviewed. We greatly acknowledge the contributions of our referees, editors and readers. Thank you for feedback (alphabetically) (not necessarily always reflecting consonance) to Dr. Edward Close, Dr. Larry Dossey, Dr. Len Horowitz, Dr. Stanley Krippner, Dr. Surendra Pokharna, Dr. Dean Radin, Stan Riha, Dr. Bhakti Nickname Shanta, Jacqui Slade, Stephan Schwartz, Joseph Slabaugh, Suzan Wilson, Martin Woolf. Particular credit here to Dr. Surendra Pokharna our scientific collaborator, Joseph Slabaugh for his persistence in clarifications, and Jacqui Slade for her editing.

<sup>d</sup> © Vernon Neppe and ECAO.

<sup>e</sup> Abstract for ‘*Meaningful Evolution, abiogenesis and life solved through gimmel: translating from the infinite continuity to the discrete finite by applying the Neppe-Close Triadic Dimensional Vortical Paradigm (TDVP)*.’

In support, ID largely argues that DE cannot occur because the random events are very unlikely to produce an organized world. ID requires some kind of intelligent cause with design in nature. It does not dismiss chance or natural law though. DNA, biological diversity, life-sustaining physical events, and complex specific information—irreducible complexity—are hallmarks of the ID argument based on empirical data. Newer techniques are now being applied such as ‘reverse engineering’. This refers to ‘back engineering’, the ‘process by which a man-made object is deconstructed to reveal its designs, architecture, or to extract knowledge from the object. Reverse engineering is similar to scientific research, but specifically about man-made phenomena.

ME applies the principles of the Neppe-Close Triadic Dimensional Vortical Paradigm model (TDVP). However, ME does not reject DE outright. Instead, the physical 4D reality is *incorporated* into part of a broader existence in 9 Dimensions and the infinite continuity.<sup>44</sup> Moreover, gimmel, the mathematically proven third substance besides mass and energy, which may be consciousness or its vehicle, is absolutely necessary for us and everything else to exist. This is so as the atom would be unstable mathematically without this extra component that is massless and energyless. Gimmel has a unique and necessary role in the evolution of the physical universe. Our world is not the result of random processes although random events might sometimes occur as in DE. Instead, our world involves purposeful meaningful progressive evolution of physical organisms and even of inanimate objects which contain more gimmel in the individual Life Elements. Gimmel is necessarily always in union with subatomic particles, each in specific quantities: Our physical reality involves manifestations of Consciousness or meaning because of this necessary Gimmel – consciousness union with all stable substances, which are always made up of subatomic particles like electrons, up-quarks, down-quarks and photons.

ME also recognizes the limitations of DE. Darwinian thinking has particular problems with abiogenesis, and the ME model agrees with the emphasis by ID that there must be some higher or extended consciousness involved, and that DE on its own is impossible. However, in ME, the data is demonstrable—the 9 finite quantized dimensions are proven, so is gimmel, and the infinite continuity is necessary mathematically. Moreover, math derivation impacts on everything at the quantal, macroworld level where life must derive from the life elements (which contain gimmel) and the cosmological level where gimmel appears to be in union with dark matter and dark energy.

Moreover, the calculations within the Neppe-Close Triadic Dimensional Vortical Paradigm (TDVP) of gimmel to the overall ‘Triadic Rotational Units of Equivalence’ (TRUE) correlates exactly with protons, neutrons and electrons in the Large Hadron Collider. This allows for a single postulation of the laws of nature and likely allows for understanding abiogenesis, survival after death, ordropy (maintained order), and conservation of gimmel in the infinite continuity. ME also allows for understanding the life elements and DNA. ME facilitates emotion, and free-will too, and allows for psi phenomena ( ‘psychic experiences’ like extrasensory perception).

For convenience, this paper is written in 8 parts;

- *Synopsis: Meaningful Evolution (ME), Darwinian Evolution (DE), Intelligent Design (ID): Part 1.*
- *Three fundamental models of evolution: Meaningful Evolution (ME), Darwinian Evolution (DE), Intelligent Design (ID). Part 2.*
- *Meaningful Evolution: Triadic Dimensional Vortical Paradigm (TDVP) and consciousness: a refutation of 'DE' and scientific addition /alternative to 'ID': Part 3.*
- *Key Triadic Dimensional Vortical Paradigm and Lower Dimensional Feasibility, Absent Falsification (LFAF) concepts linked with meaningful evolution: Part 4.*
- *LFAF: lower dimensional feasibility, absent falsification linked with meaningful evolution: Part 5.*
- *Abiogenesis and gimmel. Part 6.*
- *Historical background of Darwinian Evolution, pangenesis and understanding life: Part 7.*
- *Perspective: Why 'meaningful evolution' is a formidable model of evolution: Part 8.*

#### **KEYWORDS:**

*4D, 9D, abiogenesis, abiotic, Aristotle, biological, Close, consciousness, cosmology, dark energy, dark matter, Darwin, Darwinian Evolution, DE, DNA, 9-dimensions, dimension, existence, feasibility, falsifiability, genotype, gimmel, Haldane, Heterotrophic origin of life theory, Intelligent Design, ID, Lamarck, LFAF, life, Life-elements, Lower Dimensional Feasibility Absent Falsification, Meaningful Evolution, ME, Mendel, Miller-Urey experiment, mutation, natural selection, Neppé, Oparin, Oparin-Haldane hypothesis, origin of life, pangenesis, particulate, Pasteur, phenotype, prebiotic, primordial soup, quantum, quantum weirdness, random, Redi, RNA, RNP world, survival, survival of the fittest, TDVP, 'Triadic Dimensional Vortical Paradigm', 'Triadic Rotational Units of Equivalence', TRUE, UM, Unified Monism, variations, Wallace*

# **SYNOPSIS: MEANINGFUL EVOLUTION (ME), DARWINIAN EVOLUTION (DE), INTELLIGENT DESIGN (ID): PART 1.**

**Vernon M. Neppe MD, PhD, FRSSAf**

## **DARWINIAN EVOLUTION (DE)**

Classical Darwinian Evolution has become the hallmark way to explain species development over time by applying the physical laws of our world. We still generally refer to this as '*Darwinian Evolution*' (DE) today, even though DE has changed from its original postulates. Effectively, DE applies only the physical day-to-day 4-dimensional model of our physical living experience (3 space dimensions in a moment in linear time). It ignores any kind of extended consciousness and regards evolution as adequate through random natural selection. We have used the term Darwinian Evolution (DE) synonymously with Biological Evolution (BE). Technically, BE is a more general example of the specific Darwinian Evolution as DE, so is technically different, but we will use the traditional DE in this paper.

## **INTELLIGENT DESIGN (ID)**

The major competitor, generally ignored among conventional scientists, has been '*Intelligent Design*' (ID) pioneered by Fred Hoyle in 1982<sup>1</sup>, and later by several writers, particularly by Phillip E. Johnson in the 1980s and particularly in his 1991 book "*Darwin on Trial*"<sup>2</sup> who argued that DE is a 'purposeless natural process' which requires experimental testing which has not happened so is not a scientific fact and that physical 'naturalism' or 'materialism' is inadequate. To Johnson, 'fossil after fossil' is not evidence.<sup>3</sup> ID argues that Darwinian Evolution is insufficient and that some kind of 'creative intelligence', a 'designer', or divinity or higher consciousness impacts the process of development, and that random natural selection is insufficient. There has to be guidance.

Effectively, a major tenet for ID is that DE is impossible ('unintelligent causes did not do the job'), not so much that proof of that guidance exists. Another tenet of ID has been the existence of God, and this has been ridiculed by 4D scientists as theological and not scientific. However, the implication of spirituality is something that should not be rejected outright, but when the full data is examined there is a cogent argument that there must be order and meaning in our existence.<sup>24</sup> Many scientists have rejected this idea as unnecessary, and defended DE. However, the concept of complex, digital coded DNA, which Stephen Meyer points out<sup>4; 5; 6; 7</sup> is a scientifically based pervasive feature of all biological systems, and legitimate argument against DE as this reflects order which may be impossible randomly. ID has grown rapidly over time. There is possibly no other discipline in science more controversial. There are the 'proponents' of ID, and those who are 'anti-ID'. The

problem has been that ID has been called the ‘new creationism’, but ID scientists do not regard it like that and those anti-ID have argued it is not science. <sup>8</sup>Debates have raged about whether ID should be taught in school.

*ID is not a religious creationism, but a scientific attempt to identify intelligent cause by applying science. ‘Creationism’ is the term some scientists inappropriately use to delegitimize an important endeavor. ID actually applies the full scientific method: Review of research, data collection, observation, testing hypotheses, experimentation and drawing conclusions. Much of ID as it exists is the attempted negation of DE, because new positive scientific proof is difficult. This is what the third option, Meaningful Evolution, tries to do. It can do that by recognizing a 9-dimensional finite quantized reality, gimmel and consciousness in that context and infinite continuity. This allows mathematical calculations that surpass current ID.*

### **MEANINGFUL EVOLUTION (ME)**

In this paper, this third option is argued to be the most complete, namely what Neppe has called *Meaningful Evolution (ME)*. *ME recognizes processes such as natural selection and that random changes can occur.* However, like ID, ME recognizes higher (spiritual) consciousness, non-random events and some kind of guidance. Moreover, abiogenesis reflecting the original evolution of life or living organisms from inorganic or inanimate substances is likely impossible in our physical 3-dimensional space, moment in time world because the evolution is not linear but likely volumetric based on a 9-dimensional finite quantized model that includes gimmel consciousness which is hidden. Life comes out of non-life because everything, animate or inanimate is in union with gimmel. This allows no contradiction to having life, because life exists even in the smallest of particles through its gimmel union.

The difference of ME from ID, is that there is no denial of DE, but that there has to by definition be something else, and that something else is ‘gimmel’ the massless-energyless third substance that is absolutely necessary for existence of all stable particles including atoms, and a 9-dimensional matrix that is embedded in the infinite continuity.

*These basics of ME are not speculative but proven. They demonstrate that DE is insufficient to maintain our world. The alternative ID, does not provide an alternative proof, just postulates a refutation of the impossibility of DE, and whereas we regard this as a legitimate point, the scientific establishment rejects that idea still arguing DE is based on science. In ME, we argue there are pointers for DE based on 4D science, but profoundly important phenomena such as the fundamental existence of an atom without gimmel, the life elements having more gimmel, life from the inanimate, and unification of the laws of nature do not exist making DE untenable, but ME legitimate and tenable.*

In ME, the processes *described in DE are regarded as legitimate, but based only on 4D physics and biology. The DE changes happen but that is not the whole picture as 4D findings of our experience are just part of our 9D findings which in turn are part of the infinite continuity.*<sup>44</sup> However, *DE is insufficient for a full evolutionary model: there might be random mutations occurring, but the thrust is that mathematically a higher level of consciousness or meaning must exist to produce meaningful change gradually over time that cannot be explained purely randomly. Moreover, natural selection at a physical level is one component only of a broader fabric of what is occurring. The evolution of life or living organisms from inorganic or inanimate substances is not through randomization but a much more complex mechanism including awareness of more gimme in the elements of life, and the infinite continuity maintaining existence eternally as there is conservation of gimme in the infinite.*

In ME, meaningful consciousness is needed as a guiding force. These are not just speculations but strongly feasible likelihoods based on applying the empirical and math data based on the Neppe-Close Triadic Dimensional Vortical Paradigm (TDVP) and including Triadic Rotational Units of Equivalence (TRUE) recognizing that the 4D model of our day-to-day experience is only the overt, experiential part of the broader 9-dimensional model that includes the expression of a covert consciousness and multidimensional time in Dimensions 5 to 9, and that moreover, the infinite continuity impacts by enveloping the quantized finite.<sup>44</sup> Mathematical demonstration of the necessity for a third substance in 9D, refutes DE. Moreover, based on our calculations of the elements and TDVP, ‘Junk DNA’ as in DE, is not ‘junk’ but reflects a consciousness that is exemplified by the existence of the third substance, gimme.

As co-author, Dr. Ed Close has written<sup>9</sup>:

*“Applying the Calculus of Dimensional Distinctions to the description of known atomic structure in 2012, I discovered there would be no stable atoms without the existence of a non-physical form that organizes otherwise sterile physical particles into meaningful structures consistent with the logic of consciousness, supportive of organic life, the vehicle through which consciousness expresses itself in the physical universe. This was something new, something unknown to modern science to this point, so we had to represent it unambiguously, and Dr. Neppe suggested calling it ‘gimme’, the third letter of the Hebrew alphabet, for a number of reasons. The discovery of gimme changed everything. It reveals that consciousness is just as much a part of reality as matter and energy; in fact, it is not only fundamental, it is primary in the formation of the physical structures of the universe.”*

Through the TDVP model, Neppe and Close have provided empirical and mathematically proven data on gimme—the third, massless, energyless vehicle that is almost certainly linked with the spiritual consciousness and is always necessarily

in union in the finite reality with every known stable particle. This unifies the TDVP ‘9D plus model’ (9-finite, quantized. dimensions rotating relative to each other creating energy vortices that would exhibit mass and involve angular momentum, and enveloped by an infinite continuity). That infinite continuity is necessary for a perfect theory of everything as *Gödel Incompleteness Theorem* requires something outside the box. <sup>10; 11</sup> The infinite continuity is that something different. It reflects logical mathematics out-of-the-box from the discrete and limited finite. These factors allow our TDVP paradigm to unify the Laws of Nature—the same laws in the quantal, macroscale, and cosmological realms. <sup>12; 13; 14</sup>

TDVP and gimmel solve the problems of ‘quantum weirdness’ <sup>15</sup>, of why the Life Elements are different from other elements <sup>16</sup>, of how gimmel fits into Dark Matter and Dark Energy <sup>17; 18</sup>, of survival after death <sup>19; 20; 21; 22; 23</sup>, of maintained infinite order (ordropy) <sup>24; 25; 26; 27</sup> and of conservation of consciousness in the infinite continuity <sup>28; 29</sup>.

The science behind TDVP is frequently mathematics, including Close’s Calculus of Distinctions. <sup>30; 31; 32</sup> Gimmel likely originates in the infinite continuity, and precedes our physical 4-dimensional finite existence. A key part of TDVP involves examining all particles via what we have called ‘Triadic Rotational Units of Equivalence’ (TRUE). This provides values that convert to Standard International Units (SI units) exactly equal to the electron, proton and neutron figures in the Large Hadron Collider <sup>29</sup> (see Table 1 <sup>28; 29</sup>).

**Table 1: Mass-energy equivalence *normalized* data in the CERN Large Hadron Collider (LHC) is the same as TRUE unit calculations in fundamental atomic particles.**

Particle	TRUE scores	LHC data	Difference in score
Electron	1	1	0
Proton	1836	1836	0
Neutron	1839	1839	0

This means that a major component of TDVP is empirically proven. Effectively, there is a necessity for *volumetric* not linear phenomena in nature. This volumetric symmetric component allows for analyses that are specific, otherwise atoms would fly apart because of asymmetry, and its constituents would fly away.

DE in our experiential 4D physical reality is incorporated into ME, because ME is based on 9D finite reality. DE is untenable on its own because it needs conscious meaning, as part of a broader existence in 9 Dimensions and the infinite continuity. Moreover, there is likely a ‘spiritual consciousness’ even in the inanimate not only biological (living) beings. Moreover, gimmel, TRUE and TDVP facilitates speculation that so-called ‘junk DNA’ might involve profound consciousness (or

gimmel) and is anything but 'junk'. These factors involve a single explanation, leading to the Laws of Nature being unified. A consequent *philosophical* model of Unified Monism is proposed based on the *science*, not just the ID negation of “*DE is impossible, there must be guidance.*”

The role of DNA in ME and in ID is also pertinent possibly explained through gimmel, the *math proven* third substance besides mass and energy, which may be consciousness or its vehicle, and is necessary for us to exist as the atom would be unstable without it. DE has particular problems with abiogenesis, yet in the ME model, gimmel, which is necessary mathematically, likely allows the jump from the inanimate life-elements to the animate development of life first as predicted in DE by simple protozoal components and then gradually as a DE progression to more complex organisms.

TDVP recognizes that emotion is pertinent, that free-will and choice is logical even in ME, too, and allows it for psi phenomena, which are relative in terms of dimensions and the infinite. It is likely that ID allows for some of these as well, though it is not emphasized.

Essential, too, to the TDVP model is an extension of Popperian falsifiability in which scientific feasibility is applied through the Neppe-Close *Lower Dimensional Feasibility Absent Falsification (LFAF)*). This allows for us to recognize the covert higher dimensions which include the spiritual consciousness and likely volumetric, multidimensional time.

These processes facilitate scientific understanding of meaningful evolution. Because ME involves a far broader picture than just the experience of our 4 Dimensional reality in DE, ME accepts that certain processes are relevant but are not part of the whole picture: Random events do occur, survival of the fittest is relevant, mutations may be beneficial in development of life, gradual changes do occur. The problem is this is just part of the picture and ignores our 9D reality embedded within an infinite continuity, it ignores consciousness, meaning, intent, free will and change, emotion, that time is not linear but volumetric and relative, survival after death, ordropy (order in the infinite) and the third component, gimmel, that makes all mathematically succinct and proven.

Moreover, ME does not reject the fundamental scientific concepts of ID. Some would argue that it is a virtual statistical improbability that even if some twenty events are a tiny fraction out, DE would be impossible. This is a virtual statistical improbability even within the big-bang 13.8 billion-years age of the universe. ID makes this point appropriately. <sup>5; 6; 7; 33; 34; 35; 36</sup>

In ME, we recognize consciousness, meaning, design, complex patterns, impact.

ME points out like ID that it is very unlikely that the correct events occurred at the correct time no matter what the randomness and there needs to be some kind of controlling force in nature. The presence of the infinite in ME makes this reasonably easy and recognizes too that Time is relative to the framework of the observer. An eternity can be a moment in the infinite.

The availability of the important information from both DE and ID, and the use of 9 dimensions, the infinite and consciousness with gimmel with mathematical demonstrations allows ME a versatility to take the best from DE and ID, and extend the models to a very comprehensive model of evolution that works.

In Table 2, we summarize and compare the three different kinds of evolution: Darwinian Evolution (DE), Intelligent Design (ID), and Meaningful Evolution (ME). Clearly, using one line does not get across all the key components, but transmits some core, pertinent facets. For example, the TDVP model can calculate and predict the life elements from first principles: That is extraordinary. Rather fascinating is that TDVP can even predict non-carbon based life with silicon, but from the structure of the TDVP theory!

In Table 2, the lists with ordinal and nominal data are simplifications, but it gives a perspective as to the differences between DE, ID and ME. Effectively, such data is telegraphic, so that to obtain a  $\sqrt{\quad}$  or  $\times$  requires significant definite information, otherwise it would be a  $?$ , sometimes  $\sqrt{x}$  or  $? \sqrt{\quad}$ .

Rather obviously, ME incorporates all components and scores a perfect 50/50. ID argues against DE but has a few positive new points. For example, in ID, the genetic code of Deoxyribonucleic Acid (DNA) has been compared to a computer which has been specifically programmed. This reflects complex structured order in biological systems.<sup>24</sup> This is a positive exception illustrating what ID does. This is in contrast to the more common negation of DE, reflecting DE's random stochastic accidental description.

ME incorporates what is correct in DE in 4 dimensions. This means that many features of DE are pertinent and likely true. However, ME models also point out the limitations of DE, illustrating the many features that are required and not considered by a DE model of 4 dimensions (3 of space, and 1 of time).

There are no theoretical axioms that allow us to make the sort of neat, precise, comfortable proofs we find in math, logic and physics, and the nature of life over millions or billions of years, applying such principles. TDVP is possibly unique. Has this ever been done in history? Probably not. And certainly, not in studying evolution.

**Table 2: Comparison of the three models of evolution: DE, ID, and ME.**

	<b>TOPIC</b>	<b>DARWINIAN EVOLUTION</b>	<b>INTELLIGENT DESIGN</b>	<b>MEANINGFUL EVOLUTION</b>
	<i>Developer</i>	<i>Charles Darwin</i>	<i>Fred Hoyle; later Phillip E Johnson</i>	<i>Vernon M Neppe</i>
	<i>Year</i>	<i>1853</i>	<i>1991; Hoyle 1982</i>	<i>2019; start 2018</i>
	<i>Major scientific proponent today</i>	<i>Most scientists</i>	<i>Stephen Meyer</i>	<i>Vernon Neppe</i>
	<i>Key Initial Book</i>	<i>On the origin of species</i>	<i>Darwin on trial</i>	<i>No book yet</i>
1)	4D	√ Only 4D	√ only 4D not more	√ 9D includes 4D
2)	Linear time	√ Used exclusively	√ Used exclusively	√ Part of 3D time
3)	Random changes	√	? but others	√ part of the process
4)	Survival of the fittest	√	? but others	√ but others
5)	Gradualism	√	? immediacy	√ part of the process
6)	Mutations	√ eventually	? √ + consciousness	√ + consciousness
7)	Abiogenesis	x Unexplained	? Aware it has to be	√ Explained
8)	Natural selection	√	?	√ part of process
9)	<i>Jumps—punctuated equilibrium explained</i>	x	√ by consciousness	√
10)	9D quantized finite	x	x	√
11)	Consciousness	x	√	√
12)	Intention	x	√	√
13)	Design in nature	x	√	√
14)	Intelligent cause	x	√	√
15)	Divinity or G-d	x	√	√ very likely
16)	Volumetric time	x	x	√
17)	Infinite continuity	x	?	√
18)	Meaning	x	√	√
19)	Emotional dimensions	X <sup>f</sup>	√	√
20)	Impact	x	√	√
21)	Free-will	x	√	√
22)	Psi	X denied	? not mentioned	√ gradation to 9D+
23)	Includes DE, ID, ME models	x Denies ID	? x (some DE?)	√ (DE+ID & extras)
24)	3rd component	x	√ Meyer recognizes	√

<sup>f</sup> Emotion here refers not to just concepts in 3S-1t. In TDVP, for example, one of the dimensions of consciousness is the affective component; in ID, because of special higher creation, such qualities as love are assumed.

