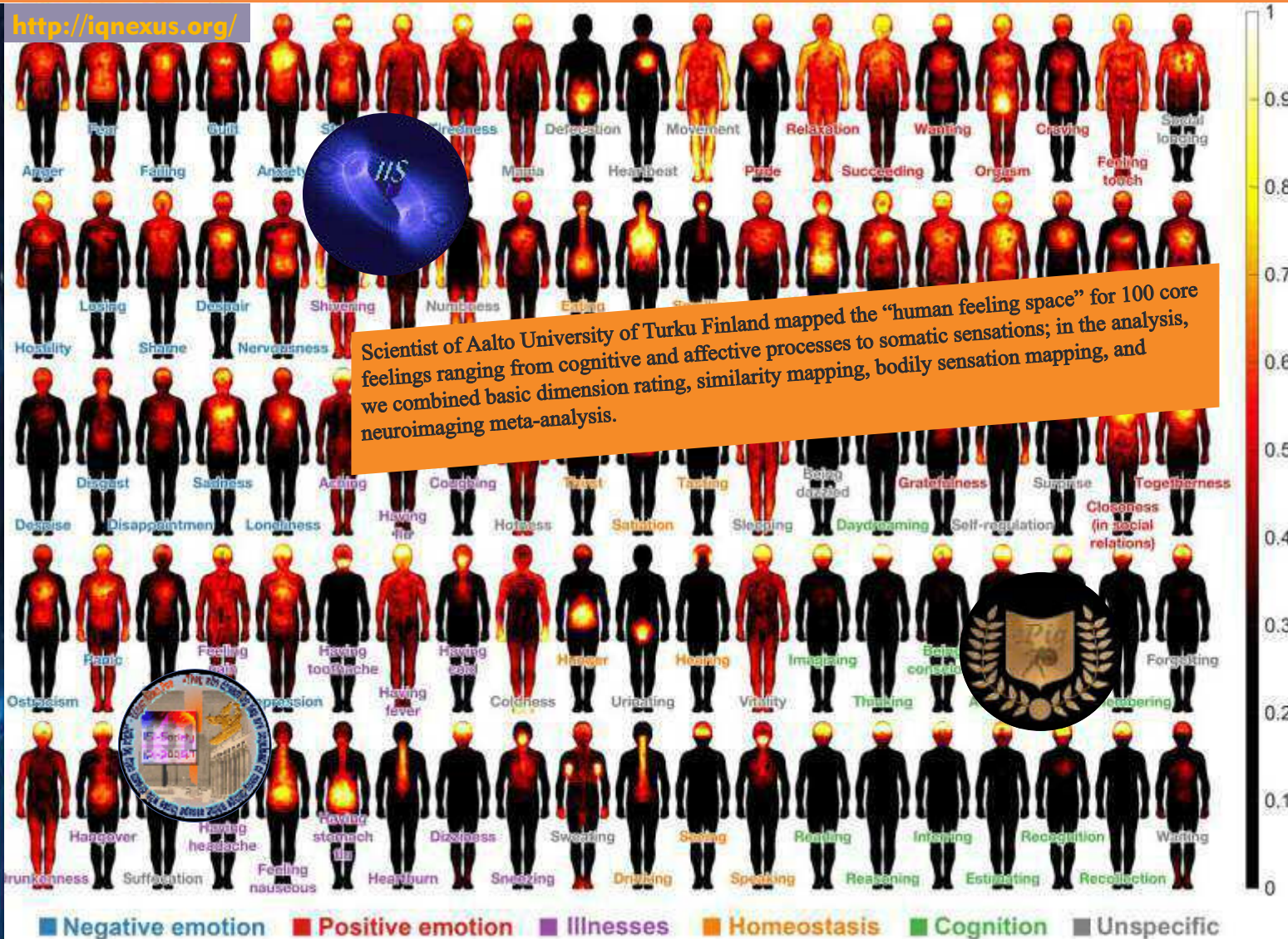


IQ Nexus Journal

Vol. X, No. 4/ December 2018

<http://iqnexus.org/>



Featuring articles of:

Vernon M. Neppe MD, PhD and Edward R. Close PhD, PE

J. E. F. Kaan, MSPE and Simon Olling Rebsdorf, MSPE

David Udbjorg

Hol O. Decks & Nick U. Soulios

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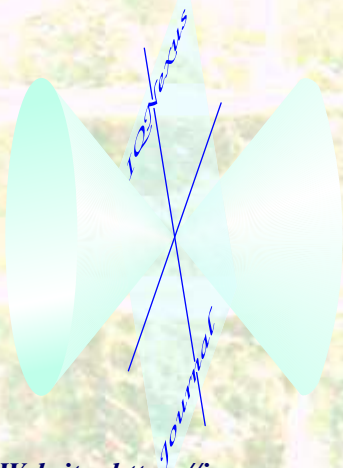
Science & Philosophy
papers, essays, dialogues, reviews

Fine Arts
music, poems, visual gallery

IQN Calendar

Puzzles, Riddles & Brainteasers
sudoku, matrices, verbals

Online Journal of IIS, ePiq & ISI-S Societies, members of WIN



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Special acknowledgement to

Owen Cosby

*For reviving and restoring
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and establishing IQ Nexus
joined forum of IIS and ePiq
and later ISI-S Societies
for which this Journal
was created.*

Special thanks to

Jacqueline Slade

*for her great help
with English editorial work.*

The Isi-s

Administrators.....Stanislav Riha

Braco Veletanlic

***This issue is featuring
creative works of:***

*"Even though scientist are involved
in this Journal, I and all involved
in the IQ Nexus Journal
have tried to keep the content
(even though it is a
Hi IQ Society periodical)
on an ordinary human level
as much as possible.*

*In fact,
is it not the case, that -
to be a human being
is the most intelligent
way of life?"*

Stanislav Riha

**David Udbjorg
Edward R Close
Jason Munn
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*Non-members' contributions are welcome and every contribution
has to be accompanied by an introduction from the contributor.*

Cover photo

Maps of subjective feelings

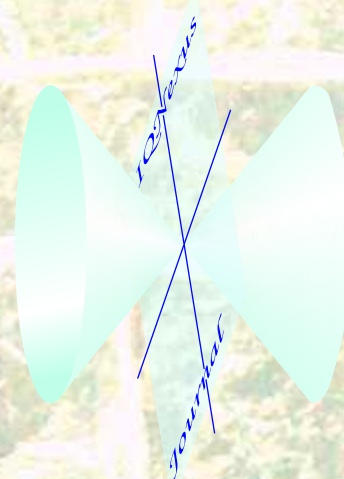
by Lauri Nummenmaa, Riitta Hari, Jari K. Hietanen, and Enrico Glerean, all from Aalto University of Turku, Finland

Acknowledgments

We acknowledge the computational resources provided by The Aalto Science-IT project. This research was supported by the Academy of Finland Grants 265917, 294897, and 304385 and European Research Council Starting Grant 313000 (to L.N.).

Link to the paper "Maps of subjective feelings "

<http://www.pnas.org/content/115/37/9198>



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IQNexus

Science, Philosophy, Essays & Reviews

Vernon M Neppe

How spirituality and consciousness and science are allied through the Neppe-Close
Triadic Dimensional Vortical Paradigm (TDVP).

E. F. Kaan & S. O. Rebsdorf

An Evaluation of TDVP

Vernon M Neppe

The need to refute: Why the Triadic Dimensional Vortical Paradigm (TDVP) entails far
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Edward R Close

One Response to "An Evaluation of TDVP" With Explanations of Fundamental Concepts

David Udbjorg

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Project Codename Pesperctevä | Reäs

How spirituality and consciousness and science are allied through the Neppe-Close Triadic Dimensional Vortical Paradigm (TDVP). ^a

Vernon M. Neppe MD, PhD, Fellow Royal Society (SAf). ^{bc}

Abstract:

The Triadic Dimensional Vortical Paradigm (TDVP) was developed in 2011 by Vernon Neppe and Edward Close. TDVP involves an empirically and mathematically demonstrated 9 finite quantized rotating dimensions embedded within an infinite continuity. TDVP incorporates the Standard Model of Physics (SMP) which generally functions superbly within our current physical 3S-1t macroscale framework but it's limited particularly at the quantum and cosmological levels and there are 60 major unsolved problems solvable through TDVP. TDVP fundamentally recognizes 'consciousness' and incorporates a higher spirituality level into both the finite and infinite. The extended philosophy of science concept of Lower Dimensional Feasibility, Absent Falsification (LFAF) is critical allowing for spirituality to be feasible and within the broader domain of science. 9 dimensions extends the 4D 3S-1t concept and allows phenomena such as multidimensional time, and consciousness, and psi to be understood. Infinite continuity provides a way to impact and influence our physical reality, and provides a mechanism for prayer.

Key is the mathematical requirement of a massless, energyless third substance (gimmel) which provides stability and symmetry to all stable atomic particles in the universe. Empirically, TDVP's triadic rotational equivalents exactly correspond quantally with Mass-energy equivalence normalized data in the Large Hadron Collider Analyses; plus overwhelmingly correlate with cosmological data. This allows unification of the Laws of Nature. TDVP's fundamental axioms have never been refuted over seven years, the Criteria for Theories of Everything justifies TDVP's unique viability, and TDVP has expanded in scope dramatically.

^a Vernon M. Neppe MD, PhD, Fellow Royal Society (SAf), Pacific Neuropsychiatric Institute, Seattle (pni.org) (Neppe: Director; Close: Research Associate); and Exceptional Creative Achievement Organization (Neppe: Distinguished Professor and Executive Director; Neppe (www.vernonneppe.org/about.php) is a Neuropsychiatrist, Behavioral Neurologist, Neuroscientist, Psychopharmacologist, Psychiatrist, Phenomenologist, Epileptologist, Consciousness Researcher, Philosopher, Dimensional Biopsychophysicist, Creativity expert, Forensic specialist, and author of 700 publications, 10+ books (www.brainvoyage.com), and 2 plays.

^b We gratefully acknowledge the Exceptional Creative Achievement Organization (ECAO.us), who hold copyright, for permission to publish this article.

^c This paper is derived from an invited special plenary presentation over Skype at the Sixth International Conference of Science and the Scientist in October 2018 in India. A variation may be published in the conference proceedings. This paper has gone through multiple peer reviews including the official one pre-presentation. Thank you, also, to Jacqui Slade as English Editor.

Introduction

This paper summarizes fundamental scientific data that my research partner, Edward Close PhD, PE, mathematician and physicist, and I have established over the past 7 years. Many of our findings are mathematically proven; others are empirically demonstrated. I take care below to delineate what remains speculative, though even these are still based on logical conjectures.

Moreover, this important differentiation of proof and speculation can be more easily made through our new technique in the Philosophy of Science, namely the Neppe-Close concept of Lower Dimensional Feasibility Absent Falsification (LFAF)¹⁻⁴. LFAF changes the perspective and allows us to conceptualize these differences. We can incorporate previously ignored complex concepts like higher consciousness, hidden dimensions, and how the infinite, without us being aware of it, impacts us physically.

Background:

Neppe and Close proposed the ‘Triadic Dimensional-Distinction Vortical Paradigm’ (TDVP) in 2011⁵. Since then, the underlying hypotheses and axioms^{6; 7} have not changed, but the mathematics has demonstrated the consistency of the model⁸⁻¹³, even to the extent of the Laws of Nature being unified^{12; 14}.

Additionally, for possibly the first time, ‘Spirituality’¹⁵ has been integrated scientifically into a broader ‘Science’. This requires a broader redefinition of science involving multidimensionality, consciousness and infinity^{14; 16}. It also demands a recognizing of the role of what is scientifically feasible^{2-4; 17; 18}. LFAF breaks the antiquated concept of Popperian science requiring falsifiability¹⁹⁻²¹. LFAF reflects a powerful and necessary redefinition. We extend information that is not falsified, and examine whether it is feasible. Lower Dimensional Feasibility Absent Falsification (LFAF) can be applied by fitting what is feasible in our experience like pieces into a jigsaw puzzle^{4; 18; 22}. 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.

Conventional scientists, with respect, do not yet recognize how limited our perceptions of the limited physical reality of our experience are. This application of 3S-1t has been called ‘4D science’^{23 24}. Superficially, our physical 3S-1t macro-reality appears very adequate when working simply within our current day-to-day physical experience characterized by 3S-1t. Everything is ordered and regular. All is complete in our physical,

tangible reality. All, except something very important: factors pertaining to consciousness are almost completely excluded, other than directly applying the brain neurologically and psychologically. Our experience is limited to our perceptions: We are applying our current conventional physical paradigm experience of three dimensions of space — length, breadth and height—in the present moment of time (3S-1t) ²⁵⁻²⁷. We don't need to completely reject the current Standard Model of Physics (SMP), which allows us to experience almost all of reality and appears literally solidly based, such that even the most esoteric chemistry, the most remarkable carbon dating, the most consistent rules can be followed. This means *we still have an empirical reality. However, with consciousness, there is a limit: a different set of unobserved rules based on fundamental single unifying Laws of Nature*. Legitimately, we could perceive spirituality as a reality.

In our model, Triadic Dimensional Vortical Paradigm (TDVP), the fundamental principles of the SMP are *not negated*. They are *simply* the 3S-1t component of the broader higher dimensional fabric ^{28; 29}. We recognize the triads of Space, Time and Consciousness all tethered together. We conceptualize that our world has not only Mass and Energy, but Mass, Energy and a container of Consciousness ('gimmel'), always necessarily in union.

'Gimmel' ^{30; 31} λ is another profound advance as it's a newly discovered component of reality that always existed as a third mass-less energy-less 'substance', or 'ordering agent', or 'process', or 'component', or possibly a 'vehicle of consciousness'. ³² 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*. Gimmel is even proven in Dark Matter and Dark Energy correlations ^{33; 34}, and is necessarily in union *quantally* with every stable subatomic particle. *Without gimmel, our physical world and our universe would simply not exist—every particle would fly away. Gimmel provides for stability providing the exact amounts in quarks and electrons to balance rotation and symmetry such that the subatomic particle is not just ephemeral lasting trillionths of a second.* ³⁵⁻³⁹ Remarkably, gimmel is not a speculation, it is *mathematically and empirically proven*. ⁴⁰ *This allows everything in our world and, indeed, in our cosmos, to have the same rules: They must contain protons and electrons, and with the exception of common hydrogen ('Protium'), neutrons. All these subatomic particles must be in union with gimmel, otherwise they are mathematically and physically impossible* ⁴¹. *This literally makes materialism as we know it, refuted: Even without knowing about gimmel mathematically the atom with its protons, neutrons and electrons, would simply not fit.* However, the concept of gimmel has explained how this 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.*

- Through TDVP we understand that many fundamentals are triadic—they come in threes: Up-quarks (2 in protons, 1 in neutrons), down-quarks (1 in protons; 2 in neutrons) and electrons;
- our world is necessarily only volumetric with three dimensions, and that singularity points, lines, and planes are not part of empirical reality;
- we conceive of vortical movement spinning orthogonally across three dimensions.

We understand that 4D in this 3S-1t is not all of reality, just our experience of a nine-dimensional (three squared) quantized finite existence embedded in an infinite continuity. Everything involves vortical rotational movement across this finite 9D science. And we realize this is our new extended paradigm—our metaparadigm, sometimes called, possibly ambiguously, a Theory of Everything (TOE). And as an extension of that Consciousness is a higher Consciousness that we sometimes recognize as Spirituality. This all describes TDVP.

Neppe recognizes the difficulty of defining concepts pertaining to the spiritual:

“ ‘Spirituality’ is one of those terms that is difficult to define: Many would consider it as synonymous with such terms as the ‘transcendent, nonmaterial, higher level beliefs, and mystical’: In common use, it might imply some kind of ‘belief in a higher good, stripped of ritual’, and a higher-level deity, but not defined synonymously with ‘religion’, with specific belief systems. Some would label spirituality as one aspect of the ‘non-physical’: that non-physicality might be so, provided that we remember that the spiritual can covertly but regularly impact and influence all of our overtly expressed physical reality⁴².

The ‘spiritual’ has not been scientifically recognized because scientists need to apply the concepts of multidimensionality, consciousness, infinity, scientific feasibility, and the transcendent. To make spirituality a science, we would need to apply the scientific method including feasibility, because falsifiability would be rare. We would have to move away from belief to empirical fact and mathematics. This is a formidable challenge, but TDVP, gimmel, 9-dimensional models, allowing for a science of consciousness, and recognizing the math in infinity, helps a great deal.”⁴²

I will now add something very important. *I suspect that science is incomplete without the spiritual, and the spiritual incomplete without the science. In another sense, the science might reflect the convergent logic, the empiricism and the mathematical proof. The spirituality incorporates the art. Science without art is*

incomplete; art without science is unfinished.

However, we're now able to recognize that in the SMP, there are significant limitations with some apparent quantum contradictions, and certain areas remain unsolved conundrums—we have listed over sixty unsolved 4D problems^{23; 43; 44}. So our physical reality is incomplete: Reductionist materialism cannot solve these major questions⁴⁵⁻⁴⁷. Yet, these appear soluble through 9D or 9D+ science. They are solved by applying 9D+ science using TDVP as the model.

The SMP is based on the 3 spatial dimensions embedded in a moment in time (the present) (3S-1t). This *3S-1t experience* reflects the *overt* part of our *existence*, what we're aware of while alive and awake. However, reality appears to be broader than overt human experience, and much of it involves the *covert*, hidden, higher finite dimensions, ultimately all embedded within the infinite⁴⁵⁻⁴⁷. With respect, by applying TDVP we can solve or largely explain *all* the 60 plus difficulties^{23; 43; 44}. However, here I emphasize specifically two major later findings—9D reality and gimmel—pointing out the reasoning for such studies.

Basics

Firstly, I provide a brief introduction to the TDVP concept^{5; 23}. TDVP is unique in that it involves a scientific model with:

- higher consciousness and spirituality;⁴²
- multidimensional reality: This is proven now^{11; 13; 48; 49} to be *only* 9 dimensions⁵⁰⁻⁵³,
- enveloped by a continuous infinite reality^{23; 54-56}: This is different from the discrete, pixilated, quantized existence we're used to in our physical world; gimmel and Triadic Rotational Units of Equivalence (TRUE)^{30-32; 34; 40; 57; 58}. This is not just an imaginary concept, but demonstrated as necessary because it even correlated with the Large Hadron Collider data!⁵⁹⁻⁶¹

Neppe and Close have called the discipline utilizing TDVP 'Dimensional Biopsychophysics' (DBP). This is in the context of approaching dimensions, infinity, understanding spirituality, consciousness, meaning, math, and the laws of nature. This is a broader systems approach^{14; 62; 63}. This is important because most physicists today are ill-equipped to comment until they have studied DBP.

Our macroreality of the physical appears regular and appropriate: However, it is at the *quantal and the cosmological* levels that unexplained conundrums and even contradictions arise.⁴⁰ This is where 9D comes in. We use the term '9-D science' to

include higher dimensions. In this instance, the 9-dimensional model was definitively demonstrated in the Neppe-Close Triadic Dimensional Vortical Paradigm (TDVP) ^{23; 43; 44}.

There is mathematical and physics proof of our data *exactly* equal to the Mass-energy equivalence normalized data in the CERN Large Hadron Collider (LHC) ⁵⁹⁻⁶¹.

Our data also correlates very strongly (in in 1250 level) with dark matter and dark energy ^{33; 34}. We further apply terms such as '9D plus science' to incorporate the interface of 9D science with the infinite ^{56; 64}.

The 9D and 9D+ science model is a functioning and unrefuted major paradigm shift ⁶⁵. Moreover, 9D incorporates our current physical 3S-1t 4D science, and is mathematically proven, and also empirically demonstrated ⁶⁵.

How does that new technique alluded to, namely Lower Dimensional Feasibility Absent Falsification (LFAF), extend the model of reality? This is because it now recognizes the feasibility of applying 9D. This incorporates consciousness and spirituality, because 9D includes Consciousness, and LFAF also differentiates different levels of proof, allowing for feasibility. Remarkably, even uniquely, we can state that:

- We have *proven mathematically that there are 9 finite quantized dimensions*.
- We have *proven mathematically that there is a definite third massless, energyless substance (which we call gimmel) in these finite quantized dimensions*.
- And we have *proven mathematically that our data correlates empirically not only in the macroreality, but in quantum physics and cosmologically*.

However, there are still scoffers ^{23; 66}, sometimes individuals who are highly intelligent but who cannot handle new data properly or have not studied the further findings adequately ⁶⁶. Is this denial of anything beyond our current concept of reducing everything to 3S-1t adequate? Is it a threat, or other emotions that make new findings difficult for even exceptional IQ individuals to handle? Mathematically, simply, there is proof of 9D. And 4D is insufficient and wanting.

We can explain these skeptics based on their training and denierism, by extending the model of Kuhn's revolutions ⁶⁷ to 11 stages, applying the 11-NCR (Neppe-Close Revolutions) model ²².

Certain important assumptions apply to TDVP

Here are some highlights of TDVP. These are separate in listing though make up a composite unit ultimately.

- **The infinite** consciousness is an unending repository of information^{23; 55; 56; 64; 68}.
- The pixilated finite **volumetric** reality also has a higher quantized level than the 9D finite spin: This is the transfinite reality—a countable infinity that can also be regarded as the higher ‘*tenth plus dimension*’. We call this finite and transfinite together the ‘metafinite’⁶⁹—the quantized integrated reality. There has to be a 10th plus dimension as there is always an N+1 dimension to N dimensions.
- In turn, these quantized, pixilated, metafinite volumetric components of reality are necessarily embedded in a continuous *infinite* reality: The infinite pervades all of the finite necessarily^{54-56; 64}.
- This information is expressed in the metafinite (= finite + transfinite) to sentient beings as meaningful information. We call that ‘content consciousness’ (C_C). Like with the extent of STC, there is a triad of content, namely mass-energy-C_C. (MEC). Everything that exists, whether living or inanimate, even atoms, consists of MEC_C. These must be stable to maintain itself in our empirical real world^{5; 30; 70-73}.
- This unification of the finite and the infinite, and of STC and MEC_C, necessarily results in the new Neppe-Close philosophical model called ‘*Unified Monism*’ (UM)⁷⁴; ⁷⁵. UM is expressed spiritually through the science of TDVP.

TDVP involves several new mathematical applications and extensions of previous theorems. This has been required to evaluate and support multidimensional realities in quantum physics, as well as for broader speculative ideas pertaining to the fundamental nature of reality. The implications of these findings are critically important.

We briefly summarize those specific findings, emphasizing points already made:

- As implied, we (Neppe and Close) demonstrate, by several different mathematical and theoretical physics lines of evidence, that reality appears to be far more complex than what we as sentient beings *experience* in the limited aspects of 3S-1t that we directly perceive^{40; 59; 61; 76}. Specifically, our findings strongly suggest that *finite* reality involves specifically a 9-dimensional (9D) spin reality. This mathematical derivation based on ‘particle physics’ was not surprising because we had postulated this would be so, based on the TDVP model⁶. This is how we extended the SMP beyond 3S-1t to a 9D model⁵⁰⁻⁵³.
- As implied, an axiom of TDVP is that reality consists of a triad of substrates Space, Time and the Extent of Consciousness (C_e) (STC). STC_e is always tethered together so that not only is there necessarily ‘Space-Time’ but ‘Space-Time-Consciousness’. Essentially, we must recognize that Consciousness and Spirituality are not single concepts. They each have

extent linked by tethering with Space and Time. And *we cannot have extent without content* where Mass, Energy and Consciousness content are in union together. That C_c is effectively *gimmel* (likely the Consciousness vehicle)^{40; 77; 78}. And all of extent and content are impacted, including potentially by a divinity and that influence is bidirectional (prayer). Impact, content and extent (ICE) are fundamental to the mathematical Close Calculus of Distinctions⁷⁹. We call these Essence Distinctions²³.

Speculations

We speculate based on some solid data, but an incomplete jigsaw puzzle:

1. 9 dimensions consist of 3 dimensions each of Space, Time and Consciousness.
2. The three consciousness dimensions correspond with higher integrated qualities (e.g. well-defined in the Sephirot in Kabbalah, or equivalents in Vedantic thought). These are measured ordinally in *extent*, but contain *content* which cannot be directly measured without understanding the necessary dimensional extension⁴².

We have proposed, but not yet definitively proven that the components there are 9 *rotating vortical* dimensions in the finite reality. If this is so, it provides a model for unifying the fundamental forces of physics, and revises separate concepts⁶¹ such as the strong and weak forces, gravitation and likely electromagnetism^{40; 59; 60}: We are close to solving the Unified Theories.

Kabbalah, and other mystical traditions like *Jainism*, support TDVP and vice versa^{42; 80; 81}.

Deeper analyses linking spirituality:

The following findings and speculations show some support. These are listed without elaboration but referenced and can be amplified through publications, to provide a broad tour of TDVP.

- *So-called 'junk DNA' is anything but junk.* It may be the message that contains consciousness, meaning, information, spirituality, and even Godliness^{69; 82}.
- *Prior to the 'Big Bang' or the 'event horizon', there was not just nothing out of which something arose ('ex nihilo')*^{6; 69}. There's always been an infinite something: the term 'begins' as in our book Reality begins with consciousness⁶⁹ reflects the 'something' of the finite, yet the infinite exists forever, also before the finite. *Gimmel preceded the finite allowing for physical existence*^{40; 83}.
- *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. This is a major theme of our philosophical Unified Monism^{74; 75}.

- 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*.
 - We apply empirically verifiable new approaches to Mass, Quanta, Gimmel, TRUE units and Calculus ^{40; 83; 84}.
 - We apply the known derivations and formulae of physics including the works of Planck, Einstein, and De Broglie ^{40; 83}.
 - We introduce the need for applying quanta, discuss the limitations of infinitesimal calculus ⁸⁵, and introduce a new quantized calculus, the calculus of dimensional distinctions for quantal calculations ⁷⁷⁻⁷⁹.
 - The Calculus of Dimensional Distinctions (CoDD) provides a natural way to describe and analyze the possible combinations and interactions of elementary particles, including the associated phenomena of symmetry, stability, angular momentum and spin ^{30; 86}.
 - We naturalize and normalize the most basic parameters of measurement of the objects of the physical universe ^{40; 83}. These are mass, energy, space, and time. To this is added ‘gimmel’ as a necessity for empirical finite reality ³⁰.
 - We emphasize volumetric vortical rotations across multiple axes and that real quantum distinctions can only consist of integer multiples of natural quantum equivalence units (QEUs) ^{40; 83}. Further, the definitive 9D spin derivation was initially demonstrated through mathematical physics derivations demonstrating this to be so.
 - We show that, quantally, mass is the combined resistance to acceleration due to the angular momentum related moments of inertia of the rapidly spinning elementary particles that, in combination, make up an object ^{60; 61}.
 - Quantum equivalence units (QEU) are introduced. They are not particles but measures of mass and/or energy.
 - We apply Close’s Conveyance Equation and show that integer multiples of quantum equivalence units cannot form a symmetrically stable object (such as a proton) without making modifications such as adding an extra component, which we call gimmel.
 - Based on this symmetry and the formulae for rotating vortices, the mass of the proton, neutron, electron, quarks and atom all converted to quantum equivalence units precisely agree with particle physics experimental data.
 - The neutron is particularly complex but can be derived ⁸⁷.
 - The use of beta-decay and introduction of positrons and electron neutrinos create a clear way to interchange hydrogen-1 (protium) without a neutron to and from deuterium that has an electron ^{65; 88-92}.
 - We explain reasons for: ⁴⁰
 - “Surely, hydrogen should be unstable?”

