

# *The intellectual giants who preceded the Triadic Dimensional Distinction Vortical Paradigm (TDVP)*

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## **Abstract:**

This paper is based on several other pertinent papers by Neppe and Close<sup>1 2 3, 4; 5</sup> particularly the contribution in a physics journal showing how 4-dimensional physics must be extended to 9 dimensions<sup>3</sup>, and specifically an article on LFAF<sup>5</sup>. We also recognize the revolution of belief systems moving from ‘it’s impossible’ to ‘it occurs’, and there is a whole range which we call the 11-NCR (the 11 Neppe-Close revolutions). These were preceded by Thomas Kuhn, in an often-quoted much smaller hierarchy. Neppe then developed the eleven stages of scientists being prepared to interpret phenomena and this allows greater separation of the stages.

TDVP did not arise out of a vacuum. There were those who have been some very great pioneers that preceded TDVP and their achievements are extensive. In this article, I highlight little known or lesser known factors that directly impacted TDVP. We pay homage to these great pioneers. In our book, *Reality Begins with Consciousness*, we acknowledged several scientists.

We also focus on additional significant contributors, each of whom pioneered areas that preceded TDVP: Alfred Whitehead and his colleague Bertrand Russell; Wolfgang Pauli; Thomas Kuhn; Roger Penrose; and George Spencer Brown as well

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<sup>c</sup> This article has gone through numerous peer-reviewers in various forms. 2019 and 2020. There is no financial support or conflict.

<sup>d</sup> We greatly acknowledge the contributions of Dr. Edward Close, my collaborator particularly and (alphabetically) during the production of this article and its composite of previous versions: Dr. Adrian Klein, and Dr. Surendra Pokharna, Charna Klein, Lis Neppe, Joseph Slabaugh, Jacqui Slade, Erich Von Abele, Suzan Wilson, the editors and the external referees who were involved in this version or in one or both of the previous versions.

as greats pioneers such as Albert Einstein, Max Planck, Pierre de Fermat, George Cantor, Kurt Gödel; Karl Popper; and others.

TDVP and the mathematics behind it extends LFAF (*Lower Dimensional Feasibility Absent Falsification*), or falsifiability to feasibility; and making things feasible is the basis of the practice of medicine and sometimes psychology as well.

**Keywords:**

3S-t; 9D; 9D+; 4D; Aristotle; Bauer; Calculus of distinctions; Calculus of dimensional distinctions; Cabibbo; Cantor; Chalmers; Close; Close Conveyance Equation; Consciousness; Consciousness research; Continuous; Dark matter; Dark energy; Definition; Dimensional Biopsychophysics; Dimensions; Discrete; Distinctions; Diophantine Equations; Eddington; Eddingtonian analogy; Einstein; Entanglement; Energy; Erroneous; Falsifiability; Fermat; Feasibility; Feng; Fifth force; Framework; Galileo; Gimmel; Gluons; Gödel; Gell-Mann; Hameroff; Immediacy; Indivension; Infinite continuity; Infinity; Information; Jigsaw; Kaluza; Klein; Krasznahorkay; Kuhn; Limitations; Lister; Mass; Mathematics; Mendel; Metaparadigm; Minkowski; Misinterpretation; Neppe; Ordropy; Organic; Paradigm Shift; Pauli; Pauli exclusion principle; Penrose; Periodic Table of the Elements; Phenomenological levels; Physics; Planck; Plato; Popper; Quantum; Quantum collapse; Relative to; Rauscher; Relative; Relative non- locality; Restricted 3S-1t; Russell; Set theory; Semmelweis; Shadow particles; Shells; Space; Spencer Brown; String theory; Superstring theory; Tegmark; Tesla; Theory of Everything; TOE; Transfinite; Triadic dimensional distinction vortical paradigm; Spinors; TDVP; Tegmark; Triadic Dimensional Distinction Vortical Paradigm; Triadic Rotational Units of Equivalence (TRUE); Twistors; Unified Field Theory; Valence; Volumetric; Vortical Indivension; Vortices; VI; X17 particle; Whitehead.

# The scientists who taught principles on which TDVP can be applied: Section 1

## Vernon M Neppe MD, PhD

*‘Let us suppose that an ichthyologist is exploring the life of the ocean. He casts a net into the water and brings up a fishy assortment. Surveying his catch, he proceeds in the usual manner of a scientist to systematize what it reveals. He arrives at two generalizations:*

*(1) No sea-creature is less than two inches long.*

*(2) All sea-creatures have gills.*

*These are both true of his catch, and he assumes tentatively that they will remain true however often he repeats it.’*

*‘In applying this analogy, the catch stands for the body of knowledge which constitutes physical science, and the net for the sensory and intellectual equipment which we use in obtaining it. The casting of the net corresponds to observation: for knowledge which has not been or could not be obtained by observation is not admitted into physical science. An onlooker may object that the first generalization is wrong. "There are plenty of sea-creatures under two inches long, only your net is not adapted to catch them."*

*The ichthyologist dismisses this objection contemptuously. "Anything uncatchable by my net is ipso facto outside the scope of ichthyological knowledge." In short, "What my net can't catch isn't fish." Or — to translate the analogy — "If you are not simply guessing, you are claiming a knowledge of the physical universe discovered in some other way than by the methods of physical science, and admittedly unverifiable by such methods.*

*You are a metaphysician. Bah!" ... ..*

*"The mathematics is not there till we put it there."”*

*Sir Arthur Eddington, 1938 <sup>6e</sup>*

Eddington’s remarkable insight that obvious experimental data may not locate all of reality reflects an understanding that at times our approach to what we regard as science is limited.

Sir Arthur *Eddington* OM FRS (1882 –1944) was an eminent English astronomer, physicist, and mathematician. He was also a philosopher of science and a popularizer of science. In his groundbreaking research in astrophysics, he was the first person to investigate the motion, internal structure and evolution of stars.

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<sup>e</sup> Sir Arthur Eddington (1882 - 1944), the great British Astrophysicist and Philosopher of Science, quoted from Eddington’s book *The Philosophy of Physical Science* in 1938 <sup>6</sup>..

We cannot appreciate all of reality when only applying a small component of reality. This famous Eddingtonian analogy stands out and our approach to science is clearly linked with our perception of reality.

*This creates a useful starting point for this paper on the historical antecedents of the Neppe-Close TDVP model, particularly outlining briefly some of the ignored achievements.*



Arthur  
Eddington

**Porous fish-nets:** Yet, we should also go beyond mathematics to the empirical. Eddington's fish-nets<sup>1</sup> must be recognized as having their own limitations. They cannot be regarded as reflecting all of what our current science should be utilizing. There are gaping holes in conventional science, holes that can and should be feasibly evaluated. These holes may allow us to appreciate more the mechanisms of psi, to approach the relatively non-local scientifically, and to recognize the value of assessing some results with an awareness of the difference between our 3S-1t *experience* and the broader *existence* in the finite and the infinite.

*Applicability to TDVP:*

The Triadic Dimensional Vortical Paradigm model requires great new thoughts and awareness of the fish-nets we've been using. This leads to many ideas: Rejection and acceptance of ideas *à la* Thomas Kuhn. Recognition of those whose ideas have been rejected: that science is more than Popper's Falsifiability. Extension of dimensions with an example of Albert Einstein.

Eddington became world-famous when his observations on 29 May 1919 of the bending of starlight near the eclipsed sun confirmed predictions made by Albert Einstein in his General Theory of Relativity<sup>1</sup>. This introduces Albert Einstein (1879-1955) in the special limited context of TDVP needing to necessarily extend relativity, as the Triadic Dimensional Vortical Paradigm involves a 9-dimensional not 4-dimensional model. Much of our (Ed Close and Vernon Neppe) search has been applying these ostensible higher levels of Consciousness to physical concepts like  $e=mc^2$ . Consciousness may well be at higher dimensional levels and multidimensional time would also require amplifying the 4D  $e=mc^2$ .

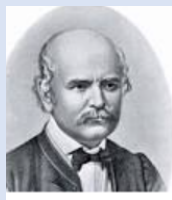
*Another TDVP application of this example is like Einstein. Einstein's initial rejection leads to other well-known examples.*

Certainly, we know historically that science is resistant to new scientific discoveries!<sup>2</sup>

Bernard Barber cites many, many examples through the ages of discoveries incorrectly criticized and dismissed by contemporary peers. These range from Galileo (and the Church) on cosmology, to British surgeon, Joseph Lister (1827 –1912) and Ignaz Semmelweis (1818-1865) on anti-sepsis, where their discoveries, were ignored resulting in thousands of deaths by infection, to Gregor Mendel (1822-1884) on heredity.



Joseph Lister

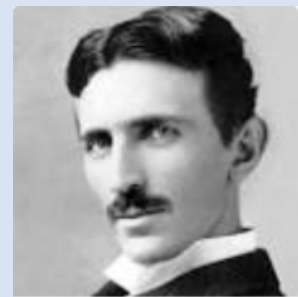


Ignaz Semmelweis



Gregor Mendel

Perhaps the most striking example is how the research of Nikola Tesla (1856-1943), the Serbian-American inventor, electrical engineer, mechanical engineer, and futurist was completely ignored. Tesla is now best known for his contributions to the design of the modern alternating current electricity supply system and made dozens of breakthroughs in the production, transmission and application of electric power. He invented the first alternating current (AC) motor and developed AC generation and transmission technology and is known for the Tesla coil. Many of his inventions were never applied.



Nikola Tesla



Galileo Galilei

Certainly, we know historically that science is resistant to new scientific discoveries!<sup>2</sup> Barber cites many, many examples through the ages of discoveries incorrectly criticized and dismissed by contemporary peers. These range from Galileo (and the Church) on cosmology, to British surgeon, Joseph Lister (1827 –1912) and Ignaz Semmelweis on anti-sepsis where their discoveries were ignored likely causing great death, to Gregor Mendel on heredity.

### *Applicability to TDVP*

Ed Close and I have to fight against the tide. We know based on the mathematics that our model is correct at the quantal, macroworld and cosmological world. This is not just a mathematical operation because there are empirical data where our Triadic Rotational Units of Equivalence data have exactly the same results for protons, neutrons and electrons (which =1 TRUE mass unit) as the Mass-energy equivalence normalized data in the CERN Large Hadron Collider.

### **The Scientific Revolutions of Kuhn.**

This introduces the concept of recognition of new scientific revolutions. It also leads to Kuhnian ideas.



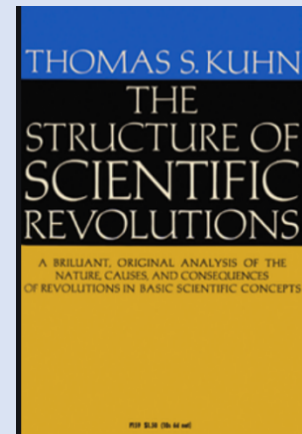
*Thomas Kuhn* (1922-1996) was an American philosopher of science whose classic 1962 book, *The Structure of Scientific Revolutions*, influenced both academic and popular thinkers. He introduced the term ‘paradigm shift’ which has since become an English language idiom; and TDVP is a paradigm shift. Importantly in his *The Structure of Scientific Revolutions*, Kuhn is perceived as the man who changed the world because he introduced this phrase. He was a physicist, not a philosopher technically; his PhD was in physics.