25)	Gimmel	x	x	√ math
26)	Survival after death	x	? √	√
27)	Ordropy	x	? √	√
28)	Quantum theory	x	x	√
29)	Life elements data applied	x used only in biology	? x not specifically recognized biology	√ fundamental gimmel application
30)	Metaparadigm <sup>g</sup>	x no 9D+	x but consciousness	√ applied TDVP
31)	TRUE	x	x	√
32)	'life' in atom	x	?	√
33)	Unified monism	x	x	√
34)	Quantum weirdness	x	x recognizes going to the inanimate	√ 9D solves 60 unsolved 4D !
35)	Dark matter (fundamental)	x	x	√ gimmel
36)	Dark energy	x	x	√ gimmel
37)	Mathematics	x but projects	x computer model	√ proofs; Calculate
38)	Math is fundamental	x	? recognizes formulae pertinent	√ part of the laws of nature
39)	Math proof	x	? √ some rigor	√ TRUE & LHC
40)	CoDD	x	x	√
41)	feasibility	x 4D debate	√ likely	√
42)	LFAF	x	? x	√ feasible; falsify
43)	DNA: complex,	x cannot explain	√ elaborates on DNA existence	√ understand DNA existence
44)	Junk DNA	x	√ consciousness	√ gimmel
45)	Is it qualitatively possible (2019)?	x Very unlikely	? Likely but mystery	√ Eminently possible
46)	Rapid biological diversification	x	√	√
47)	Life sustaining biology	?	√	√
48)	Computer patterning	x	√ Yes	√ Yes
49)	Ordropy	x	√? order	√ infinite order
50)	Life force in elements		? implied	√ gimmel in all
	<b>SCORE FEASIBILITY</b>	x Impossible; false	? Incomplete puzzle	√ Extremely likely
	<b>Scoring Interpretation</b>	7 √ 1? 42x: wrong	19√ 20? 11x: maybe	50/50 √ 0? 0x: works

<sup>g</sup> A metaparadigm is a broad theory of everything with many paradigms.

# **THREE FUNDAMENTAL MODELS OF EVOLUTION: DARWINIAN, INTELLIGENT DESIGN, AND MEANINGFUL EVOLUTION. PART 2**

**Vernon M. Neppe MD, PhD, FRSSAf**

## **CLASSICAL DARWINIAN EVOLUTION: A PRIMER.**

In his *On the Origin of Species*<sup>37, 38</sup>, Charles Darwin (1809–1882) postulated his ‘Theory of Evolution’. He pointed out that all species of organisms arise and develop through the natural selection of small, inherited ‘variations’ that increase the individual's ability to compete, survive, and reproduce: This became known as ‘Survival of the Fittest’. This process is postulated to happen because of the vast numbers of options that are available. This allows for enough random events to occur and to include the biologically useful changes that can persist.

In this paper, we refer to this theory of ‘Darwinian Evolution’ (DE). It involves ‘natural selection’ implying that large numbers of species who are ‘unfavorable in their survival potential’ don’t survive. Ultimately, the surviving species evolve from one or a few common ancestors and we perceive this today in DE as directly correlative with their genetic endowment.

The fundamental DE principles are:

- individuals of a species are not identical;
- more offspring are born than can survive; and
- only the survivors of the competition for resources will reproduce;
- traits are passed from generation to generation.

Charles Darwin's Evolutionary Theory<sup>37, 38</sup> has become possibly as idolized as Einstein’s relativity theories.<sup>39</sup> The difference is there is cogent data for Einstein but there are some major incomplete problems with Darwin’s theory of natural selection and adaptation to the environment. For Darwinian evolutionists, favorable population variations produce favorable survival traits in offspring, and adaptation over time shapes ‘*Survival of the fittest*’. This allows population change over time and the inheritance of alleles (forms of a gene) within a given population. The individual variations of appearance and behavior of organisms (within populations) today is regarded as part of genetic variation and therefore closely linked with Darwinian evolution. The individual variations of appearance and behavior of organisms (within populations) today is regarded as part of genetic variation and therefore closely linked with biological (Darwinian) Evolution.

Darwinian evolution perceives life in the physical restricted world, with a gradual progression by random selection of survival of the fittest over time. These produce

mutations. Life ultimately arose through abiogenesis, a process by which life ultimately over billions of years arose from non-living matter, such as simple organic (carbon-containing) compounds produces increasing complexity at the molecular and ultimately DNA levels. This does not include any awareness of a higher order, of consciousness -- gimmel, of extra dimensions and of infinity.

These principles of DE are based on our current world-view of *experience* and have been repeatedly demonstrated. The difficulty is, is this all there is? Is this process random based on so many options, but is it even then enough to have occurred by chance? How does one explain the evolution from rocks or other inanimate objects to life itself? How does one explain DNA? How does one explain higher consciousness<sup>40; 41; 42; 43</sup> and even psi phenomena?<sup>44</sup>

In this paper, we show that there *is* more information that we must access than the 4D principles we generally *experience*. *This is* so as our 4D physical reality constitutes only a small though important and stable part of our *existence*.

Moreover, some problems that have arisen with DE have been denied. For example, a major one is ‘jumps’ in evolution<sup>4; 5; 6; 7</sup>. In this instance, it would be logical to argue that an animal develops its breathing apparatus gradually, but when one looks at evolution, one finds that there are major, major jumps based on the incomplete fossil records. And then there are unique elements like the humps of camels. Because of this, there has always been the question of how this sequence could legitimately be happening as the gaps between would surely produce destruction of the species. There are even some animals, such as the camel with its humps, where there is no evolutionary pre-expression. Is there something that is missing in DE?

### **AN IMPORTANT COMPETITOR: INTELLIGENT DESIGN.**

The alternative model is the theory that life, or the universe, cannot have arisen by accident without some kind of ‘design’. These proponents of ‘intelligent design’ (ID) say that theories other than Darwinian evolution must be considered, and that certain features of the universe and of living organisms are best explained by an ‘intelligent’ cause, not an undirected process such as natural selection. The Discovery Institute in Seattle<sup>45</sup> and its Director for Science and Culture, Dr. Stephen C. Meyer has published excellent information<sup>4; 5; 6; 7</sup>, and this section is dependent on these scientific discussions, in part.

The basis of intelligent design is that the irreducibly complex biological structures support that there must have been some kind of apparent design in nature. These include the complex and very specific information content in DNA<sup>4; 46; 47; 48; 49; 50</sup>, as well as the sustaining of life through a complicated physical architecture of the universe. The fossil record showing rapid geological origins of biological diversity greatly supports these variations not occurring by chance. Evolution is not denied,

but it's regarded as the product of an intelligent cause and not due to an undirected process such as natural selection acting on random variations.

Moreover, experimentally induced reverse-engineering of biological structures requires all of their parts to function. By contrast, the easiest way to discredit intelligent design is by making it theological, which it is not: Fundamentally, ID is science not religion, but, regrettably the term 'intelligent design' has become prejudicial. The reason relates to the fact that intelligent design has become almost like a theology, but with several different variants, postulating that everything was produced by a creator, possibly at one point in time, and certainly in some models in a very short period of time. Effectively, a major tenet for ID is that DE is impossible, not so much that proof of that guidance exists.

In ID, the experiential 4D physical reality of DE is insufficient. Could there be a 'spiritual consciousness' possibly even in the inanimate, not only biological (living) beings? If so, how's that explained?

### **MEANINGFUL EVOLUTION (ME), WITH TDVP AND GIMMEL.**

Enter Meaningful Evolution (ME). ME does not deny some random processes or mutations in DE. Nor does it deny that ID has a justified point that there is more to DE than just random processes with survival of the fittest.

ME does much more than ID yet incorporating its key principles. The presence of gimmel makes an enormous difference. Gimmel is not just a speculative third substance or process, besides mass and energy. <sup>18; 28; 51; 52; 53; 54; 55; 56</sup> *Gimmel is mathematically proven*, and we have postulated it may be consciousness or its vehicle. Gimmel is so fundamental that is necessary for us and everything in the universe to exist: the atom would be unstable without it. That has major implications for evolution because it is in union with everything that exists in our and any other worlds. Gimmel is part of the concept of Triadic Rotational Units of Equivalence (TRUE) which also has mass-energy in electrons and up- and down-quarks (the stable quarks). <sup>18; 28; 51; 52; 53; 54; 55; 56</sup>

Through the TDVP model, we recognize that emotion, cognition and volition with all their complexities are pertinent in consciousness. This contrasts with the rigid behavioral interpretations of DE. TDVP allows for mechanisms to explain free-will and freedom of choice <sup>57</sup> and therefore moral behaviors. <sup>58; 59</sup> Morality and choice is logical even in ME, too, meaning that *humankind can facilitate change*.

Moreover, TDVP strongly recognizes psi phenomena <sup>60</sup>, and this is *an unseen fundamental in our evolution of time*. 'Psi' includes so-called 'extrasensory perception', psychokinesis and likely even some mystical and intuitive experiences. It could be argued that 'intuition is important for survival of individuals and species'. That is an area for further research. Psi has several different components,

and is not unitary. Neppe and Close emphasize that psi experiences are ‘relative to’ and not ‘absolute’. Psi events must be perceived from the ‘framework’ of the percipient or observer’s dimensional level (while alive this is predominantly 3S-1t unless in an altered state of consciousness like meditation.) Events can even be relative to the infinite continuity (G-d’s framework?)<sup>60</sup>.

It is likely that ID allows for some of these components (free will, freedom of choice, meaning, and undefined possibly psi) as well, though these features are not emphasized or formalized.

In perspective, ID involves predominantly a negation of why DE is flawed, but there is little positive emphasis on extra concepts. This may be because the positive extras like explaining DNA have been attempted, but *ID for the most part, is still applying a 4D model although recognizing that something extra which is a higher meaning.*

The TDVP model, moreover, facilitates our speculation (and those of others) that so-called ‘junk DNA’ might involve profound consciousness (or gimmel): the sequences are very ordered and is anything but ‘junk’. These factors involve a single explanation, leading to the Laws of Nature being unified. Additionally, these concepts logically develop the consequent *philosophical* model of Unified Monism (UM).<sup>61; 62</sup> UM is proposed based on the *science*, not just on the ID negation of “*DE is impossible, there must be guidance.*” That is a good starting point: *DE is not feasible*; but then millions of scientists will argue *it is feasible*.

The role of DNA in ME and in ID appears pertinent in rebutting DE. However, in ME, many factors pertaining to life, including ‘junk DNA’ and the fundamental life elements even in inanimate material, is explained through gimmel. DE has particular problems with abiogenesis, yet in the ME model, gimmel, which is necessary mathematically, likely allows the jump from the inanimate life-elements including carbon, hydrogen, oxygen and nitrogen, to the animate development of life first as predicted in DE by simple protozoal components and then gradually as a DE progression to more complex organisms. By comparison, ME is based on empirical science and proven mathematics. *ME is a positive model recognizing that there needs to be far more than 4D.* In ME, we demonstrate how 9D, infinity, extended consciousness and gimmel allows a full, non-flawed, continuity of explanation for evolution. And ME is based on the well-developed empirical and theoretical model of TDVP.

# MEANINGFUL EVOLUTION ('ME'): TRIADIC DIMENSIONAL VORTICAL PARADIGM (TDVP) AND CONSCIOUSNESS: A REFUTATION OF DARWINIAN EVOLUTION ('DE') AND A SCIENTIFIC ADDITION OR ALTERNATIVE TO INTELLIGENT DESIGN ('ID'): PART 3

Vernon M. Neppe MD, PhD, FRSSAf

Currently, most reductionist scientists have accepted the scientific paradigm of Darwinian Evolution as the progression by which different species including mankind, at the end as the most highly developed, came about. *There is nothing relating to consciousness in this DE model: DE is purely a physicalist base.*

*This total absence of consciousness is the key to why DE cannot work. A minor aspect (neurological/ psychological consciousness) works apparently in 4D but we're not dealing with a 4D reality, but a 9D plus unit—9 finite dimensions within the infinite continuity.<sup>44</sup> Our existence is more than 3 dimensions of space in a moment in time —the present ('3S-1t').*

Neppe coined the term *meaningful evolution* (ME) many years ago.<sup>63</sup> ME has some similarities to ID, mainly the awareness that DE is insufficient and there must be some guided consciousness. But ME also has significant differences from Intelligent Design (ID) because ME is based on four fundamental elements of our Neppe-Close *Triadic Dimensional Vortical Paradigm (TDVP)* model<sup>25; 26; 27; 64; 65</sup>, namely:

- **Mathematics** —this allows proof of something fundamental to our existence. The easiest math involves normalization of the natural and the calculus of dimensional distinctions (CoDD) of Close with an assist from Neppe<sup>31; 32; 66</sup>. The CoDD recognizes three different variables that we together call 'essence distinctions'. These appear to be *complex concepts* but when divided into three mathematical variables they are easier to comprehend:
  - *Content*: Mass, Energy and Consciousness Content (C<sub>C</sub>) are reflected as the fundamental constituents of reality;
  - *Extent*: the measures of these constituents of reality is Space, Time and Consciousness Extent (C<sub>E</sub>). These distinctions of extent are reflected in 'dimensions' of the constituents of mass, energy and gimmel-consciousness;
  - *Impact, influence and intent*: Importantly, in ME, there are distinctions of impact and influence which are predominantly Consciousness Intent (C<sub>I</sub>) but not exclusively so (e.g., an earthquake involves impact of mass and energy, but technically even natural phenomena follow the logical rules of a primary consciousness<sup>67</sup> in gimmel in atomic and geological structure). These essence distinctions are key here because impact-

influence-intent implies that such factors as prayer and guidance can make a difference, and they're translated into a math system (the CoDD) <sup>30; 32; 66</sup>.

- **Infinity**—the infinite differs because it provides continuity and envelops the quantized discrete finite subreality; the two, the finite contained in the infinite, are inseparable <sup>64; 68; 69; 70; 71</sup>; and
- **Higher dimensions**—3S-1t as part of the 4 Dimensional reality (which is 3S-1T because time is in the past, present and future in 1 dimension) reflects our experience in the world. However, there are contradictions and our finite world has 9 proven dimensions (not 10, or 8 or 5 or any other low number) <sup>72</sup>: Dimensions are specifically defined as measures of extent and these include Space (3D), Time (likely 3D) and Consciousness extent (likely 3D). Above 4D, all dimensions are usually measured ordinally (comparison e.g. mild, moderate, marked. not intervally e.g., 6 or 8 or whatever). However, there is a Close mathematical rotational technique called Dimensional Extrapolation <sup>73</sup> where even these finite dimensions may sometimes be measurable in terms of the complex roots of unity and therefore that is interval). <sup>74</sup>
- **Consciousness** —a higher, spiritual, extended awareness in all <sup>27; 41; 64</sup>. Importantly, '*consciousness*' as a term is sometimes misinterpreted as each discipline applies it differently. The link with gimmel is in the finite (qualit) and infinite (higher / extended/ spiritual) consciousness. Figure 1 lists this:

**Figure 1: The four different paradigmatic levels of Consciousness <sup>41</sup>:**

I. Qualit Consciousness: the most basic *finite* consciousness (Qualit) level always exists in everything *inanimate or animate* as everything contains the most fundamental discrete finite physical meaning. Qualits reflect quanta in union with gimmel, which likely manifests as meaning.

II. Neurobiological/ Neurological Consciousness: the endpoint nervous system expression of all living (animate) beings. They have awareness and responsiveness. This is the consciousness in the brain, for example, not external. We're aware of this

III. Psychological Consciousness: involving humans and animals. The psychological is disputably partly separated from the neurological. This reflects a part of the living organism.

IV. Higher Consciousness almost certainly outside the brain (but it could also manifest in the brain): Synonymous with *Spiritual or Extended Consciousness* This might involve dreams, meditation, creative, transcendent, psi and altered states, plus mystical traits. Importantly, this is linked with the infinite and the infinite continuity. Gimmel may be an important aspect of this *Spiritual or Extended* infinite continuity and manifesting in the finite as the infinite always envelops the finite.

- **Impact** may occur even when the recipient is unaware of it as illustrated by Dr. William Bengston’s sixteen controlled studies on mice with mammary cancer. <sup>75</sup> Dr. Larry Dossey points out that “*these results suggest a healing/therapeutic presence or being, is something beyond conscious effort, that may depend on the fundamental /elemental nature of consciousness. Moreover, various spiritual traditions suggest that there are many levels of awareness included in the concept of ‘intention.’ These deeper unconscious effects of intention occur irrespective of separations in space and time. It suggests, that some deeper information-based process is at play.*” <sup>76</sup> Could this be gimmel? <sup>77</sup>. This also supports the Meaningful Evolution and possibly Intelligent Design concepts. There is more than just Darwinian Evolution in practice.
- **Music:** As an aside, there may be a key equivalence component for musical harmonics <sup>78</sup> and we propose there are volumetric frequencies that must include consciousness, and these are fundamentally linked with mathematics through gimmel.

We could argue that ME is just a variant of ID. However, it is separate, too, based on the proof of these TDVP components because it is an active model not just a negation of BE. ME is *also* based on the Philosophy of Science premises of a second major model developed by Vernon Neppe and Edward Close namely *Lower Dimensional Feasibility Absent Falsification (LFAF)* <sup>27; 79; 80; 81; 82; 83</sup>. LFAF introduces ‘scientific feasibility’ <sup>79; 80; 81</sup> and extends Popperian falsification. <sup>84; 85; 86</sup>. LFAF allows us to apply concepts beyond 4D in a meaningful way. That includes evolution. Moreover, in ME we are no longer applying just speculative logic as in ID.

We have scientific justifications for ME using the mathematics of TDVP:

- We prove 9 dimensions <sup>27; 72; 87; 88; 89; 90; 91; 92</sup>.
- We prove gimmel —the third massless, energyless third substance that is necessarily ubiquitous in union with every stable particle in the universe, and which we postulate is the vehicle of consciousness or consciousness itself <sup>16; 55; 93; 94</sup>.
- We demonstrate mathematically that there must be a continuous infinite! <sup>11; 27; 95</sup>. One reason is based on the *Gödel Incompleteness Theorem (GID)*. <sup>11; 27; 95</sup> Without such GID math, TDVP would necessarily be incomplete. We must have something outside the box of the finite subreality. That component enveloping the box is the infinite continuity. That continuity mirrors every aspect of the finite, with 4D corresponding with the specific infinite area. <sup>44</sup>
- Moreover, evolution is just one component of the many related TDVP proofs that support a far broader universe with unification of the Laws of Nature

because our quantized <sup>16; 31; 56; 96; 97; 98</sup>, macroworld <sup>99; 100; 101</sup> and cosmological realities <sup>17; 18</sup> are unified. <sup>27</sup>

- TDVP also allows the consequent development of Unified Monism <sup>27; 62</sup>, the first and only such philosophical model based on science.
- We recognize that everything in nature is *volumetric*. This three-dimensional perspective requires math calculations that can work. Our 3S-1t physical existence cannot work.
- Finally, and definitively, we demonstrate that applying a key part of TDVP examining the particles via what we have called ‘Triadic Rotational Units of Equivalence’ (TRUE) <sup>89; 90; 91; 92</sup> are exactly equal to the electron, proton and neutron figures in the Large Hadron Collider (LHC) <sup>29</sup>: This means that a major component of TDVP is empirically proven because the LHC is regarded by quantum physicists as the ultimate way to measure quantum-level particles.

The model that we ascribe to *meaningful evolution*, recognizes that evolution has occurred over the billions of years of our linear time, and this corresponds with the time in which the cosmos has existed. We recognize too that *it’s likely not linear time but volumetric 3D time* <sup>25; 102; 103</sup>, another postulate we’ve learnt from Triadic Dimensional Vortical Paradigm. Logically, Time has to be three-dimensional, which means linear evolution over time is a major simplification.

These principles do not refute that some random mutations have occurred, that there is some survival of the fittest as a consequence, that abiogenesis could questionably with great explanatory difficulty occur to some degree but likely cannot be explained, that there is a gradual progression over our linear perception of time of these events. *But in ME, this is quite insufficient. We need to apply a 9-dimensional matrix including our current physical reality but recognize there is far more and that includes consciousness (gimmel) and the infinite continuity. We can prove this by applying mathematics and showing that the calculations pure in 3S-1t physical reality are impossible and there needs to be something else (this is ‘gimmel’ which we have proposed is consciousness) which reflects our broader existence.* ME is just one example of out-of-the-box thinking, producing a broader overriding law of nature which unifies our quantal, macroworld and cosmological reality into one as they are no longer contradictory.

Even the life elements (Hydrogen, carbon, oxygen, sulfur, nitrogen, magnesium and calcium – with silicon a strong possibility mathematically and empirically) are different from the other non-life elements: Phosphorus is a special rule because it links to energy packets. Finally ‘junk DNA’ appears to be anything but ‘junk’: We, and others, have argued that it is part of the reason for life to exist as it does. <sup>4</sup>

ME involves the evolution of not only the animate living, but also the inanimate. It requires meaning and consciousness and the Triadic Dimensional Vortical Paradigm explains how this all works. <sup>27; 64; 83; 104; 105</sup> *This means that we should not only be looking at DE and the animate, but at DE and both Inanimate and animate evolution.* This sounds strange but a TDVP postulate is that everything has some form of maintained existence eternally in the infinite. This is supported by gimmel being in even atoms and subatomic particles. There is ‘life’ or ‘animate’ components of gimmel / consciousness in everything. *This is critically important for explaining abiogenesis (life from the inanimate) because it is now directly elucidated from ME.* This is key because meaningful evolution is so fundamental and this provides an excellent explanation for how life occurs, and it can be further studied.