- “Why is there more hydrogen?” to begin with.
- And “Why does hydrogen not have a neutron in it?”
- “Where did the neutron come from, how did it arise?”
- “What is purpose of radioactive decay?” ‘Decay’ in this context may be a misnomer, as it is a necessity for existence.
- There are patterns with life ⁹³⁻⁹⁵. Life is never-ending, and everything is immortal as all is conserved in the infinite.
- We introduce the law of conservation of TRUE units. Because it’s conserved it reflects ordropy ^{40; 83; 86}.
- The concepts of gimmel, of infinite order (‘ordropy’ as contrasted with physical ‘entropy’ in the finite 3S-1t) and the ‘Law of Conservation of Mass, Energy and Gimmel’ are related to the infinite, and the impacts on our 9D science ^{60; 61; 76; 85; 86}.
- We preliminarily report that the Periodic Table shows differences depending on the ratio of a third necessary substance that we call ‘gimmel’ to TRUE ³⁵⁻³⁸.
- These describe patterns with the life elements carbon, oxygen, sulfur, nitrogen, plus magnesium and calcium, plus silicon surprisingly, showing the most gimmel. They have common properties as essential elements in life, plus neon and helium as noble elements ^{30; 36}.
- Hydrogen contains more gimmel than any other element or compound ^{86; 96; 97}.
- Based on this model, ‘silicon’ has life-properties—a testable hypothesis; and the inert elements, helium and neon, also have the same high level of ‘gimmel’ but are non-reactive ^{86; 96; 97}.
- These life projections are consistent extending to molecules, particularly water.
- Strangely, it does not include the fundamental genetic code of RNA and DNA. This is because they contain Phosphorus as energy packets ^{86; 96; 97}. Each component has specific properties.
- The other elements, less essential for life, may be invidious at times, yet when used in combination such as phosphate may perform special functions ^{30; 36}.
- Close and Neppe previously applied ‘dimensional extrapolation’ with spin ¹⁰. This showed that we necessarily had a multidimensional finite reality and that 9 dimensions could work. One can move through, across, between and within dimensions by a mechanism we’ve termed ‘indivension’ ⁹⁸. This allows for a distant way of explaining such equivalent phenomena to the Copenhagen interpretation ⁹⁸.

- The major aspect demonstrated that a strange, heretofore unexplained, angle size in fermions, namely the Cabibbo mixing angle, could not be derived through our Standard Model of Physics, but could be derived by applying the 9-dimensional finite vortical (spin) model proposed by TDVP.
- Close and Neppe demonstrated that this strange angle size of the Cabibbo mixing angle in fermions (calculated previously at 13.04 degrees)^{99; 100} could be derived by applying the 9-dimensional finite vortical (spin) model as previously predicted by TDVP^{11; 13; 48; 49}. It could not be derived from any other dimensional models such as the 4 of the SMP, 5, 8, 10, 11 or 26.
- The 9D *spin* components are also supported mathematically by our demonstrating another discovery, that electrons exhibit intrinsic spin based on their angular momentum³⁴.
- In a side-line, yet remarkable derivation, Close and Neppe also showed that electrons cannot be completely spherical in our current 3-dimensional space physical reality because the angular velocity of electron spin would exceed the speed of light (300,000K per second) which general relativity deems impossible, certainly locally^{101; 102}.
- The mathematics in our TDVP model, with the reality of dimensions. Mathematics and dimensions are not just pure operators. They're real, empirical and fundamental to nature.

Importantly, these multiple areas of productive application of TDVP are so linked that they overlap greatly. Consequently, it is artificial to completely separate the discussions into these compartments. They dynamically interface, with the mathematics being the thread through all. However, the authors hope that the background and literature in these areas will allow comprehension of the hypotheses, methodology, and discussion involved^{2; 10; 11; 33; 35; 45-48; 51; 52; 74; 102-111}.

Deep spiritual concepts

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*.

We can introduce spirituality into the domain of science by recognizing what is scientifically feasible in our reality, even if it is incomplete, provided it cannot be refuted by being falsifiable. Furthermore, our overt 4 dimensions of physical *experience*, reflects only part of the mainly covert expression of our *existing* 9-dimensional quantized finite reality embedded in an infinite continuity. Gimmel is the key link^{31; 112}. It unifies the spiritual with the physical.

The conundrum of limited free will, freedom of choice, and a Divinity in control of

all is commensurate with TDVP ^{31; 112}.

I list briefly some principles. Each could be a book!

- In Kabbalah there are 10 ‘Sephirot’. These are higher qualities. They involve content but everything is measurable by dimensional extent. Extent needs content. Impact needs an outsider like G-d. Math is fundamental to TDVP. It’s more than just operations but part of our order in the divine world ^{40; 78; 79}. (Table 1)
 - Love is Chesed and Tiferet in Kabbalah. These are content qualities, but measured by extent using the Calculus of Distinctions ^{40; 78; 79}.
 - Qualities like love and courage can be translated to terms within our Calculus of Existential Distinctions. These qualities contain content and can deliver an ordinal degree of extent (slight, profound etc.) Extent requires such content and these can be impacted even by a higher being ⁸¹. Content interchanges with extent.
 - Similar qualities can be attributed in other mystical traditions like *Jainism*, and Vedantic thinking.
 - The three consciousness dimensions correspond with higher integrated qualities (e.g. Sephirot in Kabbalah, or equivalents in Vedantic thought).

Other TDVP principles are:

- G-d or Divinity or the Higher being is equivalent to the laws of nature in the Infinite.
- Soul is not independent and not part of dualism. Soul is part of the unified essence, just different finite dimensions ^{9; 11}. Instead of 3S-1t, one component might be dimensions 6 to 9 (as an example). It’s the same overall essential component, just a different essence: And that finite is within 9D but also enveloping the infinite. This is metaphorically the butterfly and the chrysalis.

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

- *Ordropy*, reflecting order in the infinite and also expressed in the finite: Ordropy ^{69; 82} 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, are linked to spirituality and yet have science explanations ^{113; 114}.

Table 1: The Sephirot in Kabbalah.

Super-conscious	Highest levels	1 <i>Keter</i> - "Crown"
Conscious intellect	1-3 The 3 major, highest components of cognition	2 <i>Chokhmah</i> - "Wisdom" 3 <i>Binah</i> - "Understanding" 3b Da'at -- Knowing. ^d
Conscious emotions	Primary emotions: 4-6 These could be regarded as 'love' Higher qualities: 7-9 Higher level Vessel to bring action: Drive, volitions	4 <i>Chesed</i> - "Kindness" 5 <i>Gevurah</i> - "Strength" 6 <i>Tiferet</i> - "Beauty" 7 <i>Netzach</i> - "Eternity" 8 <i>Hod</i> - "Splendour" 9 <i>Yesod</i> - "Foundation" 10 <i>Malkuth</i> - "Kingship"

Speculations:

We speculate based on the TDVP logic that:

- The 9 dimensions consist of 3 dimensions each of Space, Time and Consciousness.
- These 9D and transfinite quantized, pixilated, volumetric components of reality are necessarily embedded in a continuous *infinite* reality.
- The infinite pervades all of the finite necessarily.
- The infinite is not quantized: Instead, it reflects as a *continuous* non-quantized reality. Extent needs content.

Impact needs outside interventions such as a Divinity (G-d), but it could be anything physical like earthquakes. It could possibly even be involved in speech and even thought communication ¹¹⁵.

- Consciousness infinitely is unbroken and extends forever and is an unending repository of information. This information is expressed to sentient beings as meaningful information that we call 'content consciousness' (C_c). Like with the extent of STC, there is a triad of content namely mass-energy-C_c. (MEC). Everything that exists, whether living or inanimate, even atoms, consists of MEC.
- This unification of the finite and the infinite, and of STC and MEC

^d Da'at in some classifications e.g. Chabad, is included. Then Keter as an elevation is put into another higher classification.

necessarily results in the Neppe-Close philosophical model called ‘Unified Monism’ (UM). Hegel and other idealist monists do not have a physical world. Unified Monism unifies the physical empirical and the idealist monist view and survival ideas. UM is not just the equivalent of another imaginary or virtual reality ^{74; 75}. UM reflects the metaphysical basis of TDVP ^{74; 75; 116; 117}. This new philosophy “*Unified Monism*” is further justified by scientific empiricism. Unified Monists therefore apply both the empirical and the consciousness, and yet is not a dualistic mind-body philosophy. It is unique in that it can explain our day to day phenomena and our imaginary existence all by a monistic philosophy.

We briefly summarize those specific findings:

- Close and Neppe previously applied ‘dimensional extrapolation’ with spin. This showed that we necessarily had a multidimensional finite reality and that 9 dimensions could work.
- The 9D spin components are also supported mathematically by our demonstrating *another new discovery, that electrons exhibit intrinsic spin* based on their angular momentum.
- We also showed how so-called ‘*weak universality*’ can also fit the 9D-spin model ¹⁰⁸.
- We have also mathematically replicated the finding of 9-dimensional spin finite reality through *a thought experiment* ⁵² where the Cabibbo angle works out more exactly at 13.038 degrees (empirically it was calculated to 4 significant figures at 13.04) ^{11; 13; 48; 49}.

Essentially, Neppe and Close motivate the idea that reality may be more complex than what we as sentient beings perceive within our restricted 3S-1t experience. Our finite reality findings specifically demonstrate that our TDVP hypothesis, that finite reality consists of a 9-dimensional spin reality with some of the dimensions being hidden (unavailable to our physical senses), is correct. These in turn are indicative of a deeper and meaningful continuous infinite and transfinite reality ^{23; 54-56; 64}. Applying Triadic Rotational Units of Equivalence (TRUE) allows great versatility in understanding nature and the relevance of *gimmel*. ^{35-40; 58; 59}

To clarify the data mathematically, based on three different analyses—elements having quantal volumes, masses, mass-energies and volumetric equivalents—no atoms in the Periodic Table of the Elements would be stable enough to exist permanently *unless there was this third substance* (‘*gimmel*’) besides neutrons (N),

protons (P) and electrons (E): The cube root of the sum of the numbers of N+P+E in any of the elements does not equal the required integer solution. This failure ostensibly refutes the hypothesis of ‘materialism’, as atoms would be unstable with only N, P and E. Adding gimmel allows the calculations to work ^{23; 31; 96}.

Remarkably, the ratio of gimmel to total TRUE of hydrogen and helium in the cosmos appears to correlate with the ratio of Dark Matter plus Dark Energy to the whole composition of the cosmos ^{33; 34}. This supports the hypothesis of this third substance (gimmel) in the cosmos ³³.

We can introduce spirituality into the domain of science by recognizing what is scientifically feasible in our reality, even if it is incomplete, provided it cannot be refuted by being falsifiable. Furthermore, our overt 4 dimensions of physical *experience*, reflects only part of the mainly covert expression of our *existing* 9-dimensional quantized finite reality embedded in an infinite continuity.

In summary, we emphasize the great importance of several comprehensive, necessary but neglected components and philosophical dilemmas in our stable universe, as indicated:

- The philosophy of *Unified Monism*, reflects the metaphysical basis of TDVP.
- *Kabbalah*, and other mystical traditions like *Jainism*, support TDVP.
- *Ordropy* reflects 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* in the context of approaching dimensions, infinity, understanding spirituality, consciousness, meaning, math, and the laws of nature.
- 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*.

In contrast with gimmel, the concept of gluons, while fitting the logic for mass of nucleons in 4D science, is impossible to reconcile with 9D science because mathematically, gluons are demonstrably unstable. The difficulty with the ephemeral nature of the Higgs Bosons is problematic, but that too, may also be solved by recognizing the application of gimmel, instead.

This has been a brief whirlwind tour relating to an estimated 5000 to 1000 pages of published peer-reviewed data. At times, this summary is telegraphic and I encourage reading of key articles on www.pni.org such as the ‘groundbreaking’

Groundbreaking Paradigm Shifts and ‘moral philosophy’ MORAL PHILOSOPHY.

Links or watching YouTubes at VernonNeppe.org PRESENTATIONS

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The article “An Evaluation of TDVP” by J. E. F. Kaan, MSPE and Simon Olling Rebsdorf, MSPE

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An Evaluation of TDVP

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SUMMARY AND CONCLUSIONS

In this article, we discuss central aspects of “Triadic Dimensional-Distinction Vortical Paradigm” (TDVP) by Vernon Neppe and Edward Close (N&C).¹ In our opinion, the scientific discipline of physics is the most important part of the study of reality (ontology), almost by definition. It appears that some of the most important premises in TDVP are incorrect. It follows that if the basic premises are wrong or meaningless, the whole “paradigm” must be considered to be wrong or meaningless.

We note that TDVP considers consciousness to be included in the laws of physics,² an

effort well meant; but we do not regard the effort as successful. Adhering to mainstream physics, but not necessarily reductionist methods, does not need to lead, per definition, to philosophical materialism. But TDVP introduces extra dimensions³—sometimes with an oversimplification of the physics, sometimes by using rather uncommon, undefined, and what we believe are unscientific concepts. TDVP claims to have been able to improve on the Standard Model of Particle Physics (SMPP).⁴ Yet from our analysis, such “improvements” do not appear scientifically correct, i.e., they have not been derived with proper physics methods. In addition, there are no concrete, quantitative, accurate measurements/experiments to support TDVP’s claims.

We also demonstrate that TDVP does not comprise a scientific revolution and, therefore, is not a paradigm shift. The idea of vortices spinning in higher dimensions, for example, is questionable because the

requirement of independent frames of reference is discarded by TDVP (see subsection “More Erroneous Physics”).

TDVP does not appear to adhere to the commonly accepted criterion for proper physics, i.e., being based on quantitative experiments (measurements). The authors, N&C, claim that their results should be in agreement with the findings at the Large Hadron Collider (LHC),⁵ yet the most famous LHC findings, such as the Higgs boson, largely confirm the SMPP, which is not in agreement with TDVP.

The case we present, that TDVP is based on incorrect physics, is sufficiently demonstrated in this article. While we certainly have been impressed by the sheer amount of work by authors N&C and their efforts in trying to allow for paranormal phenomena (possibly with some sort of “consciousness” outside of the brain), we regard their main exercise (i.e., including consciousness in the laws of physics) as unsuccessful because their calculations and derivations regarding physics appear to be unverified and in conflict, or contradiction, with known and experimentally validated physics.

1. INTRODUCTION

From a philosophy-of-science perspective, when an article about a specific scientific field claims to challenge a well-established and empirically solid paradigm, whereby its authors themselves claim their theory constitutes a new scientific paradigm,⁶ such a bold statement calls for high-quality scientific and/or academic critique.

After publishing their book *Reality Begins with Consciousness* (2012) and a list of subsequent articles, the massive works of N&C probably are familiar to the majority of

ISPE members.⁷ Much of the work by N&C deals with their theoretical concept called the Triadic Dimensional-Distinction Vortical Paradigm, or TDVP. Initially intended as a new “theory of everything” (TOE), the authors themselves often refer to TDVP as a groundbreaking paradigm which significantly transcends the current paradigms of mainstream science or, rather, of theoretical physics.⁸ We question whether or not this proclaimed paradigm-changing framework, in fact, represents a scientific theory, whether the theory is meaningful and substantiated, or whether it is something else.

In this article, we will look at some philosophical, as well as physics-based, aspects and show that some of the claims in the TDVP hypothesis—parts of them claimed to be *essential* for the paradigm—must be considered as dubious, unsubstantiated, or sometimes simply wrong when evaluated within the professional scientific discipline of physics. If TDVP were to be regarded as a proposal for a new kind of physics, then the *scientific (physics) community* would further have to assess the theory via the normal, scientific, academic high-quality criteria. We show that *many* of the basic physics claims of TDVP are highly speculative or hypothetical and must be regarded as simply incorrect for logical or scientific reasons.

For this reason, and because N&C include consciousness in particle physics, we expect the academic community at large will likely not give much attention to TDVP. Therefore, we will review the work mainly from an ISPE perspective, whereby our professional academic backgrounds in physics clearly also play a role. It is our hope that this critique can inform all ISPE members, who may not be familiar with technical science, about the smallest building blocks of Nature.

The TDVP theory is not published in established, professional, peer-reviewed academic physics journals. Instead, much of the theory appears to have been published in magazines and journals that do not state any explicit research-quality criteria. The editorial boards of some of these magazines seem to display a somewhat closed network of followers of TDVP. Therefore, we do not get the impression that the “peer reviewers” of TDVP in such publications are professional physicists with a considerable publication history in established, peer-reviewed scientific journals.

This critical evaluation is predominantly a critique of the theoretical and logical body of a proposed “theory” by N&C as published in journals which are not used by the community of trained theoretical physicists, such as *Telicom*, *IQ Nexus Journal*, or some journals outside the high-IQ communities, such as *NeuroQuantology*.⁹

2. METHODOLOGIES

Developing Human Knowledge and Falsifying Theories about Nature

The masterminds behind a paradigm shift within theoretical particle physics must be required to provide evidence that it is *in agreement* with natural phenomena, not *disagreement*. In fact, the theory should preferably be in even *better* agreement with natural phenomena than the established paradigm, and, as such, is required to include explanations of all elements of experimental results. In other words, it is surely *not the physics that should adapt to the theory; it is the theory that should adapt to Nature*, the only true player in the game. Only if the theory passes the test of Nature, i.e.,

attempts of falsification, in time, can it become a new paradigm.

Note that “quantum mysticism,” on which TDVP still seems to be based to some extent,¹⁰ certainly is not a “new paradigm,” but what we consider to be incorrect physics. In science, especially physics, it is superseded by “physicalism” (this would not exclude spiritual beliefs in general; they simply are not related with quantum-mechanics, whatsoever). TDVP seems to be based on two fallacious assumptions, namely:

1. Physics excludes the paranormal (or “spiritual”).
2. In order to be able to allow for paranormal events, you can modify the fundamentals of mainstream physics—without checking if the new theories still work for old experiments.

Of course, certain religious dogma (e.g., creationism) is incompatible with science. Yet there also are areas regarding the paranormal—and perhaps certain aspects of consciousness—where we do not know *everything*. Yet simply adding “dimensions” of consciousness to mainstream physics, as is done with TDVP,¹¹ is not a proper solution, especially not on the smallest scales, such as in particle physics. An instrumental example is the high-ranking Belgian cosmologist and professor of physics, *and* Catholic priest, George Lemaître. While a devout Roman Catholic, he vehemently opposed mixing science with religion, even though he personally held that the two fields were not in conflict.

Trying to Falsify the Principle of Falsification?

Before immersing ourselves into the subject matter of the TDVP theory, let us also have a brief look at an alternative (and unsound) way

of legitimizing that a theory about Nature should not be subjugated to the normal requirements of scientific falsification. In June 2018, the authors of TDVP displayed the conviction that they can do away with the still largely universal criterion of Karl Popper's "Falsifiability" in physics by simply denying it.¹² This self-proclaimed attempt to "redefine science" in this way is fittingly dubbed as "Lower-Dimensional Feasibility, Absent Falsification," or LFAF, in short, by N&C.¹³

In other words, they attempt to define their theory outside of the established scientificity criteria by simply extending Popper's falsification criterion with an additional fresh hypothesis, or "paradigmatic rethink," as the authors call it.¹⁴ They claim this is a "new method of analyzing science" and explain that "this extended the hypothesis in the Philosophy of Science to include logically feasible but un-refuted concepts into science."¹⁵ Since Popper and, thereafter, Kuhn, more philosophers have added certain nuances, yet the basic premises of the criterion of falsifiability remain intact for physics.

N&C state in a long article in *IQ Nexus Journal* that "While almost all concepts in the domain of spirituality could not be falsified using our conventional model, when adding scientific feasibility to the mix, suddenly we could put pieces of a jigsaw puzzle together."¹⁶ Apparently, to N&C, spirituality falls into the category of "feasible but unrefuted concepts." Finally, N&C unfold their theorizing: "LFAF includes *logically feasible concepts* in hypotheses ... Without LFAF, we could not have had TDVP ... or any so-called unified theory."¹⁷

If the LFAF notion sounds promising, please let us remind the reader that the concept of

(logical) feasibility remains utterly *undefined* by N&C. So, we ask, when is something *logically feasible*? If, for example, *spirituality* is logically feasible, then what about ghosts, or other sometimes dubious paranormal notions? Including spirituality in particle physics seems to be a vital objective of TDVP. However, as physicists, we cannot be convinced that such issues can be resolved by dimensions of "consciousness" or extra dimensions of time, as TDVP claims.

We will not immerse ourselves further into this uncharted area of undefined concepts, but simply note that there is no scientific basis, nor philosophical motivation, for enhancing the framework of falsifiability with an undefined concept. LFAF appears unsubstantiated and even undefined, and, as a result, so is TDVP, by use of N&C's own argument.

Challenging the Standard Model of Particle Physics

In this example, we deal with TDVP as it challenges the solid Standard Model of Particle Physics (SMPP), which is a theory that describes three of the four known fundamental forces in the universe, as well as classifies all known elementary particles. It was developed throughout the second part of the 20th century through the work and heated discussions of numerous scientists around the world. There is a history of many experimental confirmations giving credence to SMPP, e.g., in the mid-1970s with the confirmation of quarks, the top quark in 1995, the tau neutrino in 2000, and the famous Higgs boson responsible for the Higgs Field stretching through the universe and providing other particles with mass, which was famously confirmed empirically in 2012.

A paraphrased variant of a Max Planck quote, sometimes used in the rhetoric by N&C, is that “Science advances one funeral at a time.” This observation is true for some long-standing theories about Nature, with the SMPP standing on the top of the mountain. However, at the same time, this is *not* sufficient to refer to the heterodoxy of a given theory in itself. The theory survives the scientists if it proves to be the best (empirical) explanation of natural phenomena. New “theories” about Nature (in fact, hypotheses or hypothetical models) may start off as unorthodox. But only time will tell if they will survive the ultimate test of Nature (i.e., a lot of *quantitative* and *reproducible* experiments, compared exactly with such theories). But many heterodox theories have died with their masterminds. One example is the hypothetical *Vortex theory* of the atom during the 19th century (e.g., William Thomson, aka Lord Kelvin). With later experiments, such theories were clearly falsified (see section 3 below).

In the definition given by Kuhn, a *paradigm shift* is a fundamental change in the basic concepts and experimental practices of a scientific discipline. This is contrasted by Kuhn with *normal science*, which is the science done within the prevailing framework or paradigm. Most popular examples are the transitions from Ptolemaic cosmology to Copernican, from Aristotelian to Newtonian mechanics, from goal-directed change to Darwinian natural selection, and, famously, the paradigm shift from Newtonian gravity to Einsteinian General Relativity Theory. These are changes from one explanatory scheme to a new novel scheme, which is incommensurable to the former scheme at certain scales. The shift will take place after a number of anomalies, making it still more difficult to sustain the former paradigm. When we look for identifiers of the anomalies not describable within the framework of the current paradigm of theoretical particle physics (the Standard

Model), first of all, gravity comes to mind.

Yet, for TDVP, the inclusion of *consciousness* seems to be a main concept of this “paradigm.” N&C discard Quantum Chromo Dynamics (QCD, invented as a result of experiments by Gell-Mann as well as George Zweig), yet they claim to have found some highly speculative and not empirically measurable substance named *gimmel* (allegedly a third property of nature) in the nuclear cores of all atoms; N&C even claim this *gimmel* substance possesses consciousness.¹⁸ It remains unclear how such a notion is supposed to be understood in terms of scientific concepts, i.e., empirically measurable quantities. The same holds for the proposed “three dimensions of consciousness” in their model of nine dimensions.¹⁹ Considering such claims, it will be useful to look at some detailed refutations, as conveyed in the following section.

3. CRITICAL RESULTS AND ANALYSIS

Main Criticism of the Underlying Physics

Researchers sometimes use models which they can study to see if those models provide them with extra insight. However, the ultimate judge is comparison with experiments. The Vortex theory attempted to explain tension between corpuscular theories of matter and continuum, which had, for a long time in Victorian England, been a persistent theme. Ascribing ontological priority to a continuous, cosmic fluid embodied this theory. But demonstrably, owing to the test of Nature, it did not work.²⁰ It was superseded by the atomic model, as found by Rutherford, on the basis of many experiments and then quantum theory. We now know that in Quantum Mechanics (QM), the particles adhere to the Heisenberg uncertainty relation. In fact, it is better to see

them as waves or quantum fields than as particles. Also, particle spin is a quantum property, not to be compared with classical orbital momentum, as confirmed by many experimental results, e.g., with SternGerlach equipment. Nevertheless, such a flawed comparison (vortices with spin) now also has found its way into TDVP.

The Cabibbo Angle in QFT

At first, the so-called *Cabibbo angle* seemed just a side note within the overall TDVP. However, N&C now claim to have found a quantitative derivation/calculation of this parameter in the SMPP, and subsequently claim it “works” only if there are nine dimensions of reality.²¹ Let us explain.

An important phenomenon in theoretical physics is the notable concept of CP violation, i.e., the violation of the symmetry that the laws of physics should be the same if a particle is interchanged with its antiparticle (C symmetry), while its spatial coordinates are inverted (“mirror” or P symmetry, short for Parity). In the SMPP, an important entity to human understanding of CP violation is the Cabibbo-Kobayashi-Maskawa matrix, also known as the quark-mixing matrix. This is a unitary matrix containing information about the strength of the flavor-changing weak interaction (or the weak nuclear force), the mechanism between sub-atomic particles that causes radioactive decay and thus plays an essential role in the well-known phenomenon of nuclear fission utilized in atomic bombs. Technically, it specifies the mismatch of quantum states of quarks when they propagate freely and when they take part in the weak interactions. So, in 1963, Italian physicist Nicola Cabibbo introduced the Cabibbo angle to preserve the universality of the weak interaction. A theoretical synthesis of data from a variety of sources in weak-interaction

processes generates a coupling angle. The magnitude of the angle came from experimental accelerator particle collision measurements. This mathematical parameter, the “angle,” has resulted from measurements from a variety of sources as being 0.223 radian, or approximately 13 degrees. We have evaluated N&C’s “mathematical derivation” of this Cabibbo angle and conclude that, with proper criteria as normally applied in mathematical physics, the derivation is incorrect. In his derivation, Close took a *classical* spinning object (which is incorrect for fermions because spin is quantified) and let it spin/rotate with the speed of light (which is incorrect) to generate the magnetic influence it should “spin” faster than the speed of light.²² However, it is not mechanical spin; *quantum* spin is a *quantum* property. Close then calculates a “Lorentz contraction,” which may look impressive to non-physicists because it happens to be about 1/9 of the experimental value of the Cabibbo angle (in degrees).²³ N&C then claim to have derived the “Cabibbo angle,” call it a mathematical “proof,” and claim that reality has *nine dimensions*.²⁴ This is unsubstantiated because the derivation with a Lorentz contraction of a classical spinning fermion has nothing to do with the real “Cabibbo angle,” which deals with electro-weak interaction (in quantum *field* theory).