Ironically, as Thomas Kuhn (1922–1996) points out in his famous *The Structure of Scientific Revolutions*<sup>3</sup>, every contemporary mainstream belief



Thomas Kuhn

or paradigm opposes significant change, and even more vehemently, resists any contradiction of the prevailing view. It can take a very long time before valid minority views become incorporated into a new mainstream. And as this is what produces change, the stability in our world-views is dichotomous: It’s good because new ideas might be wrong; and it’s bad, because it prevents legitimate



progress. Thomas Kuhn's theory of scientific revolution encompasses a repetitive and ongoing cyclical transition that involves three stages<sup>3</sup> namely:

- normal science;
- crises when paradigm shifts are contemplated or recognized with new assumptions; and
- scientific revolutions when the paradigm alters after a qualitative transformation in theory.

Kuhn describes the process of recognition, of discovery, of the crises and of the frequent failures, of alternative models, of resistance to the anomaly, of the transition to change, and ultimately of acceptance of paradigm change, at which stage the cycle repeats itself, but with added specialization of components of the paradigm.<sup>3</sup> Kuhn used the term ‘paradigm shift’.

There are some obvious empirically based prejudicial examples, that were initially unexplained and not falsifiable such as the origins of hypnosis, electricity, X-rays, meteorites, sterilization of bacteria preventing illness, the round Earth, Earth revolving round the sun, Einsteinian relativity, warping of reality, splitting the atom, and psi.<sup>4, 5</sup> They all would presumably in their times have been dogmatically rejected as “*too false to be false*”.

We need to be very careful in going with the mainstream because creative endeavors and new discoveries are seldom driven by consensus. *“Essentially, substantive propositions should be answered substantively in every particular ... The greatest scientists in history are great precisely because they broke with the consensus.”*<sup>5 6</sup>

So how, then, can we apply consensus and peer review, and maintain a paradigm or specific knowledge as science? We, surely, must be careful that when using current consensus ideas, and rejecting feasibility, we regard the greatest contributions to science as “metaphysical” —implying they are non-scientific, sometimes creative philosophy. We might then recognize, too, the irony.

*Applicability to Triadic Dimensional Vortical Paradigm of Kuhnian revolutions:*  
By any stretch of the imagination, TDVP is a major Kuhnian ‘paradigm shift’. We prefer the term ‘metaparadigm’ as it impacts so many different levels.

Through our proposed 11-Neppe-Close Revolutions model (11NCR), we have necessarily extended Kuhn’s various stages of understandings of the revolutions<sup>3</sup> of change—the reshaping of science—by adding several more paths along the way. This results in eleven key periods of adjustment.

We refer to what we call the *“the 11NC revolutions”* (or *“11NCR”*): Of the 11 legitimate phases, individual scientists might be somewhat arbitrary as to which level of classification and even attaining a consensus of scientists might not imply they are correct. The spectrum ranges from complete individual rejection to scientific acceptance. (Table 1)

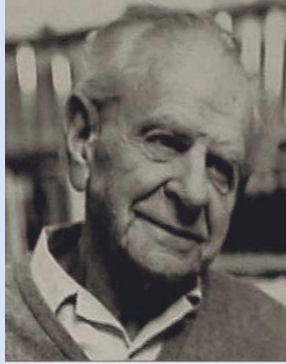
*We have a third application of The Eddingtonian analogy. There are fish that fall through the nets and are not counted. This introduces Scientific method and how to measure science.* This is intimately related to these examples and introduces another great, Karl Popper.

### **Popperian falsification.**

*So let’s look at this great philosopher of science, the Austrian-English, Sir Karl Popper* (1902-1994), someone who profoundly influenced Scientific Method.

Popper is possibly the most famous of all philosophers of science. His contribution, that science fundamentally must be falsifiable, is an enduring one. This has been the basis of scientific method for a century.

Dr. Popper was one of the 20th century's most influential philosophers of science.



Sir Karl Popper (1902-1994)

He is known for his rejection of the classical inductivist views on the scientific method in favor of empirical falsification. Effectively, our scientific method today is based on whether the knowledge renders the data neither falsifiable nor verifiable.

Popper considered falsifiability a test of whether theories are scientific, not of whether propositions that they contain or support are true.

***Table 1: The eleven phases of denial and acceptance of Neppe and Close (“the 11NC revolutions” or “11NCR”)***

1. Initially there is *“it’s too wrong to be wrong”*, often accompanied with a condescending smile or chuckle; the alternative phrase is the derisive *“it’s too false to be false”*;
2. then there is abject rejection, often accompanied by ridicule and name-calling: *“the insults are deserved. I know, I’m an expert”*;
3. then *“that’s a good try, but it’s simply not true”*;
4. then the consensus rejects it: *“it’s definitely incorrect”*;
5. then it is unlikely, but it may be mentioned as a hypothetical for completeness: *“it’s an unlikely outlier that we mention just to cover all our bases”*;
6. there is the stage of *“I’m opting out: This is outside my discipline, so I don’t understand it or haven’t studied it. Let me suspend judgment”*;
7. then *“maybe there is something there, but I need more”*;
8. then *“there is some evidence... interesting”*;
9. then *“it appears to be proven: the evidence is cogent; but most scientists don’t accept that”*;
10. then it is hailed as *“it’s a new breakthrough”* (even though it may have been proven much earlier);
11. then *“it’s obvious: we all know that”*.

Popper's falsificationist methodology holds that scientific theories are characterized by entailing predictions that future observations might reveal to be false.

*Falsifiability* is the assertion that for any hypothesis to have credence, it must be inherently disprovable before it can become accepted as a scientific hypothesis or theory.



<b><i>Table 2A: Philosophy of science key concepts</i></b>	
<b>Philosophy of science (PoS):</b>	The branch of philosophy that examines the foundations, methods, and implications of science. PoS includes what science is, its pertinence, reliability, purpose, ontology, and areas related to science, such as metaphysics.
<b>Falsifiability (in the scientific context):</b>	Karl Popper's concept: <sup>8</sup> The empirical or mathematical demonstration of the falseness of a hypothesis. The level of proof is a negation and falsifiability is often, in practice, limited to aspects of our <i>current experiential</i> reality of 3 spatial dimensions (length, breadth, height) in a moment in time (the present) and therefore called 3S-1t. Falsifiable in LFAF refers specifically to scientific falsifiability not any other common synonymous uses such as “incorrect”, “erroneous”, “mistaken”, “inaccurate”, or “imprecise”.
<u>Strength:</u>	<i>Falsifiability's strength:</i> it is a powerful way to negate an incorrect hypothesis.
<u>Limitations</u>	<i>Falsifiability's limitations:</i> it is insufficient for cosmological concepts like evolution, and can frequently not be applied beyond 3S-1t, particularly if events or objects are not falsified.
<b>Feasibility (in the scientific context):</b>	Vernon Neppe's concept: The empirical or mathematical demonstration of the manifest portion of something that we can experience, perceive, or conceive of, that is not falsified. Feasibility, like falsifiability, refers to something that is testable and involves demonstrable proof by empiricism, deduction or induction: It involves descriptions of attempts at scientific proof —“scientific feasibility” (SF). However, there is an alternative non-scientific English idiomatic use —“common feasibility” (CF): This common linguistic use of feasibility “it is possible (or probable) to do or effect something easily or conveniently” is different from SF. “Feasibility” is as SF only in this paper as part of LFAF. Scientific feasibility (SF) is more versatile than falsifiability in that it can add meaningful reasoning to different scientific contexts such as extra dimensions, evolution, cosmology, meaningful medical practice, psi, and even extend mathematics and logic. SF manifests like filling in a jigsaw puzzle piece into the experiential stage of 3S-1t. But this more multifaceted feasibility <i>lacks the power</i> of falsifiability analyses.
<u>Not CF:</u>	
<u>The strength of SF:</u>	
<u>Limitations of feasibility</u>	

In special circumstances, the classical approach of Karl Popper in the Philosophy of Science <sup>7</sup> that requires only “falsifiability”, do not even apply. (Table 2A).

And yet Popper's ideas are limiting too for science. I present these in Table 2B.

**Table 2B: Concepts that demand to be scientifically evaluated and do not fit well into just a falsifiability hypothesis**

<ul style="list-style-type: none"> <li>• <b>Infinity:</b> Infinity integrates with the finite and transfinite, and we argue, embeds this metafinite.<sup>f 9</sup> The continuous infinite is extremely difficult to conceptualize and because there are no measures, much of it must be inherently non-falsifiable. Moreover, the quantized finite extending into the transfinite may be difficult to measure, except at times, ordinally. This, again, might lead to data that cannot be calculated exactly, and therefore cannot easily be falsified, yet can be feasibly examined.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Psi : Psi phenomena</b><sup>g</sup> cannot be explained other than recognition that they appear beyond space or beyond time or require greater consciousness. This means that they are “relatively non-local”.<sup>9, 10-12</sup> We postulate they involve, at times, extra dimensions beyond 3S-1t. They therefore fit into the discipline of Dimensional Biopsychophysics.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Evolution:</b> Evolution requires projection of what is feasible from the past. This is not falsifiable.</li> </ul>

*All of this also applies to mathematics.*

<p><b>Table 2C: The three potential endpoints of mathematics applying empirical and inductive methods</b></p>
<ul style="list-style-type: none"> <li>• Mathematics allows for demonstrable proof: The derivation is then replicable. (I believe this is correct.)</li> <li>• Mathematics cannot prove something: The question or theory remains open. (This is a potential option that I do not believe is correct).</li> <li>• Mathematics definitively proves something is incorrect: This is often reflected by an “inequality” and the consequence is recognized as a “contradiction”. (Yes, inequalities are very relevant as in Fermat’s Last Theorem).</li> </ul>

*TDVP application of Popperian falsifiability:*

Ironically, the awareness that for something to be falsified most of the time it has to be feasible before one begins, led to Lower Dimensional Feasibility Absent Falsification (LFAF). This, with respect, is a major model on which TDVP is based, because one cannot falsify extra dimensions; and yet one has to look at feasibility. As it turns out

<sup>f</sup> “Metafinite” refers to the composite term for the “discrete finite” (such as the 9 dimensions), plus the higher transfinite.

<sup>g</sup> Psi” is a composite term used for so-called “extrasensory perception” (ESP) and “psychokinesis” (PK). To the layperson, it is the generic term for psychic, paranormal, anomalous and sixth sense. Psi phenomena constitute part of the scientific discipline called “parapsychology”.

mathematically, eventually after the hypotheses, some of these aspects were falsified as well. This is Popper's unique contribution to TDVP.

*The Popperian method requires extension.*

This is the concept of Lower Dimensional Feasibility Absent Falsification. Neppe and Close in 2012 originally proposed the philosophy of science concept of "Lower Dimensional Feasibility, Absent Falsification (LFAF)".<sup>13</sup> LFAF is pertinent because it extends scientific thinking beyond Popperian falsifiability<sup>8</sup> by including feasibility as another level of proof.

Again, we need to apply LFAF, otherwise this might not even be a science at all and still simply metaphysical speculation or a philosophical standpoint. LFAF provides an impetus for change but in the context of identifying different levels of acceptance in this new science. It ranges from utter rejection to complete acceptance.