If you are looking at evolution infinitely, the term ‘*meaningful evolution*’ becomes amplified eternally, and extends to a repository of consciousness that goes on forever. So there is finite consciousness and a consciousness deriving from the finite and the infinite:

*The progression of an evolution of time in the finite implies meaningful progression:*

- We in 4D regard that finite progression as linear because we experience it that way, though it’s likely volumetric. This is closer to DE except there is meaning and some kind of guidance maybe from the infinite;
- *at the infinite continuity level*, there is no reason why there should not be parallels of evolution with different animals potentially developing simultaneously implying one variation of ID. Experience is relative, and the spectrum of the infinite is multidimensional including the Cantorial infinity of infinities. <sup>106</sup> This allows theoretically for one-on-one correspondences with the finite from the infinite. It is not a dualistic relationship, as the enveloping infinite and the quantized finite make up a single unit.

It sometimes makes more sense incorporating the infinite, when the simultaneous and the eternal, become relative to the observer experience most likely a Divinity.

This is then far more than just saying: “*We are directly derived from apes and it all happened by accident.*” Yes, it might be that data suggests in one fashion that we are directly potentially derived from apes. However, it probably did not all happen by accident, and the reason why this all came about might be a consequence of something far smaller at the quantal level: We must *re-examine reality at the whole subatomic level including quarks and electrons* <sup>28; 29; 107</sup> *as well as the evolution of DNA itself* <sup>46; 47; 48; 49; 50</sup>.

Simply, at the fundamental atomic level, we cannot have ‘half an atom’ or ‘half a particle’ – they’re unstable. <sup>18; 108; 109</sup> We need to have the whole unit in the right structure in the correct proportions, and that would be a quite staggering requirement for DE to occur randomly. With simply, electrons, protons and neutrons or the up- and down-quarks (the only stable quarks), everything would fly away. <sup>16;</sup> <sup>56</sup> If those were the fundamental units of structure at a quantized level, it’s not only really hard to understand that this is completely *by accident*—it is mathematically impossible!

Gimmel as the massless, energyless third component, makes for stability and the amount of gimmel is specific for each particle allowing the whole not the part of the atom. <sup>16</sup> We need gimmel at the most fundamental level and we can translate this to all of the macroreality be it animate or inanimate. This implies consciousness / meaning.

**KEY TRIADIC DIMENSIONAL VORTICAL PARADIGM (TDVP)**  
**CONCEPTS LINKED WITH MEANINGFUL EVOLUTION:**  
**PART 4.**

**Vernon M. Neppe MD, PhD, FRSSAf**

Let's re-examine some of these key concepts of TDVP relative to ME in more detail.

**CONSCIOUSNESS AND GIMMEL IN ME**

Where is this special 'extended consciousness' if it is located outside the brain? It is certainly not generally experienced in our 3 dimensions in space and one moment in time (3S-1t), but at a higher dimensional level. We are peripherally aware and responsive, and have sensory and motoric and central functions in the brain, and we have psychological attributes -- but surely this is not what we are calling *real consciousness*? It is not.<sup>56 h</sup> There are multiple states of consciousness and the term 'consciousness' should not be perceived as a single phenomenon. The key discovery is 'gimmel' as it allows mathematical proofs of something that is almost certainly consciousness or its vehicle.

*Gimmel*

Gimmel is another profound advance and reflects a new previously undiscovered component to reality. We discovered this in about 2012 and in 2016 called it 'gimmel'<sup>16; 55</sup> λ: In our work, the math necessity of the presence of 'quantum equivalence units of that third something' was demonstrated in 2012'. Gimmel describes the mystical third letter 'bridge' of the Hebrew alphabet. Gimmel can be characterized as a third mass-less, energy-less 'substance' or 'ordering agent' or 'process' or 'component' or possibly a 'vehicle of consciousness' or even consciousness itself.<sup>53</sup> Effectively, gimmel turns out to be *the major, indispensable agent for our physical reality. Gimmel unifies the laws of nature as it's in union with every stable particle in the universe.* Remarkably, gimmel is even proven in Dark Matter and Dark Energy correlations (amazingly the ratio is 1 in 1250 of gimmel to TRUE in the main cosmological element Hydrogen 1 with the components of the second Helium and Oxygen and Nitrogen<sup>17; 18</sup>, compared to Dark Matter plus dark energy volumetrically to the whole universe.)

Moreover, gimmel is necessarily in union *quantally* with every stable subatomic

---

<sup>h</sup> There are several tables listed here, either without any amplification or the most minor of comments. They have all been published elsewhere, unless otherwise indicated. Our object is to communicate that these statements are scientific, feasible, and often based on solid mathematics. These Tables are recorded here to justify that our points are real and scientific and appropriate.

particle. *Without gimmel, our physical world and our universe would simply not exist— every particle would fly away as gimmel and makes for stability with the exact amounts of Gimmel TRUE units in quarks and electrons.* <sup>56; 101; 108; 110; 111</sup>

**Table 3: Tabulation of Elementary Particles, Including their Gimmel and Triadic Rotational Units of Equivalence (TRUE) Scores** <sup>67</sup>

Elementary Particle	Particle	Mass/ Energy	$\lambda$ Gimmel	Total TRUE Units	Combined Particle
e	electron	1	105	106	Electron =106
u1	proton	4	2	6	
u2	proton	4	4	8	
d1	proton	9	1	10	Proton= 24
u3	neutron	4	5	9	
d2	neutron	9	3	12	
d3	neutron	9	8	17	Neutron =38

(u refers to up-quarks; d to down-quarks; there are 3 of each u1, u2, u3; d1, d2, d3)

Remarkably, gimmel is not a speculation, it is *mathematically and empirically proven.* <sup>28</sup>. (Table 3 shows specific gimmel scores for key subatomic particles) <sup>16</sup>.

In this context, the key parameters are the specific amounts of gimmel in union with each subatomic particle. When calculated in TRUE, all the life elements plus He and Ne become volumetric multiples of 108 cubed (Table 4, Table 5). This finding demonstrates that the elements of life contain more gimmel ‘consciousness’ than all the other elements (Neon and Helium as the sole noble elements also have this and are the only inert gases).

*This allows everything in our world and, indeed, in our cosmos, to operate according to the same rules: All atoms must contain protons and electrons, d with the exception of common hydrogen (‘Protium’ H1) with no neutrons. Hence this H1 is unique in union with a third form, possessing no mass or energy. We call it daled 7, though it’s likely just another form of gimmel. All these subatomic particles must be in union with gimmel, otherwise they are mathematically and physically impossible.* <sup>109</sup>

#### *Refutation of atomic materialism*

Effectively, this means that our current perception of any atom or element *without* gimmel, the mass-less, energy-less third substance, most likely linked with consciousness, will not provide an atom that can exist for any length of time, which is why the pure Standard Model of reductionist materialist Physics <sup>90; 112</sup> has to be incorrect (Figure 2).

**Figure 2: The refutation of atomic materialism.** <sup>113</sup>

**Why our high-school physics model of the atom is incorrect** <sup>17:</sup>

*All particles are volumes (3-dimensional):* they're not points, linear or planar shapes, and therefore all calculations must be based on cubed parameters. .... (1)

The number of electrons (e) are always equal to the atomic number (N) of protons (p) in the Periodic Table of the Elements. <sup>100; 113; 114</sup> ..... (2)

We derive 'mass-volumetric-equivalence units', by naturalizing the mass of the electron as the basic unit for the Large Hadron Collider (LHC) data. This allows us to determine the mass data-equivalence of protons and neutrons, deriving our figures by converting from electron =1, to under those circumstances, a single neutron calculating at 1839 TRUE, and a single proton mass at 1836 TRUE. (See Table 1).

If we make the reasonable assumption that the sum total of the masses of the particles making up the atom equals the mass of the atom, we would write:  $Ne^3 + Np^3 + Nn^3 = NX$ , where X is the mass of the atom, and N is the atomic number. Dividing out the 'N' (atomic number) we have  $1+p^3 + n^3 = X$ . Substituting the masses of e, p and n into this equation, the resultant cube root of X is 2315.13843, so X is not an integer and cannot be a solution of the Diophantine equation representing elements with equal numbers of electrons, protons and neutrons, not being an integer. The only Diophantine triplet with a solution where 1 is involved is  $(1^3 + 6^3 + 8^3 = 9^3)$  <sup>113</sup>

*If atomic materialism were correct, with the conversion to TRUE, all parameters would be required to be integers in our quantized reality; however, they are not integer: therefore, atomic materialism is incorrect...* .....;... (3)

The features above are complex and deal with what are called 'Diophantine Equations': Effectively, it is mathematically impossible for two particles with volumes (like electrons and neutrons together) to form stable molecules but three can sometimes (this is where 'gimmel' comes in).

*The calculations applying atomic mass or TRUE unit= makes materialism as we know it, refuted. Even without knowing about gimmel mathematically, the atom with protons (p) plus neutrons (n) plus electrons (e) alone, or quarks plus electrons alone, do not yield the experimentally correct determined mass of the atoms and would simply not fit.* <sup>17; 113</sup> This would require additional heuristically necessary 'particles' and this is where hypotheses like the extra subatomic particles come in. But these 'particles' must fit into a 9D model. Gimmel fits 9D. However, when analyzed alone, gluons —the particle that we sometimes use to explain the link in the nucleus (nucleons) involving protons and neutrons, simply does not (as reflected later in Tables 4A and 4B). Gluons were developed applying only a 4-dimensional reality, not our proven 9-dimensional finite quantized reality. There is no adequate physical

explanation for Gluons or Bosons which may reflect mass or energy and yet have indirect absence of mass-energy. Gluons, in effect, reflect a label of convenience.

Effectively, we were taught in high school that there are electrons, protons and neutrons and these together make up atoms. But the calculation is impossible as each of these must be whole numbers and are not just points, but are volumes. We can perform the same kind of calculation with TRUE and reach the same conclusion: There must be something else, ‘gimmel’, in specific defined quantities, for the atom to exist. In addition, the TRUE calculation produces the same exact number of units of gimmel that must exist in each quark to produce stable protons and atoms.

The calculation is correct applying atomic mass throughout the universe, and even without TRUE, and this is why there needs to be a compensating substance in union with each of these particles. We cannot have, for example, half an atom, or a quarter of an electron.

It does not matter if these particles e.g. Protons with 2 stable up- and 1 down-quarks, or Neutrons with 1 stable up-quark and 2 down-quarks.<sup>16; 115; 116; 117</sup> *These results have major implications for evolution*, because these are the building blocks of both the inanimate and animate universe. This means adding gimmel consciousness onto everything. As DE does not postulate or recognize gimmel, DE is refuted.

The reasoning for this necessary revision is because we cannot form the stable integral combinations that we call atoms and molecules. Moreover, although we’re dealing with gimmel here, even without applying gimmel calculations, the mathematical derivation cannot result in stable atoms even when applied either volumetrically or based on mass calculations.

Effectively, the quantal concept of the atom existing in a universe of pure materialism is simply incorrect because something else is needed to provide for the atom to remain a whole—a volumetric cube.

### **Figure 3: Diophantine Triplet Calculations that work.**

We have called this third substance ‘gimmel’. Based on empirical calculations, it turns out the important number for all the life elements, Carbon, Hydrogen, Oxygen, Sulfur, Calcium, Magnesium, and likely Silicon (C, H, O, S, N, Ca, Mg, likely Si) plus gaseous noble elements Helium and Neon (He, Ne) is  $108^3$  (a multiple of 108 cubed).<sup>16</sup> ... (5)

Gimmel (g) is derived in specific quantities, it is not random as there are only a very limited number of Diophantine equations that will work, where e, p, n, g and a are all integers. ... (6)

$x^3+y^3+z^3= a^3$  (where x, y, z are the combinations of TRUE scores for Mass-energy plus the specific gimmel particle).<sup>16</sup>

Without extra TRUE units of ‘gimmel’, volumetrically atoms cannot exist as stable combinations of integer multiples of TRUE units.

There is a solution (Figure 2) for this Diophantine equation to work and produce stable atomic particles. There needs a third substance and that is very specific in its numbers.

The most basic Diophantine triplet is  $3^3 + 4^3 + 5^3 = 6^3$  (with the smallest integer values). Triplets are relatively uncommon and the first that works out empirically for the Life elements is 108. ( $24^3 + 38^3 + 106^3 = 108^3$ ) Volumetrically  $108^3 = 1,259,712$ .<sup>1</sup> (Figure 4)

**Figure 4: The Life Elements showing the 108 cubed multiples: TRUE unit analyses of the elements and water.**<sup>16</sup>

Compound	$\lambda$ Units	Total TRUE	Units % $\lambda$	TRUE Volume	Comments and Abundance rank #
Hydrogen	150	168	89.3%	$(1 \times 108)^3$	<i>Critical Element #1; has more gimmel ('daled' as no neutron)</i>
Deuterium H2	128	168	76.2%	$1 \times 108^3$	<i>Isotope; rare; remarkable; has a neutron</i>
Helium	256	336	76.2%	$(2 \times 108)^3$	<i>Inert Element #2</i>
Carbon	768	1,008	76.2%	$(6 \times 108)^3$	<i>Organic element #4</i>
Nitrogen	896	1,176	76.2%	$(7 \times 108)^3$	<i>Life element #7</i>
Oxygen	1,024	1,344	76.2%	$(8 \times 108)^3$	<i>Life element #3</i>
Neon	1,280	1,680	76.2%	$(10 \times 108)^3$	<i>Inert element #5</i>
<i>Water</i>	1,336	1,692	<b>78.96%</b>	$(10 \times 108)^3$	<b><u>Remarkable compound</u></b>
Magnesium	1,536	2,016	76.2%	$(12 \times 108)^3$	<i>Life element #9</i>
Silicon	1,792	2,352	76.2%	$(14 \times 108)^3$	<i>Postulated Life? #8</i>
Sulfur	2,048	2,688	76.2%	$(16 \times 108)^3$	<i>Life element #10</i>

<sup>1</sup> We need not apply Fermat’s Last Theorem<sup>118; 119; 120</sup> because we’re always dealing with 3 variables.

This  $(108)^3$  turns out to be very important because all the fundamental life providing elements, are multiples of  $(108)^3$ . We have also shown that the inert noble gases helium and neon show the same stable properties as the life supporting elements, however, their valence makes them non-reactive and thus they are not involved in biological processes supporting organic life.

Hydrogen is unique: It is the only element with no neutron and therefore with extra gimmel (maybe different, so called ‘daled’ in the vertical column 7). It has much more gimmel: 38 for daled (0 MEUs) (in purple).  $150/168 = 89.2\%$ . Hydrogen contains far the highest gimmel proportion; thereafter, comes the other life elements.  
16

There are still unexplained gaps in these analyses: some  $108^3$  do not appear: 3, 4, 5, 9, 11. *Water is added here as  $(10x 108^3)$  and has more gimmel proportionately than any other substance other than Hydrogen-1 itself.* 16

$108^3$  is very important. But it is not likely a coincidence — very likely not a random finding. 108 is a remarkable, perhaps even mystical number. These remarkable 108 figures in Figure 5 may reflect the most fundamental minimum math equivalence once calculations of cube roots are done: There are very few Diophantine triplet equations.

<b>Figure 5: The remarkable number 108.</b> <sup>166</sup>
<ul style="list-style-type: none"> <li>• 108 equals two basic exponents (<math>3^3 * 2^2</math>).</li> </ul>
<ul style="list-style-type: none"> <li>• It also reflects <math>6 * 18</math>; 18 is the mystical number ‘Chai’ for ‘life’ in Judaism.               <ul style="list-style-type: none"> <li>• 108 is also a very special number in Hinduism,                   <ul style="list-style-type: none"> <li>• important in Tantric and Shiva philosophy.</li> </ul> </li> </ul> </li> <li>• 108 is relevant in Buddhism, Jainism and Sikhism: There are supposedly 108 energy lines (‘nadis’), converging to form the heart ‘chakra’; and in Sanskrit, there are 54 letters each of male and female kind so making up 108.               <ul style="list-style-type: none"> <li>• Even the Stonehenge monument diameter is 108 feet.</li> </ul> </li> </ul>
<p>108-fold approximates the cosmological ratios of:</p> <ul style="list-style-type: none"> <li>• the (mean) distance between the Earth and Sun / the Sun’s diameter (109.1);</li> <li>• the sun’s diameter / the Earth’s diameter (107.8) and</li> <li>• the earth and moon distance / the diameter of the Moon (110.6) (Where pertinent the orbits and so distances vary. Numerals reflect mean distances.)</li> </ul>

The concept of gimmel has explained how it all fits and has revolutionized science and our thinking. What is it? We propose it’s either the special higher ‘consciousness’ itself or the ‘vehicle that carries consciousness’: *This is why we dare add what is commonly regarded as ‘spiritual’ to the halls of science.*

So why has this major finding —gimmel—not been discovered before? The answer again lies in the fact that most scientists are dealing with a model of their experience (3S-1t). We have shown in our writings including our book *Reality Begins with Consciousness: A Paradigm Shift That Works*<sup>27</sup> more than 4 dimensions (3S-1t). In fact, we have proven mathematically-- not postulated -- that we are dealing with that 9-dimensional quantized finite vortical model—it’s rotating through the 9D.<sup>28; 72; 88</sup> Our work extends the 4 and 5 D models of Nobelist Albert Einstein<sup>121; 122; 123</sup>, Theodore Kaluza<sup>124</sup>, Oskar Klein<sup>124; 125</sup>, Gunnar Nordstrom<sup>126</sup> and Hermann Minkowski<sup>127; 128</sup>, and Nobelist Wolfgang Pauli with his unpublished ‘ghost’ particles.<sup>129; 130</sup> Wolfgang Pauli conceived of an extra, invisible particle emitted by the nucleus and wrote. “*I have done something very bad today by proposing a particle that cannot be detected,*” Pauli wrote in his journal. “*It is something no theorist should ever do.*”<sup>131</sup>

Thereafter, physics took a left-turn backwards into materialism and quantum mechanics because they were all without a common math mainstream science which the CoDD provides. However, a whole mathematics of String Theories (with Superstrings and M-branes) came about with foldings and curlings.<sup>132; 133</sup> Unfortunately, the various String Theories remain as several unproven theories, as opposed to our model of TDVP, which is mathematically proven<sup>134</sup>, empirically demonstrated<sup>12; 135; 136</sup> and even linked with the Large Hadron Collider<sup>28</sup>.

Critically, and in addition, that third substance, gimmel, without mass and energy and yet *mathematically necessarily* existing in every single stable particle in the universe prevents the atoms from flying apart. *This is very different from the Gell-Mann postulate of gluons*<sup>55</sup> which would be unstable or still require gimmel for stability. Therefore, gimmel may, in fact, perform a 9-dimensional function of gluons, but restoring stability through balancing the angular momentum, but not as a ‘glue’ to keep the nucleons together, but gimmel will work as a necessary part of reality. (Table 4A with gluons alone, and Table 4B with gimmel)

Gluons simply do not work out mathematically in 9D. Our world would be untenable as everything would fly away because there would be no stability. However, when applying TRUE analyses, Gimmel, specifically, allows our universe to exist: without it, the atoms would ‘decay’ (matter and energy effectively change form). In effect, gimmel provides very specific gimmel TRUE unit amounts (GTUs) for exact stability; gluons cannot provide such stability as there is nothing extra to do so. Gluons are hypothesized virtual particles and are unstable as illustrated in Table 4A; by contrast, gimmel is necessary for stability and can work in a 9D fabric.<sup>55</sup> A plasma of gluons<sup>137</sup> cannot fit<sup>55</sup> mathematically a 9D world even though physicists have continued since 1978 to postulate this Nobel-winning finding of a ‘glue’ (‘gluons’) keeping nucleons together in a 4D world. The math results indicate

that applying just gluons, cannot result in an integral. This means that gluons (without gimmell) cannot be quantized volumetrically.

These are big claims, and fortunately we have the mathematical proofs, so this is not speculation. Triadic Rotational Units of Equivalence (TRUE) for quarks and electrons in addition to the amount of balancing gimmell allow stability. The gimmell quantities are different for each of the six stable quarks, suggesting each has unique properties. There needs to be a particular quantity of the third substance (gimmell) to allow stability. This could be in addition to gluons (but then they would appear redundant) or instead of them. *But Table 4A and Table 4B indicate how fundamental quantal structures play a role in the most fundamental physics and biology, and we must examine evolution from that basic level.*

<b>Table 4A: The Generic Life Elements with Gluons would result in instability</b>				
<b>Particle</b>	<b>Mass</b>	<b>Additional TRUE (Gluons)</b>	<b>Total TRUE</b>	<b>TRUE Volume</b>
<b>x<math>e^-</math></b>	1y	0	1	$1y^3$
<b>x<math>P^+</math></b>	17y	7	24	$13,824y^3$
<b>z <math>N^0</math></b>	22y	16	38	$54,872y^3$
<b>Totals</b>	<b>40y</b>	<b>23</b>	<b>63</b>	<b><math>68,697 y^3</math> So <math>\neq</math> integer</b>
<i>x describes multiples of the Electrons and Protons; z is the number of neutrons. The cube root of <math>68,697y^3</math> is <math>40.9555338y</math>. This needs to be an integer as otherwise our world simply could not exist because atoms would be unstable.</i>				
<b>Table 4B: Gimmell, which works mathematically in 9 TRUE Dimensions.</b>				
<b>Particle</b>	<b>Mass</b>	<b>Additional TRUE (Gimmell)</b>	<b>Total TRUE</b>	<b>TRUE Volume</b>
<b>x<math>e^-</math></b>	1y	105y	106y	$1,191,016y^3$
<b>x<math>P^+</math></b>	17y	7y	24y	$13,824y^3$
<b>z<math>N^0</math></b>	22	16y	38y	$54,872y^3$
<b>Totals</b>	<b>40y</b>	<b>138y</b>	<b>168y</b>	<b><math>1,259,712y^3</math>. Cube root= integer 108y.</b>
Comparing the correct calculations (with Table 4A which is incorrect). This data is generic for Any Life Element with Gimmell.				