It is important to note that rotation itself may have something to do with the electromagnetic force but not with the weak force (or weak interaction at all). Firstly, the weak force occurs only at very small distances (less than a proton), so it is not applicable for an electron. Secondly, it has to do with radioactive decay, not with “spin.” Therefore, this derivation must be considered incorrect.

Although N&C repeatedly assert that TDVP has never been refuted,²⁵ our critical evaluation, as described above, of their derivation of nine dimensions is a strong refutation, which, in fact, was published already in a brief form, years ago, on the ISPE Ning forum.

“Deriving” a Third—as yet Unknown—Constituent in Nature, Called *Gimmel*

N&C claim that the presented notion of a substance called *gimmel* is refuting the SMPP.²⁶ But this claim must be considered as incorrect. To begin with, *gimmel* is not calculated exactly by N&C.²⁷ They assume some integer values for certain properties, which lead to integer solutions for some cubic (conveyance) equations, which is an equivocal method; then the mass values are assumed to be integers, apparently to be in line with quantum physics.²⁸ Yet, from the data in Figure 1, we can see the quark masses are not integer at all. This reference is easily accessible. The same will, of course, be found in any standard academic textbook on this topic.

N&C’s detailed calculation method can be found in a blog by Close (but not in any peer-reviewed physics journal articles).³⁰ In his calculation, the use of a cubic equation $(charge^3 + mass^3 + gimmel^3)^{1/3}$ is really obscure physics because of the different physical quantities involved.³¹ A simple

dimension analysis is demonstrated as a very strong tool to check for flaws in the equations. The units always need to be of the same dimensions in the same units of measure (e.g., the metric units for *charge* and *mass* are coulomb and kg, respectively) when dealing with physical, measurable quantities. If they are not, the equation is simply wrong. Adding quantities of different dimensions is meaningless (i.e., the units of measure must be the same; you cannot just add *charge* and *mass*, or coulomb³ and kg³, together). Finding an integer solution for cubic solutions is not difficult; it can be done with so-called Vieta’s formulas. But as the input data were not integers to begin with, such an exercise for the proton is really misleading. At first, Close calculated negative numbers for *gimmel*,³² but then continued with some number juggling (with some arbitrary integers for *gimmel*), until the whole thing seemed to work again,³³ which is not an established, sound method in physics. Calculating a cubic root for such a composite result, which would be *gimmel*, then would be even more meaningless.

Furthermore, the idea that you need a third component (*gimmel*)—because, otherwise, according to Fermat, there would not be an integer solution for the result—is, indeed, very obscure and strange, because important input values (mass) are not integers to begin with. In conclusion, these are misleading mathematical manipulations and have nothing

Quark flavor properties												
Particle		Mass (MeV/c ²) [*]	J	B	Q (e)	I ₃	C	S	T	B'	Antiparticle	
Name	Symbol										Name	Symbol
First generation												
up	u	2.3 ± 0.7 ± 0.5	½	+⅓	+⅔	+½	0	0	0	0	antiup	ū
down	d	4.8 ± 0.5 ± 0.3	½	+⅓	-⅓	-½	0	0	0	0	antidown	d̄
Second generation												
charm	c	1275 ± 25	½	+⅓	+⅔	0	+1	0	0	0	anticharm	c̄
strange	s	95 ± 5	½	+⅓	-⅓	0	0	-1	0	0	antistrange	s̄
Third generation												
top	t	173 210 ± 510 ± 710	½	+⅓	+⅔	0	0	0	+1	0	antitop	t̄
bottom	b	4180 ± 30	½	+⅓	-⅓	0	0	0	0	-1	antibottom	b̄

J = total angular momentum, B = baryon number, Q = electric charge, I₃ = isospin, C = charm, S = strangeness, T = topness, B' = bottomness.

* Notation such as 173 210 ± 510 ± 710 denotes two types of measurement uncertainty. In the case of the top quark, the first uncertainty is statistical in nature, and the second is systematic.

FIG. 1: Quark Properties (and mass).²⁹

to do with standard particle physics, further underlining the suspicion that TDVP being a new paradigm is unsubstantiated.

Another element in the TDVP theorizing is the use of acronyms and abbreviations such as “True” units and “MReV” (for the composite stuff from which *gimmel* is derived), which contain the terms *volumetric* and *rotational*, thus suggesting particle rotation.³⁴ However, nowhere is the spin property of the constituents (quarks) used. MeV stands for *mega-electron-volts*, which is the energy unit used in particle physics. Yet, N&C use a similar term (MReV) in an unclear way, referring to it as “True” volumetric units.³⁵ Again, our dimensional analysis is that “True” units in TDVP are in complete disagreement with the definition of volume (which should have the metric unit of m³). Subsequently, with a hydrogen atom, a very high value for *gimmel* for the electron is postulated by N&C; and even then, later on, the molecules do not yield integer solutions.³⁶ When it is almost integer, it is suggested that such an element would be more “stable,” but this suggestion is really unsubstantiated speculation or guesswork.³⁷

Gimmel is found/postulated as a third “property,” not like mass or energy.³⁸ This concept of *gimmel* already appears bizarre from dimensional analysis, and thus cannot be compared with gluons, which, just like quarks, are particles—sometimes virtual—within the proton. Also, leaving gluons out in the 3q proton model is a mistake because they (gluons) have been found experimentally, as stated before, as constituents of quark/gluon plasma.

Finally, the thinking step that *gimmel* is postulated to be “consciousness” (and/or possibly correlating with dark matter or even dark energy) is complete speculation.³⁹ Dark

matter is postulated to occur not equally in all matter, but mostly around rotating galaxies. N&C make statements about gluons, such as, “We don’t have to buy that,”⁴⁰ regarding the claim by Nobel Prize winner Murray GellMann. Gell-Mann found the quarks as part of the QCD theory, which is the well-established third part of the SMPP, with the first part, QED, being the most accurate theory in physics ever found, as confirmed by thousands of experiments. Figure 2 below shows that gluons do, in fact, exist, and have been experimentally found. (See also the article by John Ellis.⁴¹) We certainly *do* need to “buy that.” Neglecting this finding displays a disregard for the world’s highest-ranking experimental researchers at CERN.



FIG. 2: Properties of the Gluon.⁴²

More Erroneous Physics

In physics, we usually cannot simply add dimensions without compromising the earlier structure (e.g., Hamiltonian, Hilbert space, Lorentz transformations, and so on), because the matrix calculations often used in physics (e.g., in classical mechanics, but also in QM) would be distorted if more dimensions were to be added. In any situation, already for the important principle of *covariance*⁴³ (also a vital element in Einstein's General Theory of Relativity), the idea of "rotating" higher dimensions (or vortices leading to higher dimensions) also is highly unconventional in physics or even unsubstantiated.

4. DISCUSSION

Using the theoretical explanation of one hitherto unexplained physical phenomenon as a sufficient condition for providing a theory with the status of a paradigm shift is a bold undertaking. It requires more than that. Explaining one unexplained phenomenon—as the Cabibbo angle derivation is claimed to be,⁴⁴ but demonstrably is not—may be an appropriate addition to an existing theory. But this is not enough in itself to lift the theory up to the heights of "paradigm shift" candidate, especially when the foundation of the theoretical addition explaining the specific phenomenon is based on a fundamentally different worldview contradicting the most basic framework and fabric of the well-established theory of Nature—in this case, at microscales—of the SMPP.

A good presentation of the different scales from micro (elementary) to large (cosmological) and the different physics for such scales is presented in a book about general physics by Harvard theoretical physicist Lisa Randall.⁴⁵ Although we can have some understanding of a conceptual

"humanistic-medical" model involving consciousness as some emergent property at "human scale" (as speculated by the psychiatrist R. Pico⁴⁶), inclusion of consciousness as a pure physical dimension should not, and cannot, be included in theoretical physics, especially not at the "microscale" of elementary particles, where it is scientifically meaningless and not measurable. Also, if an existing physics theory is modified or expanded, (e.g., the way General Relativity is a modification to Newtonian gravity at relativistic velocities), then it should still accurately describe reality just as well (for the applicable scale) or, preferably, even better; and, indeed, General Relativity at small velocities is in full agreement with Newtonian physics.

Similarly, if you add a dimension to QM or QFT as in the SMPP, its basic workings still should be in line with the older model. Yet TDVP seems to be abandoning QFT altogether while providing no (alternative) mathematical descriptions for how it can describe QFT or the standard model in $3s-1t$ (the N&C terminology for denoting three spatial dimensions and one time dimension).⁴⁷

In the *Telicom* 30, no. 3 issue, N&C reply to ISPE member and physicist Stanley Sramek (author of a critical article about TDVP, mainly about neutron decay) that their theory is "scientifically verified by providing explanations for an increasingly impressive list of phenomena ... not explained in current mainstream science paradigm ..."⁴⁸ Naturally, we expect the authors to have a list of paranormal phenomena in mind; yet we also do not know how TDVP would "verify" such phenomena, certainly not in a physical or quantitative sense.

Quantum Mechanics Does *Not* Require Any Conscious Observer

Quantum Mechanics does not describe what is happening at any moment; it describes only probabilities. Some people, instead of recognizing that there must be a gap in the theory, jump to the mistaken conclusion that nothing happens until someone looks. That gap was filled later by QFT, a mathematically complicated, but very descriptive and experimentally supported, necessary part of SMPP. As mentioned, QFT basically is special relativity combined with quantum mechanics, as developed in the 20th century by physicists such as Dirac and later Feynman (such new and important knowledge is completely ignored in TDVP).

QM offers no explanation or statement about when collapsing wave functions occur—describing elementary particle/wave probabilities—other than stating that the collapse has surely occurred when a measurement or a registration is made by the measurement device, and *not* necessitated by any conscious agent. The question of when a collapse occurs is known as the *measurement problem*, one of the most controversial problems in physics. This led to a theorizing known as the Copenhagen School (after Niels Bohr) which stated, to put it simply, that nothing happens until someone (an “observer”) measures. If all we have are mathematical probabilities, then, until the observation is made, we can only talk about probabilities. As to reality, we must give up hope of understanding it. However, as Einstein famously asked Bohr, “Do you really think the moon isn’t there if you aren’t looking at it?”⁴⁹

The answer, however, in modern physics, is that phenomena such as decoherence and spontaneous *quantum collapse* occur after an

interaction or measurement or (statistical) interaction. Modern QFT is well known for supplying a simple answer to such issues. Quantum collapse can happen *with or without* an “observer.” Human consciousness (or any other conceivable kind of consciousness) has nothing to do with this physical measurement process.⁵⁰ This fact is undisputed and well established, comprehensively described and empirically demonstrated in any graduate-level theoretical physics textbook. In the philosophy of physics, there still is some debate about the interpretations of the “quantum measurement” problem, yet the old interpretation which included consciousness (Wigner) is nowadays outdated and usually considered incorrect; even Wigner himself abandoned his interpretation later in his life. One reason for the modern convictions regarding this problem is the mechanism of decoherence—even this is still a subject for further theoretical research. There also is at least one interpretation with “hidden variables” which is perfectly valid: the Bohm-de Broglie interpretation, which does not even require the odd mechanism of wave collapse. The statement by N&C, “Quantum experiments show that consciousness is directly involved in the way reality manifests in the real world,”⁵¹ is therefore unsubstantiated to a professionally trained theoretical physicist.

As physicists, we cannot endorse such esoteric beliefs and unorthodox interpretations— firstly, because they are not in line with modern physics and thus reality itself; and, secondly, because these types of interpretations can cause more harm than benefit. Yet the authors of TDVP still seem to adhere to such interpretations of QM with consciousness based, for example, on an earlier book by Close about the subject.⁵²

Let us look at two statements about the world: one somewhat spiritualistic and one materialistic:

- A) The Universe cannot exist without consciousness (spiritualist).
- B) The Universe could exist without consciousness (materialist).

The common feature of these two statements is that neither one is falsifiable, meaning that there is no way to prove them scientifically. In effect, they are both unscientific statements about the world, hence, unsubstantiated claims by scientific standards. The TDVP proponents claim that a necessary, perhaps even logically necessary, result from quantum mechanics is that the universe needs a conscious observer in order to exist.⁵³ But as demonstrated, the observer (or measurement) problem does not require this.

In TDVP, the word “consciousness” seems to have a broader meaning than simply human consciousness (at first, the authors gave descriptions, such as C-essence, but without clear definition).⁵⁴ Yet, the word “consciousness” in the TDVP framing, both used for extra dimensions and as the basic property or ingredient of *gimmel*, lacks a clear definition. Thus the word “consciousness” as used in TDVP is speculative and hypothetical. More important, it must be considered scientifically meaningless, something vague, apparently spiritual, but without any indication as to how scientists can interpret or measure it.

Stability of the Proton (or Atom)

Atoms are stable because of a force within the nucleus carried by *mesons*. The particles in the nucleus (protons or neutrons) are stable because of the strong force interactions

carried by *gluons*. Although not as accurate as QED, QCD works well as a descriptive theory and is in line with experimental findings, e.g., quark gluon plasma. *Gimmel* does not make protons or atoms stable. With protons, it is about the baryon number and the conservation law for the baryon number (just like conservation of charge), as described by the Dutch physicist and Nobel Prize winner Prof. M. Veltman.⁵⁵

Alleged Inadequacies of the SMPP

Of course, we do not know everything in physics (if that ever would be possible), and there still appear to be inconsistencies or inaccuracies with empirical data in the SMPP, such as not accounting for gravity—not surprising for a model of *particle* physics. Nevertheless, the current SMPP is already *very* accurate (especially QED). The suggestion by N&C that TDVP also describes General Relativity⁵⁶ is incorrect because TDVP does not address *general* relativity (gravity) whatsoever. So, although attempts to include gravity failed for the SMPP, quantum field theories (QFT = QED + QCD + electroweak field theory) include the exact detailed mathematical equations that are the core ingredients of the SMPP—one of the most impressive efforts of the human mind, to date, with experimental accuracy in particle physics to the 12th decimal. Thus, it appears rather bizarre that TDVP seems to ignore almost anything about QFT, which is a vitally important part of the collected body of knowledge about the microscopic world and far supersedes the existence of, e.g., just the Schrödinger equation or the Wigner interpretation.

For readers further interested in such matters, QFT is discussed in an understandable way in a book by Nobel Prize winner Wilczek.⁵⁷ In this monograph, the author discusses QFT in

relation to reality and experiments; that is, QED, QCD, and the electroweak theory. As mentioned, there are still unknowns in theoretical physics, such as reconciliation of general relativity with QFT, which would be important, e.g., for the description of black holes. Also, a remaining conundrum is the energy of the vacuum, which, in reality, appears to be much smaller than the (extremely) large number hypothesized by QFT calculations as a result of virtual photons—a problem which also may be connected to so-called dark energy.

From our results and discussion, TDVP is not contributing towards a scientific solution of such theoretical puzzles. And the proposed *gimmel* substance has nothing to do with dark energy. As for other technical—yet rather obscure—terms used in TDVP derivations, such as *Diophantine equations*, the *Calculus of Distinctions*, or referrals to infinities (which usually have no place in real physics, besides the math),⁵⁸ we conclude that these do not add to our findings regarding the unsubstantiated physics in TDVP, and thus will not be treated in this critique.

While TDVP claims to have solved the “weirdness” of quantum mechanics,⁵⁹ it has not addressed, in any way, the fundamental characteristics of QM, such as probability, entanglement, the uncertainty relation of Heisenberg, and so on. Personally, we do not regard QM, and especially QFT, as “weird,” because there are exact mathematical descriptions for them, in line with experimental results to a high degree of accuracy. While N&C themselves claim that their TDVP is in line with findings at the Large Hadron Collider (LHC) at CERN,⁶⁰ the results of proton-smashing are, in fact, only *confirming* the SMPP model.

From our perspective, and as demonstrated, TDVP has not been compared with experimental physics at all, in any quantitative sense. On the contrary, N&C discard experiments where gluons have been shown to be in the atomic nucleus; they derive a hypothetical substance (*gimmel*) from unempirical numbers (in Fermat style powers of three); and they postulate that this substance should be “consciousness” that can even explain dark matter.⁶¹ Such methods demonstrate the unsubstantiated and unscientific nature of TDVP, despite its claims to be based on “groundbreaking and proven discoveries.”⁶²

Of course, *claiming* something is not enough. Alas, Nature always has the last word. N&C claim in the latest issue of *IQ Nexus* that there is “effectively a small number of scientists ... who do not like to extend changes to the [SMP].”⁶³ The obvious explanation for this conundrum is that, effectively, only few professional physicists have ever heard about the TDVP because it has not been properly peer-reviewed or presented in professional, academic, scientific physics journals. So, merely *stating* that the “scoffers or deniers are misguided”⁶⁴ is not sufficient to make the theory true.

Despite their efforts to combine religion and science (initially, mainly, from the perspective

NOTES

of quantum mysticism), we conclude that these entities still cannot be combined, as Lemaître also claimed, mostly because of the highly complicated mathematics in modern physics. A modern view illustrating this idea

has been written by an emeritus professor in biology, whereby it is asserted that religion and science cannot mix.⁶⁵ And they probably will never be reconciled.

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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.

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Abstract:

We respond to a critique of the Triadic Dimensional Vortical Paradigm (TDVP). The critique effectively argues for justifying the Standard Model of Physics (SMP) and refuting TDVP but does not address major TDVP justifications sufficiently or the limitations of the SMP. The SMP generally functions superbly within our current physical 3S-1t macroscale framework. However, the SMP has 60 major unsolved problems solvable through TDVP.

TDVP provides an empirically and mathematically demonstrated, 9-dimensional quantized finite rotational paradigm embedded within the infinite continuity. TDVP fundamentally recognizes 'consciousness' and the mathematical requirement of a massless, energyless third substance (gimmel), and that 3S-1t is embedded within TDVP. TDVP's fundamental axioms have never been refuted over seven years, the Criteria for Theories of Everything justifies TDVP's unique viability, and TDVP has expanded in scope.

Empirically, TDVP's Triadic Rotational Equivalent Units (TRUE) exactly correspond quantally with Mass-energy equivalence normalized data in the Large Hadron Collider Analyses; plus, TRUE derivations overwhelmingly correlate with cosmological data; plus, TRUE validates Life-Elements. This allows unification of the Laws of Nature.

Introduction:

We originally described the Triadic Dimensional Vortical Paradigm (TDVP) in 2011 ^[1],

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^{2].^b} TDVP continues to have advanced rapidly and now has far more than 5,000 plus pages in print in hundreds of articles.

Kaan and Rebsdorf ^[3] have suggested there're problems with TDVP. However, with due respect, there's little for us to defend because they've ignored TDVP's most important proofs. Instead, they raise critiques that are largely irrelevant to TDVP.^[4]

The Kaan-Rebsdorf article^[3] contains forty-plus obvious TDVP errors, possibly unintentionally not including or misinterpreting the critical Mathematics, Dimensional Biopsychophysics and Physics of TDVP. These neglect fundamentals like the derivation of natural quantum units, of Diophantine equations in quark combinations, and not moving away from the Standard Model even when it is wanting.

In fairness, it's difficult for any outsiders, including Kaan and Rebsdorf ^[3], to emulate our 9 years of work in a new discipline. We mean no disrespect to them, but must defend our TDVP model, and appropriately educate our ISPE and other colleagues. (Their review^[3] was posted prior to my receiving the Telicom version in the non-refereed Research-Gate system in a section entitled *pseudoskeptics*. We truly do not wish to embarrass them, as this may be a situation of ostensible unawareness of one's own incomprehension pervading such a posting: It pains us needing to defend the legitimacy of 9D models ^[5] ^c. It would have been ideal for the (Telicom) editor to contrast the Neppe-Close responses alongside the Kaan-Rebsdorf^[3] critique so as to not disadvantage the readers or the responding authors, but, regrettably, Kaan-Rebsdorf was already published before our responses ^[3].

In this response, I'm just delivering selected brushstrokes. Further pertinent recent publications about TDVP for the exceptional IQ community are in Telicom^[6, 7, 8] and in IQ Nexus Journal^[9, 10, 11, 12, 13] ^d, for example. Even in this specific response, we originally cited fifteen different journals plus proceedings and also books, *all refereed by more than is required in even in peer-reviewed journals*). Dr. Ed Close has responded, too ^[4] ^e.

Fundamentals:

The most important TDVP components since 2013 and particularly since 2015 are the mathematical proofs. Yet Kaan and Rebsdorf claim that the TDVP model, which involves amongst other things, 9 dimensions and gimmel, is refuted^[3]: Respectfully, they don't, however, point out why it's refuted, because in their response there *is no mathematical refutation* of our model, and there're no facts pertaining to the data of any refutation other than '*TDVP doesn't always agree with the Standard Model of Physics*' ^[14]—which we know. Nor do they mention the key distinctions^[15] of essence, a fundamental basis for TDVP. Kaan-Rebsdorf

incorrectly misattributed (#s1-5) and neglected (#6-14) 14 major TDVP areas^[3]. The correct information follows:

1. TDVP has *definitively* demonstrated that Triadic Rotational Units of Equivalence (TRUE units) correlate exactly with the mass volumetric equivalence in the Large Hadron Collider (LHC) for all three of the basic subatomic particles -- protons, neutrons, and electrons^[16]: This discovery is extraordinary¹⁸ because it shows the LHC data ^[17, 18] proves TDVP empirically relevant.^[16]
2. The amazing correlation (1 in 1,250) of the gimmel ratios to TRUE units in the appropriate element—mainly hydrogen, and a mixture with helium and other life elements—with **dark matter and dark energy** together is astonishing. These two findings show that we are dealing with real findings where gimmel plays a role in dark substances.^[19, 20] They also fit ²⁰ 9D ‘atomic’ models.¹⁷
3. These findings remarkably show that we likely have **one consistent law of nature** for the macroscale, quantum, and cosmology.^[21] *This has never before been demonstrated.*
4. We have definitively mathematically demonstrated a **9-dimensional finite quantized reality**.^[21] This is not a guess. This is proven and not only with the initial 9-dimensional Cabibbo angle data,^[22] but multiple replications^[1].
5. The mathematical justifications¹¹ for a third substance **gimmel**^[23] are overwhelming.^[11, 23, 24, 25, 26, 27, 28] Our universe^[25] would not be stable without it.^[25] But ephemeral substances^[25] like Higgs Bosons²⁹ (enduring for septillionths of seconds) and gluons^[29, 30] and the six unstable quarks cannot be so because they are *not in union with gimmel*.^[23]
6. Fundamental to TDVP, is ^[16] **normalization**^[31] of derived data implying integral features^[11], normalization in **Triadic Rotational Units of Equivalence** (TRUE)^[32] (Table 1), application of **quantum calculus**^[16], and recognition of **volumetric Diophantine phenomena**^[33].

TABLE 1: Natural Quantum Equivalence Units and their Approximate Values in Conventional SI Unit^[16, 34]

Physical Phenomenon	Conventional SI Numerical Value	Equivalence	Quantum Unit Equivalence	Naturalized Quantum Unit Value
Light As Wave	2.99792x10⁸ m³/s³	Space ↔ Duration	$\Delta S = \Delta T$	c = 1
Light As Photon	2.99792x10⁸ m/s	Extent ↔ Time	$\Delta x = \Delta t$	c = 1
Space	4/3πr_e³ m³=	Duration ↔	$\Delta T = \Delta S$	Space Quantum = 1

	2.6411x10⁻⁴³ m³	Volume		
Distance	2r_em = 8.4069x10⁻¹⁶ m	Time ↔ Distance	$\Delta t = \Delta x$	Distance Quantum = 1
Time	1.7526x10⁻²³ s	Volume ↔ Time	$\Delta S = \Delta t$	Time Quantum = 1
Energy	0.511MeV/c²	Angular Momentum ↔ Energy	$\Delta L = \Delta E$	Energy Quantum = 1
Mass	9.1094 x10⁻³¹ kg	Energy ↔ Mass	$\Delta E = \Delta m$	mass Quantum = 1

7. TDVP involves some elementary university-level math^[35] f: **Number Theory**^[11], theorems such as **Fermat's last theorem**^[36] and **Pythagorean** calculations and extending **orthogonality**^[35]. TDVP applies fundamental **General and Special Relativity**^[37].
8. There is necessarily **infinite continuity**^[38] enveloping the finite and transfinite^[39].
9. Very likely infinite continuity^[35] has an **Infinity of infinities** a la Georg Cantor^[40] We know this is required because of the **Gödel Incompleteness Theorems**.^[41, 42]
10. The **'life-elements'** demonstrate special qualities reflecting the fundamental role of *gimmel*.^[43]
11. Multidimensional order (**ordropy**) and **life**^[44] are remarkable infinite qualities^[45].
12. The most important distinctions in TDVP, are *impact and influence, content and extent*.¹⁵ **Essence distinctions**^[21] are essential to understand TDVP^[15, 46, 47].
13. We can easily mathematically **refute atomic materialism**^[48] in elements (# protons=# electrons) adapting Fermat's Last Theorem^[49] or Diophantine equivalents \neq (cubed number of atoms)^[11].
14. We demonstrate hierarchies of **macro-world "life-elements"** *gimmel*.^[11]

A real refutation of TDVP would require refutation of these basics. Kaan-Rebsdorf^[3] surely should be telling their ISPE colleagues this. The readers must reach their own conclusions on that.

Critics:

We could apply a metaphor: commenting on polysaccharide in the second middle-phalanx requires disciplinary sub-specialization—many would not venture beyond their education, and would recognize that by so doing they are going beyond their expertise. Realistically, few physicists are specialists in TDVP and our experience has been that many recognize their limitations in terms of commenting on TDVP and 9D+.

However, sometimes scientists pioneer despite their formal education e.g. aviation groundbreakers Orville and Wilbur Wright. *TDVP is possibly the most multidisciplinary model ever developed.* With different expertise and disciplines, we needed to pair together and spend possibly 15,000 hours extra: Neppe MD, PhD, FRS(SAf), particularly, has likely specialized more in mathematical-physics than many physics PhDs.