There are several different examples applying 9-D spin. This makes the argument even more cogent<sup>4, 14</sup> that this is not just 9-D math "operators" but reality-based data,. And the fact that the initial LFAF hypothesis was based on the proposal that specifically 9-dimensional spin was feasible as suggested by the data that was available through the Neppe-Close TDVP model<sup>4; 9; 15-17</sup>, makes it empirically confirmed.

<b><i>Table 2D: The two options of mathematics</i></b>
<ul style="list-style-type: none"><li>• <i>Either</i> mathematics is relevant to science. If so, we can incorporate math within nature and it is part of the scientific empirical and inductive methods (Plato)</li><li>• <i>Or</i> mathematics is irrelevant to science, and purely applied just as a method of calculation, however it still is a powerful method of proof (Aristotle).</li></ul>

*LFAF can be applied to eight different areas of science namely:*

- 1. the scientific method;*
- 2. the philosophy of science approach and the extension of the concept of science with the addition of feasibility making scientific evaluation more versatile;*
- 3. the critical role of mathematics in science; including whether mathematics is simply required for calculations or an essential part of reality;*
- 4. the need to expand mathematical logic;*
- 5. the need to amplify the logic of scientific data approaches;*
- 6. recognizing that exact replicability is almost impossible except in the harder physical sciences where minimal confounding factors don't matter;*
- 7. re-evaluating the fundamental concepts of science and how critical the LFAF concept is;*

8. *analyzing the nature of creativity and of reality, including using the model of TDVP<sup>h</sup>.*

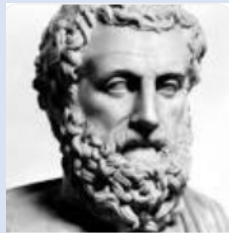
### Perspective to this history

We must examine the historical precedents to this:

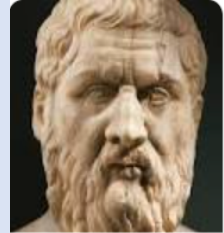
- the Scientific Methodological Approach has some limitations and needs additions;
- the Philosophy of Science Approach must be amplified;
- specifically feasibility would make such Philosophy of Science approaches more versatile;
- there is a critical role for mathematics in science;
- the axiomatic basis of mathematical logic must be expanded;
- amplifications of logical scientific data approaches;
- replicability is a key issue in science;
- the fundamental concepts of science should be re-examined;
- lower dimensional feasibility, absent falsification (LFAF) is critical;
- the need for LFAF in the Neppe-Close Triadic Dimensional Distinction Vortical Paradigm (TDVP)<sup>20-23</sup>;
- we can analyze the nature of reality;

We can apply a summation for what science is all about.

Among current mainstream scientists, there is dispute as to which of the dichotomous interpretations of the basis for the application of mathematical logic are correct. This is not new, as even the great ancient Greek philosophers, Aristotle and Plato, disagreed on this issue<sup>24</sup>. Plato saw mathematics as the secret to unlock the mysteries of the universe. Aristotle understood the great utility of mathematical methods.



Aristotle



Plato

Essentially, does mathematics just involve a mechanical calculation? Or is it more than that? Is mathematics a fundamental part of the natural logic underlying the empirical results obtained by the experimental investigation of reality? This latter choice allows us to appreciate the beauty of mathematics, but even more so,

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<sup>h</sup> TDVP: <sup>18; 19</sup> The Triadic Vortical Paradigm is a metaparadigmatic model developed equally by Drs. Vernon Neppe and Edward Close. It is based on the available broader empirical data of all the sciences (physical, biological, consciousness and psychological), validated partly by mathematical theorems, applying LFAF for scientific validation, and applied to philosophy (as “Unified Monism”). The key features are tethering of Space, Time and broader “Consciousness (STC), nine finite discrete dimensions and further transfinite discrete dimensions all embedded within a “continuous infinity”. TDVP allows for a model of life that always *exists* in the infinite, and an infinite order translated in the finite into multidimensional order.

particularly, the necessary role played by logic and math in reality. In a way, it allows for further meaning because strange derivations of formulae and of constants become meaningful. Such exact numbers allow for a feasibility which may reflect an important component of reality. However, either way mathematical logic is critically important and mathematics has a value in the approach to scientific proof, relevant in applying both the falsifiable and the feasible.

Importantly, this kind of example makes what could otherwise have been labeled as “metaphysical”, and abandoned as one of those insoluble quantum mysteries. It is insufficient for the Physics “Nobel of the people”, Richard Feynman to write that they cannot be understood or explained.<sup>25</sup> *They demand solutions for us to continue scientific progress.*

But looking at the feasibility of the data, potentially allows us to examine ideas that are more creative scientifically. And finally, this allows an additional logically consistent way in which information that is feasible as pieces of the 3S-1t jigsaw puzzle can be included as part of the puzzle that is reality.

Nevertheless, we could apply another kind of statistic, Bayesian priors.<sup>26 9</sup> If we begin with the hypothesis that something is impossible, that the chances of it being are zero, it does not matter that one is talking about one in a billion against chance statistics!<sup>26 9</sup>

This argument has some legitimacy: Marcello Truzzi has argued that “*An extraordinary claim requires extraordinary proof.*”<sup>27</sup> Simply stated, claims of psi profoundly rock our current perspective. But as a supplement to statistics, we may need to add spontaneous data, and personal experiences to such data: This way the individual scientist may perceive it as “feasible”, whereas with the statistics alone, he or she may require other supporting evidence.

Moreover, there might be areas with evidence and even proof in science that could not initially be replicated. Sometimes this was because solutions had not been discovered, as with the Close derivation of the Cabibbo mixing angle.<sup>15; 17; 28</sup> This is an example of where for fifty years, the solution was regarded as insoluble, but it had only previously been examined within the 3S-1t perspective. The solution required applying the data beyond 3S-1t, in this instance, in 9 finite dimensions: At that point, the result could be mathematically derived.

Even more so, some analyses might involve proofs requiring the infinite, and we simply have insufficient data about the infinite. Yet without incorporating the infinite into the model, *Gödel’s Incompleteness Theorem* might come into effect so



that the data would be insufficient mathematically<sup>29; 30</sup>. However, if this cannot be falsified, the jigsaw pieces in 3S-1t at least provide semblances of feasibility.

Is science supposed to be an “objective, value-free, and unbiased” method<sup>6</sup>? In practice, this cannot be so: The scientist necessarily bases ideas on his—and often the consensus’s—subjective and historical impressions. But this may be false to begin with. To Henry Bauer, an innovative modern philosopher of science, “*mistaken views about Nature have often enough disproved themselves (eventually)*”. Science “self-corrects” a great deal, but then, as Bauer points out, it must have been untrue before it self-corrected.<sup>6</sup>

Science is now subject to anonymous peer-review, yet this “*does not shield people from being jealous, opportunistic, self-serving, or harboring idiosyncratic beliefs, nor does it ensure competence or ethical behavior.*”<sup>6</sup> This, indeed, is a problem for all these reasons: Rejection of the new, threats to current thought, even misappropriation of ideas.

**Max Planck** (1858-1947), the pre-eminent Physics Nobelist, Max Planck’s contribution of the quantum is enormous. He was also Einstein’s mentor, but it is the realization – that one cannot reduce mathematics and physics down to infinitesimal parts tending towards zero – that was his great contribution. This meant that there is a limit to real empirical physical analyses.



To Max Planck<sup>31</sup> “*science advances one funeral at a time*”. He recognized that “*a new scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its opponents eventually die, and a new generation grows up that is familiar with it.*” This is tragic to modern researchers. Moreover, to Planck: “*Truth never triumphs — its opponents just die out.*”<sup>31</sup>

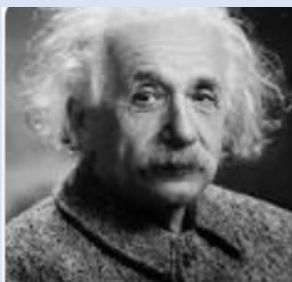
#### *Application to TDVP:*

Planck was greatly influential in TDVP as his quantum discovery is TDVP’s finite basis. The consequence for TDVP: This led to the necessary development of a new mathematics – Edward Close’s Calculus of Distinctions, and later the Neppe-Close Calculus of Dimensional Distinctions. We also hope through the Internet communications to speed up the ‘funeral process’ he alluded to.

From a TDVP perspective, Planck's contributions allowed an awareness that everything finite is quantized and discrete and in parts. The major jump that TDVP made was the recognition that this had to be *volumetric*, which means that everything in reality is cubic – is 3-dimensional, mathematically. This allows for the solution for certain mathematical equations, but not others. For example, one can specify out the different life elements, analyzing in 3-dimensional volumes as opposed to theoretical planes of 2 dimensions or linear figures of 1 dimension – and the recognition that one cannot have a singularity of zero dimensions – which has allowed for the development of a mathematics and a physics that is highly pertinent to TDVP, allowing for rotations and vortical movements through 3 dimensions, and spin across to a 9-dimensional fabric. It also allows for differentiation of the finite from the infinite.

Certainly, as we envisage it, old ideas must be overridden and buried. This is not new: It was already a significant problem as long ago as 1943, as pointed out by Erwin Schrödinger<sup>32</sup> in a lecture given in Dublin Ireland: *“We feel clearly that we are only now beginning to acquire reliable material for welding together the sum total of all that is known into a whole; but, on the other hand, it has become next to impossible for a single mind fully to command more than a small specialized portion of it.”*

**Albert Einstein** (1879-1955), worked largely within the fabric of 3S-1t and during the last few years of his life realized and recognized the need for multi-dimensionality. Einstein's relativistic work has been extended through TDVP.



Albert  
Einstein

Einstein's remarkable contribution was not just his recognition of the fact that there had to be something multi-dimensional. His recognition also was that everything in motion was relative to the observer. When one adds this to TDVP, one has a fabric of special observations requiring modification of even basic  $E=mc^2$  formulae. The role of consciousness is very great, because conscious awareness extends beyond that level.

Einstein too is responsible for some remarkable quotations, and he, like Planck, recognized the need for something extra, like consciousness; and even *“God does not play dice”*.

### **Revisiting the frustrations of the past:**

There are examples of one's work being ignored by colleagues. These illustrate the 11NCR of Neppe and Close, and also the Scientific Revolutions paradigms of Thomas Kuhn. Key illustrations are Planck's experiences on quantum theory, Einstein's isolation particularly from 1915 to 1919 on relativity, and even one from

more modern days relating to the cause of peptic ulceration being bacterial (*Helicobacter pylori*). That initial ridicule ultimately led in 2005 to Marshall and Warren receiving the Nobel Prize.<sup>33</sup> Indeed, the history of creative thought can be conceptualized as the overwhelming denial of what then might have been unfalsifiable data.

Without the next stage, LFAF, where feasibility is key, the little creative jigsaws would have been simply regarded as “metaphysical” not “science”.

As Arthur Koestler famously pointed out<sup>34</sup>: *“Innovation is a two-fold threat to academic mediocrities: it endangers their oracular authority; and it evokes the deeper fear that their whole laboriously constructed intellectual edifice may collapse.”*

And E Alan Price, and later Neppe, have amplified this: *“Moreover, in terms of the empirical ‘physicalistic presupposition’ involving the notion that all knowledge has its basis in what is physically perceived, and only physically, it is of course deceit and illusion to speak of knowledge based on non-physical perception and therefore, it follows that parapsychology is dealing with deceit and illusion.”*<sup>35, 36</sup> We are missing out on discovery.