*The cube root of  $1,259,712y^3$  is  $108y$ ; y reflects the atomic number of those life elements. All particles in our world exists only when in union with gimmell as gimmell provides the necessary stability for maintained existence.*

However, the much larger amount (105 gimmel units) in the electrons allows the specific elements to exist with *quantized volumetric stability*. *No longer do we just talk of ‘information’ or ‘meaning’ but this is quantized mathematically, differs with each fundamental unit, and can ultimately be calculated for all of nature.*

We have postulated that gimmel is either consciousness or the vehicle of consciousness, because what else could it be? It fits and is ubiquitous. By applying the concept of this higher or spiritual or mystical or extended or gimmel *consciousness* (choose which term is preferable: we prefer ‘gimmel consciousness’ or GC), there is some further mathematical support, but it’s not entirely proven, though scientifically feasible when applying the technique<sup>27</sup> of Lower Dimensional Feasibility Absent Falsification,<sup>46; 47; 48; 49; 50</sup> that there are 3 dimensions of consciousness. Consciousness could be higher in the hierarchy, in those latent, covert extra dimensions beyond the four (4D) (the 3S-1t, of our experiential world plus the past and the future). These three proposed dimensions of ‘gimmel consciousness’ (GC) might *exist* and likely impact us all at every moment, but we don’t recognize it because it is not in our overt day-to-day experience. This consciousness in dimensions numbers 5 to 9, this is where everything would fit, likely in Consciousness dimensions 7-9 as the top of the hierarchy.<sup>27</sup> This has implications for meaning in evolution, and therefore DE is lacking, yet ME would be logical.

Moreover, our world—our nature—is unified. Dark matter and dark energy are not what they seem: There too, we think, there is consciousness, because they are profoundly correlative with gimmel (in what else does one ever find such strong correlations as the 1 in 1250 level?)<sup>18</sup> Moreover, we’ve shown they are not dark substances in the middle of a universe that we cannot detect, but they are in the atom<sup>17</sup>. This generates another conundrum: How can 95.1% of the universe be contained in 4.9% of the mass/energy, that is for example, in the atom? That is not possible in 4D, but when we use the 9-dimensional model linked with gimmel which is in everything including in dark matter and dark energy, this becomes feasible and, when applying TRUE, dark matter correlates with the nucleons, and dark energy with the electrons.<sup>17</sup>

Applying this model, quantized reality also becomes solvable. No longer are we dealing with what we’ve recorded as 60 different conundrums or contradictions of quantum physics. The mathematical and empirical proofs for these 60 items simply cannot be solved<sup>53; 138; 139; 140</sup> using the Standard Model of Physics (SMP) as currently applied. Nobelist Richard Feynman<sup>141; 142</sup> has just called this ‘quantum weirdness’ and felt we should just accept that the findings of quantum physics are just weird: Of course, physicists were seeing only the 4D in the 9D quantized, finite reality. No wonder they couldn’t solve these mysteries.

Yet, TDVP and the 9-dimensional-plus (9D+) model (‘plus’ implies the 9-dimensional domains embedded in the infinite continuity) provides feasible

explanations.<sup>29</sup> We can significantly explain all of these 60 different conundrums or problems by applying TDVP in 9D or 9D plus (with infinity).<sup>51; 112; 136; 143; 144; 145</sup>

No longer are we dealing with the elements all being the same; because when we look at this third substance, gimmel, we discover there is more gimmel (read as maybe ‘consciousness’) in the elements of life. (Table 5).

*All of this allows for unification of the laws of nature.<sup>12; 13; 14</sup> And it also allows for a unified model of philosophy based on science—Unified Monism which can be applied pragmatically in 4D empirical physics plus in the infinite. It is versatile, and not refuted.<sup>61</sup>*

*Evolution becomes a whole, because suddenly one is able to explain how meaning comes about and how there are ‘jumps’ -- because the jumps involve not only something quantized, but an infinite continuity.*

**Table 5: Percentage Gimmel of the First 20 Elements Showing which Are Stable and Symmetrical Life and Noble Elements (Elements Of Life)<sup>16</sup>**

The life elements (in bold) are H, C, O, S, N, Mg, Ca, likely Si based on this, plus the noble gases, He, Ne: **symmetrical, stable, multiple of 108y<sup>3</sup> in every instance.**

Atomic Number	Element	Gimmel in TRUE	Total TRUE	Percent Gimmel	Z <sup>3</sup> Symmetrical?
1	<b>Hydrogen</b>	<b>150</b>	<b>168</b>	<b>89.3%</b>	<b>YES</b>
2	<b>Helium</b>	<b>256</b>	<b>336</b>	<b>76.2%</b>	<b>YES</b>
3	Lithium	400	542	73.8%	NO
4	Beryllium	528	710	74.4%	NO
5	Boron	656	878	74.7%	NO
6	<b>Carbon</b>	<b>768</b>	<b>1008</b>	<b>76.2%</b>	<b>YES</b>
7	<b>Nitrogen</b>	<b>896</b>	<b>1176</b>	<b>76.2%</b>	<b>YES</b>
8	<b>Oxygen</b>	<b>1024</b>	<b>1344</b>	<b>76.2%</b>	<b>YES</b>
9	Fluorine	1168	1550	75.4%	NO
10	<b>Neon</b>	<b>1280</b>	<b>1680</b>	<b>76.2%</b>	<b>YES</b>
11	Sodium	1424	1886	75.5%	NO
12	<b>Magnesium</b>	<b>1536</b>	<b>2016</b>	<b>76.2%</b>	<b>YES</b>
13	Aluminum	1680	2222	75.6%	NO
14	<b>Silicon</b>	<b>1792</b>	<b>2352</b>	<b>76.2%</b>	<b>YES</b>
15	Phosphorus	1936	2558	75.9%	NO
16	<b>Sulfur</b>	<b>2048</b>	<b>2688</b>	<b>76.2%</b>	<b>YES</b>
17	Chlorine	2,192	2,894	75.7%	NO
18	Argon	2,368	3176	74.6%	NO
19	Potassium	2,448	3,230	75.9%	NO
20	<b>Calcium</b>	<b>2,560</b>	<b>3.360</b>	<b>76.2%</b>	<b>YES</b>

## THE INFINITE CONTINUITY

The infinite continuity is a major part of this whole solution. It implies, however, that there has to be something extra. In physics, we have conservation of mass and energy with a gradual tendency towards disorder called *entropy* in the physical universe<sup>27</sup>: entropy is a thermodynamic quantity representing the unavailability of a system's thermal energy for conversion into mechanical work. It is often interpreted as the degree of disorder or randomness in the system.

### *Ordropy*

In 2011, Neppe and Close described *ordropy*<sup>27</sup>: This is the tendency towards order in the infinite continuity reality. This tendency towards order leads to infinite *conservation of mass/energy, and particularly of gimmel*.<sup>28</sup>

We have proposed that gimmel derives from the infinite and this becomes a way for that enveloping continuity to express itself in the finite, possibly via gimmel's union with photons: We postulate that an infinite amount of gimmel in the infinite translated to 105 gimmel TRUE units (the same as electrons) in the finite (as per Einstein's photoelectric effect)<sup>146; 147; 148</sup>. These are scientifically feasible ideas but unproven at this point.<sup>28</sup>

### *Conservation of gimmel*

There is no such thing as loss in that regard. The implications of this are enormous, *conservation of gimmel with order leads to the possibility or even the necessity of survival after bodily death*<sup>19; 21; 149; 150; 151</sup>. It may lead to a likelihood or possibility of reincarnation and even of existence before birth. There is no such thing as infinite death, just physical death. In this context, applying TDVP, even the smallest particle must exist in some kind of way forever. This might be because every stable particle is linked with gimmel. This produces a significant dent in DE.

The whole model of immortality and yet physical existence produces the Unified Monism of Neppe<sup>27</sup>: to clarify, this recognizes unitary unions of atoms or non-transient particles or substances or wood or the earth in union with gimmel (not linked implying dualism). There are specific amounts of gimmel allocated for the electron -- for example 105 gimmel TRUE units per electron -- and for each quark: the up quark 4 units, the down quark 9 units -- and they are all linked up. This just does not fit DE at all.

These are very specific and fixed mathematical calculations in the finite. However, we are proposing that gimmel probably arises from the infinite continuity. And this is more than a linkage implying dualism, and this is a linkage even from the beginning of finite time. It had to be so, because there is no beginning of time in the infinite continuity. Gimmel preceded the finite stable structures.<sup>43; 152</sup> Everything persists forever.

Higher/ infinite/ spiritual/ gimmel/ extended consciousness<sup>43; 152</sup> extends in an open way without completion.<sup>43</sup> It extends onwards as a never-ending repository of information and when specific it involves meaning possibly in the finite consciousness of individuals. Not only that but time is forever, and space extends without end. And mystically these are all linked up with deep mystical concepts that go back thousands of years. The closest parallel is Kabbalic mysticism<sup>152</sup>, but all the Indian philosophies like Jainism and Vedantic thinking<sup>43; 61; 152; 153; 154</sup> run a close second.<sup>43; 155</sup>

#### *The impossible becomes possible: Relative dimensionality*

Consciousness, for example, becomes unexplained when applied only relative to our physical vantage point—our ‘3S-1t’ framework—“it’s impossible”. But higher dimensions are proven to exist.<sup>27</sup> These are likely important in *psi research*<sup>156; 157</sup> and in *theology*.<sup>43; 52; 152; 155</sup> Moreover, we occasionally directly experience unexplained events from the framework of different “*windows of visualizing*” likely to be different dimensional domains (e.g., veridical dreams<sup>158; 159</sup>). These are glimpses into the ‘*relatively non-local*’ or what we prefer to more correctly call ‘*relative dimensional*’.<sup>160; 161</sup> However, their occurrence exemplifies contradictions that simply should not exist if it would have been correct that the current 3S-1t paradigm truly reflected all of existence: That itself is falsified—ironically, 3S-1t alone is the one that’s impossible<sup>27</sup>! Moreover, we can feasibly understand altered states of consciousness as reflecting other dimensional states of awareness.<sup>162</sup> The *unexplained conundrums that defy explanation* in physics, for example, may well be solved by another dimensional-consciousness paradigm.<sup>27</sup>

#### *Multidimensional time and eternity*

At the infinite continuity level, time is eternal, existing at every level. It would be very difficult to talk directly about evolution, because what the past, present and future is the same at the eternal level, at a multi-dimensional time level (and Time, we’ve proposed is volumetric and likely 3-dimensional) Yet we can take slices of time and translate them to the finite linear time of a different past, present and future relative to 3S-1t. That to us, as sentient beings, makes sense but it may not be as relevant at a higher dimensional level or in the infinite continuity.

In DE, evolution has some contradictions here. We must potentially recognize quantization of events. For example, how does one imagine half a breathing apparatus and live and exist. *You have to have all or none*. If none, DE would eliminate the individual but also half an apparatus would also kill off a species.<sup>63</sup> Even though on an *evolutionary level*, most of those species would be immediately eliminated, there are so many complex steps to that ‘all step’—reaching ‘home base’ so to say, it would be hard to conceive of it all occurring evolutionarily. Also some animals such as the camel with its humps, does not have evolutionary pre-expression.

However, if we examine this infinitely, applying the term '*meaningful evolution*'<sup>63</sup> we can understand the meaning being a consciousness and a consciousness deriving from the infinite continuity.

*The two levels: Relative time: Finite and the infinite continuity*

There are two levels: the one is finite: We can have a progression of a finite linear evolution of a time relative to 3S-1t and that will be a meaningful progression. The other level is, there is no reason why there should not be parallels in terms of evolution with different animals potentially developing simultaneously at that infinite level. Ironically, this merges DE at the finite level, with ID at the infinite level. Possibly that makes more sense: Yes, we may be directly potentially derived from apes, but it probably did not all happen by accident. Those big jumps (technically *punctuated equilibrium*) even in the finite, can be handled through meaningful evolution in the infinite continuity. And ME is now merged too. The only way we have any stable structure is the existence of *gimmel* – and that means it had to exist from the very beginning, the *gimmel* precedes the other components if we look at it in 3s-1t. But if *gimmel* is the consciousness, it's not in 3s-1t, it's a higher dimensional consciousness expressed only secondarily or covertly.

*Perspective*

In summary, meaningful evolution allows something very, very different from DE and markedly scientifically amplified compared with ID. Time as we know it is a distortion, because it is relative to where one is. If one were a divinity or a deity at the highest level of the infinity of infinities, Time would exist without end and without beginning. We realized this in our book *Reality Begins with Consciousness*<sup>150</sup>: The book title refers to finite reality – 'it has begun' already with the consciousness that pre-existed in the never-ending, continuous and never-beginning, eternal infinite reality. Reality in the finite is preceded by an infinite, always present component, *gimmel*.

Again, this is a death-knell for Darwinian Evolution which must involve much more in Time and Consciousness. But to achieve the further conceptualization of extended Time dimensions and of higher Consciousness, requires extension in the Philosophy of Science to include the Neppe-Close concept of LFAP (Lower Dimensional Feasibility Absent Falsification). We briefly focus now on further LFAP ideas.

**LFAF: LOWER DIMENSIONAL FEASIBILITY, ABSENT  
FALSIFICATION LINKED WITH MEANINGFUL EVOLUTION:  
PART 5**

**Vernon M. Neppe MD, PhD, FRSSAf**

In 2011, a profound breakthrough occurred in the Philosophy of Science.<sup>104</sup> with Vernon Neppe and Edward Close proposing the new method of analyzing science: *LFAF* or *Lower Dimensional Feasibility, Absent Falsification*.<sup>79; 104</sup> This extended the hypotheses in the Philosophy of Science to *include logically feasible but unrefuted concepts* into science. Technically, evolution is not falsifiable. But it is feasible applying LFAF. It is logical to apply the best jigsaw puzzle pieces to the data that we have, recognizing that this data is limited to incomplete pieces.

While almost all concepts in the domain of spirituality could not be falsified using our conventional model, they remained unverified and in the ‘not science’ category. Yet evolution was regarded as ‘science’ although being as unverifiable in falsification terms. Ironically, ME and even ID, fill that gap between.

Neppe and Close effectively extended the definition and methods of science by adding ‘scientific feasibility’ to the mix: We could, consequently, put pieces of a complex, yet incomplete jigsaw puzzle together. This would provide legitimacy even though we would not know exactly where to place all the pieces of the puzzle. A whole new ballgame arose:<sup>163</sup> What we could not definitely falsify in our current physical experience reality suddenly could become feasible if we could legitimately fit even an unrefuted hypothesis into that jigsaw. By so doing, we would be extending science. But we might, nevertheless, only be able to appreciate some of our physical reality in our current experience of ‘3S-1t’ —3 dimensions of space (length, breadth, height; 3S) in the *present moment* in time (hence ‘1t’ written in small case). Moving beyond 3S-1t would usually remain hidden to us, though there still might be cogent suggestions of data in higher dimensions, possibly based on math calculations. *Those higher dimensions could include the spiritual and the extensions of consciousness, possibly outside the brain.*

The Neppe-Close concept of LFAF reflects a powerful and necessary redefinition extending ‘Popperian falsification.’<sup>164</sup> 164164164164164164, 162, 161, 135, 134, 114, 102, 101, 85, 81 79 64, 59, 58, 56, 26. LFAF can be applied by fitting what is *feasible in our experience into pieces of the incomplete jigsaw puzzle*. This effectively has been what scientists have done with evolution. They tried to fill in the gaps over billions of years by applying what is feasible to them, but they recognized it was still very incomplete. It would remain so while only in 4D. We have to work towards feasibility Lower

Dimensional Feasibility Absent Falsification (LFAF) involves not refuting Popperian falsification: *We are not refuting it, but extending it!*

ME allows scientific feasibility to be a little clearer. In effect, we place what is known in our direct *experience* into a broader *existence*, most of which is hidden from us in the framework of our physical world. We have incorporated previously ignored complex concepts like higher consciousness, hidden dimensions, and the infinite impacting us physically as these are not 4D concepts.

With great respect, LFAF reflects an astonishing advance for the present time and also will likely be the principle of the future of the scientific methods, even for centuries to come. Scientists have been applying LFAF for at least a century but have not defined it as such. Now, let's see what happens with feasibility when we cannot prove or disprove something but can assume it to be true.

- Evolution, as indicated, is based on feasible data and projections of jigsaw-puzzle pieces applied relative to 3S-1t, but despite it being incomplete, evolution theorists have regarded the discipline as a science: As indicated, it needs meaning and hence meaningful evolution or even ID, both requiring guidance. <sup>6; 49; 63</sup>
- Cosmology is also based on those same projections of feasible data. <sup>81 81 81 81 81 81 70 65 61 36. 32, 31, 26, 27</sup>. And ironically, of course, we need gimmel there as well! <sup>18</sup> And cosmology, too, has been regarded as 'science'.
- Similarly, higher dimensions are feasible. We can conceptualize only pieces of a 9D jigsaw puzzle in 4D (3S-1t). <sup>51; 112; 136; 145; 165; 166; 167; 168</sup> Yet, this has been ignored as pseudoscience. The extension of LFAF to further higher dimensions allows for profound change in science, philosophy, spirituality, and understanding evolution.
- We apply feasibility as the most common method in forensics, other than 'proof' by lab tests. <sup>139</sup> Effectively, 'on a more probable than not basis' is simply 51% but the courts accept this as science. <sup>139</sup>
- And ironically, much of mainstream quantum physics is based on feasibility, not proof! <sup>28; 96; 97; 98</sup> At times, at the quantal level, unexplained paradoxes occur, when applying 3S-1t. In physics, for example, we cannot explain 'entanglement' <sup>169; 170; 171;</sup> <sup>170</sup> in which two particles are separated in space yet create simultaneous information in time, so-called 'non-locality' <sup>160; 161</sup>. But we can explain this feasibly in a 9-dimensional model, and the advent of gimmel which may reflect consciousness, for example, has been particularly important. It is insufficient that laureate Feynman might have shrugged his shoulder and recognized that there are some inexplicable quantum enigmas. <sup>142</sup> *Such mysteries demand solutions for us to continue scientific progress.*
- Spirituality could never join with science until *a paradigmatic rethink about the nature of science occurred. That's happened, again through LFAF.* This is because if the spiritual experience in 3S-1t was not refuted by being falsified, yet

proved to be scientifically feasible, it could potentially be part of science. This meant, at times, moving beyond 3S-1t, because that could incorporate a ‘consciousness’ that we had previously never recognized and could conceptualize moving through higher dimensional levels.

- We might also realize that *we had only been experiencing tiny portions of reality*. This would be *relative to* our 3S-1t reality experience and *quite different from our broader extended existence incorporating many other dimensions, consciousness and infinity*. This is because if the spiritual experience in 3S-1t was not refuted by being falsified, yet proved to be scientifically feasible, it could potentially be part of science.
- The role of infinity becomes scientifically approachable, as well.
- Falsifiability is often limited to 3S-1t physical phenomena. But *even in conventional 3S-1t physical science, we begin with hypotheses that are not proven through being falsifiable, but are feasible*. So we consider them by applying LFAF, as feasibility is a logical first start to examine what we’re hoping to falsify.<sup>79</sup>
- This, then is what we had to do, and we did this with a series of editions of our ever-changing, ever-growing book, *Reality Begins with Consciousness: A Paradigm Shift That Works*<sup>27</sup> and hundreds of subsequent publications. Feasibility allows a greater versatility of scientific approach.<sup>27; 161; 160</sup> This concept of LFAF (Lower Dimensional Feasibility, Absent Falsification) represents a paradigm shift in the Philosophy of Science. LFAF allows a *relative* component to the absolute idea of ‘only falsifiable data is scientific’. *All of these concepts are applicable in evolution.*

Even though the model of LFAF is sometimes analogously applied by tentatively adding pieces to a jigsaw puzzle based on our experience in 3S-1t, we *know that the rest of our existence is hidden*. However, *that does not allow for unrestricted license*. Information must still be *scientifically feasible*: the data must show qualities such as being within reason.<sup>79, 27, 161, 160</sup> It must be sensible, viable, workable, attainable, realistic, realizable, practical, and reasonable. This is scientific feasibility in practice.<sup>139</sup>

There is simply a great deal that is covert, and not expressed in our experiential 3S-1t — most consciousness is hidden, often *mystical or spiritual or meaningful evolution*.

### *3S-1t Examples*

There are also some obvious empirically based prejudicial examples requiring LFAF. These were initially unexplained applying purely 3S-1t, and yet were not falsifiable, such as the origins of hypnosis, electricity, X-rays, meteorites, sterilization of bacteria preventing illness, the round earth, the earth revolving round

the sun, Einsteinian relativity, warping of reality, splitting the atom, and psi.<sup>166, 172</sup> With Popperian falsifiability simply applying 3S-1t, they could have been metaphysical, at best. Yet, they had feasible pieces of the jigsaw puzzle and eventually moved from the lower level of certainty, namely, potentially feasible science to ‘certainly feasible’ and finally to falsifiable and replicated science. This was applying LFAF without even realizing it. And LFAF has allowed studies on multiple dimensions. This *may even allow for so-called ‘unified field theory’ in physics*

#### *Solving Contradictions:*

LFAF facilitates detecting possible contradictions in feasibility. The ostensibly controversial example is re-examining the conventional features regarded as proven in *evolution*: We cannot explain the developmental ‘jumps’ between and within species, and any role of *consciousness* has been ignored. We have to put much unverified but not falsified data (‘absent falsification’) together when there might be large quantized, discrete jumps in assuming progression and continuity. Could there also be a consciousness in evolution which cannot be detected by 3S-1t logic? Or are we not allowed to even contemplate this?