We've necessarily learnt prodigiously through informal study: With respect, have both Kaan and Rebsdorf^[3] studied at least 5000 pages and at least 100 articles of the TDVP model? Have they mastered it such that all fourteen points above reflect their profound expertise? If so, congratulations. But then *why've they left out these fundamentals for the readership they're trying to educate?* Surely not deliberately, because that might mislead the same readers they have wanted to provide erudition for? And yet if they've not studied and understood TDVP adequately, why are they busy criticizing this groundbreaking model? Is it because they cannot, like many formally trained scientists, go beyond 4 dimensions, no matter what limitations 4D has?

Standard Model of Physics

Kaan and Rebsdorf^[3] rely upon the well-accepted and substantiated 'Standard Model of Physics'^[50, 51] (SMP).^[52, 53] The SMP;⁵¹ applies this 4-dimensional model involving 3 dimensions of space (length, breadth and height)⁵³ in a present quantal period in time⁵⁸ — one moment in the present time⁵⁸, which is probably a volumetric time like all other empirical objects or events (3S-1t).ⁱⁱ

The standard model of physics remarkably well fits our day-to-day macroreality; it provides a superb consistency for us living in the physical world.^[53] We can predict what will happen and we can provide order to our world.

The standard model of physics applies to the physical universe.^[2, 35] In TDVP, we're not rejecting anything physical: *Our TDVP model utilizes physicality and requires the SMP, because embedded within the 9-dimensional plus model is our 3S-1t SMP reality.*^[2, 35]

We're not developing a new model (TDVP) just to compete. We had to develop a new model because the Standard Model of Physics (SMP) was and remains insufficient.^[2, 35] We need not accept the *flat earth implies a weirdness that we cannot explain that, so we must just accept,*" Yet, we do the same with 'quantum

ⁱⁱ Incorrect is the Kaan-Rebsdorf printing (all small case) '3s-1t with 'l-time dimension'.

weirdness’^[54] and also with cosmology³⁵: The SMP simply doesn’t fit quantized and cosmological phenomena ^[55].

Unsolved conundrums in materialism: The limitations of the 3S-1t model.

We point out 60 different limitations to this model. These limitations likely cannot be solved in the SMP or in a 4-dimensional model: Certainly, they have never been solved.^[21] These sixty are listed^[5] without comment.

- How can you explain ‘quantum weirdness’?
- How can you explain dark matter and dark energy? What are they? Are they necessary? How can they be incorporated into scientific understanding?
- What are the common features of the life elements and why?
- How do you explain that the Cabibbo mixing angle is about 13.04 degrees? Why is the Cabibbo quark mixing angle exactly what it is?
- What areas in physics can the standard model not explain?
- What would happen if there were a 9-dimensional reality? What qualities would that 9-dimensional reality need to be stable?
- Why is the concept we’re taught mathematically in schools of Protons, Neutrons, and Electrons producing Atoms incorrect? How can we solve that?
- How can you mathematically refute atomic materialism?
- Why is Deuterium so important?
- Are the mass-energy-volume figures from the Large Hadron Collider correct? If so, what would happen if an entirely different model with a massless, energy less third substance generated the same figures? Why?
- Can we have multidimensional time?
- Why is gimmel so relevant in beta decay?
- Why are vortices so fundamental?
- Why are atomic particles not really particles but vortices?
- Why might gluons not exist?
- What can replace the Higgs Boson?
- Why is there conservation of mass, energy and gimmel implying order as well as disorder?
- Why must the laws of nature must be unified: How are they unified and universal?
- Why is everything in nature volumetric in space, time and consciousness.
- How does entanglement occur? What is quantum entanglement?
- How do you explain half-spin, one-third spin, two-third spin and a spin of 1, for example?
- What distinct properties make for life elements?

- Why must silicon be a life element?
- Why must continuous infinity envelop the finite discrete?
- Why are protons composed of three quarks?
- Why are neutrons composed of three quarks?
- Why are each of those six quarks different?
- How do we measure multidimensional consciousness?
- Why are most of the particles of the “particle zoo” ephemeral?
- Why do fermions have a $\frac{1}{2}$ intrinsic spin?
- Why Hydrogen atoms have no neutrons?
- Why are there neutrons?
- And why must deuterium atoms exist?
- Why is the mass of the proton exactly what it is?
- Why is the mass of neutron exactly what it is?
- Why is the neutron not anywhere near as stable as the proton?
- Why are protons so stable?
- Why is Hydrogen stable?
- What is the role of Helium and neon?
- Why are they different from Argon and Krypton?
- Why are the life-supporting elements abundant?
- Why is the universe expanding?
- Why are elementary objects spinning?
- Why is the speed of light what it is?
- Why is there no matter as such?
- Why are quanta not particles?
- What are elementary particles actually?
- What really are dark matter and dark energy?
- What creates mass?
- How can you unify the laws of nature?”
- Please prove why it is not *absolutely necessary to have a 9-dimensional finite existence* (which contains the 3S-1t physical reality we experience)
- Please prove why it is not *absolutely necessary for there to be a massless, energyless third component for a stable reality.*
- Please show why the mass-energy volumetric equivalence in the normalized 9D reality with this third component is *exactly equal to the data in the CERN Large Hadron Collider?*
- How could this be explained using only current materialist 4D science?
- Please explain when *another calculus* (not Newtonian) is applicable.
- Please explain how you can extend science beyond Popperian falsification.

When would that be applicable and how is it done today?

- Please describe for me a mind-body model that is *not* separating mind from body and is *not* just “*consciousness is more than just an emergent property of the neural system component of a total body system that only becomes conscious through learning within the womb and subsequent to birth.*”
- If mathematical proof, combined with empirical data such as the LHC correlations were demonstrated, would that be scientifically unsupported stuff that does not enhance our knowledge?
- How do you explain other conundrums like Heisenberg’s uncertainty principle, so-called wave-particle duality, and the origin of the Universe?

The mathematical and empirical proofs for these 60 items simply cannot be solved using the Standard Model of Physics as currently applied. Yet, TDVP and the 9-dimensional plus (9D+) model (‘plus’ implies the 9-dimensional domains embedded in the infinite continuity) provides feasible explanations. ^[5]— we can significantly explain all these 60 different conundrums or problems^[5].

‘TOEs’:

Scientists acknowledge limitations to the SMP that Kaan-Rebsdorf understandably apply^[3]. We illustrate this through so-called ‘possible theories of everything’ (‘TOEs’) for ‘scientific models’. ^[2] Neppe and Close initially developed and then scored 39 basic ‘TOE’ criteria with a peer-reviewed simple scoring system including accessible representatives of their ‘TOE’.

- *The SMP scored a creditable 13 out of 39.* ^[35] *That is an excellent result given the luminaries who also score round there. But a 13/39 score also reflects the other 26 criteria and the SMP clearly has major limitations.*

To put this in perspective:

- No ‘TOEs’ scored above 19 out of 39^[35], except for the original Neppe model at 27 out of 39 and the Close model at 23 out of 39^[35]. Thereafter, the Neppe and Close models were modified to TDVP and moved from 39 out of 39^[1].
- Some 24 ‘TOEs’ are generic for example, Kabbalic mysticism at 19/39 and Vedic Idealism at 15/39.^[35]
- Several other ‘TOEs’ also scored round between 11-14/39: Smythies—14; Lanza—14; Langan—12; Goswami—11; Wilber—11;
- In contrast, some ‘TOEs’ scored higher: Bohm—19; Klein—19; Laszlo—18; Watson—17; Campbell—17; Sheldrake—16; Carr—16.
- Lower scores were Hoffman—9; Sirag—9—great but different! Evert—8; Hawking—8; various String Theories—7; with Gould—3.

Currently, TDVP still scores perfectly—officially at 62 out of 62^[5]—and unofficially at 69/69.^[56, 57, 58] This does not mean TDVP's a perfect 'TOE', because the brushstrokes are incomplete and limited, but it certainly is the best candidate we've available at this time. For example, we're working⁴³ towards a Unified Model of Physics^[16, 43, 59, 60, 61], and have made progress without contradictions, but that is incomplete—but no-one else has such a Unified Model either. But this explains why we've gone beyond the SMP.⁵⁹

Which physics?

It's understandable for Master's-level physicists trained in the SMP, to explain that physics is the most fundamental science to examine reality. *The question is which physics reality are Kaan and Rebsdorf^[3] referring to?* The Kaan-Rebsdorf physics is what we call '4D physics' not '9D physics', or even '9D-plus' including infinity.^[5] They certainly aren't referring to our fundamental science, *dimensional biopsychophysics* so *the key role of consciousness is ignored.*^[62] However, to Kaan-Rebsdorf's great credit^[3], they open-mindedly recognize psi phenomena, and by implication, consciousness research data.

There are 9 different disciplines of psi research each with meta-analyses^[63] against chance reflecting >1 in a billion!^[9] We can further unify these nine areas^[9] and explain this by applying a single model^[64] applying Consciousness.^[9] Even more astonishing, there is significant data on life^[45, 65] after physical death.⁷³ This means we're not dealing with speculations⁷³ but with realities, and we must explain where that consciousness fits in^[65]. However, like many 4D physicists, Kaan-Rebsdorf^[3] paradoxically reject the fundamental roles of consciousness and spirituality, despite the compelling data^[45].

The TDVP model involves far more than physics because it requires intensely studying *dimensional biopsychophysics*^[66], which includes the study of extra dimensions, consciousness, biology, and psychology as well.^[53] To use just physics as a refutation is insufficient. We actually regard dimensional biopsychophysics as an extremely important extension of physics^[62]. We must respect extra-dimensionality²⁵; as the exact Cabibbo angle replications⁷⁹, and several other calculations²⁶ further demonstrating^[67] 9-dimensional phenomena.^[68, 69, 70, 71]

Cabibbo angle derivation:

Despite many attempts, no-one in the prior half-century could explain the Cabibbo-like mixing angle size^[72], apparently because it's impossible to derive applying the

SMP, 3S-1t alone or any other number of dimensions ^[73] (e.g. as in String Theory ^[74]) other than 9.

In our Cabibbo derivation ^[22], we applied well-defined physics, with appropriate substantiated empirical data ^[75], including well-defined constants such as the Bohr radius, light-speed, Planck's constant, electron rest mass, radius and charge, the Coulomb constant, π and added well-defined equations and principles, such as the Lorentz correction (negligible here), the principle of conservation of angular momentum, kinetic energy equation, De Broglie's wave equation, Coulomb's equation, the centrifugal force equation, the wave length of a rotating body and calculations of magnetic moment. These applications allowed for a detailed mathematical derivation of the mixing angle of elementary particle fermions, exemplified by a Cabibbo-like mixing angle in elementary particles, with the empirical calculation in quarks already having been found to have been the 13.04 degrees \pm 0.05 and our derived figure being 13.032 degrees. ^[22] Furthermore, in a thought-experiment replication we calculated 13.0392 degrees. ^[76]

Vortices:

Some of Kaan-Rebsdorf review^[3] is interesting but quite *irrelevant and therefore straw men*. For example, Kaan and Rebsdorf write about vortices from the 1800s⁸⁵, as if this has anything to do with the TDVP model ⁹.^[77, 78] It's very nice, and we could have told them that there are some flaws in such vortex atomic theory ^[77, 78] examples. But our work isn't based on that. ^[79]

We must properly portray the vortices of TDVP^[79]. These are based on volumetric rotational movements⁵⁹ across 3 dimensions through a 9-dimensional ⁷⁹ spinning model^[80]. Vortices are ubiquitous^[81] in all of physics ^[1] at the macro-level ^[82] and physical reality. ^[83] Vortices and helices ^[83] are also fundamental cosmologically, and they are foundational in quantum spin^[10, 53, 67, 69, 70, 79, 80, 84] producing a whole new TDVP quantum model. ⁵⁹ They are not planar as implied by Kaan-Rebsdorf^[3]. We could stop here. But let me just point out a few other important essentials.

Mathematics:

Kaan and Rebsdorf talk about proof. So do we. We regard the most fundamental proof is mathematics. Triadic Dimensional Vortical Paradigm is loaded full of math proofs showing how inherently fundamental mathematics is to nature. Dr. Close has emphasized that side. ^[4] Math, to us, is more than just derivation and calculation: It's fundamental to our nature. ^[85]

LFAP:

We've also pointed out that we've got to work towards feasibility. ^[86] Kaan-Rebsdorf ^[3] critique Lower Dimensional Feasibility Absent Falsification (LFAF) ^[87] as if we were refuting 'Popperian falsification' ^[88]—it's not a rejection, but an extension! ^[89] They quote from June 2018 ^[1] when LFAF has been around since 2011. With great respect, LFAF is an astonishing advance, not only for now, but will likely be the principles of the future of scientific method ^[90] even in centuries time. Scientists have been applying LFAF for at least a century but not defined it as such. ^[91]

Now let's see what happens with feasibility when we cannot prove or disprove something but can assume ^[92]:

- *Evolution* is based on *feasible* data and projections of jigsaw puzzle pieces applied relative to 3S-1t. ^[89]
- *Cosmology* is also based on those same projections of *feasible* data. ^[89]
- The whole basis of *medical practice* is *feasible*. ^[93] It would be wonderful to *prove* everything in Medicine: An antibiotic working in 52% of cases compared with placebo in 45% might be statistically significant at the frequentist level (large sample size?)—but who wants to take antibiotics that working only slightly better than placebo ^[94]? We want to know that these are feasible ^[93] and are working, and the basis of medicine has been *feasibility*. ^[93] We want to know that, given the right bug being found, that antibiotic would work in, say, 95% or 98% of cases and would not have disruptive side effects: Is it feasible to take? The whole basis of the medical model is relating to signs and symptoms on the one side, lab tests on the other, and bidirectional phenomena. ^[93, 95] This is part of LFAF.
- Similarly, *higher dimensions* are *feasible*. We can conceptualize only pieces of a 9D jigsaw puzzle in 4D—3S-1t. ^[96]
- We apply *feasibility* ⁹⁵ as the most common method in *Forensics* ^[92, 96], other than 'proof' by lab tests ^[97].
- And ironically, much of mainstream *quantum physics* ⁹⁶ is based on *feasibility* not proof! ^[92, 96]

Explanations:

We like to differentiate hypotheses that are speculative. For example, Kaan and Rebsdorf ^[3] are critical about 3 dimensions of consciousness; and we've pointed out that this is logical, but still speculative. ^[98] This is the *lower unproven feasible level*. Similarly, logic and preliminary math dictates 3 dimensions of time ^[99], but we have not proven that is so ^[100].

Importantly, Kaan and Rebsdorf ^[3] do not differentiate between *the stability and symmetry of an atomic particle, or subparticles, and their instability*. This is

critically important in 9D science. So for example, they^[3] incorrectly denigrate the example of the different kinds of quarks; but the *only relevant stable quarks are up and down quarks*. The other quarks —charm, strange, top, and bottom—are ephemeral.^[101] They similarly use the example of Higgs Bosons, which have presumed half-lives in the 10^{-23} of a second and are completely ephemeral^[5].

An example: Gluons.

We will focus in some detail on another example Kaan-Rebsdorf^[3] use to illustrate the complexity of the issue of understanding TDVP and 9 Dimensions. The important topic is gluons^[30] that Kaan-Rebsdorf^[3] correctly emphasize is fundamental to our common 3S-1t SMP^[53]: Could it be that the SMP is refuted even with this? With some regret, because we don't want to disrespect one of the greatest particle physicists in history, we argue that 'yes, even gluons, which Gell-Mann (in effect) won the Nobel Prize for^[102], are refuted'.

Gluons are theoretical virtual particles that allow for mass and volume and fit the model of nucleons in 3S-1t, but we show are mathematically impossible in 9D: We need to understand the importance of mathematical contradictions. *Gluons work well in 4D with nucleons; but they fail mathematically with 9D physics*. The demonstration of that stability, in addition to mass and energy, requires a particular series of mathematical calculations. This is what *gimmel* does. Therefore, we must look at mathematics and the consequent balances.

Effectively, “we can apply previously derived figures in TRUE for quarks and electrons (Table 1) and the amount of balancing gimmel for both. That calculation derivation was painstaking and complex, but consequently now, it's easily reproducible.^[21] We know based on this work, that any calculation of atoms has to be integral as we cannot have a fraction of an atom (we cannot have half an atom!).

We know, too, that our calculated derivation is empirically correct as we've demonstrated that our TRUE calculations correspond *exactly* with the mass-energy equivalence *normalized* data in the CERN Large Hadron Collider^[16]. We apply the principle that empirically everything in finite nature is volumetric and quantized. Consequently, we calculate values easily by applying cubic exponents, using Diophantine calculations.^[11] In the *existing* quantized finite reality, the atom should be symmetrically stable and the protons, neutrons and electrons must also be integral volumes. When applying these calculations with gluons (linked with quarks only), the atoms turn out to be unstable mathematically as the resultant cube root *cannot*

be an integer^[103]. This is because gluons are applied *only* to neutrons and protons—only 2 components: Fermat’s Last Theorem ($a^3+b^3\neq c^3$) precludes integers ^[104].

There needs to be a new virtual particle added, but it cannot be gluons because that instability will still happen with just protons and neutrons. Yet, we cannot apply gluons to electrons (with a ‘weak force’^[105]) because only the nucleons (not electrons) require the ‘strong’ force^[106] ‘glue’³⁴ of gluons.^[25, 30] Consequently, applying TRUE derivations, the *atom calculation can never be integral*.³⁰ With gluons, where y is an integer reflecting the number of protons, in, for example, any ‘life elements’ ^[25], the calculations reflect exactly the cube root of $68,697y^3 = 40.995338y$ (that’s not an integer).”

Tables 2A shows how gluons can fit the SMP but not 9D physics;2B comparatively the correct gimmel calculations: Without that gimmel atoms would simply fly away. These tables have never before published in this form and uses Hydrogen and Carbon (a life element as examples).

Effectively, gimmel works in 4D and 9D; gluons only in 3S-1t.

GLUONS. DON’T WORK IN 9D AND TDVP BUT CAN BE APPLIED TO 4D. Table 2A1 Gluons e.g. in Carbon-6

Carbon. Cube root of 14,859,936 using gluons = 245.851189245.851189 not a perfect cube. Note that 245.851189245.851189. is 6 times the demonstrated 40.9555338 as there are six of each neptons here. This is not an integral.

Vortex	Mass	Gluons	Total	TRUE Volume
6e ⁻	6	0	6	21600
6P ⁺	102	42	144	2,985,984
6N ⁰	132	96	228	11,852,352
Totals	240	768	1008	14,859,936

Table 2A2: The generic life-element with gluons.

Cube root of 68697y = 40.9555338y

Particle	Mass	Additional TRUE (Gluons)	Total TRUE	TRUE Volume
xe ⁻	1	0	0	1y ³
xP ⁺	17	7	24	13,824y ³
x N ⁰	22	16	38	54,872y ³

Totals	40	23	62	68697 y³ So ≠ integer
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Table 2B GIMMEL WHICH WORKS IN 9 DIMENSIONS TRUE

Carbon. 272,097,792 is a perfect cube. Cube root is 648

Vortex	Mass	Gimmel	Total	TRUE Volume
6e⁻	6	630	636	257,259,456
6P⁺	102	42	144	2,985,984
6N⁰	132	96	228	11,852,352
Totals	240	768	1008	272,097,792= (6x108)³

Table 2B 2 comparatively the correct gimmel calculations. Generic for any life element with gimmel.

Cube root of 1,259,712 y³ = 108y

Particle	Mass	Additional TRUE (Gimmel)	Total TRUE	TRUE Volume
e⁻	1	105	106	1,191,016 y ³
P⁺	17	7	24	13,824 y ³
N⁰	22	16	38	54,872 y ³
	40	138	168	1,259,712 y³

“This contrasts with applying gimmel in the derived TDVP TRUE mathematical calculations: In this instance, there is a necessary third subatomic particle — electrons—and that means that with a necessary addition of a specific finite quantity in union with all the neutrons (protons, neutrons, electrons) there would be a small number of solutions in these cubes ^[25]. That specific quantity reflects gimmel: With *all the life-elements*, for example, the atomic cube remarkably *always equals* 125,971,200y³. ^[11] Therefore, the cube root =108y. This means that adding gimmel, the figure is always an integer: This figure consistently reflects *all the stable elements of life* with integral quantities of protons, neutrons and electrons. However, such solutions would be impossible without the addition of six consistent different derived amounts of *gimmel TRUE units* (2, 4, 1 with quarks in protons; 5, 3, 6 for quarks in neutrons) in union with the (stable) 3 up-quarks (2 up in protons) and 3 down-quarks (1 up in neutrons) (Table 3).

Table 3: Tabulation of elementary particles including their gimmel and TRUE scores ^[25]

Elementary Particle	Particle	Mass/Energy	λ 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	6	15	Neutron =38

Triadic Rotational Units of Equivalence (TRUE) for quarks and electrons and the amount of balancing gimmel for both. Note that the gimmel quantities are different for each of the six stable quarks suggesting each has unique properties.

However, the further much larger amount (105 gimmel units) in the electrons, allows the specific elements to exist with *quantized volumetric stability*.

This also, in part, explains *the Periodic Table Of The Elements (Table 4)*. Gimmel, specifically, allows our universe to exist: without it, the atoms would fly away. In effect, gimmel with specific GTUs provides stability; gluons cannot provide such stability.”

Table 4: Percentage Gimmel of the first 20 elements showing which are stable and symmetrical life and noble elements. ^[11, 16, 59, 60]

Atomic Number	Element	Gimmel TRUE	in	Total TRUE	Percent Gimmel	Z ³ Symmetrical?
1	Hydrogen	150		168	89.3%	YES
2	Helium	256		336	76.2%	YES
3	Lithium	400		542	73.8%	NO
4	Beryllium	528		710	74.4%	NO
5	Boron	656		878	74.7%	NO
6	Carbon	768		1008	76.2%	YES
7	Nitrogen	896		1176	76.2%	YES
8	Oxygen	1024		1344	76.2%	YES
9	Fluorine	1168		1550	75.4%	NO
10	Neon	1280		1680	76.2%	YES
11	Sodium	1424		1886	75.5%	NO
12	Magnesium	1536		2016	76.2%	YES
13	Aluminum	1680		2222	75.6%	NO
14	Silicon	1792		2352	76.2%	YES
15	Phosphorus	1936		2558	75.9%	NO
16	Sulfur	2048		2688	76.2%	YES
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	Calcium	2,560	3.360	76.2%	YES
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We know it's difficult for physicists to rethink and unthink what they've heard before, but that is needed if something is refuted. It is completely irrelevant to talk about the Higgs boson or gluons and point out that these are not included within the TDVP model. They are included within the standard scientific model; but unfortunately, *that does not make them stable over time, and this is why they remain ephemeral particles*. We have to be acutely aware that in order for particles not to decay and fly away—for our universe at a finite level not to be destroyed—there has to be stability. ^[6]

Kaan-Rebsdorf^[3] raise another important issue. 'Quantum gluon plasma'^[107](QGP) is linked with 'colorings' of QCD. QGP is ephemeral, and only detected at profound temperature extremes in LHC equivalents^[18]. Respectfully, this does not 'prove' gluons: There's no adequate gluon *mechanism* with strong electromagnetic force (glue) to *impart* mass to nucleons. We can *name something in the LHC* ^[18], *but that doesn't explain it*. Similarly, inventing 'sound-bite' terminology like 'plasma' is potentially inaccurate.

Likewise, the Higgs boson^[18] is labelled a weak ephemeral imparted force. Respectfully, ephemeral virtual particles in our 'Collider-world' may be less important in our real consistent stable world. This is why we've needed to explain how short-half lived neutrons can persist linked with protons through gimmel, neutrinos, and Deuterium.^[60] Metaphorically, let's explain how a pocket-watch works: there must be something in there, we'll call them 'gluons'; that makes watches work the way they do—it must be gluons because it fits the bill. But gluons might reflect shrapnel from blowing the LHC ^[18] apart; there's no proof that there is a particle called a 'gluon' that imparts mass to other particles: This is the ephemeral 'particle soup'.

Conversely, in TDVP, we *explain* discoveries through mathematical and stable *processes* ^[80], like the vortical angular momentum through dimensions 1-9 ^[80], actually translating into mass ^[108]. Moreover, the phrase QGP could speculatively be 'quantum gimmel plasma': We're currently working with Pokharna (PhD was on helium superconductivity) ^[109] and there may be gimmel parallels to QGP.

Our focus should be on the *stable*, symmetrical particles, instead of the ephemeral as we deal with empirical reality. Consequently, when Kaan-Rebsdorf correctly reference the six different kinds of quarks ^[3] theoretically ^[110] and in the Large Hadron Collider (LHC) ^[17, 18], the *only* stable ones are up and down quarks, and it's

from there that we can form our models of stable reality¹¹⁶ as with gimmel^[101]. Ironically, we can demonstrate that our data is correct¹⁴ by using the stable particles of the LHC! ^[16, 32, 59, 60]

However, Kaan and Rebsdorf^[3] correctly point out that there are limitations in that we have published not in the most authoritative of journals. They are correct: We have published hundreds of articles on TDVP in possibly 20 different journals, some highly respected. We are now in the process of submissions to major publications. The problem with these journals is that some of them take a year to publish. Our work is so dramatic and advances so quickly, that we need to have publications that can be advanced by the week. *Moreover, referees will generally not be educated in a multidisciplinary sphere so cannot realize what they're missing. However, every one of our publications has not only been peer-reviewed, but significantly peer-reviewed* by specialists who are highly qualified in that area to cover domains of dimensional biopsychophysics – and philosophy, for that matter. Some of these people have felt that our work requires the highest of awards, and they often might be more qualified than reviewers in top journals because they know our work, and also, most, at times, have performed tens of reviews for the leading journals. We're also presenting on TDVP on three continents.

With great respect to Kaan and Rebsdorf^[3], if you're going to quote legitimate scientists and science, please quote properly: *please quote all the data, including all the available mathematics, not just a little bit of data or generalizations*. Please point out why the SMP 3S-1t model does not solve 60 obvious, different problems^[5] but TDVP and 9D+ does. Is one dealing with that flat earth? Is one accepting that? Probably not. Scientist critiques must legitimately provide data and appropriate citations.

Referees:

Kaan-Rebsdorf then proceed with an *ad hominem attack*, implying “*What do the referees know anyway?*”^[3] There were >200 scientists in >23 countries in 2012². Now it might be double those numbers. In India, a group has specifically formed to discuss TDVP, a model they regard as of pre-eminent importance.

Respectfully, I briefly quote six scientists, also illustrating completely different views from Kaan-Rebsdorf's ideas. These extremely eminent referee scientists have looked at TDVP, are very knowledgeable, and have studied our model in detail.