Science today is an “umbrella” concept. And in today’s modern science,<sup>6</sup> scientists appear to know more and more about less and less. How do they prioritize and see the bigger picture? Even *“overwhelming consensus in the scientific community”*<sup>6</sup> does not imply that something is correct. Michael Crichton summarizes it:<sup>37</sup>

*“I want to point to what I consider an emerging crisis in the whole enterprise of science, namely the increasingly uneasy relationship between hard science and public policy.”*

In legal court interpretations, we use levels of probability: On a more probable than not basis ( $\geq 50\%$ ); clear and convincing evidence (say  $\geq 80\%$ ); and beyond reasonable doubt (say  $\geq 95\%$  postulated certainty)<sup>38</sup>. Certainly, we would expect “feasible” in science to be at least at that  $\geq 50\%$ , but we would prefer it to be  $\geq 95\%$  or even  $\geq 99\%$  as we build that jigsaw puzzle. Scientists, individually, can, similarly, apply their own different levels of assessing findings.

Only their later *post hoc* justification supported the Popperian view because they were then falsifiable or replicated<sup>36</sup>: They simply moved from metaphysics to real science. With LFAF, they would never have been metaphysical. They would have had feasible pieces of the jigsaw puzzle and eventually moved from the lower level of certainty, potentially feasible science to falsifiable and replicated science.

LFAF sometimes allows creative explorations, metaparadigms and theories of everything to become legitimate creative scientific endeavors and not metaphysics.

We've understood that LFAF applies a much more versatile technique than Popper's alone. It keeps Popperian principles<sup>36</sup>, and also applies the Neppe and Close concepts of feasibility, which, in turn, adds to Popper. In LFAF, we recognize that the experiences of our lives are *relative* ones—relative to this experiential *restricted* 3S-1t. It is “restricted” because there are many other 3S-1t features that mankind does not experience (such as echolocation in dolphins, extended olfaction in dogs, and X-rays in machines). These elements might not be directly falsifiable, but they are, at least, feasible relative to our 3S-1t experiential reality.

Given our restrictions in experiencing all of 3S-1t, how much more so are the covert higher dimensional experiences? We can locate clues to these covert components because some tiny 3S-1t jigsaw puzzle pieces might be feasible and provide pointers for preliminary analysis. Sometimes we directly experience portions of these covert areas in certain altered states of consciousness, like meditation.<sup>9 39 26 4</sup> This might change our world-view: Consequently, we might, when applying 11NCR, be a little softer in our critique: “*It's obvious it has to be incorrect: We all know that that cannot be so*” (Level 4 of 11NCR) as contrasted with the starting position that cannot be, “*it's too wrong to even be wrong*” (Level 1 of the 11NCR).

#### *Applicability to TDVP and LFAF:*

By demonstrating the limitations of Popperian<sup>36</sup> demands for the falsifiability of science in multidimensional realities (i.e., beyond 3S-1t), we therefore apply the LFAF (lower dimensional feasibility—absent falsification /falsified) approach when logically indicated. The challenge is sometimes daunting because in the multidimensional realities, something may never have been done before. We regard the principles of LFAF as key to motivating any scientific models.

#### **Pierre de Fermat (1607-1665)**

Pierre de Fermat was a lawyer turned great mathematician and who became ‘de’ Fermat after being ‘Fermat’ initially. His ‘Last Theorem’ was never solved for 350 years, and his work totally preceded that of Dr. Edward Close and his mathematics -- extremely important, because we are dealing with volumetric realities, and volume-wise, this is 3-dimensional. In Fermat's Last Theorem, one could not have 2-dimensional realities; it could not mathematically exist in the presence of 3 or more variables. Consequently, this supports the whole TDVP framework.

Very relevant might be situations where mathematics shows that



Pierre de  
Fermat

two sides of the equation are unequal. This creates an inequality. Sometimes, further limits may need to be stipulated, as in Fermat's Last Theorem (FLT) which mandates an inequality under the limits of the theorem (exponent  $n \geq 3$ ) because the result required must be integral, not a fraction, so that there is no solution and the two sides of the equation must necessarily be unequal.<sup>40</sup> In this instance, for centuries this was a *feasible conjecture*. Then the inherent *contradiction* in the equation was demonstrated when it was *falsified* and so FLT truly became a proven *theorem*.

#### *Application of Fermat to TDVP:*

Fermat's contribution to the math of TDVP is incomparable. This led to the empirical realization that there needed to be three components in any 3-dimensional structure. As Space, and we argue time and Consciousness are 3 dimensional (within the 9 dimensions) we recognized, for example, the third substance, gimmel, had to exist. Also, quarks had to come in threes and this is fundamental.

The challenge of Fermat's work, and the three and a half centuries that followed this, led to a very extensive solution which later Sir Andrew Wiles as a consequence, took many, many years to solve. With great respect, this has been solved and was solved and published in *The Book of Atma* in 1969 by Edward Close. The solution is so simple that it has been difficult to persuade mathematicians that this is the real deal; but it is. And it has now gone through more than 50 different mathematicians, and none has been able to refute this very difficult inequality.

#### ***Re-examining the nature of reality***

The nature of reality is very complex. This means that examining any areas such as science or LFAF or dimensions or TDVP that bear upon reality, will be complex as well (Table 3).

Now where LFAF with its jigsaw pieces ends, and true creative speculation based on mathematical logic and known jigsaw type empirical data begins, can be a source of debate.

Reality includes our overt experience in 3S-1t. Though individualized and idiosyncratic, at times, there may be consensus as when millions watch the Super Bowl, but even then, the interpretations may be subjective and different for every individual. And beyond that overt experience, we argue is a covert, but unitary, existence of all of the discrete quantized pieces of the finite being embedded in a continuous infinite.



<b><i>Table 3 Reality experience and existence concepts</i></b>	
<b><i>Reality</i></b>	All of what exists. The <i>infinite and metafinite subrealities</i> make up an indivisible holistic unit. In <i>TDVP</i> , a sub-hypothesis is that this discrete metafinite is likely <i>embedded</i> in the continuous infinite. In sentient beings, reality is subjective, perceived or experienced.
<b>Common reality</b>	Common (or Consensual) reality may be verified independently by a majority of conscious observers. Much of reality is hidden so that what exists is far greater than this <i>common reality</i> . Reality requires the inseparably tethered components of S, T and C and conforms to natural law.
<b>Covert:</b>	Hidden realities are covert. For living humans, it is everything except the overt “restricted 3S-1t”. We can interpret little pieces of this covert reality as a jigsaw puzzle in restricted 3S-1t. But though covert, this level of reality still is likely important in our day to day living realities.
<b>Existence:</b>	Everything that exists, covert and overt. In <i>TDVP</i> , we postulate this involves everything in reality, with infinity embedding the metafinite.
<b>Experience</b>	What we can directly observe in our dimensional domain. In living humans this is limited to “restricted 3S-1t” only. In other dimensional domains, it depends on the framework of that observer.
<b>Overt</b>	the reality we can experience: restricted 3S-1t; not covert.

Similarly, at what point do our windows of subjective experience end as a science? And conversely, where does the speculative—and therefore the metaphysical—begin?

“Feasibility” allows us to apply far more than we could before: Effectively, science might be difficult to define because it’s not a unitary concept: We argue that science must be conceptualized in a multi-axial manner (Table 4). On the one axis is our methodological approach to problems, on another axis is the application of LFAF, and on the third axis is the appropriate role of mathematics and logic in applying the empirical, inferred, observed or phenomenological information, such that mathematicologic is not only distinct from science, but part of science.

<i>Table 4: Extending the multi-axial definition of Science</i>	
<i>Approach</i> to problems	Extend the current approach to include feasibility.
Requirements of <i>proof</i>	Philosophy of science requires LFAF.
<i>Mathematical</i> integration	Apply further appropriate feasible and falsifiable techniques.

Feasibility makes scientific endeavors more complete and allow us to sometimes not know all the truth but, at least, paste in legitimate jigsaw puzzle pieces, adding them randomly or in specific places. Indeed, we can now better understand the twelve issues we've discussed:

- The conventional Scientific Methodological Approach has limitations and requires additions to become more complete.
- This means the Philosophy of Science Approach must be amplified to include what is feasible, too.
- Specifically feasibility would make such Philosophy of Science approaches more versatile.
- Mathematics is not just an isolated discipline to calculate by: math certainly helps there, but we regard it as an essential part of reality becoming more comprehensible and approaches being more feasible and proven.
- Consequently, the axiomatic basis of mathematical logic must be expanded to make extend our approach to science.
- The amplifications of logical scientific data approaches include such esoteric techniques as the calculus of distinctions and dimensionometry, if need be, using feasible pieces of our 3S-1t jigsaw.
- Replicability remains a key issue in science, but often we can only replicate if the exact experimental set-up exists: Consequently, meta-analyses may be useful to dilute out confounding factors.
- These factors imply that the fundamental concepts of science should be re-examined; Science is not all it is made out to be—there are limitations.
- Extensions of science require the appropriate extensions of techniques: lower dimensional feasibility, absent falsification (LFAF) is critical, in that regard.
- LFAF can be applied to examining Theories of Everything or metaparadigms reflecting reality. The model of TDVP, from which LFAF thinking derived, is a prime example.
- Extending science allows us to further analyze the nature of reality.
- These factors allow us to apply this perspective for what science is all about.

Four final areas of emphasis are apposite to conclude these comments:

1. **The value of mathematics:** As Eddington emphasizes, "*the mathematics is*

*not there, till we put it there*".<sup>1</sup> The further adaptation, as needed, of mathematical logic, of itself requires new ways of theorizing so that extra dimensions and pertinent distinctions can be incorporated.

2. **The versatility of LFAF:** We now can recognize the value of LFAF. This involves identification of the current limitations of our scientific approaches, definitions, methods and concepts. We must realize the necessity to amplify knowledge when we need to. This way we can broaden our perspectives, extend science appropriately, allow the creative to merge with the scientific, and move to the 21<sup>st</sup> century.
3. **The jigsaw collaboration:** Pieces of the jigsaw puzzle add to the creativity of our endeavors to understand more about *reality*. We seldom have the complete picture, and even though science is necessarily progressing we can always put in little extra pieces into our creative understanding. That should allow future scientists to progress even more, and reflect another major property of science, namely *scientific collaboration*. This is a major contribution of feasibility for science. Applying LFAF helps us all not only now, but in future generations.