Placing the exact puzzle piece in the most appropriate position would constitute a *higher level* of feasibility than just knowing the data fits somewhere in the puzzle. These provide useful starting points to extend science into the mystical, and making the spiritual more scientific.<sup>62</sup>

#### *Meaningful evolution and LFAF*

We’ve extended the model of science from being purely based on what is falsifiable, broadening the range of science, allowing, some previously ignored ‘pseudosciences’ to become part of our broader science fitting this enlarged conceptualization of science. Recognizing feasibility allows the multidimensional model, with consciousness in its extended form, infinity and spirituality, and the infinite can be conceived of spiritually. This is the indirect consequence of TDVP: allowing feasibility with spiritual ideas and evolution fits into that infinite continuity.

#### *Which physics? The big question*

Our overt 4 dimensions of physical *experience*, reflect only part of the mainly covert expression of our *existing* 9-dimensional quantized finite reality embedded in an infinite continuity.

It’s understandable for physicists trained in the Standard Model of Physics (SMP) to explain that physics is the most fundamental science to examine reality. The question is *which physics is involved with reality. Darwinian evolution has been appreciated by what* we call ‘4D physics’ not ‘9D physics’, or even ‘9D-plus’

including infinity.<sup>39</sup> They certainly aren't referring to our fundamental science, *dimensional biopsychophysics*, so the key role of consciousness is ignored. There is consciousness-research data<sup>40</sup> and nine different disciplines of psi research, each with meta analyses against chance reflecting >1 in a billion!<sup>41</sup> We can further unify these nine areas and explain this by applying a single model applying consciousness.<sup>42</sup> Even more astonishing, there is significant data on life after physical death.<sup>43</sup> This means we're not dealing with speculations but with realities, and we must explain where that consciousness fits in. Many 4D physicists paradoxically reject the fundamental roles of consciousness and meaningful evolution,<sup>44</sup> despite the compelling data. <sup>173 173 173 173 173 173 173 172 171 167 145 144 140 126 124 104 102 98 77 65 58 57 55 24</sup>

The TDVP model involves far more than physics because it requires intensely studying *dimensional biopsychophysics*, which includes the study of extra dimensions, consciousness, biology, and psychology as well. <sup>90 90 90 90 90 90 90 88 74 70 41 40 25</sup>. To use just physics as a refutation is insufficient. We actually regard dimensional biopsychophysics as an extremely important extension of physics. We must respect extra-dimensionality, such as the exact Cabibbo-angle replications, and several other calculations further demonstrating 9-dimensional phenomena.<sup>47</sup>

Evolution is not just 4D physics but it is 9D+ meaningful evolution. LFAF allows such information.

## ABIOTENESIS AND GIMMEL. PART 6.

Vernon M. Neppe MD, PhD, FRSSAf

How does one solve the problem of abiogenesis – of life coming out of non-life? It almost sounds impossible: How can one produce life from something that is inanimate? This has been a mystery that has been unsolved for centuries. There has been a problem, and the drawback is this – researchers have worked with *content* as opposed to *process*. Now the content is rather relevant and very important and tries to provide answers leading to coherent complex purposive behaviors such as life from non-life, from the inanimate to the animate. But it cannot get beyond a specific point where others would debate that everything is random and life came about by chance. We need a new process.

This abiogenesis section provides the basic background – not only of the *content*, but the *process*. We can understand ‘complexity’. We can understand ‘order’ – and order is sometimes repeated in inanimate matter.

The DE scientific community have hypothesized that over the 13 billion years of existence, and possibly the 3.85 billion years of life, there has been, at times, the potential in terms of a ‘primordial soup’ (or equivalent events) which may be at some times, just by randomization, favorable to suddenly experiencing life by accident. This all occurs with an unusual random favorable mixture of, for example, amino acids with water.

The problem is that the conditions, such as the underlying backgrounds, for example, the atmosphere, apparently don’t really support this, and even if they did, it would be very difficult to understand the absolute profound complexity of life – which is far more at this point than any kind of computer, although computers are beginning to catch up, for example, in particular types of tasks, as in chess games. Certainly computers can discern what we could never before appreciate they were sensing. But effectively, today life is still far more complex than computers and every living organism has this life. And there are wonderful explanations of why we cannot catch up. But maybe we just can? Could that content of machines ultimately become more and more complex, and could computers or robotics eclipse mankind and life? Many researchers, such as remarkable Intelligence Design theorists like Stephen Meyer<sup>4; 5; 6; 7</sup>, have argued cogently *against* this happening. However, this is still a ‘he says, they say’ set up—4D or DE theorists might argue that robots might take over most of what we deem ‘life’.

Intelligent Design theorists have provided excellent arguments on *content attempts, sometimes remarkable*, to explain DNA (deoxyribonucleic acid), RNA (ribonucleic acid), proteins, sometimes even amino acids and collections of those, and the many complex metabolic processes, including even enzymes, coenzymes and catalysts that there are fundamental to life. How can we explain that from the inanimate?

The idea in ID of ‘information’ or a ‘higher intelligence’ is very well thought out. Life at the most basic level may involve some kind of program which might only do one or two things – for example, complex tasks in insects, where we might be dealing with cognition at the lowest levels or even in amoebae in which one’s response is almost reflex. But these far surpass the machines and robotics in life kinds of behaviors, it is argued.

So this is the *content* where the DNA and the RNA and the proteins and the messages that go with this <sup>4; 46; 47; 48; 49; 50</sup>, as well as very often the enzymes and catalysts, plus the complex digital codes and profound order with layers that are actually strata upon strata of complexity strongly arguing for DE not to be possible. The key ID argument is, *this could not have occurred by chance*.

The problem is this: that no matter how complex this all is, and no matter how much one argues that one is rejecting materialism, one has to *jump* to the next stage, life from non-life. And many scientists will not accept that these events are not just fortuitous, stochastic, random events, over billions of years, even if calculations show this is not possible. So one is at a standstill: the Darwinists versus the Designers.

Consequently, we propose a new different *process*—a new way of thinking. We apply our models of Triadic Rotational Units of Equivalence and of Triadic Dimensional Vortical Paradigm (TDVP) that has been largely unnoticed since its development in 2011. <sup>12; 13; 14 16 44 64</sup>

We think that the reason why this next stage has not been applied, is because of ignoring three absolutely profound pieces of information posited and demonstrated mathematically in TDVP, namely gimmel, infinite continuity and dimensions:

- (1) One has to be dealing with a profound intelligence in relation to the *infinite continuity*. This means one is at a *major leap beyond the finite quantized reality*. Suddenly, profound complex analyses become less relevant. The infinite continuity provides a continuity in terms of development of organisms over time with no need for punctuated equilibrium.
- (2) The awareness of dimensions beyond 3S-1t, our 4D physical world: This allows us to understand that certain concepts such as the so-called ‘non-local’, ‘relative

dimensional’<sup>160; 161</sup> or ‘psi’<sup>60</sup> at different levels can demonstrate there is more to our universe and we can appreciate order more.<sup>24; 28</sup>

(3) The infinite continuity also explains something great, and this leads to the factor number three, the discovery of *gimmel*.<sup>27; 28</sup> *Gimmel is possibly the most important discovery of the 21<sup>st</sup> century or perhaps of the world in modern times.* Gimmel is that third substance – it’s massless and it’s energyless. We could argue what gimmel is, but it is extremely difficult to find an alternative term other than calling it ‘some kind of primordial extended consciousness or equivalent’ or ‘some kind of vehicle that carries that primordial extended consciousness’. The beauty about gimmel is that *it has to have been there all the time. In other words, it has to have preceded mass and energy<sup>17; 113</sup>; and that preceding of mass and energy is critically important, because it comes from the infinity but it manifests in the finite.* Suddenly, there is a paradigm shift: Life not from the inanimate, but life or infinite existence from another form of infinite existence.

Does gimmel manifest *only sometimes*? No, it manifests always. There is not a single element or particle or energy packet or subatomic component that could be stable and symmetric, without gimmel. *These are the packets that make up life and even physical evolution.*

Gimmel is the fundamental of life.<sup>18; 28; 51; 52; 53; 54; 55; 56</sup> That means that *life existed always even in the most basic of inanimate chemicals.* Our hypothesis in TDVP is that *everything is immortal* – in other words, there is not only conservation of mass and energy in the finite, *there is conservation of gimmel in the infinite.*<sup>28; 29</sup> This is extremely important because the infinite impacts the finite all the time.

Effectively, gimmel is the component necessarily linked up with every single stable substance and in union with every atom with specific quantities per atom, neutron, proton, up-quark and down-quark. And if there’s gimmel in the atom, there is no contradiction to having life. This is because life in some form *exists* even in the smallest of particles through its gimmel union. This explains how simple organic and non-organic inanimate material could ultimately express itself in life. Moreover, the life elements contain more gimmel and these are the main organic elements (C, H, O, S, N, Ca, Mg, possibly Si) that are the building blocks of all life along with the energy source P, and it is particularly the ‘organic’ materials with these life elements that are logical prodromes for physical existence.

### **Figure 6:Key facts about gimmel**

- Gimmel is the hidden but necessary fabric of reality.
- Gimmel is correlative with consciousness but might be the vehicle.
- Gimmel is an extraordinarily important concept.
- Gimmel has been the last bastion concept in TDVP because the extent in dimensions now incorporates the content in gimmel.
- Gimmel has specific numbers of gimmel TRUE units which can be calculated and varied with each element and with each compound.
- All stable subatomic particles have different gimmel TRUE units scores.
- Gimmel is very versatile, ranging from the periodic table to dark matter and dark energy, to the content of dark atoms, and to up and down quarks and electrons, and most of all to the Elements of Life.
- Gimmel plays a role even in fundamental conversions of the neutron.
- Gimmel has a union property, like having an arm to a body, in all stable subatomic particles.
- Gimmel might be the consciousness impact potential. So there is Gimmel extent, gimmel content, and gimmel impact: Gimmel has extent, because we have gimmel TRUE unit scores; gimmel also has content.
- Effectively, gimmel mimics consciousness. Both have impact and that impact might be linked with the presence of consciousness.
- Gimmel involves reactions that can take place in even beta decay.
- Gimmel reflects the fact that *there was never 'something out of nothing'*.
- Gimmel has always existed in the infinite and the finite.
- Gimmel is more than heuristic, it is a mathematical necessity when understanding TRUE and it is based empirically.

ME recognizes processes such as natural selection and that random changes can occur. However, like ID, ME recognizes higher (spiritual) consciousness, non-random events and some kind of guidance. Gimmel allows mathematical proofs and these exist as in this paper.

Additionally, ME applies empirical data based on the Neppe-Close Triadic Dimensional Vortical Paradigm (TDVP) and including Triadic Rotational Units of Equivalence (TRUE) recognizing that *the 4D model of our day-to-day experience is only the overt, experiential part of the broader 9-dimensional model that includes the expression of a covert consciousness and multidimensional time in Dimensions 5 to 9, and that moreover, the infinite continuity impacts by enveloping the quantized finite. This has been the road-block possibly for ID scientists. Our experience is 4D, our existence, impacting all the time is 9D which incorporates 4D plus it has infinite continuity.*

Importantly, we must differentiate between the *stability and symmetry* of an atomic particle, or sub-particles, and their *instability*.<sup>58</sup> This is critically important in 9D science. This is fundamental to an evolution that does not remain stable. There are subatomic particles that don't exist except in transient billionths of a second. So, for example, 4D physicists might incorrectly apply the example of all the different kinds of quarks,<sup>59</sup> but the only *relevant* stable quarks are up and down quarks. The other quarks—charm, strange, top, and bottom—are ephemeral. Similarly, much has been made in the media of the example of Higgs bosons,<sup>60</sup> which have presumed half-lives of  $10^{-23}$  seconds and are completely ephemeral. Yet remarkably some short half-life particles like neutrons can become stable when associated with the very stable particles like protons.<sup>28</sup> This is a content statement but it is described in the context of the proposed TDVP abiogenesis process!

In addition, in the past two decades or so, another major discovery has been happening, and that is attributing about 70% or maybe even 90% of the genes in our biology to '*junk*'—in DE, they are regarded as meaningless.<sup>4; 174</sup> This has also led to some atheists arguing that clearly there is no such thing as a 'higher power,' because why would there be all these 'junk' genes?

Again, there is an answer.<sup>46; 47; 48; 49; 50</sup> These are not junk genes, but these are linked up with consciousness. It's almost analogous to the Ancient Egyptians who would regard the brain as 'junk' and remove it from mummies. This 'junk' that is reflecting meaning and highly pertinent requirements might be ME at its best, the product of a higher consciousness which we humans are not yet able to recognize. But the alternative hypothesis is the relevance of gimmel and of meaningful consciousness: That again is always life or existence and ME with TDVP and gimmel support this.

### **Abiogenesis and Gimmel**

How does gimmel link with the development of life, as in abiogenesis? We know that gimmel reflects part of the 'essence': There are physical components in terms of mass and energy, and there is effectively what we can call the consciousness gimmel, as well. *Gimmel pre-exists everything, because it pre-exists from the infinite and then came the later finite. Gimmel is not dualistic; so effectively gimmel is not a 'soul', but it is linked with that single essence unit, with our physical 4 dimensions and the further dimensions 5 to 9.* This is why extra dimensions are so important.

Every component of gimmel in these subatomic particles is mathematically different. So, for example, the electron has 105 gimmel TRUE units (GTUs) (See Table 3)<sup>16</sup>. However, the 6 stable quarks (up-quark and down-quarks) have much lower GTU scores such as 1, 2, 3, 4, 5 and (one would hope it would be 6), but it actually calculates out as 8. (See Table 3) These differences provide balances in

even the most fundamental elements allowing stability. Life may well reflect that gimmel essence, though we don't recognize gimmel (or gimmel-consciousness) in our experience, because they exist at higher dimensions.

Now technically, one could ask that even with gimmel being some kind of essence, just as the dualistic 'soul' would be, how would that produce life from non-life?

That is the big abiogenesis question in evolution: How does life come from the inanimate?

The bottom line, we propose, is that *everything exists with gimmel—every component*. This means, effectively, that in a very primitive way, even a rock, or a molecule, or an element, or even a quark is exhibiting different kinds of 'essences' of life: Each quark or electron could also have divergent qualitative gimmel natures which we cannot yet fully describe in each particle.

In other words, the progression is not a progression from non-life to life. It is certainly a format change, but there is not as sudden a qualitative leap as we expect because the building blocks of all living beings exist, but so do those of the inanimate objects. Gimmel is something that provides greater essence and greater significance because *life always exists in the infinite*. Life never dies or does not exist as we propose gimmel existed in the infinite continuity even before the big-bang. And, at all times, the infinite is part of the unity of the whole with the finite.

Now it could be argued this is a backward discussion. But we have the data. We know that *Gödel's Incompleteness Theorems*<sup>10, 11</sup> requires anything that is perfect in terms of a mathematical solution to be 'outside the box'. Without it, math would be imperfect—ultimate proof cannot occur. Yet most scientists have *ignored consciousness or intelligence or mind or non-materialism. They have ignored the infinite continuity. They have ignored multiple dimensions, which allows us far more flexibility than looking at a 4-dimensional model. They have ignored intelligence. They have ignored the evidence that materialism manifesting in 3S-It is refuted*, in this paper. They do not need to use historical reasoning from the end, today, to go backward in time. We can start at the beginning, and when starting at the beginning, we realized that it's only in the finite, and that only *finite reality begins with consciousness*<sup>27</sup>. In the infinite, there is no beginning and there is no end: Life always exists. Gimmel always exists, and gimmel almost certainly preceded physical life. This is the process.

#### *Gimmel and catalysts and enzymes*

There is a further remarkable linkage of gimmel.

Catalysts and enzymes produce chemical reactions, but the catalyst remains the same: It is an invariant; it is a never-changing property, even when other properties have changed. The evidence is there that gimmel is a catalyst or coenzyme or something similar because it exhibits properties that conform to these. Gimmel

appears to come out unchanged in terms of reactions. A chemical that comes out unchanged, but impacts that reaction – for example, by speeding it up considerably – is called a ‘catalyst’. We have postulated that gimmel is a catalyst. The parallel here may be linked up with decay reactivity – a good kind of ‘decay’ as in the neutron becoming a proton.<sup>27</sup>

We have proposed that gimmel is sometimes equivalent to catalysts and to enzymes and coenzymes in living biochemical interfaces: These profoundly speed the rate of a chemical reactions. In this context, this would be content, but it is also a process that allows events to occur that otherwise would not occur.

How can we say that gimmel acts like an enzyme or acts as a coenzyme? There are certain chemicals, such as zinc and copper that do exactly that, and also possibly iron as in Hemoglobin.<sup>16</sup> These are certainly linked up with some of these key elements. But, if one looks at the properties, it seems that everything is profoundly speeded up once one is involved with gimmel.

Even though some of the elements that do not have the properties of the elements of life have less gimmel, the speeding up, should as a hypothesis appear a little less because there is less gimmel. But there is still plenty of gimmel to go around and be uses in physiology (of, for example, copper or iron).<sup>136</sup>

However, factors in science and biology are very precise, for example the narrow range of body temperature, and the many other physiological components. Without those tiny variations only in physiological components, we would not be physically alive. Enzymes and co-enzymes are often represented in physical life; catalysts are in the inanimate, often organic (carbon-containing or perhaps silicon-containing).

Iron contains the most gimmel of any of the most abundant elements, because it is so large. And the iron in hemoglobin acts particularly as a carrier for super-stable oxygen. Zinc and copper also act as coenzymes and catalysts. We have proposed that these compounds allow for carriage and functioning of these molecules, and that this is through gimmel.<sup>16</sup> Again, this links with abiogenesis as life develops over time.

*Gimmel and the infinite continuity doesn't fully solve the whole component of life from the inanimate. However, we're talking about a conceptual difference in terms of 'process' compared with 'content' no matter how complex, compared with machines and computers, realizing that life is more complex than that. We are dealing with an 'intelligence' we could call 'consciousness' and a consciousness we link up with gimmel, and gimmel is in union with everything finite. Gimmel doesn't link dualistically; it's part of the whole unit of 'unified monism'<sup>61; 62</sup>: The finite and the infinite are one. We just simply cannot recognize the infinite reality, because we*

can only process phenomena through the finite; we can only see a mirror of the infinite.<sup>44</sup>

Now what are the important elements? Water is a compound with the most gimmel of any compound. And water is the most life sustaining of all the compounds. The life elements—spelling out strangely enough ‘CHOSEN’ (Carbon, Hydrogen, Oxygen, Sulphur [the ‘e’ we leave out], Nitrogen), as well as Magnesium and Calcium and the noble gas elements, Neon and Helium – have more gimmel than any others). So here is a principle: *Water and the life elements together potentially have more gimmel, and that contributes possibly to life in the physical reality. And they, of course, exist in the inanimate and animate evolutionary context.*

### *DNA*

We know that *DNA* is made up predominantly of the elements of life, and that there is a higher proportion of gimmel because the life-elements constitute almost exclusively the most elements in DNA. Yes, there is so-called ‘junk DNA’<sup>33; 47; 48</sup> which is regarded by the physical materialists as literally ‘junk’ (i.e., not worth anything and an index of lack of design).<sup>155</sup> But it is likely, we postulate, that this is loaded full of gimmel. Moreover, the energy packets linked up with this are also associated with such elements as phosphorus or compound combinations such as phosphate. Phosphorus contains slightly less than the amount of the life element of gimmel, but it is specifically necessary for these energy packets. Also, water has as much or more gimmel than any other compound and our living bodies are mainly made up of water.<sup>16</sup> This transition is less than without applying gimmel in the inanimate as well as the animate.

In a way, demonstrating gimmel is not too different from hypothesizing an outside agent—a God or divinity—creating life from non-life. But in this instance, it is life from a different kind of life. Some would interpret this as adding a new emotion, a positive emotion like love, or a specific vibratory component<sup>78</sup>. However, effectively, gimmel is certainly closer, but not the ultimate solution—we need to learn more but this reflects science not speculation. We must now fill in missing gaps. Gimmel still implies the delivery of a special something that already exists not only in every biological cell but also in the inanimate. The difference might be qualitative and quantitative, and possibly allows for a much easier scientific explanation for abiogenesis.

### *Soul*

For many years, people have written about the soul. Possibly, if we use the idea of essence—of *gimmel in necessary union with all mass/energy particles*—and deriving from the infinite, and that the infinite has components that are renewable forever, because they are conserved<sup>28; 140</sup>, one can see that this might be something closer to certain theological concepts: It’s a good alternative to any ‘creationist’

view, because TDVP includes much of the LFAF puzzle of data. TDVP also recognizes multiple higher dimensions which means that we are not constrained by 4D. There is more connection with physical life and higher consciousness, for example.

There still might be a separation between the animate and the inanimate, but there also may be different levels of the inanimate, and a progression in evolution of different forms of life. Instead of theologically ‘just being created’, we might have a fundamental difference between meaningful evolution (ME) and intelligent design (ID), because ME does not need a creator just a process of gimmel related evolution, though it could be argued that gimmel, deriving as it does from an infinite continuity, reflects the divinity and with multidimensional time. Moreover, conservation of gimmel, always exists, like a divinity. Gimmel likely unifies science and spirituality. <sup>12; 43; 152; 155</sup>

The link of the animate and inanimate has a common factor with gimmel. But in TDVP models, there’s no such thing as non-life <sup>27</sup>; everything is living, and always existing in the infinite continuity. Many people talk about the ‘soul’, and gimmel might reflect the ‘essence’ variant. The ‘soul’ implies a dualism; TDVP argues for monism and hence the ‘essence’ because all is unified.