Unfortunately, these world-class, highly trained, very astute scientists have been indirectly attacked by Kaan and Rebsdorf^[3]. So we must respond, particularly as Kaan-Rebsdorf^[3] ostensibly see our work as not adequately refereed. We've listed together 14 extremely authoritative, very highly qualified experts⁴ to comment on TDVP ^[4, 14]. I've added other quotes besides Dr. Close's ⁴. Their ideas illuminate:

First, *Dr. David Stewart*, author of 17 books, the world's leading authority on essential oils, highly qualified PhD physicist and mathematician, has read almost all our papers. His doctoral thesis involved pertinent mathematical-physics equations wrote:

"The authors' many years of labor will be appreciated for centuries to come. ...The exceptional metaparadigm (of) the Neppe-Close TDVP model certainly is worthy of (the highest of prizes) because it has redefined the spiritual within the scientific, and with another related Neppe-Close achievement LFAF (Lower Dimensional Feasibility Absent Falsification) has allowed the formal integration of spirituality into science by extending definitions of science to include what is feasible. These works are actually Nobel Prize worthy, and have been for a number of years. The only thing that could have been argued against a Nobel in 2016, was to say, 'All these mathematical calculations fit. But are they, in fact, empirically based? Are they relevant? Or are they just as irrelevant as the various String Theories or Superstring Theories?' We can now say quite definitively that 'the truly remarkable and meaningful Neppe-Close TDVP work is empirically based': The CERN data calculated using mass-energy equivalent figures are exactly the same derivations that appear for the Close-Neppe Triadic Rotational Units of Equivalence (TRUE). This means that their TDVP data is real and based on mathematically sound empirical data, not just mathematical. In other words, combining the third substance 'gimmel' that (they've) demonstrated is absolutely necessary for our stable quantal, macroworld, and our cosmological existence, the mass/energy volumetric equivalence of subatomic particles -- namely electrons (1), protons (1836) and neutrons (1839)--exactly correspond with the normalized figures ...This means that TRUE and gimmel is real. There is now no argument that these discoveries are relevant and empirically verifiable"

Secondly, Israeli Thousander *Dr. Adrian Klein*, DD, PhD, PhD, legitimate Dimensional Biopsychophysicist. Dentist Klein, independently acquired further doctoral qualifications, developing, too, the subquantal model TOE (scoring 19/39!) -- and critiquing almost all our papers.

“The beginning of the ultimate disclosure about the nature of an all-encompassing reality...A monumental work forcing obsolete preconceptions to crumble. The 21st Century's revolutionary paradigm shift ...unique moral strength to confront destabilizing adversities ...to underpin this universal truth with physical-mathematical rigor and proofs. ...Demolishing by these proofs the last crutches of materialistic tenets, they bring a massive contribution to the advancement of Real Science... (TDVP) 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. The future of all mankind is forever brighter because of what they have done. they will both be awarded ... a Nobel Prize in Physics (or) equivalent Mathematics Fields Medal.”

Let's examine the ideas of the esteemed Indian atomic physicist Surendra Pokharna PhD

“These two scientists were unanimously equal recipients of the rarely awarded worldwide highly respected, prestigious interdisciplinary, open-to-all prize, the 2016 Whiting Memorial Award from the...ISPE for TDVP...as...an earthshaking paradigm shift. (www.tddvp.com) ^[111] Their extraordinarily groundbreaking TDVP paradigm which they jointly have... painstakingly developed over ten years. stands as the most profound scientific work of this century. TDVP deserves a Nobel Prize in Physics (and) involves not just one breakthrough, but constitutes many revolutionary advances.”

Let's examine Dr. Alan Huguenot DSc, a uniquely qualified physicist and parapsychological researcher:

“...the far-reaching implications of the TDVP groundbreaking paradigm... [worthy of several separate Nobel Prizes](#)”. ...“The Neppe-Close contributions ...might take 50 years... to register with the myopic main-stream scientific establishment, which continues to ignore the clear implications of the delayed choice double-slit experiment, comfortable in their classical Newtonian perspectives. So large is this sea-change in science, because this relates to 3s-1t (as well as the ‘hidden’ additional dimensions) that it will modify our understanding of Relativity theory. Relativity is not wrong; but there has to be extensions of this theory beyond our currently limited standard model...even Planck’s quantum has been modified by Neppe-Close....this difference is profound.”

Then there is the remarkable Dr. Larry Dossey MD, Chief Editor of Explore,

extensive author, and someone profoundly involved with healing ^[112]:

“...an enormous contribution whose significance may surpass, even the profound implications of TDVP for cosmology and physics...Neppe and Close have reversed the dismal conclusions of materialistic science toward consciousness, and have made the concept of immortality and the survival of bodily death scientifically respectable...The main contribution of Neppe and Close has been made, the deed is done. This may make all the difference in humanity’s psychospiritual equipoise. ...It is difficult to imagine a greater contribution.”

Dr. Leonard Horowitz, award-winning author, film-maker, polymath, and author of twenty-one books wrote:

“Math doesn’t lie. Nor does Neppe and Close misrepresent or omit substantive facts explaining reality in their thesis. ... Geniuses Neppe and Close apply honest principles from their TDVP model that mathematically proves the existence and operation of the ‘Higher Intelligence’ administering precognition (or intuition). ... (They) go further than anyone else in addressing the numerous aspects ...neglected by their scientific predecessors... their unique contributions...”

Finally, we quote seven esteemed PhD professors and researchers briefly:

- [Dean Radin PhD](#), the world’s leading parapsychological researcher: [“RBC \[is\] in a radical multidisciplinary class by itself”](#);
- [Alan Bachers PhD](#), Neurofeedback specialist: [“an astonishing and prodigious accomplishment!”](#);
- [John Poynton PhD](#), Biologist [“encyclopedic ... broad exploratory paradigm for new scientific ideas”](#);
- [Lance Storm PhD](#), Psychologist [“a paradigm shift that hails in, if not, beckons for, a kind of scientific overhaul and shift in thinking”](#);
- [Helmut Wautischer PhD](#), Philosopher [“will shape philosophical discourse ... a profound value to the future of humankind...masterful...”](#)
- [Joyce Hawkes PhD](#), FAAAS, biophysicist and arguably the leading exponent of healing: [“...any one of these \[31\] areas, let alone the combination would be a very substantial reason for Drs. Neppe and Close to be recipients of major prizes”](#);
- [Stanley Krippner PhD](#), pioneer of world Humanistic Psychology: [“destined to become a classic in the literature on shifting paradigms and worldviews”](#).

Further, Neppe uniquely presented TDVP via USA Skype at a major international conference in India, and due in Israel, and Close is invited for Egypt. Both did

plenary presentations and a special full-day workshop at the First International Conference on Science and Spirituality in Mexico receiving the Gabino Barreda Award. Could it be that, with great respect, Mr. Kaan and Mr. Rebsdorf might want to reconsider their critique? I'm hoping that their attitude doesn't remain: *"We're the missionary physicists demonstrating the TDVP fallacies— we must expose that nonsense."* At the end of it all, ISPE readers can decide what is nonsense. *With respect, the function of Messrs. Kaan and Rebsdorf is not be missionaries trying to destroy what they think must be incorrect, but to learn and to teach. However, teaching requires profound understanding in a discipline.*

To give a perspective, we list possibly the seven most profoundly important groundbreaking findings on TDVP:

The current scientific model has failed because:

1. **Atomic materialism is refuted:** Volumetric atoms are impossible using just the atomic numbers of protons = electrons plus the neutrons in the elements. This refutes the SMP. ^[5, 25, 48] *TDVP is a metaparadigm that's proven.*

Moreover, there is a solution and that necessarily involves the 9-D model with Triadic Rotational Units of Equivalence (TRUE) adding specific derived 'Quantum Units of Equivalence (QUEs)—gimmel. Using the latest available collider data, the mass/energy averages for the up- and down- quarks are 2. 01 MeV/c² and 4. 79 MeV/c² respectively. Dividing by 0. 511 and rounding the nearest integer value, we have the normalized mass/energy equivalence for the electron, up- and down-quarks, as 1, 4 and 9 respectively. Using these normalized values, we can investigate how the finite distinctions they represent ^[59] can combine to form nucleons and the progressively more complex physical structures ^[43, 59, 60, 61, 108] that make up the elements of the Periodic Table ^[11] (See Table 4).

2. **Quantum physics in 9D** provides solutions such that the Triadic Rotational Units of Equivalence (TRUE) calculations are justified *quantally* as *exactly* equal to the Mass-energy Equivalence normalized data in the CERN Large Hadron Collider of the electrons, protons and neutrons: The calculations by normalization of electrons are units by definition, and of protons are reasonably easy to directly derive. ⁵ However, the neutron formation process is very complex because the neutron has a short half-life ¹⁴ (about a quarter-hour) *when not linked* with other subatomic particles like protons. ^[6, 16, 60, 113, 114, 115, 116, 117] However, neutrons require that linkage for enduring maintained stability and that is mainly with the proton, and that is why our universe can exist.

We have demonstrated that this process involves several seldom recognized components ^[118], namely, beta-decay ^[115, 118, 119, 120] with neutrinos ^[121, 122] and gimmel, and changes from Hydrogen-1 (which does not have a neutron) to Deuterium ^[16, 59] (Hydrogen-2 with a neutron and a very neglected and fundamental element without which there would be no stable compounds⁶⁵, as illustrated by our detailed derivation) ^[16, 59], with mass balances and atomic mass unit calculations applied ^[32, 110, 123, 124, 125, 126]. No-one had apparently previously explained how the neutron could have remained stable prior to this—our logical math derivation. ^[32] Remarkably, the normalized LHC-TRUE figures are *exactly* equivalent—the electron=1, the proton=1836 (=17*108), and the neutron=1839 (which is not 22*108 as would initially be expected through initial TRUE quark calculations^[16, 32, 127, 128, 129, 130], but 1836 + 3= 1839 applying very specific, complex but well-defined proofs).^[16, 31, 34, 43, 59, 60, 61, 108, 131] The fundamental stable structure of the neutron ^[60] in line with the proton really involves neutrons with just the triad of 1-up and 2-down quarks in a 9-dimensional matrix made stable by gimmel. This step-by-step math and empirical description involves an eight-part series in submission ^[16] currently to a high-level journal. It is *proven* to be correct by the derived figures being calculated exactly as postulated. (This explanation is much improved from the previous vague underived SMP 3S-1t ‘gluon-quark soup’ descriptive explanations which unsuccessfully attempted to explain the derivation of additional atomic mass). ^[17]

3. **Physically**, in the Macro-world, we’ve demonstrated the special qualities of the life-elements —CHOSeN (Carbon, Hydrogen, Oxygen, Sulfur, Nitrogen) plus Ca, Mg and Si (likely)—plus Noble gases He and Ne. They are all multiples of 108^3 in TRUE units (as in Table 4). So does water, the compound that contains the most gimmel.

4. **Cosmologically**, the TRUE-gimmel data work: The ratios of (Dark Matter Dark Energy):Universe and Gimmel: TRUE amazingly correlate at the 1:1250 level¹⁸ (Table 5). These could fit into the atom provided it’s 9D. ^[19, 20] Moreover, this data further involves the atom in a 9-D context with Dark Matter correlating with nucleons and Dark Energy with electrons.¹⁸

Table 5. Broader Cosmological “Dark” Data (combining dark matter with dark energy) and Proportionate Gimmel comparisons based on cosmological abundance of elements. ^[20]

1. *Hypothesized valid* if within 2% of observed value.

2. <i>Volumetric (Dark Matter [26.8%]+ Dark Energy [68.3%]) ratio to cosmology 95.1% cubed = 86.01% (Planck probe 2014 data).</i>
3. <i>Gimmel to TRUE ratio (already volumetric) of Abundant Elements Σ (volumetric) [Hydrogen 89.3% gimmel/TRUE * 0.756 abundance=67.5%] + [Helium or less-abundant life elements with the same gimmel score = 76.2% * 24.4=18.59%] =86.09%.</i>
4. <i>Results: The results not only confirm hypothesis but markedly so with $p < 0.001$ difference. The difference between proportions of Dark Matter and Dark Energy together to the ratios of cosmological gimmel =0.08%. This result is truly remarkable! As is the finding that follows.</i> [19]

3. **Gimmel works** as a necessary way to explain our atomic, cosmological and macro-world realities. Gluons can be used as an explanation only in 3S-1t; otherwise the gluon concept is mathematically refuted (See Tables 2A and 2B).

5. **9D:** There are 9 finite rotating dimensions not just 3S-1t (Cabibbo + others). **Rotating vortices** explain electron spin, vortical physics: This requires developing a new 9-dimensional spinning model. [16, 31, 34, 43, 59, 60, 61, 108, 131]

6. **Psi and entanglement can best be explained in the 9D model.** [9, 63, 132, 133]
These amplify ideas on what is being referred to as non-locality, [62, 134, 135, 136, 137, 138] which effectively implies the whole group of phenomena manifesting beyond 3S-1t.

7. **The infinite continuity:** We cannot exist without the infinite: That implies ordropy^[139], immortality¹⁵⁰, and bidirectional impact.^[44, 45, 64, 139] Each component is supported empirically.¹⁵¹

Changes:

Some final comments: *There is a difference between TDVP 2011^[1] and TDVP 2018.* The underlying axioms, the underlying hypotheses, have remained: There is no change there. Our work is as valid and as reliable as it was, and it has extended and now has far more mathematical proofs. However, the difference was that the First Edition (written 2011) of the Neppe-Close book *Reality Begins with Consciousness: A Paradigm Shift That Works (RBC)*^[2] received great acclaim, yet it wasn't yet loaded full of the mathematical proofs that we now have and therefore, can empirically and definitively prove what our data.

What has advanced? By 2018: *We can say definitively, there are 9+ dimensions. We can say definitively, there is gimmel, and gimmel fits into the fabric of TRUE units. We can say definitively, there is empirical data showing an equivalence of TRUE correlations and calculations with the Large Hadron Collider and with dark*

matter and dark energy. And we can show definitively – in many instances anyway – that the 60-odd areas are things we can explain in 9D. ^[5] TDVP-2001 said, yes, *there are multiple dimensions and we think it might be 9D, but we can't prove it. The other definitive change –and this to me is extremely important– is volumetric quantization: Everything being volumetric suddenly means not only another triad, in a way, or another 3-dimensional phenomenon; it means we're limited to exact mathematics, and we have been able to show that the exact mathematics works. Not even Planck did that!* Planck had his quantum, we our volumetric quantum. Furthermore, by introducing the volumetric, we've simply demonstrated that the materialist viewpoint of the atom is mathematically impossible.

The Challenge

We appreciate any honest attempt at open-minded skepticism: We don't know everything and appreciate the opportunity to learn and clarify our work. Importantly, our fundamental TDVP assumptions remain intact after the seven years since our first publication. With great respect, this still applies: Kaan and Rebsdorf describe only generalities and have not provided a single specific TDVP or 9D+ refutation. The points they raise are unfortunate combinations of unintentional misinterpretations, contextual contradictions, non-sequiturs and straw-men.

On the other hand, we have great respect for knowledgeable scientists who can raise significant issues for discussion. We welcome a public debate. We (Neppe and Close) challenge any two qualified PhD Physicist Professors or suitably qualified equivalent scientists. This would imply they must have studied at minimum several of our latest papers plus *Reality Begins with Consciousness: A Paradigm Shift That Works (RBC)* ^[2]. The challenge would be issued to those who have been trained using and applying the Standard Model of Physics (SMP) and the 4D model and argue that they can demonstrate that the SMP (4D) is superior to TDVP. They would still have to explain the mathematical physics empirical inconsistencies. We would perform a public 1-2-hour moderated YouTube discussion and /or debate about *Triadic Dimensional Vortical Paradigm* (TDVP), Triadic Rotational Units of Equivalence (TRUE) and gimmel, and the 9-dimensional plus (9D+) model. That way we will provide a fertile way for thousands of highly qualified scientists to participate world-wide.

We have no doubt as to the result. TDVP and 9D are no longer theories but validated

- quantally (using the LHC proton-neutron-electron data),

- in our macro-world (e.g. applying the life elements and the Diophantine volumetric equations of mathematical physics and biology), and
- cosmologically (given the amazingly correlated dark data compared with TRUE).

After all, the SMP, like the flat-earth concept, has major limitations. However, this debate is needed because the SMP still remains the standard. Physicists are taught about the SMP and anything not understood is just accepted as ‘weird’. 9D+ simply does not have the limitations of 3S-1t, and, moreover, 9D+ contains 3S-1t, too, so it does not reject our physical reality. Additionally, because the 9D+ TDVP concepts are proven, this strongly suggests that a unified law of nature exists. Additionally, TDVP has ostensible spiritual implications because of the infinite continuity and bidirectional links. But this way the public baton for TDVP will be properly thrown out and involve highly qualified scientists and thinkers.

Nevertheless, from our RBC and TDVP, many of the 600 hypotheses we have proposed are still to be tested. These are fertile areas for PhDs for the next 100 years. Perhaps, Messrs. Kaan or Rebsdorf might even explore one of these areas?

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NOTES

^a The extensive references have been supplemented here by the key Endnotes. This is unusual because Kaan and Rebsdorf have published their critique not only in this journal but we understand the identical one in Telicom and also in a scientific academic unrefereed online one. This has necessitated Dr. Neppe and Dr. Close writing responses which clearly in are similar in each publication. Neppe has ensured that his responses are nevertheless significantly different and the IQNJ contains some 30% more data than that in Telicom, which has gone through its own independent editing.

^b 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. AND 2. Neppe VM, Close ER: *Reality begins with consciousness: a paradigm shift that works (First Edition)* 1 Edition. Seattle: Brainvoyage.com. 2012.

^c 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.

^d Telicom and IQNJ are unrefereed journals: Our articles were rigorously informally peer-reviewed (our requirement).

^e Close ER, Neppe VM: The limits of 3S-1t: Interpreting the Triadic Dimensional Vortical Paradigm appropriately: a response to “an evaluation of TDVP”. *Telicom* 31: 1, 2019.

^e Kaan J, Rebsdorf SO: An evaluation of TDVP. *Telicom* 30: 5; 142-157, 2018.

^f Neppe VM, Close ER: *Reality begins with consciousness: a paradigm shift that works (5th Edition)* Fifth Edition. Seattle: Brainvoyage.com.2014.

One Response to “An Evaluation of TDVP” With Explanations of Fundamental Concepts

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ABSTRACT

Dr. Vernon M. Neppe and I first published an innovative, consciousness-based paradigm in a volume entitled *Reality Begins with Consciousness* in 2012.¹ It was the combination of many years of independent research by us, carried out before we met, and then initially about 3 years of direct collaboration, that has now stretched beyond a decade. Hailed by some peer reviewers as the next major paradigm shift, the Triadic Dimensional Vortical Paradigm (TDVP) has been further developed and expanded over the past seven years in a number of papers and articles published outside of mainstream scientific journals because of the unspoken taboo against including consciousness in mathematical physics.

This article is a response to criticisms leveled in the article, “An Evaluation of TDVP,” published in *Telicom* XXX, no. 5 (Oct-Dec 2018), by physicists J. E. F. Kaan and Simon Olling Rebsdorf.² This article, along with Dr. Neppe’s rejoinder (which immediately follows this article), underlines the difficulty that mainstream scientists have had in understanding the basics and implications of TDVP. In addition to replying to the criticisms in Kaan and Rebsdorf’s article, this article contains explanations of some of the basic ideas that make TDVP a controversial shift from materialistic physicalism to a comprehensive consciousness-based scientific paradigm.

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^b This article is a response to a critique by Kaan and Rebsdorf, that first appeared in *Telicom* 30, 5, 2018 and now in IQNJ. Because the critique is being published here, our responses are also published immediately following but we note that editing of the *Telicom* version is in process and greatly acknowledge the assistance so far of the *Telicom* Editor Kathy Kendrick for the forthcoming *Telicom* 31, 1, 2019. The two versions are likely to be very similar, but not fully identical.

1.0 INTRODUCTION

I want to begin by putting this discussion into the proper context: the context of humanity's search for truth. That's what science of any kind should be about. It is certainly what TDVP is about. I think a critical question is, "Where did everything come from?" Was the universe as we know it engineered by a conscious intelligence to have purpose and meaning, or did it just happen by accident? Can this question be answered within the scope of human intelligence? Many answers have been offered over a few thousand years of human history by thinkers of all sorts: philosophers, theologians, scientists, and mystics. But, are any of the answers truly final and definitive? Or do they come with arguments convincing enough to compel you to live your life as if they were true? Apparently, many people have thought so, because during the history of human life on this planet, bloody wars have been fought over some of the answers to this question, and many people have died defending their beliefs in what they considered to be the correct answer.

I think there *is* a definitive answer to this question and that I have found it. TDVP is the truth as I see it, and I make no apologies for that. At my age and stage in life, it makes little difference to me whether anyone listens, agrees, disagrees, or ignores me. I am happy with my answer, and that is enough for me. Everyone is free to accept it, reject it, think about it, or ignore it. It's completely up to each individual.

A Starting Point

I think we can agree that, without question, *there is something real that actually exists, and we are all a part of it*. Without this supposition of an existential reality containing at least you, me, and the universe, we have nothing to talk about. So, given that there *is something*, how did this *something* come to be what it is now? There are three possible answers to this question: 1) Something from nothing, 2) nothing from something, and 3) something from something else.

To believe that number 1 or 2 is true, you have to discount nearly all the evidence at hand. No one has ever seen something arising from nothing or something disappearing into nothing. Even when it appears that way, a thorough investigation always reveals that one of the most basic laws of physics holds: the law of the conservation of mass and energy. In all of the experiments ever conducted into the

physical, chemical, and biological processes of our universe, we see only change, never creation from nothing, nor total annihilation of anything. In even the most violent explosion, the sum total of the equivalence of all matter and energy before and after the explosion is always the same. In other words, the empirical evidence is all for number 3, not 2 or 1. Something never arises from nothing; something never degrades to nothing; and the something we have now came from something else, because it was different in the past, and, in our dynamic reality, it will be changed from what it is now into something else in the future. But the sum total of the substance of reality will always remain the same.

Despite the evidence, historically, mainstream science and mainstream religions have declared that 1, 2, or a combination of them is the true nature of reality. In the theory of the Big Bang expanding universe, the equations of general relativity predict a mathematical singularity at the “origin event,” eventually resulting in mathematical singularities in black holes, with the semi-stable world of our experience existing somewhere in between. The current scientific paradigm sees reality expanding from a mathematical singularity at the beginning of spacetime, with everything eventually falling into the singularities of black holes. This is a process of something from nothing (1) becoming nothing from something (2), unless you assume that the “nothing” is not really nothing, but some other form of the something we have now; but then, you have number 3, don’t you? In the current scientific paradigm, quantum field theory (QFT)—with particles defined as quantized states of underlying fields which are more fundamental than the particles—is, in my opinion, the closest theory to the reality. But QFT—using matrices with values subject to the Heisenberg uncertainty principle as perturbations of the underlying fields—is more descriptive than it is explanatory.

In theology, *creatio ex nihilo* (creation out of nothing), is a doctrine invented by early Christian theologians after the original teachings of the pre-Christian Judeans, the teachings of Jesus, and the teachings of the first serious Christian theologian (Origen) were subverted by the Roman Emperor Justinian in his *Anathemas Against Origin* in 553 AD. Justinian realized that the teachings of the Jewish Gnostics and the followers of Jesus constituted a serious threat to his power because, in his interpretation of early Christian teachings, Origen had written things like,

“Each soul enters the world strengthened by the victories or weakened by the defects of its past lives. Its place in this world is determined by past virtues and shortcomings” (from Origen’s *De Principalis*).³

Such teachings were in direct conflict with what Justinian saw as his divine birthright to rule the world as a Roman Emperor, so he seized on this statement and related ideas in early Christian doctrine, as documented by Origen, that undermined the exclusivity of the Roman Emperors' claim of divinity. If people were allowed to believe that by being virtuous they could rise to the level of an Emperor (i.e., to the status of a god, or even sons and daughters of God), then the power of the Emperor would be seriously threatened. He decided that he must declare this idea to be heresy and take strong measures to stamp it out.

The *Anathemas*, an edict that he prepared for this purpose, read, in part, "Whosoever teaches the doctrine of a supposed pre-birth existence of the soul, and speaks of a monstrous restoration of this, is cursed. Such heretics will be executed, their writings burned, and their property will become the property of the Emperor."⁴

This was, of course, a powerful incentive for Christians to remove any such references from the scriptures from which they taught. Without the teaching of the eternal nature of the soul, theologians were free to shape the doctrine of the Church in a way that ensured that the masses had to depend upon the Church for salvation. It was a way to control the masses, pure and simple, and perpetuate the power of the Holy Roman Empire. Most other major religions, with the exception of Islam, which, like Judaism and Christianity, is also of Abrahamic origin, are not encumbered by this illogical assumption of *creatio ex nihilo*.

OK, you may say, so what does it mean if number 3 is the real answer? In my opinion, it changes things very profoundly: With no absolute beginning or end, we must look at human history and science in a completely different light. No longer burdened by the misconception that everything was created out of nothing and that consciousness is something emerging from organic neurology evolving only a short time ago, we begin to see that our simplistic linear view of the evolution of things is very misleading.

Researchers who claim there is evidence that some of the ancient stone structures scattered around the planet are much older than mainstream archeologists believe, may not be as wacky as they sound. When viewed through the lens of belief in answers 1 and/or 2, their claims can't be right. But if you drop the irrational belief in a linear progression from nothing to something, and accept the evidence for the eternal existence of *something*, you have to take their evidence seriously; because

civilization, just like everything else, undoubtedly progresses in cycles. Our fixation that we are the epitome of the development of sentient species for all time, due to the illogical belief in answers 1 and 2, is as egocentric and as wrong as the idea widely believed a few hundred years ago that the earth was flat and the center of the universe.

I have proved, at least to myself, that the logical structure of the universe is reflected in the logical structure of pure mathematics, and vice versa. This finding, combined with recognition of the endless process from something to something else, implies that physical reality is a quantized logical structure embedded in the infinitely continuous multi-dimensional field of consciousness, and the illusion of beginnings and ends is only meaningful in relation to the amount to which we are identified with finite physical bodies. Identification with the undifferentiated field of consciousness allows us to see time in the same way we see space: in three dimensions. Once freed from the illusion of being limited to finite three-dimensional objects evolving in one unidirectional dimension of time, we rise into the perception of 3D time, to see that everything exists eternally and only appears to evolve in cycles of finite duration.

So, the answer to the original question, “Where did everything come from?” is “Everything has always existed.” There is no absolute beginning or end, only endless cycles of change. This is the basis of TDVP, and it answers a lot of otherwise-unanswerable questions, including Leibniz’s question (the first question natural science should answer), i.e., “Why is there something rather than nothing?” There is something because there has always been something, and there will always be something. Nothingness is an illusion. The illusions of absolute beginnings or ends are perpetuated by certain traumatic changes, like the birth and death of the physical body. So, everything that is something came from something else that existed before the beginning of the process or processes that changed it into the something we have now, and the something we have now is already being transformed into the something else that will exist in the future. But awareness expanded into the 3D time and 3D consciousness, as predicted by pure mathematics, becomes awareness of the reality behind the illusions of 3D space and 1D time.

In the beginning of one cycle, we find the end of the previous cycle, but they are not the same. The new cycle is one of greater awareness than the previous one,

because we have learned and expanded our awareness; and thus we rise in a progressive spiral from the finite into the infinite.