# TDVP, Physics and Mathematics – Historical Aspects: Section 2

Vernon M Neppe MD, PhD

## *Abstract*

*In this paper, I pay homage to certain specific earlier scientists who have contributed more non-specifically to the Triadic Dimensional Vortical Paradigm (TDVP) model by their thoughts. Because the development of entirely new ideas is a major challenge and sometimes a lonely road examples are given there too. Therefore, the role of TDVP involves greater emphasis in illustrating the end-result, but initially it may not be understood by scientists who have not devoted extensive study to the concept of 9-dimensions, of gimmel and of infinite continuity as enveloping the finite quantized and creating a single whole.*

## **The Historical Standard Model of Physics**

Most physicists abide by the Standard Model of Physics: They are taught to perceive the *quantal* universe as separate in laws to the *macro-universe*. Moreover, these governing laws are accepted as different from the rules relating to the *cosmological universe*. Effectively, it might be that quantal mechanics, our regular world and the cosmological realities almost by definition seem to be governed by their own independent laws. These scientists might, nevertheless, recognize contradictions, conundrums and unexplained concepts, and even understand that these laws might represent limited pieces of an incomplete jigsaw puzzle. Nevertheless, they might think there is nothing they can do: *“It’s just how it is. It shows that nature is not inherently and consistently logical and we must simply accept that fact.”*

Scientists who’ve been trained in the current paradigm of the Standard Model of Physics (SMP), might see their paradigm as almost perfect and just needing to be fine-tuned. However, we see the SMP as markedly imperfect and needing to be extended and expanded across dimensions. We have called this broader discipline ‘Dimensional Biopsychophysics’. Therefore, we have needed to apply some terminology that is new and possibly unfamiliar to the reader. However, we recognize that we must make our laws of nature work together as one. We think we have done this.

## **The ignored 9-dimensional volumetric model**

In this paper, we bridge a gap between 4 and 9 dimensions, with additionally, the ‘infinite continuity’ combined with the ‘discrete finite’. With great respect, the

authors have recognized that the laws of nature require significant additions to be unified and internally consistent. This means the information in this paper moving from 4D to 9D physics does not just require minor changes. Certain contradictions exist and many phenomena are unexplained, and although the ideas we discuss below are based on math and empirical science, the usual physicist trained only in a 4-dimensional model of experiencing reality, might see the 9-dimensional work we've pioneered as “speculative from our physical point of view”. That same physical view to us appears truncated or filtered, and, we argue might be cogently explained if one examines a broader reality.

It is important to note the *mathematical* impossibility of our current Standard Model of Physics.<sup>42; 43</sup> For example, straight elemental data of protons plus neutrons plus electrons cannot mathematically equal an atom.<sup>42 44; 45</sup> When you apply these calculations volumetrically, it simply does not work mathematically: it is an inequality.<sup>42</sup> Therefore, there *has* to be an extra component for such cubic combinations to work mathematically.<sup>46</sup> This introduces integral variables —those Diophantine Equations<sup>47; 48</sup> —and their volumetric solutions necessitate gimmick applying a subset, namely Close's ‘Conveyance Equation’.<sup>49; 50</sup>

In 2011, the authors proposed such a metaparadigm, and called it the ‘Triadic Dimensional Vortical Paradigm’ (or TDVP) —also synonymously called Triadic Dimensional (Distinction) Vortical Paradigm —TDdVP, because it necessarily involves the Dimensional Triads of Space-time-consciousness in rotating movements (vortices).<sup>51</sup>

This paper does not involve much of a discussion of our TDVP models. But it provides a balance first, so that instead, it can pay to those appropriate homage to those who have preceded our work.

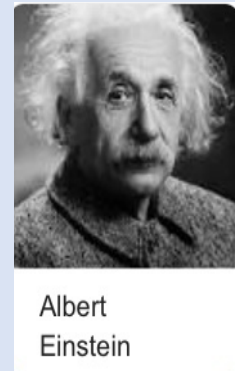
### **The fundamental components of the Triadic Dimensional Vortical Paradigm**

Let's examine the several fundamental components of TDVP.

- First, the concept of dimensions by definition involves measures of extent.<sup>52-54</sup> Mathematically, there turn out to be 9 specific dimensions, which prior to the proof, we had hypothesized.<sup>55</sup> Extent reflects the measure, such as space and time in physics, and space, time, and gimmick-consciousness in Dimensional Biopsychophysics.
- We need something to measure and fundamental to our physical universe are



mass and energy. This allows the idea of ‘content’. Content reflects substance, such as mass and energy—the empirical measurements that are fundamental to our physical universe. We can express content mathematically relative to extent only indirectly, for example, as famously in Einstein’s  $e=mc^2$ .<sup>56</sup> In this famous equation, matter and energy are shown to be inherently equivalent, and therefore mass can be converted to energy, and their ratio is proportional to the speed of light squared, relating both to measurements of space and time.



- Impact and influence give a control and mechanism to mass and energy allowing extent and content to be impacted, e.g. as in earthquakes.
- We now add a major component namely consciousness into these three—*consciousness extent*, *consciousness content*, and *consciousness impact*—and suddenly we have dimensional comparisons of consciousness essence as part of the Calculus of Distinctions.<sup>57</sup> This may be the most important advance of all, particularly after our discovery of *gimmel*, the third massless, energyless component of subatomic process.<sup>44; 49; 58</sup> We’ve been referring here to ‘*gimmel-consciousness*’ as the most likely, and almost only explanation.
- Consciousness has many different ways of being conceptualized.<sup>9; 59 57; 60</sup> Our specific application of Consciousness in this context, constitutes the ‘unification of information, knowledge and wisdom at the infinite continuity level’. This infinite consciousness could be expressed in the finite quanta as the equivalent targeted, directed, quantized components of ‘meaning’. We humans utilize that meaning as the endpoint expression of our idiosyncratic awarenesses in our brain. We do not, therefore, just apply the term ‘information’ as a synonym for ‘Consciousness’. We’re conceptualizing something broader than information.
- Next in the Triadic Dimensional Vortical Paradigm is a fundamental math and empirical principle namely, volume: Dimensions of content are never just points.
  - There are no singularities in quantum reality. Singularities are purely conceptual: In reality, these are not points, but volumes.
  - One can project a line as linear—as one-dimensional or in one direction, such as the way we conceive of time viz. past-present-future.<sup>61; 62</sup>
  - We can graph in 2 dimensions, as in planes; and on a spreadsheet, but these are artificial measures and even Space must have thickness.
  - The most fundamental measure in the laws of nature is *volume*. Everything is volumetric, and therefore linear dimensions must be cubed. This allows for mathematical calculations that are empirical.

The principle that follows is everything is quantized and volumetric. The quantum reflects a limit of minimal quantity. This means that infinitesimal calculus<sup>44; 49; 58</sup>,

while valuable of itself, is theoretical, and we've therefore had to develop a new calculus: the *calculus of distinctions*.<sup>57; 60</sup>

### **Historical background**

For more than a century, scientists have attempted without success to develop a 'theory of everything'.<sup>21; 63-65</sup> For some physicists this has been restricted solely to finding solutions in quantum physics. However, others have ignored extending this to dark matter and dark energy, and some have concentrated purely on the cosmological not the quantal mechanical. Biologists have recognized life and often ignored the quantal and cosmological. Still other researchers have focused mainly on the elements that are involved in terms of inorganic and organic chemistry. Then there are those who have purely studied consciousness without evaluating these other areas. These have all reflected mysteries that have befuddled even Einstein<sup>66</sup>, who supposedly spent much of the last 20 years of his life<sup>67-70</sup> trying to find a theory that integrated all known forces.<sup>71</sup>

This attempt at creating a model that explains information of various facets of physics has been referred to as the Unified Field Theory (UFT).<sup>72</sup> Physicists have hoped to construct this UFT theory<sup>72</sup> which would coherently explain quarks and subatomic particles through to all cosmic forces including the formation of galaxies and dark matter and energy and so unify all of finite reality.<sup>72-74</sup>

The much-desired Unified Field Theory<sup>72</sup> concept is sometimes referred to as a "*Theory of Everything*" (TOE)<sup>16</sup>: A TOE is a commonly applied term, but ambiguous in regard to more than one context (physical or general) for a complete explanatory model of reality conforming to the laws of nature. TOEs should seamlessly reconcile with all the major theoretical models and authoritative sources of all the sciences and mathematics, but should not be construed as reflecting omniscience, instead implying application of universal principles. TOEs are sometimes regarded as primarily philosophical, yet with the original, limited meaning related exclusively to Physics.<sup>9</sup>

We disagree with the term 'TOE' because it is ambiguous, and its use can be misinterpreted. We've instead proposed the term *Metaparadigm*.<sup>13</sup> This refers to the broadest paradigm impacting all sciences, mathematics and philosophy.

***Some giants of the early involvement of consciousness, mathematics and physics***  
 We link up here several earlier thinkers: Alfred North Whitehead, English mathematician and philosopher,<sup>75; 76; 77</sup> with Bertrand Russell<sup>78 79</sup>, Georg Cantor for both set theory and infinity<sup>80</sup>, and George Spencer Brown<sup>81</sup>.

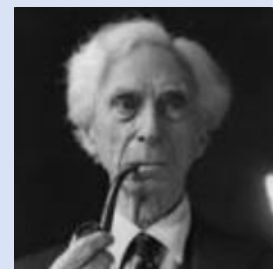
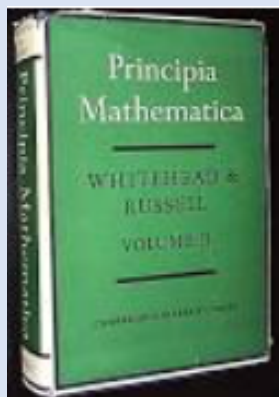
These great names lead to some later thinkers like David Chalmers, who recognized psychophysical law<sup>82; 83 82; 83</sup>, and Abner Shimony<sup>84</sup> modifying Whitehead<sup>75; 78; 79</sup> who confronted the problems of consciousness head on.

Additionally, Max Tegmark,<sup>85</sup> like the authors, and following on ancient Greeks like Pythagoras and Plato<sup>24; 86; 87</sup> (but with a retrospectoscope of modernity!) has been prepared to argue for mathematics being fundamental to nature and reality and not just a calculus or operation.<sup>9; 17; 88</sup> Consciousness is recognized more than before even though it's not the prevailing view!<sup>9 p 227.</sup>



### **Alfred Whitehead:**

The idea of the quantum frames of reference with consciousness having direct relationships with mathematics and physics is therefore not new. Even in 1929, Whitehead, who is best known as the defining figure of the philosophical school known as 'process philosophy'<sup>75; 76; 77</sup>, posited that quantum mechanics perceived the universe as a process of events, at least some of which are imbued with a mental quality ("throbs, or occasions of experience")<sup>75; 78</sup>. Whitehead's polymathic contributions have today found application to a wide variety of disciplines, including not only mathematics, logic, and physics, but ecology, theology, education, physics, biology, economics, and psychology. However, likely Whitehead's most notable work in these fields is the three-volume 1910–1913 *Principia Mathematica* (PM)<sup>79</sup> (with numerous revisions thereafter), written in modernized logical notation with his former student Bertrand Russell. Whitehead and Russell introduced a complex system now called "the ramified theory of types".<sup>78</sup>



Bertrand  
Russell

### ***Applications to TDVP:***

Whitehead's work also precedes, though is very different from the author's 'Close's Calculus of Distinctions' (COD).<sup>57; 89-91</sup> COD applies the most basic methods of

logic, and recognizes these sets have empirical bases and that there are limits to the Newtonian-Leibnizian infinitesimal calculus<sup>60, 92</sup> With the COD, much of nature can be handled as integers, simplifying mathematical interpretations considerably.

**Bertrand Russell** (1872-1970), Nobel laureate, a great thinker who was a socialist pacifist and skeptic, and whose major contribution besides his political ideas was in the area of mathematical logic.