Fundamentally, people have to think ‘out of the box’ in order to understand the conundrum of life. Even if we use the comment, “*Life always exists and is always conserved*”, our logic would contemplate that qualitatively there is a different kind of life? Is the progression from the amoeba to Homo sapiens reflecting the qualitative evolutionary progression of gimmel with mass and energy? Is the progression from the rock to the amoeba also reflecting the qualitative evolutionary progression of gimmel?

We know that the life elements have special, unique qualities being multiples of 108 cubed and that the number 108 has its own unusual characteristics (Figures 5).

### *Hegel, Aristotle, Vedantic thinking, Kabbalah*

We may be playing with conceptual terminology here. Examining two other concepts: The Hegelian concept <sup>175</sup> of emerging from the world of the finite is different from the infinite continuity, and of creating. This is a profound jump, yet in TDVP, the infinite continuity exists forever; and that is what we are calling ‘life’. The soul of Aristotle <sup>176</sup> has similarities <sup>177</sup> within the ideas of Vedantic thinking <sup>178</sup>, and in fact in terms of Kabbalah—but Kabbalah perceives this as monistic, not dualistic, and so does Vedantic thinking <sup>178</sup>, though Kabbalah <sup>152; 154; 179; 180</sup>, like TDVP, recognizes real Space, Time and Consciousness—the physical reality. <sup>27</sup> The difference with gimmel, TRUE and TDVP is that one is moving towards science and obtaining data, as opposed to this being a pure speculation. <sup>12; 43; 152; 155</sup>

An aside: Many reading this might say “*This is ridiculous! How can the authors claim that there is life in rocks or in molecules or atoms or even quarks?*” We understand. This sounds outrageous. However, we know there is gimmel in union with everything stable. It’s not only in union with biological substances, but all things. It is logical to continue this train of thought. Clearly, an electron is quite different from a human, but we’ve said there are different kinds of gimmel, and the most primitive form may conceptually be quite different in quality, but fundamentally, gimmel is gimmel, and there may be an evolutionary progression.

#### *Revisiting DE and ID:*

We do not reject DE. We recognize strong factors that are applicable to this model based on a 4 Dimensional perspective. Excellent research has been done.

The major limitation is how life came about from the inanimate and the stepwise, sometimes large, illogical jumps. Effectively, a parallel is the cybernetic Stimulus, central, response. We think there is more. Consciousness, meaning, intentionality, and free choice are not available in DE.

We also do not reject ID. We recognize strong factors that are applicable to this model based on a 4-Dimensional perspective plus the awareness of meaning, of some kind of logical design that may imply a designer.

The major limitation is that much of ID is a critique about the impossibility of DE. There are a few positive arguments pertaining to the ostensible design of such chemicals as DNA. Abiogenesis is difficult to explain.

#### *Principles of ME.*

So here are our principles applying TDVP and LFAF in ME.

Not only are we dealing with content, there is also a new process. And the process is not: *How does inanimate becomes animate? How do we cross from non-life to life? Life always exists – that’s the phrase: life always exists in the infinite continuity, and the infinite continuity always envelops the finite. Life is always conserved, and conserved even ostensibly with situations of rocks or of other chemicals.* Certain chemicals can therefore put together their gimmel in this complex soup. The chemicals of life particularly, with energy packets such as Phosphorus, can ultimately produce what we regard as the life forms. <sup>16</sup> ME provides moderate (as opposed to almost non-existent data) for Abiogenesis. ME also explains better than DE and ID, the jumps in evolution because it applies not only 9D finite but the infinite continuity. ME explains life and variation well. In effect, we *extract the strengths, amplify the weaknesses and provide alternatives to DE and ID.*

# HISTORICAL BACKGROUND OF DARWINIAN EVOLUTION, PANGENESIS AND UNDERSTANDING LIFE: PART 7

**Vernon M. Neppe MD, PhD, FRSSAf**

## **Background:**

To understand the concept of animate life occurring from the physically inanimate, from rocks to mankind so to say, we must appreciate the history. We briefly outline those areas we've not covered, or topics that require some further clarification. This allows a prioritized perspective on Darwinian Evolution and from this we can then better conceptualize Intelligent Design and Meaningful Evolution.

The great Greek philosopher, Aristotle argued that animals can originate from other similar animals, but that living things also have arisen from lifeless matter.<sup>181</sup> Variations of his theory of spontaneous generation remained the dominant idea on origin of life from the ancient philosophers to the birth of modern science.

Experimental refutations such as Italian physician Francesco Redi in 1668 that maggots developed from rotten meat only in a jar where flies could enter, but not in closed-lid jar. He concluded that: *omne vivum ex vivo* (All life comes from life).<sup>182</sup> Then French chemist Louis Pasteur in 1859 demonstrated that organisms (microbes) cannot grow in a sterilized water, unless exposed to air. "Never will the doctrine of spontaneous generation recover from the mortal blow of this simple experiment."<sup>183</sup>

The scientific theory of evolution by natural selection was proposed by Charles Darwin and Alfred Russel Wallace in the mid-19th century and was set out in detail in Darwin's *On the Origin of Species*.<sup>37</sup> Evolution by natural selection was first demonstrated by the observation that more offspring are often produced than can possibly survive. This is followed by three observable facts about living organisms:

- 1) traits vary among individuals with respect to their morphology, physiology and behavior (phenotypic variation),
- 2) different traits confer different rates of survival and reproduction (differential fitness) and
- 3) traits can be passed from generation to generation (heritability of fitness).<sup>184</sup>

Alfred Russel Wallace OM FRS (8 January 1823 – 7 November 1913) was a British naturalist, explorer, geographer, anthropologist, and biologist.<sup>[1]</sup> He is best known for independently conceiving the theory of evolution through natural selection; his paper on the subject was jointly published with some of Charles Darwin's writings in 1858.<sup>185</sup>

For Wallace<sup>186</sup> "*Natural Selection is a metaphorical expression ...to a certain degree indirect and incorrect, since even personifying Nature, she does not so much*

*select special variations as exterminate the most unfavorable ones... Natural Selection is, when properly understood, so necessary and self-evident a principle that it is a pity that it should be in any way obscured."*

In these contexts, we look at Darwin and two phenomena, pangenesis and also the origin of life.

### **Pangenesis**

Charles Darwin' proposed the term '*pangenesis*' (Greek *pan* "whole" and *genesis* ("birth")) as a 'provisional hypothesis' mechanism for heredity in which each part of the body continually emitted its own type of small organic particles called gemmules that aggregated in the gonads, contributing heritable information to the gametes. He intended it to fill '*a major gap in evolutionary theory*'. Darwin admitted that Hippocrates' pangenesis was "*almost identical with mine—merely a change of terms—and an application of them to classes of facts necessarily unknown to the old philosopher*". Many had written about pangenesis beforehand with similar ideas involving the theory that what is inherited derives from the whole body of the parent, and endorsed by Democritus, Galen, Clement of Alexandria, Lactantius, St. Isidore of Seville, Bartholomeus Anglicus, St. Albert the Great, St. Thomas Aquinas, Peter of Crescentius, Paracelsus, Jerome Cardan, Levinus Lemnius, Venette, John Ray, Buffon, Bonnet, Maupertius, von Haller and Herbert Spencer.<sup>187</sup>

Pangenesis was also popular among the neo-Lamarckian school of evolutionary thought.<sup>187; 188</sup>

### **Origin of life**

Darwin did not speak explicitly about the origin of life in *On the Origin of Species*.<sup>37</sup> However, Darwin mentioned a "*warm little pond*" in a letter to Joseph Dalton Hooker dated February 1, 1871.<sup>189</sup> Effectively, Darwin recognized the difficulty of 'spontaneous generation':

*"But if (and oh what a big if) we could conceive in some warm little pond with all sort of ammonia and phosphoric salts,—light, heat, electricity present, that a protein compound was chemically formed, ready to undergo still more complex changes, at the present such matter would be instantly devoured, or absorbed, which would not have been the case before living creatures were formed [...]."*—

Charles Darwin, Letter to Joseph Dalton Hooker on February 1, 1871.

### **Lamarck:**

Lamarckism is the hypothesis that an organism can pass on characteristics that it has acquired through use or disuse during its lifetime to its offspring. It is also known as the inheritance of acquired characteristics or soft inheritance.<sup>190</sup>

French biologist Jean-Baptiste de Lamarck (1744–1829) speculated that the first life form started from non-living materials.<sup>191</sup>

*"Nature, by means of heat, light, electricity and moisture forms direct or spontaneous generation at that extremity of each kingdom of living bodies, where the simplest of these bodies are found."*<sup>192</sup>

Lamarckism is inaccurately<sup>193; 194</sup> named after Lamarck, who incorporated the action of soft inheritance into his evolutionary theories as a supplement to his concept of a drive towards complexity.<sup>190</sup>

Yet, Lamarck did not originate the idea of soft inheritance<sup>190</sup>, which was known from the classical era onwards, and it was not the primary focus of Lamarck's theory of evolution. Further, in *On the Origin of Species* (1859), Charles Darwin supported the idea of 'use and disuse inheritance, though rejecting other aspects of Lamarck's theory; and his pangenesis theory<sup>187; 188</sup> implied soft inheritance.<sup>38</sup>

Evidence for Lamarck's theory have apparently been explained away by other mechanisms such as genetic contamination. However, German evolutionary biologist, August Friedrich Leopold Weismann (1834 –1914) wrote about germ plasm theory where the gametes such as egg cells and sperm cells<sup>195</sup>. Other cells of the body—somatic cells—do not function as agents of heredity. His experiment rules out the inheritance of acquired characteristics.<sup>195</sup> However, he did not address Lamarck's 'use and disuse' concepts.

Darwin and Lamarck were both scientists who tried to understand evolution. Darwin's theory became accepted because it had more evidence that supported it. Lamarck suggested that traits acquired during life were passed on.<sup>190</sup> Lamarck's theory of evolution was based on how organisms (e.g. animals, plants) change during their lifetime, and then pass these changes onto their offspring. By contrast, Darwin<sup>37</sup> and Wallace<sup>37; 185; 186; 196</sup> suggested that biological traits were passed from parent to offspring, but these were unrelated to what was acquired during life.

Lamarck is best known for his *Theory of Inheritance of Acquired Characteristics*, first presented in 1801<sup>187; 188</sup> and long preceding Darwin: If an organism changes during life in order to adapt to its environment, those changes are passed on to its offspring. He said that change is made by what the organisms want or need. For example, Lamarck argued that elephants all used to have short trunks but to access food or water, they stretched their trunks and their offspring inherited long trunks. By contrast, Lamarck postulated that redundant body parts like the human appendix and little toes should be gradually disappearing. Eventually, people will be born without these parts. Lamarck also believed that evolution happens according to a predetermined plan and that the results have already been decided.<sup>194</sup> Evolutionary biologists believed that a kind of spontaneous generation, different from the simple Aristotelian doctrine<sup>176; 177</sup>, must have worked for the emergence of life.

Studies in the field of epigenetics and genetics<sup>49; 197; 198; 199</sup> have highlighted the possible inheritance of traits acquired by the previous generation. The characterization of these findings as Lamarckism has been disputed.

The inheritance of acquired characteristics was proposed in ancient times, and remained a current idea for many centuries.<sup>187</sup> Lamarck was not the first to believe in the inheritance of acquired characters. Two thousand two hundred years ago the inheritance of acquired characters had been accepted previously by Hippocrates, Aristotle, Galen, Roger Bacon, Jerome Cardan, Levinus Lemnius, John Ray, Michel Adanson, and Erasmus Darwin among others.<sup>187</sup>

### **Mendel**

Mendelian genetics supplanted the notion of inheritance of acquired traits<sup>200</sup>, eventually leading to the development of the modern genetics, and the general abandonment of Lamarckism in biology. Despite this, interest in Lamarckism has continued.<sup>200</sup> This hypothesis was further made effectively obsolete after the 1900 rediscovery among biologists of Gregor Mendel's theory of the particulate nature of inheritance.<sup>200</sup>

Particulate inheritance is a pattern of inheritance discovered by Mendelian genetics theorists, such as William Bateson, Ronald Fisher or Gregor Mendel<sup>200</sup> himself, showing that phenotypic traits can be passed from generation to generation through "discrete particles" known as genes, which can keep their ability to be expressed while not always appearing physically in a descending generation. Phenotypic traits reflect a distinct variant of a phenotypic characteristic of an organism; it may be either inherited as the expression of an organism's genetic code, or determined environmentally, which may interact, further. Typically, the phenotype expresses the combination.

The phenotype is the composite of the organism's observable characteristics or traits, including its morphology or physical form and structure; its developmental processes; its biochemical and physiological properties; its behavior, and the products of behavior, such as the nest of a bird. An organism's phenotype results from two basic factors: its genotype, and the influence of environmental factors, affecting phenotype.

### **The Primordial soup in perspective**

The prior widely accepted idea in the 1920s had been that the first organisms emerged endowed with an autotrophic metabolism, which included photosynthetic pigments, enzymes and the ability to synthesize organic compounds from CO<sub>2</sub> and H<sub>2</sub>O.

Primordial soup, or prebiotic soup (also sometimes referred as prebiotic broth), described the hypothetical set of conditions present on the Earth around 4.2 to 4.0 billions of years ago.

This became the fundamental aspect to the heterotrophic theory of the origin of life, first proposed by the Russian Alexander Oparin in 1924 in Russian <sup>201</sup>, and, independently, the Englishman, John Burdon Sanderson Haldane in 1929. <sup>202; 203</sup>

The heterotrophic theory argues that organic compounds were synthesized in the primitive Earth under prebiotic conditions. This preceded the origin of life on earth. When mixed with water under the primitive Earth atmosphere, it becomes the prebiotic soup. This allowed the first life-forms using organic molecules to survive and reproduce. This contrasts with the prior *abiotic* process without the presence of life, but with abiotic synthesis and subsequent accumulation of various organic compounds in the seas of primitive Earth.

#### *The heterotrophic theory of the origin of life*

- was partly based on the universality of fermentative reactions. Organic compounds were synthesized in the primitive Earth under prebiotic conditions. The mixture of such compounds with water under the atmosphere of the primitive Earth is referred as the prebiotic soup. There, life originated and the first forms of life were able use the organic molecules to survive and reproduce.
- We must distinguish *prebiotic* and *abiotic* processes. The abiotic process refers to anything that occurs without the presence of life. The prebiotic process refers to something that happens in the atmospheric and chemical conditions that the primitive Earth had about 4.2 billion years ago, and that preceded the origin of life on the planet.

From the detailed analysis of the geochemical and astronomical data known at that date, Oparin also proposed a primitive atmosphere devoid of O<sub>2</sub> and composed of CH<sub>4</sub>, NH<sub>3</sub> and H<sub>2</sub>O <sup>202; 203</sup>; under these conditions it was pointed out that the origin of life had been preceded by a period of abiotic synthesis and subsequent accumulation of various organic compounds in the seas of primitive Earth.<sup>[1]</sup> This accumulation resulted in the formation of a primordial broth containing a wide variety of molecules.

Oparin pointed out it was impossible to reconcile the original photosynthetic organisms with the ideas of Darwinian evolution. <sup>202; 203</sup>

#### *Oparin*

The Soviet biochemist Alexander Oparin in 1924 proposed (in Russian) that the primitive Earth's surface had a thick red-hot liquid, composed of heavy elements such as carbon (in the form of iron carbide). It contained carbon and hydrogen

producing CH<sub>4</sub>, (Methane), water vapor H<sub>2</sub>O, and ammonia NH<sub>3</sub>. These reacted to form the first organic compounds. This resulted in the formation of a primordial broth containing a wide variety of molecules. This nucleus was surrounded by the lightest elements, i.e. gases, such as hydrogen. In the presence of water vapor, carbides reacted with hydrogen to form hydrocarbons. Such hydrocarbons were the first organic molecules. These further combined with oxygen and ammonia to produce hydroxy- and amino-derivatives, such as carbohydrates and proteins. These molecules accumulated on the ocean's surface, becoming gel-like substances and growing in size. They gave rise to primitive organisms (cells), which he called coacervates.<sup>192</sup>

In his original theory, Oparin considered oxygen as one of the primordial gases.<sup>203</sup> Thus, the primordial atmosphere was an oxidizing one. However, when he elaborated his theory in 1936 (in a book by the same title, and translated into English in 1938), he modified the chemical composition of the primordial environment as strictly reducing, consisting of methane, ammonia, free hydrogen and water vapor—excluding oxygen.<sup>204</sup>

### *Haldane*

Independently, an English scientist arrived at similar conclusion in 1929 in an eight-page article "The origin of life" in *The Rationalist Annual*.<sup>202</sup> Haldane used the term 'primordial soup' or 'prebiotic atmosphere' to describe the accumulation of organic material and water in the primitive Earth.<sup>202</sup> Haldane's primitive Earth's atmosphere was essentially reducing, with little or no oxygen. Before the origin of life, the primitive oceans reached the consistency of hot dilute soup. When ultra-violet light, under the solar energy of the anoxic atmosphere, reacts on a mixture of water vapor, carbon dioxide, methane, and ammonia, a vast variety of organic substances are made, including sugars and apparently some of the materials from which proteins (amino acids) are built up producing 'living or half-living things'. Haldane also introduced the modern concept of 'abiogenesis' describing the primitive ocean as a 'vast chemical laboratory' containing a mixture of inorganic compounds – like a 'hot dilute soup': From there, organic substances such as sugars, and were synthesized. These molecules "accumulated till the primitive oceans reached the consistency of hot dilute soup." The first reproducing things were created from this soup.<sup>202</sup>

### **Later:**

#### *The Miller–Urey experiment*

One of the most important pieces of experimental support for the "soup" theory came in 1953. A graduate student, Stanley Miller, and his professor, Harold Urey, performed an experiment that demonstrated how organic molecules could have spontaneously formed from inorganic precursors, under conditions like those posited

by the Oparin-Haldane Hypothesis. The now-famous "Miller–Urey experiment"<sup>205</sup> used a highly reduced mixture of gases—methane, ammonia and hydrogen—to form basic organic monomers, such as amino acids, providing direct experimental support for the "soup" theory.

The next important step in research on prebiotic organic synthesis was the demonstration by Joan Oró that the nucleic acid purine base, adenine, was formed by heating aqueous ammonium cyanide solutions.<sup>206</sup> In support of abiogenesis in 'eutectic ice', more recent work demonstrated the formation of s-triazines (alternative nucleobases), pyrimidines (including cytosine and uracil), and adenine from urea solutions subjected to freeze-thaw cycles under a reductive atmosphere (with spark discharges as an energy source).<sup>207</sup> The spontaneous formation of complex polymers from abiotically generated monomers under the conditions posited by the "soup" theory *is not at all a straightforward process*. Besides the necessary basic organic monomers, compounds that would have prohibited the formation of polymers were formed in high concentration during the Miller–Urey<sup>208</sup> and Oró experiments.<sup>206</sup> The Miller experiment, for example, produces many substances that would undergo cross-reactions with the amino acids or terminate the peptide chain.<sup>208</sup>

Importantly, we argue that intention, and water with the most gimmick of any compound must not be neglected.

### *RNA and DNA*

Oparin's and Haldane's theories had great implications for biology, transforming the study of the origin of life from a purely speculative field to a structured and broad research program.<sup>209</sup> These new theories since the 1960s particularly, necessarily further accommodated the new experimental findings of molecular biology plus evolutionary biology. One convergence resulted in the 'RNA world hypothesis'<sup>210</sup> of today.<sup>211</sup> This included the progression as some ancient RNAs evolved the ability to methylate other RNAs to protect them.<sup>212</sup> This hypothesis further proposes self-replicating RNA molecules proliferating. Then came an age of ribonucleoproteins evolving ('the RNP world'),<sup>213</sup> before the evolution of DNA and proteins leading to the era of 'DNA and longer proteins'. DNA is more stable and durable than RNA explaining why it became the predominant storage molecule.<sup>214</sup>

### **Current status**

Today the theory is variously known as the "Heterotrophic origin of life theory" or the "Oparin-Haldane hypothesis"<sup>214</sup> Biochemist Robert Shapiro has summarized the basic 'mature' points of the theory.<sup>215</sup> p. 110.

1. Early Earth had a chemically reducing atmosphere.
2. This atmosphere, exposed to energy in various forms, produced simple organic compounds ("monomers").
3. These compounds accumulated in a "soup", which may have been concentrated at various locations (including shorelines, oceanic vents).

By further transformation, more complex organic polymers – and ultimately life – developed in the soup. Nevertheless, some functionally relevant changes to the genome do not involve a change in the nucleotide sequence. Examples of epigenetic mechanisms that produce such changes are DNA methylation and histone modification, each of which alters how genes are expressed without altering the genes themselves.