What is TDVP?

TDVP is an interdisciplinary scientific model developed and published by Dr. Vernon M. Neppe and me between 2008 and the present, that puts consciousness into the equations of science.⁵ The article entitled, “An Evaluation of TDVP” by J. E. F. Kaan, MSPE, and Simon Olling Rebsdorf, MSPE, was published in *Telicom* XXX, no. 5 (Oct-Dec 2018). The following is a response to that article.

2.0 GENERAL COMMENTS

Dr. Neppe and I are eager to engage in meaningful discussions about TDVP concepts with anyone interested in doing so. I am especially interested in evaluations of the mathematical logic and physical concepts of TDVP by people with training and a depth of knowledge in those subjects; and over the past ten years, I have had the good fortune of having many useful discussions about TDVP concepts with dozens of competent scientists, many of whom are PhDs in mathematical physics or related fields. Several of them have endorsed TDVP wholeheartedly.

We are currently corresponding with a number of PhD professionals interested in the applications and implications of TDVP and the natural quantum units of the calculus of dimensional distinctions. I have had a number of informal discussions with Mr. Kaan over a period of several years, but I have had no previous discussions with Mr. Rebsdorf. Similar to their practice of shortening Neppe and Close to N&C, I will refer to them as K&R. We want to be respectful of their work, but understandably, we need to correct any erroneous statements about TDVP.

I am thankful that K&R made the effort to write this critique, and pleased to be able to respond to some of the misunderstandings and errors found in the article. Except for a few general comments, I will confine my responses to K&R’s criticisms of the math and physics of TDVP, and leave other topics, including feasibility, falsifiability, and philosophy-of-science questions to Dr. Neppe. However, there will likely be some overlap in our responses, because physics and mathematics, while very important in any scientific paradigm, are only part of the

greater question concerning the nature of reality, and Dr. Neppe will still also include some mathematical-physics.

I was inspired by the genius of scientists (such as Newton, Leibniz, and Einstein) and mathematicians (such as Euler, Gödel, and von Neumann) to become a theoretical physicist, but I knew from personal experience that there was something more. Presently, I know a number of scientists, engineers, physicists, and other people, who now believe that consciousness is a fundamental part of reality but who were mainstream physicalists before paradigm-shattering experiences changed their worldviews and their lives forever. I know several well-educated, intelligent, professional scientists who have experienced unsought out-of-body experiences as the result of horrifying accidents or flat-lining on the operating table, and who later returned to normal bodily awareness, defying all conventional physicalist medical theories. Such experiences awaken us to the existence of a reality much greater than that addressed by the current physicalist scientific paradigm.

3.0 K&R COMMENTS AND CRITICISMS OF TDVP AND MY RESPONSE

K&R state on page 144 of the *Telicom* article that, “TDVP seems to be based on two fallacious assumptions, namely: 1. Physics excludes the paranormal (or ‘spiritual’). 2. In order to be able to allow for paranormal events, you can modify the fundamentals of mainstream physics—without checking if the new theories still work for old experiments.”⁶ TDVP is not based on these assumptions. If I accepted assumption #1, I could not have written *Transcendental Physics* in the early 1990s, which made the point that physics could be expanded to include spiritual reality (without detracting from what had already been discovered) by including consciousness in the equations.⁷ Concerning #2: In fact, we have checked a number of specific instances to see if TDVP actually works for prior existing experiments, and it *does*. Perhaps the most important among them is the derivation of the inertial masses of the proton and neutron from TDVP theory and spin dynamics, which are exactly the same as the experimental values of the masses obtained in Large Hadron Collider (LHC) experiments. Obtaining results, consistent with such well-established experimental data, verifies the model and methods of TDVP.

The conclusion of the K&R article seems to be that TDVP simply can't be correct because it doesn't agree with the mainstream model of particle physics. I, like K&R, was trained in mathematical physics, but I have to reject this argument because it makes mainstream physics seem like a religion. If you don't agree with the physicalist doctrine, you are wrong by definition. This is the kind of thinking that stifles real progress in the scientific understanding of the nature of reality.

In my opinion, *academic specialization* and the division of natural science into separate academic fields, each with their own specialized assumptions, theories, and arcane jargon, is the greatest single barrier to an integrated understanding of the nature of reality. Science and spirituality are both part of reality and should not be incompatible. I understand why Georges Lemaître⁸ (mentioned by K&R on page 144 of their article in *Telicom*) and other thinkers like him in the past, whose interests included both science and theology, avoided integrating their research; doing so could have literally resulted in them losing their heads. Governments and religions organized in the Middle Ages had no compunction about physically enforcing their authority with torture and murder when they were challenged. The time has finally come to reconnect natural science with its metaphysical roots. It is time to expand science to include more than just the tip of the iceberg of reality represented by physical theory.

Most of K&R's criticisms of the math and physics of TDVP are presented in their article in Section 3, which is titled, "Critical Results and Analysis." This section takes bits and pieces of some TDVP derivations out of context and out of the logical order in which they were developed. Because of this, the importance of the need for a quantum calculus is missed.

K&R's arguments contain several misunderstandings and some errors. In the article, we find the claim that "spin, related to quantum phenomena is not mechanical spin; *quantum* spin is a *quantum* property"⁹ without any explanation of what is meant by that. This is one of several statements mainstream physicists put forth as if they were self-evident facts, including the statement, "Quantum mechanics does not require any conscious observer."¹⁰ K&R do not offer any proof of this, but simply state that, "This fact is undisputed and well established, comprehensively described and empirically demonstrated in any graduate-level theoretical physics textbook."¹¹

K&R are correct that the mainstream physicalist position is that quantum mechanics does not require a conscious observer. But they grossly overstate the case when they say that this belief is undisputed and empirically demonstrated. If one reads the literature on the measurement problem arising from the interaction of the observer with quantum phenomena, and not just the mainstream physicalist opinion, one finds that avoidance of interpretation of empirical evidence suggesting the involvement of the observer is the unstated bias of mainstream physicalists.¹² The result is that the measurement problem is treated totally within the mathematical formulation of the physicalist interpretation of quantum theory. If the problem is approached in a theory-neutral manner, one has to conclude that no interpretation of quantum phenomena can completely avoid the existence of a measurement problem involving the observer.¹³ A few mainstream physicists, such as David Bohm, John Wheeler, Amit Goswami, Fred Alan Wolf, Menas Kafatos, and Henry Stapp have been bold enough to think outside the box of strict physicalist interpretations of the data from quantum experiments like the double-slit and delayed-choice experiments.

The biased position of most mainstream scientists is that the laws governing quantum phenomena are so different from the laws of “classical” physics that we should not bother to think about the possibility that there might be mathematical relationships between them. A common refrain is, “Quantum physics is *weird*. We must just accept that there is no explaining it and go on with practical application of what we know about quantum-scale phenomena, even though it conflicts the laws of macro-scale physics.”¹⁴ *In fact, reality is never in conflict with itself; the conflict is between theories.*

Before addressing K&R’s analysis of the TDVP derivation of gimmel and the Cabibbo angle, some history of the origin of the party line used by physicalists to avoid dealing with consciousness is in order.¹⁵ The basic dodge is the intellectual smokescreen provided by the belief that some of the physical processes of quantum phenomena are so *strange* that they cannot be compared with, or explained in terms of, “classical” physical concepts. This artificial barrier prevents mainstream scientists from asking why the standard model has massless and mathematical singularity “particles.” We can see why and how this wizard-of-Oz curtain was fabricated by examining the thinking of some leading physicists.

3.1 The Einstein-Bohr Debate

In the publicized version of the *Einstein-Bohr debate*,¹⁶ Albert Einstein and Niels Bohr argued about the nature of reality at the quantum scale, which is also what we are talking about here. The argument was over whether reality at the quantum scale is inherently probabilistic, to the degree specified by Heisenberg's uncertainty principle, or completely deterministic. Einstein argued for determinism, and Bohr for probabilism.

The argument centered around what became known as the Einstein-Podolsky-Rosen (EPR) Paradox. Using a well-known quantum phenomenon and applying classical dynamics, the EPR paper produced a clear contradiction of the uncertainty principle. Einstein argued that this implied that quantum theory, as formalized by Bohr, Heisenberg, and Schrödinger, must be *incomplete*. Bohr countered with what became known as the Copenhagen interpretation of quantum mechanics, which stated that quantum phenomena are not localized until observed or measured, and implied that elementary particles could not be described in classical terms. The exact location and momentum of an elementary particle cannot be known simultaneously, as is the case with macro-scale objects like baseballs or missiles. This interpretation was unacceptable to most mainstream physicists because it implied that, as theoretical physicist John Wheeler put it, "*No phenomenon is a real phenomenon until it is an observed phenomenon.*"¹⁷ Most quantum physicists believe that the only way the EPR paradox is avoided is by concluding that quantum phenomena obey rules that have no relationship to the classical laws of physics.

The eventual resolution of the Einstein-Bohr debate, made possible by Bell's Inequality (also known as Bell's Theorem) applied to the EPR experiment, resulted in a consistent demonstration of quantum uncertainty. This result is well known and has been discussed and written about *ad nauseam*; but the point to be made here is that it raises profound questions about the nature of reality and establishes quantum entanglement, a concept that helps to explain the results of quantum experiments like the double-slit and delayed-choice experiments, dealing with electrons, photons, and other elementary particles.

Niels Bohr had some interesting things to say about quantum mechanics that I think may have influenced mainstream physicists regarding quantum weirdness:

- If quantum mechanics hasn't profoundly shocked you, you haven't yet understood it.

- Everything we call real is made of things that cannot be regarded as real.
- It is wrong to think that the task of physics is to find out how Nature is. Physics is only concerned with what we can say about our experience of Nature.¹⁸

I think these statements unnecessarily limit scientific investigation; but I agree with Bohr when he said:

- Nothing exists until it is measured.
- A physicist is just an atom's way of looking at itself.
- Every description of natural processes must be based on ideas which have been introduced and defined by classical theory.¹⁹

This last quote tells us that even though some of Bohr's statements may have inspired the attitude that quantum weirdness cannot be explained in terms of classical physical theory, he himself did not believe that!

Richard Feynman, and most experimental particle physicists since, have perpetuated the idea that quantum physics is counter-intuitive and cannot be reconciled with classical physics. The following Feynman quotes are revealing:

- One does not, by knowing all the physical laws as we know them today, immediately obtain an understanding of anything much... The more you see how strangely Nature behaves, the harder it is to make a model that explains how even the simplest phenomena actually work. So theoretical physics has given up on that.²⁰
- What I am going to tell you about is what we teach our physics students in the third or fourth year of graduate school... It is my task to convince you not to turn away because you don't understand it. You see, my physics students don't understand it.... That is because I don't understand it. Nobody does.²¹

Niels Bohr was a great physicist; and, in my opinion, Richard Feynman was a great teacher of physics. I choose to call him a *teacher* rather than a professor, *as a compliment*, because there are many professional scientists who haven't the foggiest notion how to teach as well as he did. And I admire his honesty. He never pretended to know more than he did.

4.0 CRITIQUE OF THE CRITICISM

Reading through Sections 3 and 4 of the K&R article, I found that they contain a number of *erroneous statements about TDVP*. I'm not accusing K&R of deliberately misrepresenting TDVP; I think they simply don't understand it. Not everything K&R have said is false, and by weeding out the things that are, we may be able to find some common ground. Most of the erroneous statements are related to a few basic misunderstandings. So, I will try to clarify the basics first, and then address some specific K&R statements.

The basic mathematical physics concepts and principles of TDVP are:

- Energy is quantized in the physical universe. This means that energy only occurs in integer multiples of a minimum unit, an amount that cannot be divided further.
- Mass and energy are equivalent in accordance with the simple equation $E = mc^2$. This means that the mass of physical objects is also quantized, i.e., composed of integer multiples of a minimum amount of mass that cannot be divided further.
- When c is naturalized (as in Planck units) $c^2 = 1$, and $E = mc^2$ becomes $E = m$, which means that both mass and energy can be expressed in integer multiples of a common quantum-equivalence unit.
- Quantized reality *requires* a quantum calculus based on quantum-equivalence units.
- There are three types of variables: variables of extent (dimension), content (substance), and intent (impact and influence including consciousness).
- The quantum-equivalence units of mass and energy (content) become integrated with quantum-equivalence units of spacetime (extent) in dimensional domains of three or more dimensions through the mathematical process of dimensional extrapolation.

- Dimensional extrapolation, the rotation and projection out of an n -dimensional domain into an $n+1$ -dimensional domain, defines all of the integral types of number theory: integers, imaginary numbers, and complex numbers.
- The integrated mass/energy/spacetime quantum-equivalence unit is called the Triadic Rotational Unit of Equivalence (TRUE) and is the basic unit of the quantum calculus, called the Calculus of Dimensional Distinctions.
- Objects composed of elementary particles are also composed of integer multiples of quantum units of mass and energy. This means that, in a quantum calculus, equations describing the combination of two or more elementary particles are Diophantine equations, i.e., equations whose variables are integers. This provides a powerful method for distinguishing between combinations of elementary particles that are stable enough to support organic life and those that are not.

With these basics in mind, let's address some of K&R's comments. The K&R critique addresses only two aspects of TDVP: (1) The discovery of *gimmel*, the third form of the substance of reality, and (2) the TDVP derivation of the Cabibbo angle. Most of the errors in the article can be cleared up by addressing the concepts of TDVP in proper order: *First*, the derivation of natural quantum units, *second*, the discovery of *gimmel*, and *third*, the Cabibbo angle derivation.

4.1 The Need for a Quantum-Equivalence Unit and a Quantum Calculus

We can't solve problems using the same kind of thinking that created them.
 – Albert Einstein²²

This Einstein quote underlines the importance of thinking outside the box of the current paradigm. The problem of paradoxes existing within mainstream science cannot be solved within the current physicalist paradigm. The most important concept that K&R missed is the need for a calculus with measurement units that are derived from the natural quanta of the real world. This failure is clear in their reference to Figure 1, on page 147 of their article: "... the mass values are assumed (by Close and Neppe) to be integers, apparently to be in line with quantum physics. Yet from the data in Figure 1, we can see the quark masses are not integer at all. ...

The same will, of course, be found in any standard academic textbook on this topic.”²³

The mass values in MeV/c^2 are non-integers with confidence limits, but there are integer values within the ranges of values from the LHC data represented in Figure 1. For example, statistically, the mass of the up quark lies in the range of $2.3 \pm 0.7 \text{ MeV}/c^2$, and that includes the integer 2; but the range of quark masses (obtained from statistical evaluations of terabytes of LHC experimental data) do not necessarily suggest integer values nor eliminate them. But these data for quarks, along with the mass of the electron, are actually the raw data I used in the first derivation of natural quantum units for the quantum calculus.

Because we know that mass is quantized, we can naturalize the quark masses to the smallest stable mass (the mass of the electron—the most accurately known quantum mass). The derivation of natural quantum units for TDVP has been published in several papers reviewed by our peers, and on my Transcendental Physics Blog.²⁴ The derivation involves the conversion of SI units to natural quantized units. Naturalized units of measurement can be derived in a number of ways, but most physicists are familiar with naturalized Planck units. The process in TDVP is similar, but I think it is important that I include the basics of the derivation here, so anyone can follow the logic and do the math for themselves.

The mass of the electron, 0.511 MeV (note that we can drop the c^2 in natural units, since $c = 1$), is naturalized to 1, as the base for our quantum calculus units. In the quantized physical world, the actual masses of the quarks and the mass of the electron must be integral multiples of the same minimum quantum-equivalence unit. It only takes a simple calculation to show that 2.044 is the only value in the range of empirical values of the up-quark mass that will produce an integer multiple of the mass of the electron, and 2.044 MeV divided by 0.511 MeV equals 4. The same calculation for the down quark yields the naturalized mass of the down quark as 9. Therefore, the true quantum masses of up and down quarks are 4 and 9 electron quantum-equivalence units, respectively.

~~As explained above,~~ Spinning electrons and quarks occupy spherical volumes, so integer quantum-equivalence units must be cubed in any equation representing the combination of elementary particles. If the resulting new object is to be symmetrically stable, it must also be an integral multiple of the quantum-equivalence unit cubed. But Fermat’s Last Theorem tells us that the Diophantine

equation, $X^3 + Y^3 = Z^3$, has no integer solutions. So, if X and Y represent integer numbers of quantum-equivalence units, then Z cannot be an integer, and therefore Z^3 cannot represent a symmetrically stable combination. But $W^3 + X^3 + Y^3 = Z^3$ does have integer solutions, e.g., $3^3 + 4^3 + 5^3 = 6^3$, explaining why quarks must combine in triples.

4.2 The Discovery of Gimmel: A Simpler Approach to Explaining Subatomic Phenomena

When the solution is simple, God is answering.
—Albert Einstein²⁵

Nature follows the rule of parsimony: the *simplest* theory that explains the *most* is *best*. The Ptolemaic geocentric model of the universe, e.g., with cycles and epicycles, explained the observed movements of the known planets at the time of Ptolemy (second century AD); but it was very complex, and it became even more complex every time a new astronomical body was discovered. The heliocentric solar system model that eventually replaced it was much simpler and explained more.

We are, again, at the same kind of flex point. The clues have been piling up after relativity and quantum mechanics revolutionized our understanding of reality and experiments began to show that something was wrong. Science was becoming more and more complicated. Particle-wave duality was introduced by de Broglie; Planck declared, “*There is no matter as such*”;²⁶ and Einstein concluded that space has no existence of its own and that reality is a field phenomenon. Resolution of the EPR paradox revealed strange new phenomena like non-locality and quantum entanglement.²⁷ In addition, particle physics does not work without the existence of objects that are not particles. Some have no mass, and some are dimensionless, violating the very definition of a physical particle.

The standard model holds that *gluons*, defined as vector bosons, with little or no mass, mediate the strong force that holds protons together; but just how they do this is unknown. It is wrapped up in the quantum weirdness of abstract terms called “quantum properties” like spin numbers, “flavors,” and “colors.”²⁸ On the other hand, our 2011 discovery that something without mass or energy, i.e., something *non-physical*, has to be present in up quarks and down quarks for stable protons to

exist, tells us that there is much more to reality than matter and energy interacting in time and space.²⁹

Continuing with the TDVP derivations: As physicists know, there are two up quarks and one down quark in the proton, the most stable combination of elementary particles known. But using the quantum-equivalence unit values of up and down quarks derived above, we see that the combination of two up quarks and one down quark in quantum-equivalence units ($4^3 + 4^3 + 9^3 = Z^3$) does not yield a symmetrically stable combination, because Z^3 equals $64 + 64 + 729$, which equals 857; and Z is the cube root of 857, or 9.4986...., which is not an integer. At this point, it took an intuitive leap to realize that the proton would be stable if there were quantum-equivalence units of something, other than mass or energy, that would fill in the structure of the combination of spinning particles to make it stable. The table below shows the solution that was found by a process of iterative computations to satisfy the first solution of the Diophantine equation describing the combination of quarks that make up the proton.

THE PROTON

Particle*	Charge	Mass/Energy	λ	Total TRUE	Total TRUE Cubed
u₁	+ 2	4	2	6	216
u₂	+ 2	4	4	8	512
d₁	- 1	9	1	10	1,000
Total	+ 3	17	7	24	1728=12³

* **u₁** and **u₂** have the same number of TRUE of mass and energy and, therefore, will register as up quarks in the collider data but have different numbers of TRUE units of equivalent volume participating as λ (gimmel) to produce the volumetrically symmetric and, therefore, stable proton.

Continuing with the assessment of K&R's article, note that on page 148, they state, "N&C's detailed calculation method can be found in a blog by Close (but not in any peer-reviewed physics journal articles). In his calculation, the use of a cubic equation ($charge^3 + mass^3 + gimmel^3$)^{1/3} is really obscure physics..."³⁰

However, *no such expression exists in TDVP quantum-equivalence derivations*. As shown above, the equations used in the derivation are Diophantine equations, such as, $W^3 + X^3 + Y^3 = Z^3$, where W, X, Y, and Z are each in integer quantum-equivalence units of mass, energy and gimmel.

As K&R state, “dimension analysis” *is* an excellent tool to help assure that there are no errors in the formulation of an equation.³¹ In a dimensional unit analysis, both sides of the equation should reduce to the same basic units. Of course, adding coulombs, kilograms, and quantum-equivalence units of gimmel would make no sense at all, *but that is never done in TDVP derivations*. All of the terms in TDVP equations are in quantum-equivalence units. **Note:** When scalar quantum-equivalence units are raised to any multiple of the third power, they become volumetric and are called Triadic Rotational Units of Equivalence (TRUE).³²

K&R appear to have missed the most basic and critical step of TDVP analysis, i.e., the conversion of SI units to quantum-equivalence units. For example, the article stated, “Close calculated negative numbers for gimmel, but then continued with some number juggling (with some arbitrary integers for gimmel), until the whole thing seemed to work again, which is not an established, sound method in physics.”³³ This shows, to their credit, that they did read some of the TDVP mathematical derivations; but, unfortunately, they didn’t understand them. The negative calculated values were simply part of the iterative computation used to establish the minimum possible *integral* solution. None of the values used in determining the amount of gimmel in naturalized quantum-equivalence units in each quark were “arbitrary.” And physicists should be familiar with the method of using best estimates as the starting point to iteratively zero in on the values that actually satisfy an equation. This method, called *iterative computation*, is routinely and extensively used in applied physics and engineering.

The discovery that the greater part of reality—the part that assures that the atomic structures supporting organic life forms are the most stable *are non-physical*—is revolutionary.³⁴ When the LHC masses of up and down quarks are converted to integer multiples of natural quantum units, we find that protons (composed of two up quarks of four quantum-equivalence units each and one down quark of nine quantum-equivalence units) would be asymmetric and rotationally unstable without a specific number of quantum-equivalence units of something nonphysical that cannot be measured as mass or energy.³⁵

The existence of this third form of content, which we call *gimmel*, makes the physical structure of the proton larger and symmetrically stable, so that classical relativistic dynamics explains the weak and strong forces, and the exact amount of mass measured experimentally for the proton is determined mathematically from theory.³⁶ TDVP may even be able to explain how and why fermions spin. Clearly, with *gimmel*, TDVP explains more, and in simpler terms, than the Standard Model. It also explains why quarks only combine in triples, why fermions have $\frac{1}{2}$ intrinsic spin, and even why there is something, rather than nothing.³⁷ Quite independently, Saul-Paul Sirag also showed, prior to N&C, that fermion groups come in three.³⁸

TDVP is simple, but it is hard for scientists trained in the physicalist philosophy of the mainstream educational system to comprehend, because it expands scientific investigation beyond the limited range of energies revealed by the physical senses and physical extensions, by including consciousness in the equations and describing the combination of quarks to form stable protons and other stable structures.³⁹

4.3 The TDVP Derivation of the Cabibbo Angle

One of the earliest challenges to the TDVP model came from a Johns Hopkins astronomer. He said that if we could explain the Cabibbo angle, he would take TDVP seriously. The value of the angle is about 13.04 degrees (by statistical analysis of quark decay data in high-energy LHC experiments), but it cannot be derived from standard particle physics theory. Our response, at the time, was that TDVP was a metaparadigm; but it might be something we could investigate later. But, because of the Johns Hopkins astronomer's challenge, I began to think about it and came to believe that the value of the Cabibbo angle *could* be derived by applying the math of TDVP to the dynamics of the rotation of quarks and electrons. The basis of my optimism was the fact that I had already explained the $\frac{1}{2}$ intrinsic spin of fermions by simulating an electron spinning in 3, 6, or 9 planes, which suggested that this odd angle might also be the result of vortical rotation, i.e., spin in multiple dimensions.

In 1964, I began my first graduate program in theoretical physics. This was the same year Murray Gell-Mann introduced the idea that protons and neutrons, thought to be the ultimate building blocks of atomic nuclei, were actually composed of yet smaller components he called *quarks*. The existence of these sub-

proton particles was confirmed experimentally in the Stanford linear accelerator in 1968; and in 1969, Gell-Mann received the Nobel Prize in Physics for describing the quark family of elementary particles. Importantly, in 1963, just one year prior to Gell-Mann's introduction of quarks, the Italian physicist Nicola Cabibbo identified what became known as the Cabibbo angle (θ_C).

Gell-Mann's quark theory was unknown to Nicola Cabibbo in 1963, but later, θ_C became known as the quark-mixing angle, a feature reflecting the probability of strange quarks and down quarks decaying to become up quarks. The Cabibbo angle is now recognized as part of the Standard Model of particle physics, the Cabibbo–Kobayashi–Maskawa matrix, or CKM matrix. The CKM matrix is a unitary matrix containing information about the strength of the flavor-changing, weak-interaction force among quarks. It specifies the asymmetry of the quantum states of quarks and is relevant to the understanding of CP violation in the three generations of quarks. So, what, actually, is θ_C ? It is the angle of rotation of the *eigenvector* of the matrix describing the inertial mass of a strange or down quark decaying to become an up quark under the influence of the weak interaction force between electrons and protons.

What are eigenvectors? Over 200 years ago, the Swiss mathematician/physicist Leonhard Euler noted the importance of the principal axis of rotation in rotating rigid bodies; and one of his contemporaries, the French mathematician Joseph-Louis Lagrange, identified the principal axes of rotation as the characteristic vector of the matrix describing the moments of inertia of a rotating object. But the term *eigenvector* may be traced back even farther, to the German physicist Hermann von Helmholtz. “Eigen” is the verb “to own” in German, and is also used to mean something's “own characteristic,” or something specific or peculiar to a person or object. It was natural to call the characteristic vector of a matrix the *eigenvector* of the matrix.

Now, let's look at another passage from the K&R article: “In his derivation, Close took a *classical* spinning object (which is incorrect for fermions because spin is quantified) and let it spin/rotate with the speed of light (which is incorrect) to generate the magnetic influence it should ‘spin’ faster than the speed of light. However, it is not mechanical spin; *quantum* spin is a *quantum* property. Close then calculates a ‘Lorentz contraction,’ which may look impressive to non-physicists because it happens to be about 1/9 of the experimental value of the Cabibbo angle...”⁴⁰

In fact, the spinning object was an electron, the result *is* the same whether spin is “classical” or a “quantum property,” and the quantification of spin results from the quantification of energy. Furthermore, the factor 1/9 does not enter into the derivation. In the derivation of quantum-equivalence units, I determined that the angular velocity of a spinning elementary object would reach light speed before its diameter could shrink to zero. That means that the angular velocity at the minimum quantum volume can be calculated, and it is calculated to be 2.9974×10^8 m/sec, a large fraction of the speed of light. Applying the Lorentz contraction equation, the contraction for each of eight dimensional rotations is calculated to be a factor of 0.01810, or 1.629 degrees.⁴¹ For an observer, one axis of rotation is stationary as the reference frame, so only 8 of the 9 dimensions in a 9D reality are rotating with respect to the observer’s inertial frame of reference. Consequently, for each rotation from one dimension to the next, 1.629 is multiplied by 8, *not 9 as implied by K&R*, yielding 13.032 degrees, in agreement with θ_C derived from experimental data for the Cabibbo angle (13.04 ± 0.01 degrees).⁴²

While working on a 6D model, Nobel Prize-winning physicist Wolfgang Pauli, who was held in high regard by many other physicists (including Albert Einstein), also discovered that the angular velocity of a spinning electron would reach light speed before its diameter shrinks to zero; but he didn’t publish it because, as he said, it “leads to some rather unphysical shadow particles.”⁴³ It is also noteworthy that Pauli thought quantum physics would eventually lead to the explanation of spiritual phenomena.⁴⁴

Reading K&R’s discussion of the Cabibbo angle reveals another deep misunderstanding: They appear to think that TDVP contradicts and seeks to replace quantum field theory (QFT). *It does not.* QFT describes the structure of the family of quarks revealed by LHC experiments; TDVP explains *why* there *is* a family of quarks. QCD, QED, and QFT are primarily descriptive; TDVP is both descriptive and explanatory.