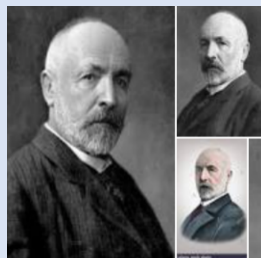
Russell won a Nobel prize in literature as well as the Jerusalem Prize in recognition of his varied and significant writings in which he champions humanitarian ideals and freedom of thought.

Russell was involved with the philosophy of mathematics and had a considerable influence on math, logic, set theory, linguistics, and artificial intelligence. He attempted to create a logical basis for mathematics. His *Principia Mathematica* is the quintessential work of classical logic.

*Applications of this work to TDVP:*

These applications are generic as opposed to specific. However, with Whitehead this work preceded the truly remarkable Calculus of Distinctions of Ed Close.

**Georg Cantor** (1845-1918), could be called ‘Dr. Infinity’. He contributed to set theory and enormously to the *infinite continuity* and to the *transfinite*, which is the discrete, countable -- but not actually countable -- infinity (because it is too large). After the introduction of a theory of sets, or ‘classes’, the system of PM can be compared with the early development of Georg Cantor’s Set Theory.<sup>80</sup> To us, Cantor’s uniqueness is his contribution to infinity.<sup>80</sup> This caused great controversy at the time because it was felt he was insulting God, which objectively in retrospect, he certainly was not.



**Georg Cantor**

*Application of Cantor to TDVP:*

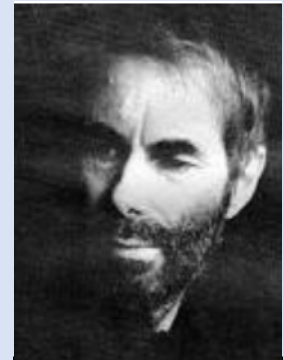
Cantor’s set theory, with George Spencer Brown, preceded the Calculus of Distinctions. It preceded it because it recognized the distinctions of different types. Also TDVP has implications for the infinite continuity and for a higher being like God. The transfinite is also very relevant.

**George Spencer Brown** (1923-2016) was an English polymath. Certainly his most well-known contribution is *The Laws of Form*. He was a mathematician, engineer, psychologist, educator, author and poet. His work really related to his calculus of



indications, which was the laws of form, and outlines a complete and consistent logic based on distinctions, which have been identified as the elementary cognitive act. It was the basis of Close's Calculus of Distinctions, which further involved components pertaining to reality and normalization even of the electron.

Brown, in his 1969 classic book *Laws of Form*<sup>81</sup>, amplified several of these mathematical-philosophical predecessors of the structure of reality and brought a third type that is into logic, that is equivalent to the imaginary (or complex) numbers in pure math. This was the key component that led to a breakthrough by the authors in Close's Calculus of Distinctions<sup>94</sup> and then the Calculus of Dimensional Distinctions.<sup>57</sup> This CoDD allows for a workable mathematicologic model across dimensions and consciousness and its empirical base involves inter alia, normalization of the electron to 1 when applying Quantum Triadic Rotational Units of Equivalence (TRUE).<sup>49; 59; 95</sup> This is now fundamental to many of the empirical proofs of the Triadic Dimensional Vortical Paradigm. Therefore, much has happened since the initial philosophical, mathematical concepts of Cantor<sup>96 97</sup> and of Whitehead and Russell<sup>79</sup>.



George Spencer Brown

*9-dimensional finite reality* reflects our existence as measured by the extent in Space, Time and a third dimensional substrate which we propose is 'Gimmel-Consciousness'. These are all tethered together geometrically so that the concept of 'Minkowski Space-Time'<sup>98</sup> has now been extended<sup>58</sup> to 'Space-Time-Gimmel Consciousness' (STC).<sup>45; 99</sup> STC incorporates our physical experience of 3S-1t (3 spatial dimensions in a single quantum of time, namely the present '1t'). However, 3S-1t is recognized as embedded within the 9-dimensional finite reality.<sup>45; 99</sup> While we have not yet defined exactly what these 9 dimensions are, that is not a critical aspect of TDVP: However, based on the supporting math and logic, we have proposed that the three Spatial dimensions extend far beyond the physical. More controversially, we propose that there are 3 dimensions of Time (not just linear 'past-present-future') and even more so, 3 dimensions of Gimmel-Consciousness.<sup>45; 99</sup> These dimensions are dynamic in that they might fluctuate depending on relative circumstances.<sup>45; 99, 44</sup>

**'Gimmel'** is the newly discovered third substance. We published the mathematical derivation of gimmel in 2015<sup>44</sup>—gimmel is necessarily massless and energyless. We use the term 'gimmel' because we don't know if we're necessarily referring to consciousness itself, or simply a vehicle of consciousness, or some kind of carrier of consciousness—gimmel is possibly a less prejudicial term than consciousness. However, no one has yet offered a viable alternative explanation that does not



implicate gimmel with some kind of Consciousness.<sup>100</sup> Whether using the term ‘gimmel’ or ‘consciousness’, these concepts are massless, and energyless. They still necessarily and always contribute to the 9D fabrics of atomic structure and substructures at the quantized finite level.

Mathematically, gimmel necessarily has to exist in union with any particle in the universe for that particle to be stable. Without gimmel, the spinning (vortical) atoms would be unstable and asymmetrical about their axes and would, in effect, fly apart: Our world and the physical universe could not exist.<sup>101</sup> Gimmel is necessarily in union with all stable particles because that allows rotation along axes providing the obligatory atomic stability.<sup>100</sup>

Gimmel is *proven* mathematically and necessary because everything in reality must balance with volumetric calculations and that would not happen if we just had, for example, protons plus neutrons plus electrons equaling atoms. This would create an inequality as the volumetric nature of reality restricts mathematical solutions to the form of specific third order Diophantine Equations<sup>101</sup>, relevant in physics to the Close Conveyance Equation.<sup>49; 50</sup> The Close Conveyance equation  $(X_1)^3 + (X_2)^3 + (X_3)^3 = Z^3$  for triplets is derived by combining quantum particles:  $\sum_{i=1}^n (X_n)^m = Z^m$ . This requires balancing of the volumetric integral components.<sup>47; 48</sup> In the Periodic Table of the Elements, for example, there are always the same specific small number of electrons as protons leaving an equation inequality  $2(X_1)^3 + (X_3)^3 = Z^3$ , which calculation can also be tested empirically.<sup>45; 99, 44</sup>

Distinctions are very basic ways of conceptualizing separations into different groups. Dr. Close’s ‘calculus of distinctions’ is more than just a non-Newtonian calculus, it subsumes mathematics, set theory<sup>97</sup> *and logic* under a common umbrella, and integrates these empirically with physics and nature in a way that is unique. The CoD creates a remarkable bridge between elementary symbolic logic and higher-level mathematical structures.<sup>95; 102</sup>

### **The fifth force**

However, could some new findings be an alternative? On 23 November 2019, the popular press excitedly reported research from Physicist Attila Krasznahorkay and colleagues at the Hungarian Academy of Sciences about the “*fifth law of physical forces supporting the existence of a hypothetical X17 particle.*”<sup>103</sup> This “*connects our visible world with the dark matter*”. Jonathan Feng, a professor of physics and astronomy at the University of California at Irvine, pointed out that “*if it were true, it would be a Nobel no-brainer*”.<sup>104</sup>

However, with respect, we propose that the idea of a fifth force—after electromagnetism, the strong and weak forces, and gravitation—*might* turn out to be unnecessary. We argue that these researchers might have detected the effects of gimmel<sup>47; 48; 105</sup> and might find application of the 9-dimensional (9D) matrix.<sup>42; 45; 106</sup> This is important, particularly in the context of the different atomic shells and valences in the Periodic Table.<sup>59; 107</sup> This possibly impacts the *volumetric* measurement of the two different angles in two elements that they have described. What is the data on several other elements? What pattern, if any, can be found?

These Krasznahorkay et al findings relate to their new discovery of ‘X17’ and this is regarded as reflecting a new ‘force’ relating to the Krasznahorkay et al research proof<sup>103</sup> based on particles coming off beryllium-8 at around a 140-degree angle. This was ‘strange and new’. Their previous work was with Helium where a 115-degree angle was also unexplained. *“They’re leading us closer to what’s considered the Holy Grail in physics, which Albert Einstein had pursued but never achieved”*.<sup>103</sup> That quotation is true: Einstein spent the last two decades of his life trying to find, in effect, extra dimensions but ignored the volumetric nature of rotating elementary particles (just as Planck had done, as well), 9-dimensions specifically, and gimmel.<sup>42; 45; 106; 108-110</sup> But the “*they’re*” may refer to others.

This is so because the proven, though not well-known, features of 9D and gimmel have simply not been considered, yet at least could provide a legitimate alternative hypothesis to explain these Hungarian findings better than a new unexplained ‘fifth force’, that might imply even a sixth or seventh force or more according to Dr. Feng.<sup>104</sup> Moreover, 9D<sup>52</sup> and gimmel<sup>44; 48; 59</sup> have profound empirical and math explanatory support.

### **The mystery of the Cabibbo angle**

We illustrate this point with a critically important aside: *We mathematically demonstrated by calculation why the Cabibbo Mixing angle was  $13.04 \pm 0.05$  degrees. This was the first major finding initially demonstrating the necessity of a 9-dimensional quantized finite model.* That proof was only demonstrable through a 9-dimensional mathematical derivation, providing the reason why no-one before that time (2014) had been able to do that calculation because they had worked only with 3S-1t<sup>111, 16</sup> or possibly with unsubstantiated theories of multidimensionality like strings and superstrings, which remain unproven and are likely fundamentally flawed, because despite at least allowing some ten thousand scientists to seriously contemplate such multidimensional realities over many years, no one has been able to prove any of the models.<sup>112-116</sup>

We definitively proved mathematically that 9-dimensional spin model through that

careful derivation of the Cabibbo Mixing angle.<sup>16</sup> We applied well-defined physics, well-substantiated empirical data, including well-defined constants such as the Bohr radius (radius of the hydrogen atom), speed of light, Planck's constant, rest mass of the electron, its radius and charge, the Coulomb constant and  $\pi$ . With these, we added well-defined equations and principles, such as the Lorentz correction, 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.<sup>16</sup>

We applied these to electron rotation and its inherent spin utilizing the basic concepts of a unified space-time-consciousness theory of finite reality from the Neppe-Close Triadic Dimensional Distinction Vortical Paradigm (TDVP or TDdVP as 'distinction' is optional). These included applying two new mathematical techniques that we have developed as part of this TDVP model<sup>16</sup>, namely 'dimensional extrapolation' across rotating dimensions<sup>117</sup>, and the principles of the 'calculus of distinctions'.<sup>57</sup>

We argue that researchers in Dimensional Biopsychophysics might still use 9D and gimmel, but would need to apply a very different method to explain why the angles in Be and He are *very* different. In this instance, as described, the Hungarian researchers appear to be dealing with physical angles and not just vector space. Nevertheless, it just might be possible that these Krasznahorkay et al angles may be calculated applying similar 9-D mathematics using the fundamental TDVP (Triadic Dimensional Vortical Paradigm) principles, although their derivations appear to be disparate compared with the Cabibbo angle derivation.<sup>4, 48</sup> The key might be finding a consistency in techniques between calculating the nine-dimensional finding of Helium at 115° and Beryllium at 140°.