## PERSPECTIVE: WHY ‘MEANINGFUL EVOLUTION’ IS A FORMIDABLE MODEL OF EVOLUTION: PART 8

**Vernon M. Neppe MD, PhD, FRSSAf**

We summarize the key background and current *status quo* concerning the Neppe-Close TDVP research pertinent to evolution. In essence, we must adopt a broader picture. Some would portray TDVP and our related work in the fashion that Dr. David Stewart has. Dr. Stewart is a Physicist, Mathematician, Theologian, Herbal specialist, and Author of 20 books. <sup>216</sup> He has studied TDVP and our papers in enormous detail and provided a spontaneous and kind perspective <sup>217</sup>:

*"In summary, I rank Dr. Edward R. Close and Dr. Vernon M. Neppe as peers of the major authors of modern physics and mathematics. I equate them with greats, such as Planck, Einstein, Heisenberg, Schrödinger, Bohr, Dirac, Born, Pauli, Bell, De Broglie, their predecessors such as Newton, Maxwell, Leibnitz, Kelvin, and many others. The Neppe-Close work, which is built upon the works of these extraordinarily brilliant and innovating pioneers, has clarified, and extended the science and mathematics that these geniuses originated over a century ago. The work of Close and Neppe has laid a foundation for all future science to develop. The world of scientific understanding, in all fields, has been permanently changed, and set in a new direction, by the work of Close and Neppe. The future of all mankind is forever brighter because of what they have done. And they aren't finished, yet. I foresee the day when they will both be awarded other honors, such as a Nobel Prize in Physics. ... If there were an equivalent award in Mathematics, I would nominate them for that prize, as well."*

The information below is summarized from “*Integrating spirituality into science: applying the Neppe-Close Triadic Dimensional Vortical Paradigm (TDVP)*”. <sup>155</sup>

- There are nine Close-Neppe / Neppe-Close discoveries that have completely changed the current conception of the nature of reality.
- There are also groundbreaking and proven TDVP discoveries.
- Additionally, there are scientific Neppe-Close epiphanous discoveries. And
- Extra pertinent spirituality and science comments perspectives based on empirically verified real-life proofs.

We emphasize the great importance of several comprehensive necessary but neglected components and philosophical dilemmas in our stable universe.

- The philosophy of *Unified Monism*, reflecting the metaphysical basis of TDVP.
- *Ordropy*, reflecting order in the infinite and also expressed in the finite: Ordropy describes an expanded multidimensional negative entropy including consciousness reflecting organizing principles in science and spirituality.
- Ordropy allows *immortality* in the infinite and explains *physical life* and death.
- *Limited free-will* and choice, plus the related concepts of good and evil.

- *Dimensional biopsychophysics, as a new scientific specialty, in the context of approaching dimensions, infinity, understanding spirituality, consciousness, meaning, math, and the laws of nature.* <sup>12; 218</sup>
- *So-called ‘junk DNA’ being anything but junk.* <sup>46; 47; 48; 49; 50</sup> It may be the message that contains consciousness, meaning, information, spirituality, and even Godliness.
- *Prior to the ‘Big Bang’ or the ‘event horizon’, there was not just nothing out of which something arose (‘ex nihilo’). There’s always been an infinite something: the term ‘begins’ reflects the ‘something’ of the finite, yet the infinite exists forever, also before the finite. *Gimmel preceded the finite allowing for physical existence. Reality begins with consciousness in the finite but not the infinite where reality does not ever begin as consciousness and meaning always exist.* <sup>27</sup>*
- *The Laws of Nature are unified.* This includes one law for the infinite and finite; and a single law for all the quantal, macroreality and cosmological levels. <sup>12; 13; 14</sup>
- TDVP is loaded with the concepts of impact and influence: These imply theism, i.e., not only the existence of G-d, but the *active potential for interventions*.
- Also quantum mechanics cannot help us understand even a blade of grass by quantum mechanics, never mind life itself: The data on extended infinite life is very cogent. We cannot produce a blade of grass. DE appears incomplete but not linked with the quantal world.

This paper is empirically based (to the extent that our data is on mass-energy consciousness in the electron, proton, neutron is exactly the same as that independently calculated through mass-energy equivalence normalized data in the CERN Large Hadron Collider, as in Table 1 <sup>28; 29</sup>). We give a perspective to our data on gimmel, spiritual consciousness, infinite continuity, and higher dimensions (specifically our 9D plus model and the Triadic Dimensional Vortical Paradigm (TDVP) with Triadic Rotational Units of Equivalence.

Our TDVP paradigm unifies the Laws of Nature: We solve the problems of ‘quantum weirdness’, of why the Life Elements are different, of how gimmel fits into Dark Matter and Dark Energy, of survival after death and ordropy (conservation of consciousness in the infinite continuity) and of meaningful evolution. This involves a single explanation, leading to the Laws of Nature being unified and a consequent *philosophical* model of Unified Monism being proposed based on the *science*. *And the science behind it is frequently mathematics.*

*Gimmel, 9D plus and the infinite continuity, are fundamental to TDVP, and means effectively that evolution would not work without them.* This is really what it comes down to: *You need an extra, and that extra is – meaningful evolution.*

We find this work very exciting. And it explains evolution as meaningful evolution.

## REFERENCES

1. Hoyle F, Wickramasinghe F: *Evolution from space: A theory of cosmic creationism*. New York: Simon and Schuster, 1982.
2. Johnson PE: *Darwin on Trial*". Downers Grove, Ill: Intervarsity Press, 1991. (3rd Ed: 2010).
3. Johnson PE: *Defending intelligent design*, in Nova PBS.  
<https://www.pbs.org/wgbh/nova/article/defense-intelligent-design/>.
4. Meyer SC: *Signature in the cell: DNA and the evidence for Intelligent Design* Seattle: Amazon Kindle Edition, 2009.
5. Meyer SC: *Darwin's doubt: the explosive origin of animal life and the case for Intelligent Design*. Seattle: Amazon Kindle Edition, 2011.
6. Meyer SC: *Does new scientific evidence about the origin of life put an end to Darwinian evolution?* Seattle: Amazon Kindle Edition, 2011.
7. Meyer SC: *The return of the God hypothesis: Compelling scientific evidence for the existence of God*. Seattle: Amazon Kindle Edition, 2019.
8. Online experts: Intelligent design, in *New World Encyclopedia*. Edited by Kwak CH, initially (ongoing). St Paul, Minnesota: Online: Paragon House Publishers. 2018,.
9. Close ER: *Why do we face a death sentence from the day we are born?*, in. (27 April 2019). <https://www.erclosetphysics.com/2019/04/why-do-we-and-our-loved-ones-have-to.html>.2019.
10. Smullyan R: *Gödel's incompleteness theorems*. Oxford: Oxford University Press, 1991.
11. Berto FJ: *There's something about Gödel: the complete guide to the incompleteness theorem*. New York: John Wiley and Sons, 2010.
12. Neppe VM, Close ER: Perspective: dimensional biopsychophysics: approaching dimensions, infinity, meaning, and understanding spirituality and the laws of nature: Section 13. In *Integrating spirituality into science: applying the Neppe-Close Triadic Dimensional Vortical Paradigm (TDVP)*. *IQNexus Journal* 10: 2; 71-77, 2018.
13. Close ER, Neppe VM: The role of mathematics in investigating the nature of reality (Part 4). *IQNexus Journal* 7: 4; 22-26, 2015.
14. Close ER, Neppe VM: A new paradigm describing the nature of reality and what it implies for the future of science: Preface (Part 2). *IQNexus Journal* 7: 4; 16-18, 2015.
15. Wright R: Last Update Date. Richard Feynman on the weirdness of physical reality. Series Richard Feynman on the weirdness of physical reality Retrieved Date, Access 2012,  
<http://www.theatlantic.com/technology/archive/2012/07/richard-feynman-on-the-weirdness-of-physical-reality/259718/> 2012.

16. Close ER, Neppe VM: Putting consciousness into the equations of science: the third form of reality (gimmel) and the “TRUE” units (Triadic Rotational Units of Equivalence) of quantum measurement *IQNexus Journal* 7: 4; 7-119, 2015.
17. Neppe VM, Close ER: A data analysis preliminarily validates the new hypothesis that the atom 'contains' dark matter and dark energy: Dark matter correlates with gimmel in the atomic nucleus and dark energy with gimmel in electrons. *IQ Nexus Journal* 8: 3; 80-96, 2016.
18. Neppe VM, Close ER: The fourteenth conundrum: Applying the proportions of Gimmel to Triadic Rotational Units of Equivalence compared to the proportions of dark matter plus dark energy: Speculations in cosmology. *IQNexus Journal* 7: 2; 72-73, 2015.
19. Neppe V, Close ER: Beyond Physical Life How ‘TDVP’ (Triadic Dimensional Distinction Vortical Paradigm) explains survival after bodily death. *J. Spiritual and Consciousness Studies* 40: 1; 42-62, 2017.
20. Neppe V: On the alleged scientific evidence for survival after bodily death. *Australian J. of Parapsychology* 15: 2; 167-196, 2015.
21. Neppe VM: Revisiting survival 37 years later: Is the data still compelling? *Journal of Spirituality and Paranormal Studies* 33: 3; 123-147, 2010.
22. Neppe VM. The chess game from beyond the grave.  
[https://www.youtube.com/watch?v=g1S6y1-Pz\\_w](https://www.youtube.com/watch?v=g1S6y1-Pz_w). 2016.
23. Neppe VM: A detailed analysis of an important chess game: revisiting ‘Maróczy versus Korchnoi’. *Journal Soc. Psychical Research* 71: 3; 129-147, 2007.
24. Neppe VM, Close ER: The Infinite: essence, life and ordropy *Dynamic International Journal of Exceptional Creative Achievement* 1204: 1204; 2159-2169, 2012.
25. Neppe VM, Close ER: A proposed Theory of Everything that works: How the Neppe-Close Triadic Dimensional Distinction Vortical Paradigm (TDVP) model provides a metaparadigm by applying nine-dimensional finite spin space, time and consciousness substrates and the transfinite embedded in the infinite producing a unified reality. *IQNexus Journal* 16: 3; 1-54, 2014.
26. Neppe VM, Close ER: TDVP: a paradigm shift that works —how the Triadic Dimensional Distinction Vortical Paradigm challenges conventional scientific thinking and explains reality. *Telicom* 27: 1; 24-42, 2014.
27. Neppe VM, Close ER: *Reality begins with consciousness: a paradigm shift that works (5th Edition)* Fifth Edition. Seattle: Brainvoyage.com, 2014.
28. Close ER, Neppe VM: Derivation and application of TRUE quantum calculus for the analysis of quantized reality, including empirically verifiable new approaches to mass, neutrons, protons, law of conservation of gimmel and TRUE, TDVP and Deuterium. 2019 In submission.
29. Close ER, Neppe VM: Why TRUE units have to be correct: the mass in the proton: re-affirming the truth of Triadic Rotational Units of Equivalence. Chapter 6 *IQ Nexus Journal* 8: 4 —V6.122; 70-96, 2016.

30. Close ER: The calculus of dimensional distinctions, in *Elements of mathematical theory of intellect (monograph)*. Edited by Brandin V. Moscow: Moscow Interphysica Lab. pp. 13-20 2003.
31. Close ER, Neppe VM: Further implications: quantized reality and applying Close's Calculus of Distinctions versus the Calculus of Newton(Part 19). *IQNexus Journal* 7: 4; 110-111, 2015.
32. Close ER, Neppe VM: The Calculus of Distinctions: A workable mathematicologic model across dimensions and consciousness. *Dynamic International Journal of Exceptional Creative Achievement* 1210: 1210; 2387-2397, 2012.
33. Meyer SC: *Signature in the Cell: DNA and the Evidence for Intelligent Design*. Panama City, FL: HarperOne 2009.
34. Schroeder GL: *The science of God: the convergence of scientific and biblical wisdom*. New York: The Free Press, 1998.
35. Schroeder GL: *The hidden face of God: Science reveals the ultimate truth*. New York: Harper Collins, 1990.
36. Schroeder GL: *Genesis and the big bang*. New York: Harper Collins, 1990.
37. Darwin C: *On the origin of species*. New York City, NY: Pocket, 2008 (original 1853).
38. Darwin C: *The Autobiography of Charles Darwin*. Rockville, MD: Serenity, 2008 (original 1887).
39. Einstein A: *Relativity, the special and the general theory—a clear explanation that anyone can understand (Fifteenth Edition)*. New York: Crown Publishers, 1952.
40. Neppe VM: Last Update Date. The empirical application of the concept of "Consciousness": The clinical application of the theoretical "EPIC consciousness. Series The empirical application of the concept of "Consciousness": The clinical application of the theoretical "EPIC consciousness Retrieved Date, Access 2016, <http://neuro.psychiatryonline.org/toc/jnp/27/2..> 2016.
41. Neppe VM, Close ER: EPIC consciousness: A pertinent new unification of an important concept. *Journal of Psychology and Clinical Psychiatry* 1: 00036: 6; 1-14, 2014.
42. Neppe VM. Infinity and non-Locality with Vernon Neppe (YouTube). New Thinking Allowed, [https://www.youtube.com/watch?v=AtMQdS8\\_Vck&t=2123s](https://www.youtube.com/watch?v=AtMQdS8_Vck&t=2123s). 2018.
43. Neppe VM: How spirituality and consciousness and science are allied through the Neppe-Close Triadic Dimensional Vortical Paradigm (TDVP). *IQNexus Journal* 10: 4; 7-30, 2018.
44. Neppe VM, Close ER: Explaining psi phenomena by applying TDVP principles: A preliminary analysis: Priority Perspective *IQNexus Journal* 7: 3; 7-10, 2015.
45. Discovery Institute. Intelligent Design. <https://www.discovery.org/id/>. 2019.

46. Gariaev P: *DNA Phantom Effect*: Russia, 2005.
47. Bunzel T: Junk DNA and human consciousness.  
[https://www.bibliotecapleyades.net/ciencia/ciencia\\_genoma91.htm](https://www.bibliotecapleyades.net/ciencia/ciencia_genoma91.htm) 2014.
48. Kuntzelman E: *Junk DNA: the key to higher consciousness?*, in.  
<https://emanuelkuntzelman.com/how-our-genomic-dark-matter-might-hold-the-key-to-our-potential/>.2018.
49. Zuckerkandl E, Cavalli G: Combinatorial epigenetics, "junk DNA", and the evolution of complex organisms. *Gene* 390: 1-2; 232-242,  
<https://www.ncbi.nlm.nih.gov/pubmed/17223284> 2007.
50. Jones PD: Junk DNA and the identification of new levels of evidence to guide medical practice in 2013 and beyond. *Med J Aust* 197: 11; 672,  
<https://www.ncbi.nlm.nih.gov/pubmed/23230951> 2012.
51. Neppe VM, Close ER: Moving to the 9-D reality and gimmel: Part 2. In Does the Triadic Dimensional Vortical Paradigm (TDVP) alter the landscape from 4D science to 9D science?. *IQ Nexus Journal* 10: 3, v5.15; 16-20, 2018.
52. Neppe VM, Close ER: Wondrous gimmel: Section 8. In Integrating spirituality into science: applying the Neppe-Close Triadic Dimensional Vortical Paradigm (TDVP). *IQNexus Journal* 10: 2; 42-47 2018.
53. Neppe VM. Understanding Gimmel with Vernon Neppe. (YouTube). New Thinking Allowed, <https://www.youtube.com/watch?v=RhV96ShslU4>. 2018.
54. Close ER, Neppe VM: Understanding TRUE units and gimmel as part of TDVP: chapter 7 *IQ Nexus Journal* 8: 4 — V6.122; 97-106, 2016.
55. Close ER, Neppe VM: Speculations on the “God matrix”: The third form of reality (gimmel) and the refutation of materialism and on gluons. *World Institute for Scientific Exploration (WISE) Journal* 4: 4; 3-30, 2015.
56. Close ER, Neppe VM: Introductory summary perspective on TRUE and gimmel (Part 1) in Putting consciousness into the equations of science: the third form of reality (gimmel) and the “TRUE” units (Triadic Rotational Units of Equivalence) of quantum measurement *IQNexus Journal* 7: 4; 8-15, 2015.
57. Neppe VM, Close ER: Free-will: Freedom of choice within limits. *IQNJ (IQ Nexus Journal)* 10: 1 V3.22; 7-71, 2018.
58. Neppe VM: Editorial Opinion: What Are We Missing? Is There A Moral Judgment in Psychiatry as Well as Mental Illness? *J Psychol Clin Psychiatry* 9: 3: 00507; 1-16, 2018.
59. Neppe VM: Conceptualizing good and evil in psychiatry and social groups. *IQNexus Journal* 9: 3; 7-37, 2017.
60. Neppe VM, Close ER: Explaining psi phenomena by applying TDVP principles: A preliminary analysis *IQNexus Journal* 7: 3; 7-129, 2015.
61. Neppe VM, Close ER: Unified monism: linking science with spirituality in a philosophical model. Section 9: In Integrating spirituality into science: applying the Neppe-Close Triadic Dimensional Vortical Paradigm (TDVP). *IQNexus Journal* 10: 2; 48-51, 2018.

62. Neppe VM, Close ER: The fifteenth conundrum: Applying the philosophical model of Unified Monism: Returning to general principles. *IQNexus Journal* 7: 2; 74-78, 2015.
63. Neppe VM. Meaningful evolution. Edward Close discussion. 2017
64. Neppe VM, Close ER: Applying consciousness, infinity and dimensionality creating a paradigm shift: introducing the triadic dimensional distinction vortical paradigm (TDVP). *Neuroquantology* 9: 3; 375-392, 2011.
65. Neppe VM, Close ER: The Triadic Dimensional Distinction Vortical Paradigm (TDVP): The nine-dimensional finite spin metaparadigm embedded in the infinite *Dynamic International Journal of Exceptional Creative Achievement* 1401: 1401; 4001-4041, 2014.
66. Close ER, Neppe VM: Understanding the calculus of distinctions and its role in TDVP: chapter 8 *IQ Nexus Journal* 8: 4 — V6.122; 107-114, 2016.
67. Close ER: *Transcendental Physics*. Lincoln: I-Universe, 2000.
68. Neppe VM, Close ER: Relative non-locality and the infinite, in *Reality begins with consciousness: a paradigm shift that works (5th Edition)*. Edited by. Seattle, WA: Brainvoyage.com. pp. 376-379 2014.
69. Neppe VM, Close ER: The infinite (Part 13B). *IQNexus Journal* 7: 3; 117-120, 2015.
70. Neppe VM, Close ER: The discrete finite contained in the continuous infinite: some speculations (Part 13C). *IQNexus Journal* 7: 3; 120-122, 2015.
71. Neppe VM, Close ER: The necessity for infinity: Section 3. *IQ Nexus Journal* 9: 1; 24-29, 2017.
72. Close ER, Neppe VM: The Cabibbo mixing angle and other particle physics paradoxes solved by applying the TDVP multidimensional spin model. *IQNexus Journal* 14: 1; 13-50, 2014
73. Close ER, Neppe VM: The fifth conundrum: applying mathematical dimensional extrapolation non-specifically in our dimensional calculations to demonstrate multidimensionality. *IQNexus Journal* 7: 2; 34-38, 2015.
74. Close ER, Neppe VM: *Space, time and consciousness: the tethered triad*. Seattle: Brainvoyage.com, In press
75. Bengston WF: Crossing disciplinary boundaries: going beyond even meta-analysis of distant intention. *J Altern Complement Med* 18: 6; 525-526, <https://www.ncbi.nlm.nih.gov/pubmed/22784337> 2012.
76. Dossey L: *Unconscious intention in healing*, in Closed group discussion April. 2019.
77. Dossey L: Consciousness and TDVP: Welcome to a New World. *Explore (NY)* 13: 4; 233-237, [http://www.explorejournal.com/article/S1550-8307\(17\)30105-2/pdf](http://www.explorejournal.com/article/S1550-8307(17)30105-2/pdf) 2017.
78. Horowitz LG: *The book of 528: Prosperity key of love*. Sandpoint, ID: Tetrahedron, 2011.
79. Neppe VM, Close ER: The second conundrum: Falsifiability is insufficient; we need to apply feasibility as well Lower Dimensional Feasibility, Absent

- Falsification (LFAF) as a scientific method *IQNexus Journal* 7: 2; 21-23, 2015.
80. Neppe VM, Close ER: Interpreting science through feasibility and replicability: Extending the scientific method by applying “Lower Dimensional Feasibility, Absent Falsification” (LFAF). *World Institute for Scientific Exploration (WISE) Journal* 4: 3; 3-37, 2015.
  81. Neppe VM, Close ER: Re-evaluating our assessments of science: The approach to discovery, applying LFAF to the philosophy of science *IQNexus Journal* 8: 1; 20-31, 2016.
  82. Neppe VM, Close ER: *Reality Begins with Consciousness (RBC)—Key Features* 2nd Edition. Seattle, WA: Brainvoyage.com, 2014.
  83. Neppe VM, Close ER: *Reality Begins with Consciousness (RBC) — Glimpses and Glossary* 2nd Edition. Seattle, WA: Brainvoyage.com, 2014.
  84. Popper K: *Conjectures and refutations*. London: Routledge and Keagan Paul, 1972.
  85. Popper K: Replies to my critics, in *The Philosophy of Karl Popper, Part II*. Edited by Schilpp PA. Illinois: The Open Court Publishing Company. 1974.
  86. Popper K: *A world of propensities* London: Thoemmes, 1990.
  87. Close ER, Neppe VM: The seventh conundrum: the mathematical derivation of the Cabibbo mixing angle in fermions. *IQNexus Journal* 7: 2; 41-43, 2015.
  88. Neppe VM, Close ER: The Cabibbo mixing angle (CMA) derivation: Is our mathematical derivation of the Cabibbo spin mixing angle (CSMA) equivalent? *IQNexus Journal* 7: 4; 120-128, 2015.
  89. Close ER, Neppe VM: Mathematical and theoretical physics feasibility demonstration of the finite nine dimensional vortical model in fermions. *Dynamic International Journal of Exceptional Creative Achievement* 1301: 1301; 1-55, 2013.
  90. Close ER, Neppe VM: Translating fifteen mysteries of the universe by applying a nine dimensional spinning model of finite reality: A perspective, the standard model and TDVP. Part 1. *Neuroquantology* 13: 2; 205-217, 2015.
  91. Close ER, Neppe VM: Translating fifteen mysteries of the universe: Nine dimensional mathematical models of finite reality, Part II. *Neuroquantology* 13: 3; 348-360, 2015.
  92. Neppe VM, Close ER: The sixteenth conundrum: The general immediate implications of a nine dimensional reality *IQNexus Journal* 7: 2; 79-80, 2015.
  93. Neppe VM, Close ER: The gimmel pairing: Consciousness and energy and life (Part 13D). *IQNexus Journal* 7: 3; 122-126, 2015.
  94. Neppe VM, Close ER: Key ideas: the third substance, gimmel and the God matrix. Part 1. *World Institute for Scientific Exploration (WISE) Journal* 4: 4; 3-4, 2015.
  95. Wang H: *Reflections on Kurt Gödel*. Boston: MIT Press, 1987.
  96. Close ER, Neppe VM: Unifying quantum physics and relativity (Part 8). *IQNexus Journal* 7: 4; 36-40, 2015.