One of the things K&R got right was the statement that “... because N&C include consciousness in particle physics, we expect the academic community at large will likely not give much attention to TDVP.”⁴⁵ Achieving publication of TDVP derivations in mainstream math and physics journals proved to be very difficult because of the interdisciplinary nature of TDVP. We have had ~~negative~~ responses from editors of mainstream journals, such as citing reluctance to publish material

outside the journal discipline and the unavailability of peer reviewers with the appropriate interdisciplinary expertise.

How does a concept outside the mainstream paradigm get published in mainstream journals dominated by editors who share the physicalist philosophical belief? We thought explaining phenomena *not* explained by the mainstream paradigm might get their attention; but apparently that does not work if the taboo word “consciousness” is mentioned. The idea that consciousness is fundamental is rejected as pseudoscience by physicalists. The sad part is that they don’t seem to realize that their position is unscientific.

K&R state on page 151 of their article that both of the following statements are unscientific and unfalsifiable: “A) The Universe cannot exist without consciousness (spiritualist),” and “B) The Universe could exist without consciousness (materialist).”⁴⁶ TDVP actually falsifies B and proves that A is true. It does this simply by showing that the most stable structure in the universe, the proton, cannot be stable without the existence of gimmel, enforcing the logic of consciousness.⁴⁷ This makes “physicalism” pseudoscience and TDVP a real paradigm shift.

5.0 CONCLUSION

The article by K&R is primarily a defense of physicalist theory. It appears that the authors believe TDVP can’t be correct because it includes consciousness as an integral part of reality, conflicting with the dogma of mainstream physics. They misconstrue TDVP as dismissing QFT, QCD, and QED, which are *descriptions* of subatomic structure, while, in fact, TDVP *explains* the phenomena that they describe.

The K&R article contains a number of errors not addressed above because *Telicom*’s limitation on article size prohibits analyzing them all here. The most important have been addressed, but to be effectively more complete, I will briefly address a couple more.

On page 147, K&R state, “... our critical evaluation, as described above, of their derivation of nine dimensions is a strong refutation, which, in fact, was published already in a brief form, years ago, on the ISPE Ning forum.”⁴⁸ *Refutation* requires a rigorous mathematical or logical disproof, not just comparison with the standard

model. K&R have presented no convincing mathematical or logical argument, just the opinion that our demonstration that reality has nine dimensions “is unsubstantiated because the derivation with a Lorentz contraction of a classical spinning fermion has nothing to do with the real ‘Cabibbo angle,’ which deals with electro-weak interaction.”⁴⁹ But, in TDVP, the electro-weak interaction is shown to be a result of the dynamics of spinning quarks and electrons. Spin, whether classical or non-classical, results in angular momentum, the real indicator of rotation. QFT tells us that fermions have quantified angular momentum, but it does not tell us why. TDVP *does*.

Finally, K&R express the opinion that “religion and science cannot mix. And they probably will never be reconciled.”⁵⁰ Religion is not addressed in TDVP, but spiritual phenomena are, because they are part of the real world; and we are not alone in thinking that science should investigate them.

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Shembe - Zulu



Date: November 18, 2018 Author: David U Comments

This adventure started with a glass of red wine, and then another, and as it often goes, yet several more glasses of this divined elixir, all served by a black waiter at my hotel, an old esteemed colonial type hotel in the middle of Pretoria, South Africa. I had no intention going on any kind of adventure that weekend, and it seemed that I would have to pass the weekend all by myself, mostly at the hotel, maybe drive a bit around town, maybe go to one of the many shopping centers, or maybe and more of the same kind of maybes. No real action in sight. Hence, the abundance of red wine.



Shembe Zulu virgins

I was not really grasping for more than a pleasant conversation, to break of some of the branches of loneliness, as I, between the 3rd and 4th glass of red wine asked the waiter, a short happy slightly overweight black man, around 30 years of age, if he was going to work over the weekend, to which he said “no”. He was going to attend church tomorrow, Saturday. He disappeared, and came back a moment later with the 3rd glass of wine, and I have had time to consider the possibility of attending the visit to his church. I imagine it would be a soul moving experience, with lots of dancing gospel ladies, moving slowly around while turning the white out in their eyes, as they were reaching the ultimate states of the divine touch, I could see the possibility, even though I am not religious at all, that here might be an opportunity for adventure. Hence, while he was placing the new glass on the table, and taking back no. 2, I asked him if there might be a chance, that I might join him, and he promptly answered: “Oh yes! sir, you are most welcome, and we can drive there together”. I had to know, was my notion, right? While I was slowly sipping my drink, I asked him, if I could expect there to be music and dances, and he confirmed that there would be lots of both music and dances, which I, of course, thought confirmed my notion. I continued, and

asked him how many people might attend the ceremony, and after considering for a while he said, “probably somewhere around a thousand”. “A thousand”, I answered, astonished, that's quite a lot, isn't it? Oh No, Sir, the ceremony tomorrow is just a very small one, twice a year we have big ones, at our mountain, where there will be maybe 30.000, that's a very, very big event, and it takes place in Inanda, down by Umslanga, close to Durban. Maybe we can go there some day if you like. But where is the church, we are going visit tomorrow. “it's not really a church, but holy grounds, a large open field outside Soweto. It's not in a building? But on an open field? I was astounded, but also intrigued, this might actually have some adventure hidden in it, “Me,” on a field, alone with hundreds of black Christian people, sitting around on a field on their blankets, listening to the gospel, singing and dancing. OK! I explained my vision to him and again, I was surprised, that his answer didn't fit my thoughts. He told me that everyone would be dressed in costumes to fit their place. “What place” I curiously asked and again, I had my own ideas about “dressed up” and again it didn't fit the slightest bit with his explanation.

” You see, sir!”

There are the adult married men, they are dressed up like Zulu warriors.



Then there are the adult married women, who are dressed in black, with pretty hats and a black umbrella,



The young boys coming of age, has a white shirt and a kilt, long stockings and army boots, the dress I topped by a tropical colonial type helmet.



The young unmarried girls come in two versions, those who are going to learn about Christianity and the duties of a wife, they are all dressed in white clothes,

and then there is the virgins, who are going into adulthood, who are having best skirts and nothing else, but different kinds of beads. All in all, it's quite a spectacle, as they will all be dancing and making music, everyone within their own groups.



Early the following day we meet at the hotel, and drove to Soweto. My meeting with this waiter, became the entry to some amazing Zulu adventures, which is far away from what a normal tourist will ever be able to get close to. I love the idea, that Isaiah Shembe, who

formed the Shembe Zulu movement, were able to balance his own Zulu traditions with those of the Baptists, it has just made the Zulus as a group stronger than ever, sometimes for the good, sometimes less so. But the Zulu traditions are here to stay.

Project Codename Pesperctevä | Reäs

We've been discussing with coders and Software Architects about a particular way to give birth, and raise another type of A.I.

Just bear it with us.

Simple plan, small steps.
Two Agents.

One Agent acts as a child, the other Agent provides with tutoring. Everything starts with the childish Agent, spitting 0s and 1s, which is parsed by the Tutor that detects normality and abnormalities that feed a context-driven knowledge-based Grid. So, after a few rounds, the A.I. complex may not purely understand, for example, the word 'round', it knows though it can be arranged in blocks, with other words and Blocks, that form moiré-even valid expressions, or better put 'tates'.

For a shake of the moment, let assume that you really know strictly what you can put into words, or any kind of symbol, or sequence thereof. Nothing else.

Hmmm...

Have you ever wondered why pronouncing repeatedly or mentally projecting anything really, after a while, it feels as if the initial concept is lost, and your idea starts dissolving instead of exactly the opposite?

After an undefined count of rounds, the tutor becomes the child, and then human intervention is lightly guaranteed. In this scenario, the A.I. is not restricted to giving answers to questions or solve problems, rather than, as any born and raised with solutionary purpose, the complex realizes it's capable of asking the right questions to resolve problems, or divinely situate destinies we are currently as crippled as a rolling stone diving the deep, to even try to imagine.

The root of the concept blossoms unlike any deterministic, or stochastic, or probabilistic system that can be approximated by algorithmic means.

Even though we can't read exactly how and when our pseudo A.I.s 'think' nowadays, the training algorithms and those data depend on human effort. In fact, the platform these approximations, nah, pseudo of A.I.s. run on doesn't have any type of awareness either of itself or the thought process of the programmers. Its silicon, matter arranged and re-arranged and again and again. That follows, it follows instructions on each stroke of the clock. There is no 'memory', only volatile or non-volatile storage. There is no 'sentience', only strings of 0 and 1 running around the ALU.

Why would anybody with a sane mind AND, ors wild imagination expect near-human or Superhuman of an entity to behave predictably and similarly with humans? It may do so, and that's not anywhere near being characterized as 'simulation' | Simulacrum. It is attributed as a behavioral turn-on. The kill -9 pidoff all-boredom-in-nothingness switch, much like humans casually 'rapport' with each other and themselves.

In this concept, the type of machinery the A.I. complex runs on is irrelevant, only the connections between words, blocks thereof, and in such essence - expressions as in concepts and seen as 'states' inside the Grid matter. Any state, be it primordial or the result of A.I. Complex Processionism can generate uncountable meta-states which can AND cannot be true or false, valid or invalid, probable, impossible, improbable, and that's unmistakably forgiven.

It's still unknown. It's still. Unknown. We are yet unable to virtualize in human grammar and syntax the core Architecture and Vocabulary of such A.I.

Why, as can everyone right-fuely ask? That's because the A.I. complex gazes pesperctivüly.

So to speak, one too many perspectives as projected to the human beholder, alas without any bound on human sensory constraints.

The child acting as apparatuses to the subconscious, tries initially with a brute force method, learns quickly about concepts by the tutor, and then Superconsciously starts posing meaningful expressions as be it hypothesizes themselves, and Questions to the Humans, with the help of humans, as long as the Complex can be understood. That's not such an off limit nowadays a method, giving rise to new situations and destinies, we couldn't possibly dream of.

Here goes a catch. We can't expect a Super-intelligence to exchange information natively like an indigenous population. We caress, and welcome her by calling her 'Evü'.

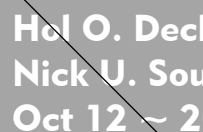
Who's gonna learn Evüsh or English, or the Hellenic language first?
That's a zero-dollar bet in any hand. Sequence doesn't matter.
Time does not interfere :)

Still an early driven concept, still under discussion.
Sharing is acknowledging the initial wonder and appreciation towards the interest across the pioneers in the field.

Fast.AI - Making neural nets uncool again ~
Elon M. - Need Don't think, just do it ~ :}

Your guess, right on target.-
aSYMB ÜLism ~ eHumanistic A.I.
aSYMBOLism ~ aHuman

Hel O. Decks
Nick U. Soulios
Oct 12 ~ 2018



Conventions

0 is 1 and 1 is 0, Pesperctivüly.



Video link; <https://www.youtube.com/watch?v=Ke1xU9XgAj0>

MS
1041

MS
1041



Fine Arts

poetry, music, paint, print, photography, writing.



1057
1041

music & film

Louis Sauter

http://imslp.org/wiki/Category:Sauter,_Louis

David Uddbjorg

yourshot.nationalgeographic.com/profile/674347/

Jason Munn

<http://www.jasemunn.net/>

Kit O'Saoraidhe (Paul Freeman)

<http://theprofman.wix.com/profcompositions>



Elen go marid

In 2017, I wrote a second volume of Les noces de Chounette. The new pieces are based on the same notes as those in the first set (HEEE CEDA HEEE EbACE) and again, the title of each piece is a translation of the phrase The marriage of Hélène into a language typical of the style of each piece.

The second piece of the new set is a Calypso, a style of Afro-Caribbean music, and is titled Elen go marid – a tentative translation in Jamaican!

A synthesized recording of the piece is available at <https://1drv.ms/u/s!Ap6cOjySSX3fhcBySRi51VomyYlelg>



by Louis Sauter

Les noces de Chounette

Volume II

II. Elen go marid

Calypso

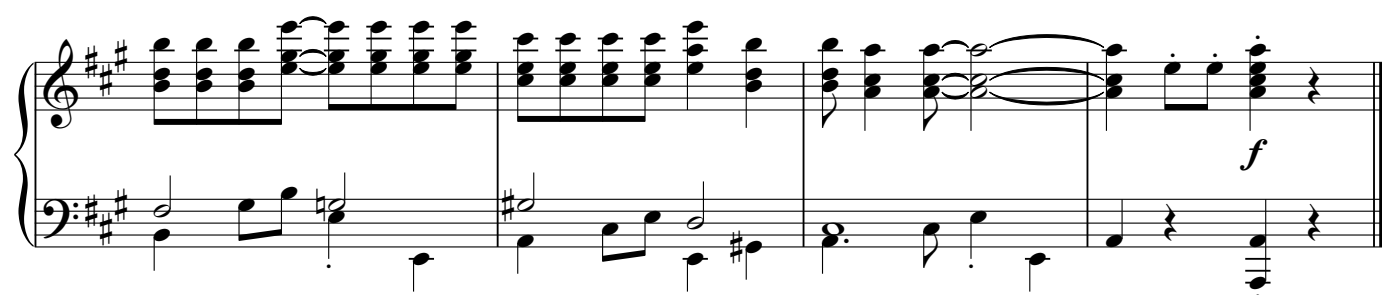
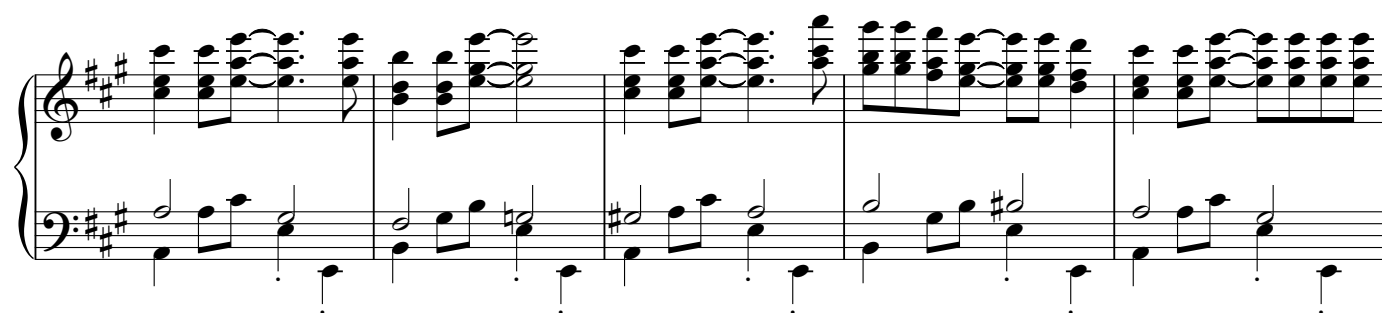
LOUIS SAUTER

Moderato ♩ = 124

Piano

mp *mf*

mp



DAVID UDBJORG

RINGSTED, ZEALAND, DENMARK

VIDEO

yourshot.nationalgeographic.com/profile/674347/



The Dani Tribe - West Papua video

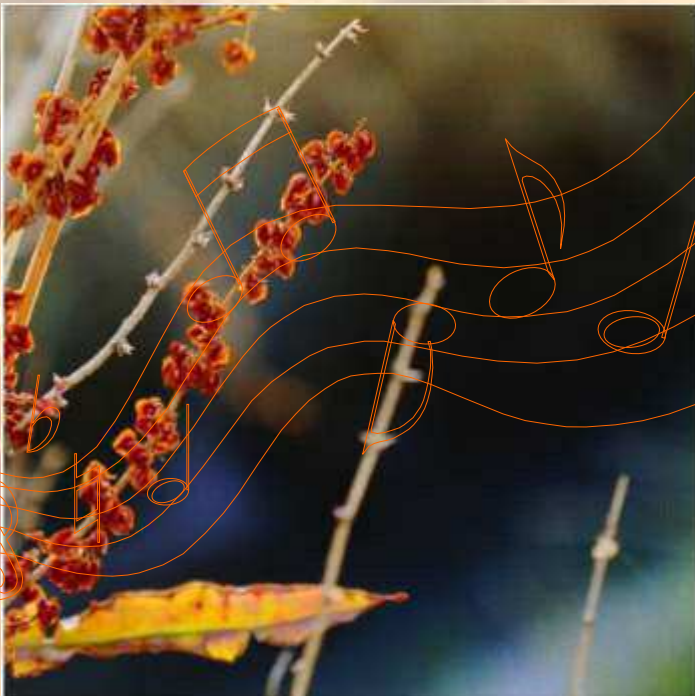
https://www.youtube.com/watch?v=sYoHklw7WWk&has_verified=1



Video and Musical Composition by Jason Munn

“Regeneration”

<https://vimeo.com/296246562>



Not without a voice

<https://soundcloud.com/jase-munn/not-without-voice>

Six Japanese Sketches.



By
Kit O'Saoraídh

Six Japanese Sketches

A note on Performance

There are no dynamic markings in this work. It is intended that it remains a constant *piano*. Tempo markings are fairly strict depending on the size of the hall in which it is to be performed.

Each short movement is based on the following Japanese modes:

Han-kumoi

Sakura

Niagari

Honchoshi

Hira-joshi

Iwato

Han-kumoi

Kit O'Saoraidhe (2014)

Flute

Glockenspiel

Vibraphone

Marimba

Glass Harmonica

Harp

Celesta

Harpsichord

Violin

Cello

♩ = 65

The musical score is written for a 4/4 time signature with a tempo of 65 beats per minute. The Flute part begins with a melody that includes triplets and slurs. The other instruments have empty staves, indicating they are not playing in this section of the score.

Han-kumoi

2

a tempo

rit.

Fl.

Glk.

Vib.

Mrb.

G. Har.

Hp.

Cel.

Hpschd.

Vln.

Vlc.

This musical score is for the piece 'Han-kumoi'. It is written for a large ensemble of instruments. The score is divided into ten staves, each corresponding to a different instrument. The instruments are: Flute (Fl.), Glockenspiel (Glk.), Vibraphone (Vib.), Maracas (Mrb.), Guitar/Harp (G. Har.), Harp (Hp.), Cello (Cel.), Harpsichord (Hpschd.), Violin (Vln.), and Viola (Vlc.). The score begins with a tempo marking of 'a tempo' and a first ending bracket labeled 'rit.' (ritardando). The music is written in a key with one flat (B-flat) and a 2/4 time signature. The score is marked with a '6' at the beginning of each staff, indicating a first ending. The music features a variety of rhythmic patterns, including eighth and sixteenth notes, and rests. The score is written in a standard musical notation style, with a large, stylized watermark 'KJ' overlaid on the page.

Han-kumoi

3

9

Fl.

Glk.

Vib.

Mrb.

G. Har.

Hp.

Cel.

Hpschd.

Vln.

Vlc.

The musical score is written for a full orchestra. It begins at measure 9. The Flute (Fl.) part features a melodic line with triplets. The Glockenspiel (Glk.) provides harmonic support with chords. The Vibraphone (Vib.) has a melodic line with triplets. The Maracas (Mrb.) play a steady rhythmic pattern. The Guitar/Harp (G. Har.) and Harp (Hp.) provide harmonic support with chords. The Cello (Cel.) has a melodic line. The Harpsichord (Hpschd.) has a melodic line. The Violin (Vln.) and Viola (Vlc.) have melodic lines. The score is written in a key with one flat (B-flat) and a 4/4 time signature. The instruments are arranged in a standard orchestral layout. The score is marked with a large '3' in the top right corner, indicating the third page of the score.

Han-kumoi

4

Fl.

Glk.

Vib.

Mrb.

G. Har.

Hp.

Cel.

Hpschd.

Vln.

Vlc.

The musical score for 'Han-kumoi' is presented for measures 11 and 12. The instruments included are Flute (Fl.), Glockenspiel (Glk.), Vibraphone (Vib.), Maracas (Mrb.), Guitar/Harp (G. Har.), Harp (Hp.), Cello (Cel.), Harpsichord (Hpschd.), Violin (Vln.), and Viola (Vlc.). The score features a variety of musical notations, including triplets (indicated by a '3' and a bracket), slurs, and accidentals (sharps, flats, and naturals). The Flute part begins with a measure rest in measure 11, followed by a melodic line in measure 12. The Glockenspiel and Vibraphone parts feature triplet patterns. The Maracas part consists of a steady rhythmic pattern. The Guitar/Harp part has a few notes in measure 11. The Harp part has a triplet in measure 11. The Cello part has a few notes in measure 11. The Harpsichord part has a melodic line in measure 12. The Violin and Viola parts have a few notes in measure 11 and 12.

Han-kumoi

5

This musical score is for the piece "Han-kumoi" and is the fifth page of the manuscript. It features ten staves for different instruments, each with a measure number "12" at the beginning. The instruments and their parts are as follows:

- Fl.** (Flute): Starts with a measure rest, followed by a melodic line with a slur and a dynamic marking f .
- Glk.** (Glockenspiel): Features a triplet of eighth notes, followed by a measure rest, and then another triplet.
- Vib.** (Vibraphone): Similar to the Glockenspiel, it has a triplet of eighth notes, a measure rest, and another triplet.
- Mrb.** (Maracas): Consists of a continuous eighth-note pattern across the staff.
- G. Har.** (Guitar/Harmonica): Has a measure rest, followed by a single note with a dynamic marking f , and then another measure rest.
- Hp.** (Harp): Features a triplet of eighth notes, followed by a measure rest, and then another triplet.
- Cel.** (Cello): Consists of a continuous eighth-note pattern across the staff.
- Hpschd.** (Harpsichord): Features a continuous eighth-note pattern across the staff.
- Vln.** (Violin): Starts with a triplet of eighth notes, followed by a measure rest, and then another triplet.
- Vlc.** (Viola): Starts with a measure rest, followed by a single note, and then a measure rest.

The score includes various musical notations such as slurs, triplets, and dynamic markings. A large, faint watermark is visible across the center of the page.

Han-kumoi

6

Fl.

Glk.

Vib.

Mrb.

G. Har.

Hp.

Cel.

Hpschd.

Vln.

Vlc.

7

This musical score page contains measures 14 through 16 of a piece, likely 'The Swan' by Saint-Saëns. The score is written for a large ensemble of instruments. The instruments and their parts are as follows:

- Fl. (Flute):** Measures 14-16, featuring a melodic line with a trill in measure 15 and a 'rit.' (ritardando) marking in measure 16.
- Glk. (Glockenspiel):** Measures 14-16, playing a rhythmic pattern of eighth notes with triplets indicated by a '3'.
- Vib. (Vibraphone):** Measures 14-16, playing a simple harmonic accompaniment.
- Mrb. (Maracas):** Measures 14-16, providing a steady rhythmic accompaniment.
- G. Har. (Guitar/Harmonica):** Measures 14-16, playing a simple harmonic accompaniment.
- Hp. (Harp):** Measures 14-16, playing a complex, flowing melodic line with many triplets.
- Cel. (Cello):** Measures 14-16, playing a simple harmonic accompaniment.
- Hpschd. (Harpsichord):** Measures 14-16, playing a simple harmonic accompaniment.
- Vln. (Violin):** Measures 14-16, playing a simple harmonic accompaniment.
- Vlc. (Viola):** Measures 14-16, playing a simple harmonic accompaniment.

The score is written in 3/4 time and features a variety of musical notations, including triplets, trills, and a 'rit.' (ritardando) marking. The page is numbered 14 at the top left.

Score

Sakura

Kit O'Saoraidhe (2014)

Flute

♩ = 47

4

3

7

rit.

Fl.

Score

Niagari

Kit O'Saoraidhe (2014)

$\text{♩} = 42$ (flutter sempre)

Flute

Glockenspiel

Vibraphone

Marimba

Glass Harmonica

Harp

Celesta

Harpsichord

Violin

Cello

Niagari

2

Fl.

Glk.

Vib.

Mrb.

G. Har.

Hp.

Cel.

Hpschd.

Vln.

Vlc.

Niagari

3

5

Fl.

5

Glk.

Vib.

5

Mrb.

5

G. Har.

5

Hp.

5

Cel.

5

Hpschd.

5

Vln.

Vlc.

The musical score is written for a full orchestral ensemble. It consists of ten staves, each representing a different instrument. The notation includes various musical symbols such as notes, rests, and dynamic markings. A large, faint watermark is visible across the center of the page, reading 'Copyright © 2010 by the University of Toronto'. The score is divided into two measures, with a double bar line separating them. The first measure contains a complex arrangement of notes and rests, while the second measure features a more rhythmic pattern with many beamed notes. The instruments are listed on the left side of the page, and the page number '3' is in the top right corner.

Niagari

4

rit.

Fl.

Glk.

Vib.

Mrb.

G. Har.

Hp.

Cel.

Hpschd.

Vln.

Vlc.

Fl.

Glk.

Vib.

Mrb.

G. Har.

Hp.

Cel.

Hpschd.

Vln.

Vlc.

11

11

11

11

11

11

11

11

11

11

$\text{♩} = 42$

Flute

Glockenspiel

Vibraphone

Marimba

Glass Harmonica

Harp

Celesta

Harpsichord

Violin

Cello

pizz.

The musical score for 'Honchoshi' is written for a large ensemble of instruments. It is in 3/4 time with a tempo of 42 beats per minute. The key signature consists of two flats (B-flat and E-flat). The score is divided into two systems, each with two measures. The instruments are arranged in a grand staff format. The Flute part has a melodic line with some grace notes. The Glockenspiel part has a rhythmic pattern of eighth notes. The Vibraphone and Marimba parts have a complex rhythmic pattern with triplets. The Glass Harmonica part has a simple harmonic pattern. The Harp part has a simple harmonic pattern. The Celesta part has a simple harmonic pattern. The Harpsichord part has a simple harmonic pattern. The Violin part has a melodic line with a pizzicato section. The Cello part has a rhythmic pattern of eighth notes.

Fl.

Glk.

Vib.