One approach could be possibly through re-examining the Periodic Table of the Elements in the context of valence and electron shells<sup>59; 107</sup> applying Triadic Rotational Units of Equivalence.<sup>100</sup> Let's review the pertinent history, as we can back up our points by the empirical information TDVP explains with mathematical proofs: The first limitation leading to a lack of solutions of previous mathematicians is, in our opinion, a very basic one.

### **Multidimensionality:**

The earlier multidimensional researchers (such as Kaluza and Klein<sup>118-122</sup>, and Pauli<sup>122</sup>), and (relatively later) Rauscher<sup>123</sup>, String theory and Superstring theorists<sup>112; 113; 116</sup>, should have been dealing with *volumes as opposed to non-geometrical components and singularities*.

## Wolfgang Pauli

I single out the brilliant Nobel physicist Wolfgang Ernst Pauli. Pauli (1900-1958)



pioneered theoretical physics and quantum physics. Pauli was the Austrian-Swiss-American theoretical Nobel physicist who pioneered the ‘Pauli exclusion principle’.<sup>124</sup> This involved spin theory and was the basis of a theory of the structure of matter. Spin and vortical rotations and electron shells are all pertinent to TDVP and indirectly linked with the Exclusion Principle<sup>125-127</sup>. However, Pauli also worked on developing five- and six-dimensional models until 1953, but didn’t publish his findings because he was bothered by the appearance of what he called “...rather unphysical *shadow* particles.”<sup>5</sup>

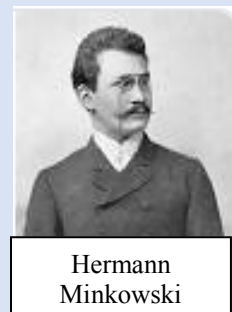
Pauli’s multidimensional work has been largely ignored in comparison with his other great contributions. Unfortunately, Pauli never officially published all this, though he talked about it: it came up, apocryphally, in letters with Carl Jung, but it’s well known that he had pursued including more dimensions and went as far as six. And Pauli recognized the ‘scientific and epistemological aspects of the ideas of the unconscious and the changes that needed to occur.’<sup>125-127</sup> He described ‘nature’s ghost particles’ while describing neutrinos.<sup>125</sup> But, since Pauli’s time, science has discovered that just over 95% of the substance of reality consists of some sort of what Pauli had called ‘shadow stuff’, presently called “dark energy” and “dark matter” and, not directly detectable through the physical senses or extensions of them.<sup>107</sup>

Traditional physics have sometimes tried to collapse their quantum mechanics back down to the 2nd planar or linear 1st dimension when that is purely theoretical, rather than starting with the only empirical, observational reality that spinning particles are volumetric (i.e., 3-dimensional).

Secondly, the most important deficiency might be that previous researchers did not introduce *consciousness* into the integrative equations of physics.<sup>128; 129</sup> This, too, we have proven in the 9D model.<sup>128; 129</sup>

## Saving the best for now: Hermann Minkowski

Hermann Minkowski (1864-1909) addressed the 80<sup>th</sup> Assembly of German Natural Scientists and Physicians. 21 Sept 1908 in his famous Cologne public lecture and argued cogently (translated from the original German):



*“The views of space and time which I wish to lay before you have sprung from the soil of experimental physics and therein lies their strength. They are radical. Henceforth space by itself and time by itself are doomed to fade away into mere shadows and only a kind of union of the two will preserve an independent identity.”*

There was some antagonism to this famous Minkowski idea. Even Einstein originally opposed it, then he accepted this principle.<sup>67-70; 42; 45; 106; 108-110</sup> This principle became the standard thinking for a century. Physicists applying 3S-1t but not recognizing its limitations spoke of Space-Time and never just Space and Time separately. If there was one historical statement in this whole paper, it should be this quotation.

*The change and application to TDVP: Minkowski to Neppe and Close:*

In 2011 Neppe and Close, historically possibly modified Minkowski's 1908 quote.<sup>98; 59;</sup> This is when our new paradigm was born. This finding became the landmark major axiom of TDVP.<sup>58; 45; 99, 44; 59; 107</sup>

### **Penrose preceding TDVP vortices**

Another important contributor to thinking, consciousness and rotations is the English mathematical theoretical physicist, mathematician and philosopher of science, Sir Roger Penrose who described Twistor Algebra in 1967, and spoke of 'spinors'.<sup>130</sup> He has worked with Stuart Hameroff on a complex model incorporating the brain, consciousness, 'mind', and quantum physics.<sup>131; 132</sup>

Penrose suggested that 'twistor space' should be the basic arena for physics from which space-time itself should emerge. Twistors and spinors<sup>130; 133; 134</sup> allow powerful mathematical methods of application to differential and integral geometry, nonlinear differential equations and representation theory, and in physics to relativity and quantum field theory, in particular to scattering amplitudes. Mathematically, projective twistor space involves a three-dimensional complex manifold. Twistor theory originally encoded physical fields on 'Minkowski space'<sup>69; 98</sup> and then applied twistor space via the 'Penrose transform' of arbitrary spin in massless fields.<sup>133; 135-138</sup> Twistor string theory was extended first by generalizing the RSV Yang-Mills amplitude formula<sup>139; 140</sup>, and then by finding the underlying string theory.<sup>113; 114</sup> There have been other attempts to extend spinors to the "Infinite tension limit of the pure spinor superstring"<sup>141</sup> We can add Penrose's awareness of the relevance of



Professor Sir Roger Penrose ...



consciousness.<sup>131</sup> These are all pertinent to the Triadic Dimensional Vortical Paradigm where vortices of rotating movements across 9 dimensions and the infinite continuity and a new easier calculating method of the calculus of distinctions<sup>142</sup> allow extensions of many of these ideas.<sup>57; 89; 90</sup> TDVP describes certainly massless, energyless gimmel, though the extra-dimensional model is beyond typical field theory descriptions<sup>99; 143; 144</sup> and extends with the infinite continuity enveloping be the empirically demonstrated 9-dimensional finite.<sup>9</sup> We argue that extending spinors and twistors to the empirically feasible Triadic Dimensional Vortical Paradigm and not applying the various String Theories may turn out to be more fruitful and feasible.<sup>145-147</sup>

By contrast, the more classical 4D scientists have limited their explanations of the ‘quantum probability wave collapse’ to ‘local’ (immediate space-time) effects and ignored the broader extended dimensions and consciousness. In this regard, we have proposed (what we’ve called) ‘*Vortical Indivension*’ (VI) as a downstream (and upstream) dimensional mechanism to explain quantum collapse or superposition.<sup>148-150</sup>

*Indivension* provides the mechanism of the *process* of communication across, between and within different dimensional domains—by interfacing the *content vortices*, with scalars, vectors and tensors if needed.<sup>i</sup> Quantum mechanics protocols are directed and intentioned: So is vortical indivension impacting events vortically ‘horizontally’ across, and ‘vertically’ downwards. We proposed that the changes from multiple co-existing states may occur because VI influences dimensionally. Specific meaningful consciousness might produce the effects observed in 3S-1t.

With great respect, beginning in 2011, Neppe and Close appear to have solved some of these problems.<sup>9</sup> Many of these solutions were in the First Edition of their book, *Reality Begins with Consciousness: A Paradigm Shift that Works*.<sup>9</sup> But at that point in time (2011 and 2012)<sup>13</sup>, the pieces fitted logically together like incomplete jigsaw puzzle pieces, as Neppe and Close were applying their newly enumerated Philosophy of Science principles of Lower Dimensional Feasibility Absent Falsification (LFAF).<sup>145; 146; 151</sup> However, the math was not yet demonstrated. We now have been able to prove, mathematically, that many missing pieces of the puzzle can be, and have been, solved.<sup>99</sup>

The first problem that most scientists ignored was construing the three dimensions of

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<sup>ii</sup> *Communication can go* from one dimensional domain to another. We proposed that by applying TDVP essence distinctions, vortical indivension influences ‘upstream’ results though a specific directed *meaningful*—(targeted) consciousness —thought. Other facets might also impact including mass-energy components or even targeted infinite gimmel flow. The probability wave collapse or superposition of the quantum receptor is relational and *relative* to the framework of the observer and consciousness.

space and one quantum in time (3S-1t)<sup>45</sup> of our physical experience as a complete paradigm and trying to analyze everything in that context.<sup>45</sup> Yet, there are well over fifty errors or unsolved conundrums in the Standard Model of Physics.<sup>42; 43 100; 101</sup>

These are generally solved, or markedly clarified through the 9-D TDVP model. When Nobel Laureate Murray Gell-Mann (1929-) described “gluons”,<sup>152; 153</sup> he may have inadvertently produced an example of a mathematical error illustrated only when the 9D extra component was applied.



This is another example of a math impossibility in 9-D physics but not in 4D physics and Dimensional Biopsychophysics that tried to explain everything from the Standard Model of Physics. These ‘gluons’ fit within 3S-1t, implying some extra volume and ‘gluing’ together of the protons and neutrons components so they don’t fly away<sup>152; 153</sup>. The problem is, applying the geometry of multi-dimensional volume, gluons are asymmetrical and unstable<sup>59; 107</sup>, despite the fact that they were (and are) proposed to act just like a ‘glue’ holding together the nucleus of the atom. They have no other purpose. They cannot be explained in 9-dimensions and mathematically, gluons are impossible.<sup>44</sup> They contradict Fermat’s Last Theorem (FLT). This is because there are no electrons making up a third component and a volume (cube) cannot be solved because of FLT: <sup>40; 154-156</sup>

#### *Applications to TDVP:*

There is no balancing third stabilizing component to produce a stable spinning (cubic) combination (Table 5).<sup>100; 101</sup>

**Table 5: Gluons and gimmel — volumetric calculations on the atom of life elements.**

Substance	Cube	Cube root	Integer?
<b>Gluons</b>	68,697y <sup>3</sup>	40.995338y	<b>No</b>
<b>Gimmel</b>	125,971,200y <sup>3</sup>	<b>108y</b>	<b>Yes!</b>

In *Reality Begins with Consciousness: A Paradigm Shift That Works Edition 1*, we first hypothesized that reality had to be multi-dimensional beyond the 3 dimensions of space, or the first 4 dimensions (including linear time) in the standard physics model (‘3S-1t’).

Subsequently, we were able to demonstrate what we had posited, namely that mathematically, finite reality consists of a 9-dimensional, quantized, volumetric reality.<sup>45</sup> (Table 6A shows elementary particles).

**Table 6A : Tabulated elementary particles including gimmel and TRUE scores**

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

Gimmel, as the massless, energyless third component, or substance, and likely the vehicle of consciousness or consciousness itself, is necessary for stability of each and every atom in our universe.

TRUE applications combine normalized figures for the electrons, and proton and neutron components of the only stable quarks—the up- and down-quarks—with that necessary extra component, gimmel, which is different for each element and compound (Table 6A ).<sup>49; 59; 128; 160</sup>

Comparing these with the CERN Large Hadron Collider, they both are exactly equal integrally with the normalized electron score as 1, and the proton as 1836 and the neutron as 1839.

This proves this component of our Triadic Dimensional Vortical Paradigm data is correct empirically (Table 6B).