97. Neppe VM, Close ER: Quantum probability wave collapse or superposition is explained by vortical indivension (Part 12C). *IQNexus Journal* 7: 3; 113, 2015.
98. Neppe VM, Close ER: On Non-locality II: Quantum physics and non-locality. *Journal of Consciousness Exploration and Research* 6: 2; 97-102, 2015.
99. Neppe VM, Close ER: The seventy other elements to the TDVP (Triadic dimensional distinction vortical paradigm): a summary. *Dynamic International Journal of Exceptional Creative Achievement* 1202: 1202; 2059-2078, 2012.
100. Close ER, Neppe VM: Hydrogen and the elements of the periodic table: applying gimmel (Part 13). *IQNexus Journal* 7: 4; 66-69, 2015.
101. Close ER, Neppe VM: More questions answered on the elements, TRUE and gimmel (Part 17). *IQNexus Journal* 7: 4; 82-102, 2015.
102. Close ER, Neppe VM: Filling in the gaps of volumetric stability (Part 18). *IQNexus Journal* 7: 4; 103-109, 2015.
103. Neppe VM, Close ER: Multidimensional time and 3S-3T-3C (Part 13-J). *IQNexus Journal* 7: 3; 136-138, 2015.
104. Neppe VM, Close ER: *Reality begins with consciousness: a paradigm shift that works (First Edition)* 1 Edition. Seattle: Brainvoyage.com, 2012.
105. Neppe VM, Close ER: *Reality Begins with Consciousness (RBC)—Key Features* 1st Edition. Seattle, WA: Brainvoyage.com, 2013.
106. Cantor G (ed.). *Contributions to the founding of the theory of transfinite numbers*. New York, Dover, 1955.
107. Close ER, Neppe VM: The origin of mass: Section 5: In: Derivation and application of TRUE quantum calculus for the analysis of quantized reality. 2018, In submission.
108. Close ER, Neppe VM: The TRUE unit: triadic rotational units of equivalence (TRUE) and the third form of reality: gimmel; applying the conveyance equation (Part 12). *IQNexus Journal* 7: 4; 55-65, 2015.
109. Close ER, Neppe VM: Empirical exploration of the third substance, gimmel in particle physics (Part 10). *IQNexus Journal* 7: 4; 45-47, 2015.
110. Close ER, Neppe VM: The thirteenth conundrum: introducing an important new concept, TRUE units—Triadic Rotational Units of Equivalence. *IQNexus Journal* 7: 2; 60-71, 2015.
111. Close ER, Neppe VM: Summary and conclusion gimmel, TRUE and the structure of reality (Part 20). *IQNexus Journal* 7: 4; 112-114, 2015.
112. Neppe VM, with Close ER,,: The need to refute: Why the Triadic Dimensional Vortical Paradigm (TDVP) entails far more than the Standard Model of Physics: 4D experience is far less than our 9D+ existence. *IQNexus Journal* 4: 1 V9.0i; 47-78, 2018.
113. Close ER, Neppe VM: Atomic materialism, the periodic table and generalizing cosmologically. Part 3. *World Institute for Scientific Exploration (WISE) Journal* 4: 4; 13-17, 2015.

114. Close ER, Neppe VM: Application of TRUE analysis to the elements of the periodic table: Section 9: In: Derivation and application of TRUE quantum calculus for the analysis of quantized reality. 2018, In submission.
115. Rajna G. Quarks take wrong turns. April 13, 2004, <http://phys.org/news/2004-04-quarks-wrong.html>. 2004.
116. Pauli O. Six different types of quarks.  
[http://www.ehow.com/info\\_8248693\\_six-different-types-quarks.html](http://www.ehow.com/info_8248693_six-different-types-quarks.html). 2015.
117. Gell-Mann M: *The Quark and the Jaguar: Adventures in the Simple and the Complex*. New York, NY: Henry Holt and Co., 1995.
118. Singh S: *Fermat's Enigma: The epic quest to solve the world's greatest mathematical problem*. Notting Hill, UK: Fourth Estate, Ltd., 1997
119. Kleiner I: From Fermat to Wiles: Fermat's last theorem becomes a theorem. *Elem. Math* 55: 19-37, 2000.
120. Close ER: Appendix B: 1965 Proof of Fermat's Last Theorem, in *The Book of Atma*. Edited by. New York: Libra Publishers. pp. 93-99 1977.
121. Einstein A: Last Update Date. Relativity and the problem of space. Series Relativity and the problem of space Retrieved Date, Access 1952 (English translation 1954)  
[http://www.relativitybook.com/resources/Einstein\\_space.html](http://www.relativitybook.com/resources/Einstein_space.html). 1952 (English translation 1954)
122. Einstein A: *Relativity, the special and the general theory—a clear explanation that anyone can understand*. London: Routledge and Kegan Paul, 2001.
123. Einstein A: Fundamental ideas and methods of the Theory of Relativity, presented in their development *Papers* 7: 31, 1920
124. Wuensch D: Kaluza—Klein Theory.. *Compendium of Quantum Physics*: 1; 328–333, 2009.
125. Deser S: Oskar Klein. *Physics Today* 30: 6; 67–68, 30f..67D.  
doi:10.1063/1.3037609. Archived from the original on 2013-09-28. June 1977.
126. Nordström G: On the energy of the gravitational field in Einstein's Theory. *Verhandl. Koninkl. Ned. Akad. Wetenschap., Afdel. Natuurk, Amsterdam* 26: 1201–1208, 1918.
127. Minkowski H: Die Grundgleichungen für die elektromagnetischen Vorgänge in bewegten Körpern. *Nachrichten von der Gesellschaft der Wissenschaften zu Göttingen, Mathematisch-Physikalische Klasse*: 53–111, 1907/8.
128. Minkowski H: Raum und Zeit. *Physikalische Zeitschrift* 10: 104–111, 1908.
129. Pauli W: *Wissenschaftlicher Briefwechsel (Science change)*, Vol. IV:Dialectica: Springer Verlag, 1999.
130. Pauli W: Naturwissenschaftliche und erkenntnistheoretische Aspekte der Ideen vom Unbewussten. *Dialectica* 8: 4; 283–301, 1954.
131. Pauli W: Looking for neutrinos, nature's ghost particles (Pauli), *SmithsonianMag*. <https://www.smithsonianmag.com/science-nature/looking->

- for-neutrinos-natures-ghost-particles-64200742/#Wj8FCmzX0R2PscGm.99; 2010 (quotation0.
132. Brax P. The supermoduli space of Matrix String Theory. 2011, <http://cdsweb.cern.ch/record/411941/files/9912103.pdf>. 2011.
  133. Kiritsis E: *String theory in a nutshell*. Princeton: Princeton University Press, 2007.
  134. Morgart E: The theory of everything has nine dimensions: The sparkling diamond and the quanta jewel turn quantum physics and the nine-pronged world of consciousness— on its ear. *USA Today Magazine*: 1 (January); 66-68, 2014.
  135. Neppe VM, Close ER: The Science of reality: Is reality even definable? How the scientific model of the Triadic Dimensional Vortical Paradigm (TDVP) allows for the finite and the infinite. *IQ Nexus Journal* 11: 1, V4.6; 4-44, 2019.
  136. Neppe VM, Close ER: Does the Triadic Dimensional Vortical Paradigm (TDVP) alter the landscape from 4D science to 9D science? The controversy of conventional scientific materialism versus integrating multidimensionality, the infinite and consciousness. *IQ Nexus Journal* 10: 3, v6.23; 7-46, 2018.
  137. Yagi K, Hatsuda T, Miake Y: *Quark-Gluon Plasma: From Big Bang to Little Bang: Cambridge monographs on particle physics, nuclear physics and cosmology. (Book 23)*. Cambridge, England: Cambridge University Press, 2008.
  138. Close ER, Neppe VM: The Triadic Dimensional Vortical Paradigm (TDVP) is valid and appropriate: The roles of neutrons and protons, particle emergence including decay and vortical spin - A response. *Telicom* 30: 3; 95-105, 2018.
  139. Neppe VM: Applying feasibility, falsifiability, and certainty in scientific method to Forensic Science: Raising the Bar in Forensic Science: Keynote address, Interdisciplinary Symposium.. *Program, 70th Scientific Meeting, American Academy of Forensic Science*: 21, 2018.
  140. Close ER, Neppe VM: Conservation of angular momentum and electron spin: Section 4: In: Derivation and application of TRUE quantum calculus for the analysis of quantized reality. 2010, In submission.
  141. Feynman RP: *Electrons and their interactions. QED: The strange theory of light and matter*. Princeton, New Jersey: Princeton University Press., 1985.
  142. Feynman RP (ed.). *The Feynman lectures on physics*. USA, Addison-Wesley, 1965.
  143. Neppe VM, Close ER: Speculation versus Proof: Part 4. In: Does the Triadic Dimensional Vortical Paradigm (TDVP) alter the landscape from 4D science to 9D science?. *IQ Nexus Journal* 10: 3, v5.15; 28-40, 2018.
  144. Neppe VM, Close ER: The misguided, the cynics, the deniers, the scoffers and the innocent. Part 3. In: Does the Triadic Dimensional Vortical Paradigm (TDVP) alter the landscape from 4D science to 9D science?. *IQ Nexus Journal* 10: 3, v5.15; 21-27, 2018.

145. Neppe VM, Close ER: 4D science: Blindness or logic? Part 1. In Does the Triadic Dimensional Vortical Paradigm (TDVP) alter the landscape from 4D science to 9D science?. *IQ Nexus Journal* 10: 3, v5.15; 9-15, 2018.
146. Einstein A: Explanation of the photoelectric effect with use of the quantum hypothesis of Planck: Concerning a heuristic point of view toward the emission and transformation of light. *Annalen der Physik* 17: 132-148, <http://einsteinpapers.press.princeton.edu/vol2-trans/100> 1905.
147. Einstein A, Podolsky B, Rosen N: Can quantum-mechanical description of physical reality be considered complete? *Phys. Rev.* 47: 10; 777-780, 1935.
148. Einstein A: *Physics and Reality*. <http://www.kostic.niu.edu/>: Monograph, 1936.
149. Neppe VM: Six sigma protocols, survival / superpsi and meta-analysis. Accessed Jan 9 Accessed; 2011.
150. Neppe VM, Close ER: Reality begins with consciousness: Survival and life itself —Is there a how? *Proceedings of 2013 Conference Academy for Spiritual and Consciousness Studies.*: 1-17, 2013.
151. Neppe VM, Close ER: TDVP propositions on survival and life (Part 13G). *IQNexus Journal* 7: 3; 130-133, 2015.
152. Neppe VM. Kabbalah, science, and spirituality with Vernon Neppe (YouTube). New Thinking Allowed, [https://www.youtube.com/watch?v=AtMQdS8\\_Vck&t=2123s](https://www.youtube.com/watch?v=AtMQdS8_Vck&t=2123s). 2018.
153. Neppe VM, Close ER: The nine Neppe and Close discoveries that have completely changed the current conception of reality: Section 4. In Integrating spirituality into science: applying the Neppe-Close Triadic Dimensional Vortical Paradigm (TDVP). *IQNexus Journal* 10: 2; 23-25, 2018.
154. Neppe VM, Close ER: Unifying science and spirituality: Kabbalah And Jainism: Section 10. In Integrating spirituality into science: applying the Neppe-Close Triadic Dimensional Vortical Paradigm (TDVP). *IQNexus Journal* 10: 2; 52-60, 2018.
155. Neppe VM, Close ER: Integrating spirituality into science: applying the Neppe-Close Triadic Dimensional Vortical Paradigm (TDVP). *IQNexus Journal* 10: 2; 7-108, 2018.
156. Krippner S: Psi phenomena and transpersonal experience. *Phoenix* 5: 11-17, 1981.
157. Krippner S: Psi and postmodernity in the twenty-first century. *International Journal of Parapsychology* 12: 1; 1-30, 2001.
158. Krippner S: *The Maimonides ESP dream studies*, in. *Journal of Parapsychology*, 57, 39-54: 1993.
159. Ullman M, Krippner S, Vaughan A: *Dream telepathy*. New York Macmillan, 1973.
160. Neppe VM, Close ER: The concept of relative non-locality: Theoretical implications in consciousness research. *Explore (NY): The Journal of Science and Healing* 11: 2; 102-108, [http://www.explorejournal.com/article/S1550-8307\(14\)00233-X/pdf](http://www.explorejournal.com/article/S1550-8307(14)00233-X/pdf) 2015.

161. Neppe VM, Close ER: Relative non-locality - key features in consciousness research (seven part series). *Journal of Consciousness Exploration and Research* 6: 2; 90-139, 2015.
162. Neppe VM, Close ER: Limitations of the standard model of physics. *Dynamic International Journal of Exceptional Creative Achievement* 1201: 1201; 2001-2010, 2012.
163. Neppe VM. Feasibility and falsification in science: On LFAF (YouTube). New Thinking Allowed, <https://youtu.be/w3elui7unrA>. 2018.
164. Popper KT: *The logic of scientific discovery*. London and New York: Routledge / Taylor and Francis e-Library, 2005.
165. Close ER, Neppe VM: Support for the hypothesis of a 9-dimensional spin finite reality model (Part 7). *IQNexus Journal* 7: 4; 33-35, 2015.
166. Neppe VM, Close ER: How some conundrums of reality can be solved by applying a finite 9-D spinning model. *IQNexus Journal* 7: 2; 7-88, 2015.
167. Pokharna S: *Is the modern science finally approaching Jainism? (original in Hindi)*. Ahmedabad: Jinendu, 2018, March 25.
168. Pokharna SS, Bhandari N, Prajna SC: Jainism and the Theory of Everything (TOE). *Transactions of International School for Jain Studies II* 2 2. APRIL-JUNE; 1-11, 2018
169. Zimmerman Jones A. What is Quantum Entanglement?, 2014, <http://physics.about.com/od/quantumphysics/f/QuantumEntanglement.htm>. 2014.
170. Neppe VMC, Edward R.: The physics of psi: the role of entanglement. *Dynamic International Journal of Exceptional Creative Achievement* 1207: 1207; 2291-2303, 2012.
171. Aczel AD: *Entanglement: the greatest mystery in physics*. New York: Four Walls Eight Windows, 2001.
172. Bauer H: *Dogmatism in science and medicine: How dominant theories monopolize research and stifle the search for truth*. New York: McFarland, 2012.
173. Neppe VM, Close ER: Reality Begins with Consciousness: Survival and Life itself —Is There A How? *Proceedings of 2013 Conference Academy for Spiritual and Consciousness Studies*.: 1-17, 2013.
174. Dossey L: Distant nonlocal awareness: a different kind of DNA. *Altern Ther Health Med* 6: 6; 10-14, 102-110, <http://www.ncbi.nlm.nih.gov/pubmed/11076438> 2000.
175. Lauer Q: *Hegel's concept of God*. New York: SUNY Press, **1982**.
176. Frede M, Charles D: *Aristotle's Metaphysics Lambda*, Oxford: Oxford University Press 2000.
177. Elders LA: *Aristotle's theology: A commentary on Book [lambda] of the Metaphysics*,. New York: Van Gorcum 1972.
178. Indich WM: *Consciousness in Advaita Vedānta*. Delhi: Motilal Banarsidass, 1995.

179. Leet L: *The secret doctrine of the Kabbalah: Recovering the key to Hebraic sacred science*. New York: Simon and Schuster, 1999.
180. Wolf L: *Practical kabbalah*. New York: Three Rivers Press, 1999.
181. Aristotle: *On the history of animals, Book V, Part I. (one of 10 books) (English Translation 1897; D'Arcy Wentworth Thompson)*. London: George Bell and Sons, Circa 350. BCE.
182. Gottdenker P: Francesco Redi and the fly experiments. *Bulletin of the History of Medicine* 53: 4 575–592, 1979.
183. Schwartz M: The life and works of Louis Pasteur. *Journal of applied microbiology* 91: 4; 597–601, 2001.
184. Lewontin RC: The units of selection. *Annual Review of Ecology and Systematics* 1: 1–18 1970.
185. Wallace AR. On the tendency of varieties to depart indefinitely from the original type. <http://people.wku.edu/charles.smith/wallace/S043.htm>. 2007 (original circa 1858).
186. Wallace AR: *Contributions to the theory of natural selection. A series of essays*. London: Macmillan, 1870.
187. Zirkle C: The inheritance of acquired characters and the provisional hypothesis of pangenesis. *The American naturalist* 69 724; 417–445, 1935.
188. Zirkle C: The early history of the idea of the inheritance of acquired characters and of pangenesis. *Transactions of the American Philosophical society* 35 2; 91–151, 1946
189. Darwin C: *The warm little pond*, in., Letter to Joseph Dalton Hooker, 1 February: 1871.
190. Lamarck J-B: *Système des animaux sans vertèbres...; précédé du Discours d'ouverture de l'an VIII de la République Déterville* Paris, France: Google Scholar 2019, 1801
191. Lamarck J-B: *Philosophie Zoologique (The Philosophy of Zoology)*, in Musée National d'Histoire Naturelle, Paris, May 1803 text. 1809.
192. Lazcano A: Historical development of Origins Research. *Cold Spring Harbor Perspectives in Biology* 2:11, 2010.
193. Ghiselin MT: The Imaginary Lamarck: A Look at Bogus "History" in Schoolbooks. *The Textbook Letter, The Textbook League* 1994.
194. Bar-Yam S. What Lamarck believed. New England Complex Systems Institute, <https://necsi.edu/what-lamarck-believed>. 2019.
195. Weismann AFL. Germ-Plasm, a theory of heredity. <http://www.esp.org/books/weismann/germ-plasm/facsimile/>. 1893.
196. Darwin C: *The variation of animals and plants under domestication*, 1868.
197. Crews D: Epigenetics, brain, behavior, and the environment. *Hormones (Athens)* 9: 1; 41-50, <https://www.ncbi.nlm.nih.gov/pubmed/20363720> 2010.
198. Narain C: Changing behavior with epigenetics. *Nat Neurosci* 15: 10; 1329, <https://www.ncbi.nlm.nih.gov/pubmed/23007186> 2012.

199. Szabo PE: Response to "Variable directionality of gene expression changes across generations does not constitute negative evidence of epigenetic inheritance" Sharma, A. *Environmental Epigenetics*, 2015, 1-5. *Genome Biol* 17: 105, <https://www.ncbi.nlm.nih.gov/pubmed/27184890> 2016.
200. Mendel G. Experiments in plant hybridization. <http://www.mendelweb.org/Mendel.htm>. 1865.
201. Oparin AI: *The origin of life (originally 1924 Proiskhozhdenie Zhizny)* 1st Edition. New York: Macmillan, 1938
202. Haldane JBS: The origin of life. <https://www.uv.es/~orilife/textos/Haldane.pdf> 1929.
203. Haldane JB: Mathematical Darwinism: A discussion of the genetical theory of natural selection. *The eugenics review* 23 =: 2; 115–117, 1931.
204. Fry I: The origins of research into the origins of life. *Endeavour* 30: 1; 24–28, 2005.
205. Miller SL: A production of amino acids under possible primitive earth conditions. *Science* 117: 3046; 528–529, 1953.
206. Oró J: Mechanism of synthesis of adenine from hydrogen cyanide under possible primitive Earth conditions. *Nature* 191 4794; 1193–1194, 1961.
207. Menor-Salván C, Ruiz-Bermejo DM, Guzmán MI, et al.: Synthesis of pyrimidines and triazines in ice: implications for the prebiotic chemistry of nucleobases. *Chemistry* 15: 17; 4411–4418, 2007.
208. Miller SL: A production of amino acids under possible primitive earth conditions. *Science* 117 3046; 528–529, 1953.
209. Wade N: Making sense of the chemistry that led to life on Earth, *New York Times*, May 4, 2015, 2015.
210. Copley SD, Smith E, Morowitz HJ: The origin of the RNA world: co-evolution of genes and metabolism. *Bioorganic Chemistry* 35: 6; 430–443, 2007.
211. Neveum M, Kim HJ, Benner SA: The "strong" RNA world hypothesis: fifty years old. *Astrobiology* 13: 4; 391–403, 2013.
212. Rana AK, Ankri S: Reviving the RNA World: An insight into the appearance of RNA methyltransferases. *Front Genetics* 7: 99, 2016.
213. Cech TR: The RNA worlds in context. *Cold Spring Harbor Perspectives in Biology* 4: 7, 2012.
214. Garwood RJ: Patterns In Palaeontology: The first 3 billion years of evolution. *Palaeontology Online* 2: 11; 1–14., 2012.
215. Shapiro R: *Origins: A skeptic's guide to the creation of life on earth*. New York: Bantam Books, 1987.
216. Stewart D: *The chemistry of essential oils made simple: God's love manifest in molecules*. Marble Hill, MO: Care publications, 2005.
217. Stewart D: *Letter of reference for awards to Edward Close and Vernon Neppe*, in.: 2018.
218. Neppe VM, Close ER: On Non-locality III: Dimensional Biopsychophysics. *Journal of Consciousness Exploration and Research* 6: 2; 103-111, 2015.