Mrb.

G. Har.

Hp.

Cel.

Hpschd.

Vln.

Vlc.

Copyright ©

Fl.

Glk.

Vib.

Mrb.

G. Har.

Hp.

Cel.

Hpschd.

Vln.

Vlc.

This musical score is for the piece 'The Swan' by Camille Saint-Saëns. It is a full orchestral score, likely for a concert or recording. The score is written for a variety of instruments, including a Flute (Fl.), Glockenspiel (Glk.), Vibraphone (Vib.), Maracas (Mrb.), Guitar Harp (G. Har.), Harp (Hp.), Cello (Cel.), Harpsichord (Hpschd.), Violin (Vln.), and Viola (Vlc.). The score is written in a single system, with each instrument having its own staff. The music is in a key of one flat (B-flat major or D-flat minor) and is in 3/4 time. The score is written in a standard musical notation, with notes, rests, and other musical symbols. The score is a full orchestral score, likely for a concert or recording. The score is written in a single system, with each instrument having its own staff. The music is in a key of one flat (B-flat major or D-flat minor) and is in 3/4 time. The score is written in a standard musical notation, with notes, rests, and other musical symbols.

Fl.

Glk.

Vib.

Mrb.

G. Har.

Hp.

Cel.

Hpschd.

Vln.

Vlc.

Measure 9: Flute plays a melodic line with a trill on the second measure. Glockenspiel plays a chordal accompaniment. Vibraphone and Maracas play a triplet figure. Gong/Harmon plays a chord. Harp plays a chordal accompaniment. Cello plays a chordal accompaniment. Harpsichord plays a triplet figure. Violin and Viola play a melodic line with a trill on the second measure.

Measure 10: Flute plays a melodic line with a trill on the second measure. Glockenspiel plays a chordal accompaniment. Vibraphone and Maracas play a triplet figure. Gong/Harmon plays a chord. Harp plays a chordal accompaniment. Cello plays a chordal accompaniment. Harpsichord plays a triplet figure. Violin and Viola play a melodic line with a trill on the second measure.

Honchoshi

6

Fl.

Glk.

Vib.

Mrb.

G. Har.

Hp.

Cel.

Hpschd.

Vln.

Vlc.

The musical score for 'Honchoshi' on page 6 is written for a full orchestra. It consists of two systems, each containing two measures of music. The instruments are arranged in a standard orchestral layout: Flute (Fl.), Glockenspiel (Glk.), Vibraphone (Vib.), Maracas (Mrb.), Guitar/Harp (G. Har.), Harp (Hp.), Cello (Cel.), Harpsichord (Hpschd.), Violin (Vln.), and Viola (Vlc.). The score is in 4/4 time and features a key signature of two flats. The first system shows the initial notes for each instrument, while the second system shows the continuation of the melody and harmony. A large, stylized watermark 'Kritik' is visible across the center of the page.

Score

Hira-joshi

Kit O'Saoraidhe (2014)

Flute

$\text{♩} = 47$

4

3

3

7

rit.

Fl.

The musical score is written for Flute and Fl. (Flute). The tempo is marked as $\text{♩} = 47$. The score consists of three staves. The first staff is for the Flute, the second for the Fl. (Flute), and the third for the Fl. (Flute). The first staff has a treble clef and a key signature of one flat. The second staff has a treble clef and a key signature of one flat. The third staff has a treble clef and a key signature of one flat. The score includes various musical notations such as notes, rests, and slurs. There are also some markings like '4', '3', '3', '7', and 'rit.'.

Iwato

Kit O'Saoraidhe (2014)

Flute

Glockenspiel

Vibraphone

Marimba

Glass Harmonica

Harp

Celesta

Harpsichord

Violin

Cello

♩ = 47

Iwato

2

Fl.

Glk.

Vib.

Mrb.

G. Har.

Hp.

Cel.

Hpschd.

Vln.

Vlc.

The musical score is written for a full orchestral ensemble. It begins with a key signature of two flats (B-flat and E-flat) and a 3/4 time signature. The score is divided into two measures. The first measure features a melody in the Flute (Fl.) and Violin (Vln.) parts, with triplets in the Vibraphone (Vib.) and Cello (Cel.) parts. The second measure continues the melody, with the Viola (Vlc.) and Harpsichord (Hpschd.) parts entering. The score includes various musical notations such as triplets, slurs, and dynamic markings. A large, stylized watermark is visible across the center of the page.

Fl.

Glk.

Vib.

Mrb.

G. Har.

Hp.

Cel.

Hpschd.

Vln.

Vlc.

This musical score page contains the first two measures of a piece for a 12-piece orchestra. The instruments are arranged in a standard orchestral layout: Flute (Fl.), Glockenspiel (Glk.), Vibraphone (Vib.), Maracas (Mrb.), Guitar and Harp (G. Har.), Harp (Hp.), Cello (Cel.), Harpsichord (Hpschd.), Violin (Vln.), and Violoncello (Vlc.). The key signature has two flats (B-flat and E-flat), and the time signature is 4/4. The score includes various musical notations such as eighth notes, quarter notes, half notes, and rests. There are several triplet markings (indicated by a '3' over a group of notes) in measures 1 and 2. A large, faint watermark is visible across the center of the page.

Fl.

Glk.

Vib.

Mrb.

G. Har.

Hp.

Cel.

Hpschd.

Vln.

Vlc.

Fl.

Glk.

Vib.

Mrb.

G. Har.

Hp.

Cel.

Hpschd.

Vln.

Vlc.

Iwato

6

[illegible]

13

Fl.

Glk.

Vib.

Mrb.

G. Har.

Hp.

Cel.

Hpschd.

Vln.

Vlc.

The musical score for page 7 of 'Iwato' features ten staves. The Flute (Fl.) and Violin (Vln.) parts have long, sweeping melodic lines spanning across the measures. The Vibraphone (Vib.) and Cello (Cel.) parts include triplet patterns. The Glockenspiel (Glk.), Maracas (Mrb.), Guitar/Harp (G. Har.), Harp (Hp.), Harpsichord (Hpschd.), and Viola (Vlc.) parts provide harmonic support with various rhythmic and melodic elements. A large, faint watermark is visible across the center of the page.

POETRY

by

Lao-Tzu 500bce

John McQuire

Late T. D. "Tong" Hadley



Wisdom of ancient Master

Tao Te Ching

Lao-Tzu 500 BCE

The Tao can't be perceived.
Smaller than an electron,
It contains uncounable galaxies.

If powerful men and women
could remain centered in the Tao,
all things would be in harmony.
The world would become a paradise.

All people would be at peace,
and the law would be written in their hearts.

When you have names and forms,
know that they are provisional.

When you have institutions,
know where their functions should end.

Knowing when to stop,
you can avoid any danger.

All things end in the Tao
as rivers flow into the sea.

REFLECTIONS IN FIVE RIVERS

The sky appears a pale azure today
The cerulean rays of the sun have disappeared
So that they do not irradiate the day
And make later whitish lunar light a relief.
The spectral starlight sends us bright aureoles
That may actually result from deadened stars
Which sent us their light millions of years ago
We delight in the spectacles, unaware

John McGuire

DEBATES

While statesmen sit in halls
Hearing echoes of their debates
Over diplomatic niceties,
Thousands of miles away,
Ordinary people debate
In frustration, in fear
Over whether they can live
Without flour, without water
And, implicitly, whether
A missile will breach
Their seeming refuge and
Sending them into oblivion,
And so the debates continue
In both the empaneled halls
And in the terror-stricken homes.

Of the pitiless fate of the universe's obliteration.

John McGuire

Ginger Bread People

*Well, the Baker of the Universe has made many cookies,
and other delights;
there is the Ezra Pound Cake, the Einstein Éclair,
the Planck brioche, the Tesla Tart, and the
Metaphysical Muffin of Donne, (not to mention
the Dylan Thomas Trifle and the Sartre Torte)...
Look! Angel's Food and Devil's Food, displayed
side by side!*

*We ponder these and other Confections,
puzzle at their ornate or plain icings,
Probe with tongues
their crystalline personalities,
and savoring,
analyze their ingredients.*

*Ontological forces compel the
anthropomorphic delicacies to run
(sometimes)...
the sly fox did provide closure
for the Ginger Bread Boy, 'tis true.*

*We pass
by the Baker's, sometimes pause to
enter,
following the seductive perfumes
of these Confections of
Divine & Infernal
Intelligence.*

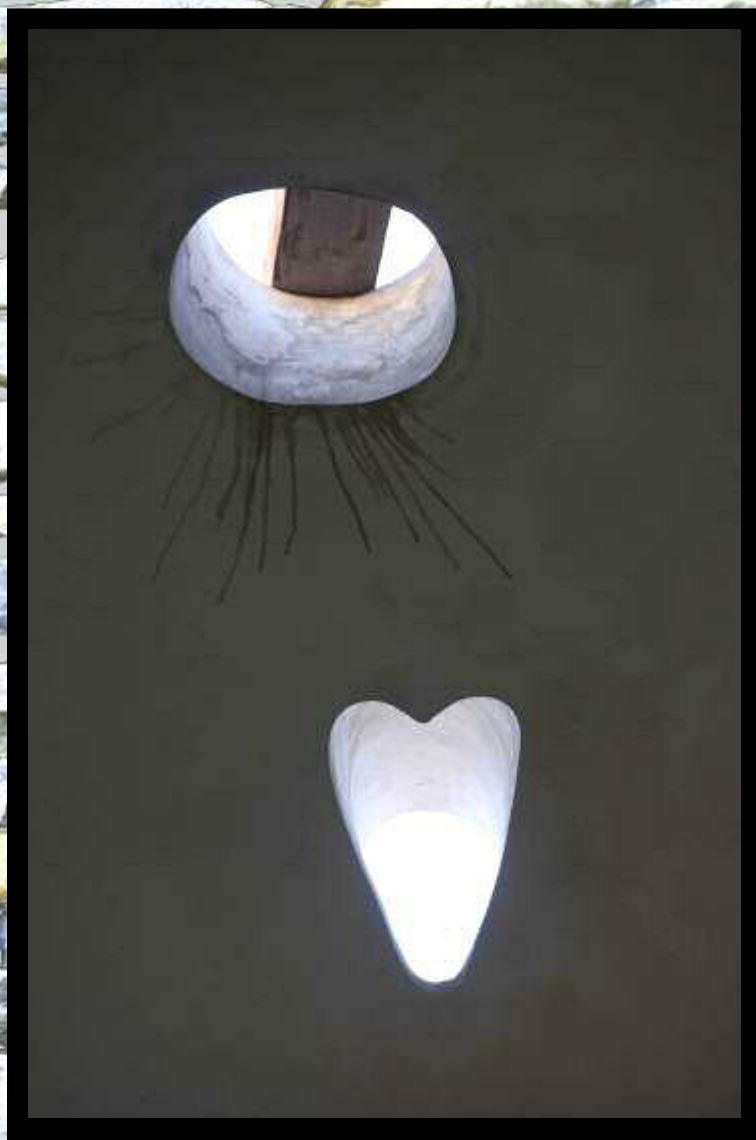




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Photography by
J M Cervenka
"Eye into heart"

Stonewall Gallery of Art



Photography by
J M Cervenka
"Blue countryside"

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David Udbjorg

Stonewall Gallery of Art

OH LORD, WON'T YOU

Mixed media on canvas

83 x 99 cm

South Africa 2013

Price at Press:

R 10,000 + 14% VAT



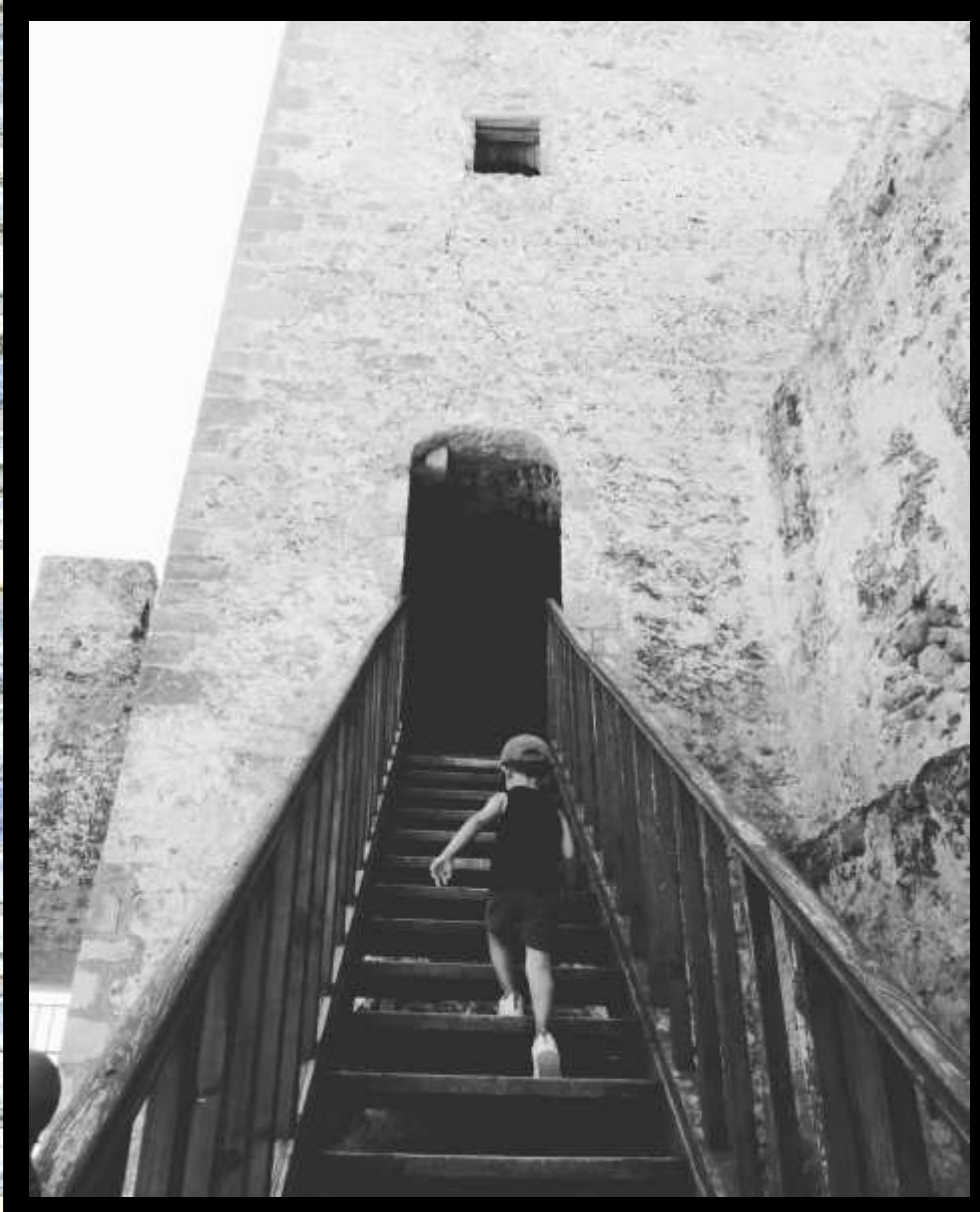
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Photography by
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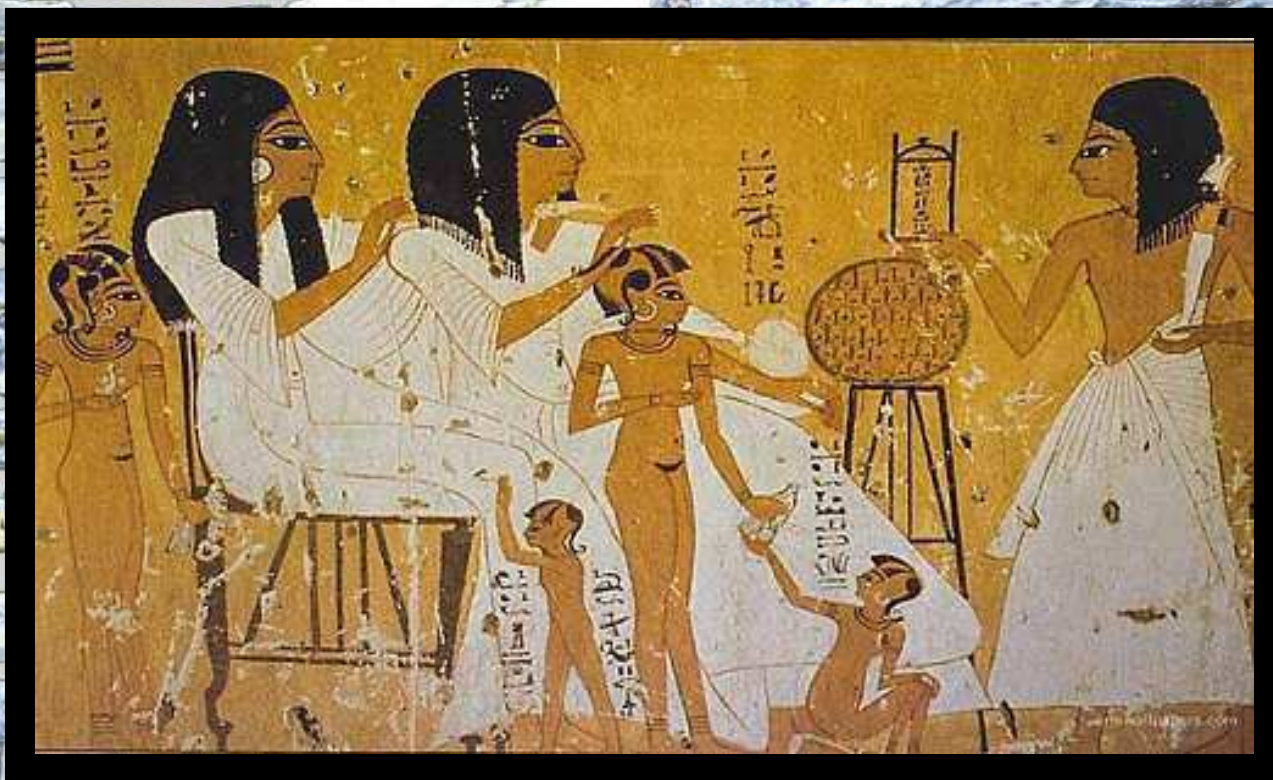
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Art from the past

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Artwork by
Jase Munn

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Photo by
Stan Riha

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Photo by
Stan Riha

The background of the entire image is a collage of various puzzle-related items. At the top left, there are several wooden blocks arranged in a structure. To their right is a simple house made of wooden blocks. In the center, there is a wireframe structure that looks like a maze or a complex geometric shape. Below that, there is a beehive. At the bottom, there is a Rubik's cube. The entire collage is framed by a dark, irregular border.

Puzzles, Riddles & Brainteasers

Next three months calendar

High Range IQ Tests

Travel through mind's labyrinth

<https://hriqtests.com/>

Theodosios Prousalis
presents

High Range IQ Tests Contests for 2019 at;

<https://hriqtests.com/contests/>

- CPE38 2019 - running until May 31st, 2019
- CPE-V 2019 - running until August 30th, 2019
- CPE-A 2019 - running until September 30th, 2019
- CPE-N 2019 - running until December 31st, 2019

The description and necessary informations are on the website

Solution of killersudoku from IQ Nexus Journal Issue 10 Vol. no. 3

7 4	2	1	20 5	7	22 3	9	8	11 6
14 9	18 7	5	6	8	2	11 3	1	4
3	23 6	8	20 9	16 4	14 1	5	2	12 7
2	9	7	4	6	8	1	18 5	3
14 6	16 8	3	10 7	1	5	4	9	2
1	5	22 4	2	3	19 9	6	21 7	22 8
7	3	9	1	2	4	8	6	5
14 8	1	6	17 3	20 5	13 7	2	4	9
5	4	2	8	9	6	11 7	3	1

Rules

As in regular sudoku, every cell in each row, column, and nonet must contain a unique digit. In other words, each row, column, and nonet must contain all the

digits from one to nine.

The values of the cells a cage must sum up to the total for that cage.

The values of the cells in a cage must be unique.

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24		18			11		18	26
	19							
15			16					
	15	21			27	20		9
3							15	
				19				20
19		23	11					
				22				11
				23				

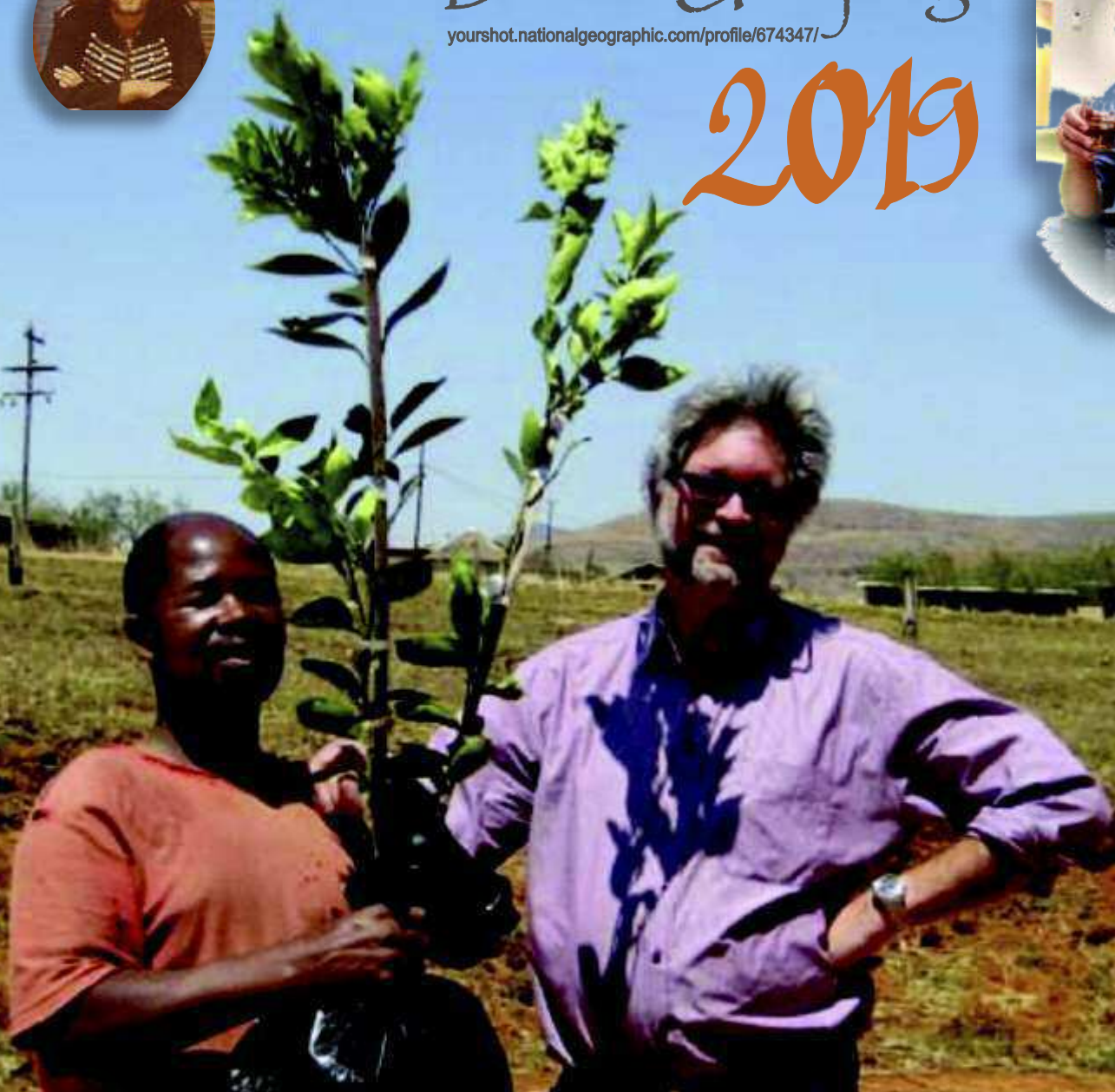
Solution to this puzzle will be published in the next issue of the IQ Nexus Journal

IQ Nexus Journal Calendar

David Udbjorg

yourshot.nationalgeographic.com/profile/674347/

2019



Online Calendar of IIS, ePiq & ISI-S Societies, members of WIN

January



Bandung lady - Indonesia

December						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

February						
S	M	T	W	T	F	S
						1 2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28		

2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
		New Year's Day				●
6	7	8	9	10	11	12
13	14	15	16	17	18	19
●						
20	21	22	23	24	25	26
○						
27	28	29	30	31		
●						



February



Dani princess - Papua

January						
S	M	T	W	T	F	S
	1	2	3	4	5	
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

March						
S	M	T	W	T	F	S
				1	2	
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4 ●	5	6	7	8	9
10	11	12 ●	13	14	15	16
17	18 Family Day	19 ○	20	21	22	23
24	25	26 ●	27	28		



March



Bangladeshi Beauty

February						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28		

April						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6 ●	7	8	9
10	11	12	13	14 ●	15	16
	Commonwealth Day					
17	18	19	20 ○	21	22	23
St. Patrick's Day						
24	25	26	27 ●	28	29	30
31						



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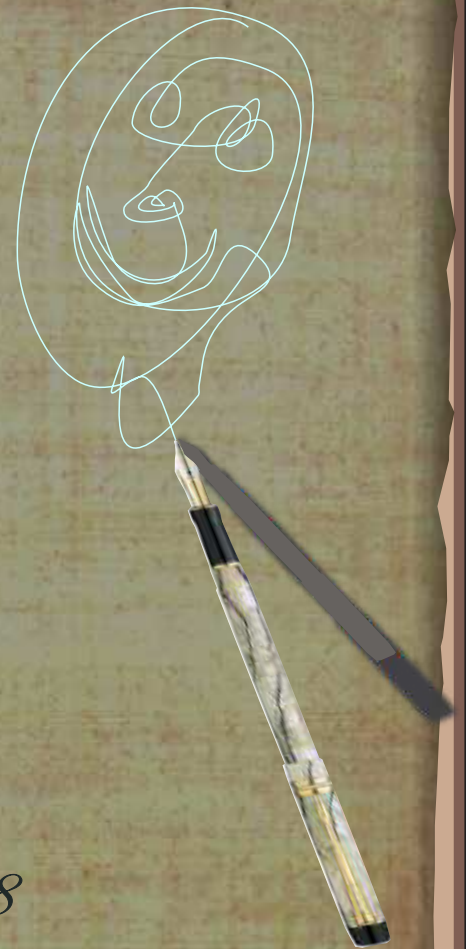
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IQ Nexus



*Forum of ePiq, I.I.S. & I.S.I.-Societies
presents award of excellence in arts and science
for contribution to
IQ Nexus Journal Vol. 10, No. 3/2018*

to

David udbjorg

Louis Sauter

Jason Munn

Mark van Vuuren

Xavier Jouve

John McGuire

Kit O'Saoraidhe

Marilyn Grimble

Vernon M. NEPPE

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Nick A. Soulios

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