**Table 6B: Normalized TRUE unit Mass-energy equivalence (MEE) scores in Gimmel TRUE units (GTUs) versus CERN Large Hadron Collider (LHC)**

Particle	MEE	LHC	Comments
electron	1	1	Normalized
proton	1836	1836	Exactly equal!
neutron	1839	1839	Exactly equal!

In other words, everything in reality is 3-dimensional. *Recognition of this quantized, volumetric fact is very relevant.*

**Table 7: Summary of atomic ratios of dark matter (DM) related to gimmel in nucleons and dark energy (DE) linked with gimmel**

<ul style="list-style-type: none"> <li>• <b>Research Hypothesis:</b> &lt;(5%-10%) given the Planck data proportions variation of DE and DM.</li> <li>• <b>Volumetric (Dark Matter</b> [26.8%<sup>3</sup>] = <u>19.25%</u>) / (Dark Energy [68.3%<sup>3</sup> = 31.86%]). <ul style="list-style-type: none"> <li>o <i>Consequently this 'dark matter/ dark energy ratio =60.42%</i></li> </ul> </li> <li>• <b>Gimmel to TRUE</b> ratio (already volumetric) of (volumetric proportions) of Abundant Elements,(Σ [Hydrogen abundance=70.57%] + [Helium + less abundant life elements = 29.43%]) in (nucleons [protons, neutrons, daled]=62.10%) / (electron gimmel =99.06%). <ul style="list-style-type: none"> <li>o <i>Consequently this 'gimmel/TRUE' ratio = 62.69%.</i></li> </ul> </li> <li>• <b>Results:</b> The difference between the proportions of (Dark Matter to Dark Energy) to the ratios of (nucleon gimmel. [linked with quarks and daled] to electron gimmel) is remarkably close: 60.42% to 62.69%. The results not only confirm the research hypothesis but markedly so with only a <b>2.27%</b> difference, far closer than even the reasonable research hypothesis limit.</li> <li>• <b>Proposals:</b> Dark matter and dark energy must be 'contained' in every stable atom. This can be explained only by applying a multidimensional model, like 9-dimensional spin, not our experiential reality of length, breadth, height in a moment in time ('3S-1t').</li> </ul>
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However, all of this would still would not work<sup>58</sup> unless there was that third process, gimmel, besides mass and energy.<sup>44; 47; 49; 58; 106; 157; 158</sup> When gimmel is combined with mass and energy in the analysis we have developed, with a basic unit called the Triadic Rotational Unit of Equivalence (TRUE)<sup>49; 107; 159; 160</sup> everything balances perfectly, mathematically.

These results with dark substances ostensibly link exactly as expected with atomic structure to the extent that dark matter and energy can, remarkably, even be fitted into a 9-dimensional model.<sup>105; 161</sup> (Table 7). This is the consequence of applying gimmel, either as a part (or whole aspect) of 'consciousness' or the vehicle / carrier of consciousness.<sup>161</sup>

These factors, with volumetric phenomena<sup>162</sup>, allow for a model that fits, and a metaparadigm that also actually explains special previously unexplained models such as non-physical life<sup>163-165</sup> and 'ordropy'. Ordropy refers to multidimensional Conservation of Consciousness<sup>166</sup> through the infinite continuity because there is a 'conservation of gimmel' throughout. TDVP therefore creates a comprehensive

model of reality as it recognizes that nothing is lost even though in physics there is the entropic physical tendency to disorder of mass and energy.<sup>99; 167</sup> Gimmel appears to be the versatile component of the infinite continuity and of the finite dimensions.

**‘Dimensional Biopsychophysics’ (DBP)** is the term we developed in 2014<sup>9</sup> for the broad new specialty recognizing the need for extra dimensions, and incorporating ‘consciousness’ in its broadest context, including consciousness outside the brain. DBP extends physics, consciousness, and the biopsychosocial, and applies mathematics empirically. The TDVP model is a prime example of DBP. Initially, in 2011, we did not know for certain how many dimensions were involved but we postulated that there had to be specifically 9 finite quantized dimensions. We then proved that hypothesis mathematically. Moreover, we also realized that for our model to be complete, there had to be something different outside the finite dimensional box. That required postulating an infinite continuity that was part of the whole, and it fitted with Georg Cantor’s ideas of infinity and the infinity of infinities<sup>80</sup> as well as maintaining a way to provide a consistent logical theory that would not compromise Gödel’s Incompleteness Theorem (GIT).<sup>29</sup>

But is this purely mathematical? Could it be merely an operation and not something that is logical at an empirical level? No, because we have shown that our data in TRUE units corresponds *exactly* with the normalized data from the Large Hadron Collider.<sup>129; 168; 169</sup> Therefore, the TDVP—Triadic Dimensional Vortical Paradigm<sup>21; 23</sup> data—is both mathematically and empirically based.<sup>129; 168; 169</sup> It is proven.<sup>51</sup>

### **Gödel’s Incompleteness Theorem (GIT) and the Infinite continuity**



Kurt Gödel

Kurt Gödel (1906-1978), with his incompleteness theorem made us recognize that the mathematics of the finite can never be complete and therefore applying this, there can never be a ‘theory of everything’. However, if one goes outside those borders, great change can occur. One is interfacing a totally different area: the infinite continuity, which embeds the finite.

When analyzing the exact limits of GIT we can recognize that no consistent logical theory can be complete within itself.<sup>29</sup> However, this is very difficult terrain as no matter how many self-consistent logical sentences we record, there will always be one more potentially N+1 more statements out there. Thus, to be ‘consistent’ one has to go ‘outside the box’. That means that GIT here would necessarily require something that is entirely different and outside the consistent logic of the discrete, quantized, finite, volumetric, 3S-1t reality alone. Applying this to extending TDVP to the infinite, we



realized that GIT might be fundamental to the TDVP concept of ‘Infinite Continuity’ as it would not be refuted. In TDVP, we had to create a model that could be applied from outside the standard model, to make it complete, otherwise TDVP could not be an internally consistent Theory of Everything (TOE).<sup>21; 170</sup> The hypothesis of over-arching Infinite continuity allows not only for an approach from ‘outside the box’ but it is also fundamentally different —not quantized, but continuous.<sup>167</sup>

- The GIT might demand alternative existence of the infinite continuity, to be consistent with its logical axioms. This way there must be a consistence of a logic/set theory that contains the finite quantized in the continuous hypothetical assumption. Our further work in the area suggests of infinite continuity suggests strongly that it is likely to be correct. However, even if infinite continuity did not exist, the rest of TDVP with the 9D and gimmel still would be applicable. But like all other models that apply just the finite reality, it would not be a complete TOE.
- Infinite continuity is a necessary assumption which cannot be directly shown, but is required for any Theory of Everything as otherwise the math model would be necessarily always incomplete.<sup>65</sup> It also is a convenient and feasible hypothesis allowing for further disciplines to traverse such as ‘ordropy’<sup>9; 19; 165; 171</sup> — enduring multidimensional infinite order (in addition to the *entropy* of physics with the ultimate tendency towards disorder, despite us living with a lot of order in our 3S-1t sentient existence<sup>172-174</sup>), conservation of gimmel in the infinite continuity<sup>21; 22; 175; 176</sup>, explanations of infinite existence<sup>163</sup>, and meaningful evolution.<sup>144; 177; 178</sup> Incorporating gimmel also into the infinite continuity component of the TDVP 9-D model provides a single explanation, leading to the *Laws of Nature being unified* and a consequent *philosophical* model of Unified Monism<sup>179; 180</sup> being proposed, based on the *science*.

#### *Application of GIT of Gödel to TDVP:*

A mathematical area which is likely relevant to add to the TDVP concept of Infinite continuity is Gödel’s Incompleteness Theorem (GIT).

- Fundamental to the Triadic Dimensional Vortical Paradigm are the Triadic Rotational Units of Equivalence (TRUE).<sup>128; 159; 160</sup> These are measures of volumetric equivalents including mass, energy and gimmel. TRUE can be applied to analyzing quantum phenomena, to life elements and other compounds in our macro-world, to dark matter and energy,<sup>168; 169</sup> and through the inclusion of gimmel even applied to the infinite continuity.<sup>21; 170</sup> TRUE analyses, inter alia, show the Triadic Dimensional Vortical Paradigm to be mathematically real<sup>59</sup> and also empirically so. Most definitively, when examining normalized data from the gimmel TRUE unit Mass-energy equivalence scores (GTUs) and comparing these with the CERN Large Hadron Collider, they both are exactly equal

integrally with the normalized electron score as 1, and the proton as 1836 and the neutron as 1839. This proves this component of our Triadic Dimensional Vortical Paradigm data is correct empirically.<sup>95; 169</sup>

- Next, we have to use the mathematics that are cubic, volumetric, and quantal.<sup>59</sup> That means applying the ‘Calculus of Dimensional Distinctions’ (CoDD)<sup>57</sup> developed by Ed Close with an assist from Vernon Neppe.<sup>57</sup> The CoDD ensures geometric symmetries which can be applied to the Periodic Table Of The Elements. It can be applied to protons, neutrons, and electrons in the atom in all the elements (except Hydrogen). We discover that the elements of life (C, H, O, S, N, Ca, Mg, and likely Si; and also He, and Ne as inert elements) are all multiples of  $108^{3;59}$  TRUE<sup>59</sup>, and these are also necessarily stable and symmetrical around an orthogonal axis.<sup>59</sup> These ‘life elements’ are in union with more *gimmel* than any other elements.<sup>59</sup> Moreover, Water, ostensibly the most life-sustaining chemical in the universe, has more *gimmel* than any other compounds.<sup>59</sup>
- Finally, and of life-sustaining relevance, is Hydrogen  ${}_1\text{H}^1$ . Hydrogen (specifically  ${}_1\text{H}^1$  or Protium) is the most abundant element cosmologically. It is the lightest, and it’s unique because of the absence of the neutron. This makes  ${}_1\text{H}^1$  a critically important exception in nature. We have postulated that the Hydrogen  ${}_1\text{H}^1$  atom contains an extra quantity of ‘gimmel’ instead of its missing neutron. This results in a far greater quantity of ‘gimmel equivalent units’ than any other element. However, we cannot prove that this unit that would be an equivalent volumetric replacement for the absent neutron in Hydrogen is ‘gimmel’ itself. Therefore, we call this neutron-linked extra massless, energyless substance ‘daled’.<sup>59</sup> Nevertheless, we strongly propose that this ‘daled’ replacing the absent neutron, is just another form of *gimmel* because our calculations applying it appear to have demonstrated this to be so.<sup>59, 37</sup> This would be the absent-neutron equivalent ‘gimmel’ that is in union with, for example, the proton of Hydrogen (which contains two up-quarks and one down-quark).

Dr. David Stewart PhD, DNM is a Mathematician, Geophysicist, Earth Scientist, Theologian, Doctor of Natural Medicine and Author of over 300 articles and 17 books. He has a very keen mind and is a critical thinker and might be more familiar with the Close-Neppe work than anyone else in the world. Therefore, he is well-qualified to express an opinion on TDVP, and wrote these words publicly in a nomination letter. This clarifies his opinion for 4D physicists. We had some trepidation including this quotation, but many of our readers and referees have encouraged its inclusion as it would provide valuable insight: This is because most 4D physicists are unfamiliar with 9D+ and *gimmel* and TDVP. We greatly appreciate Prof. Stewart’s kind thoughts, but we do not necessarily agree!

*“In summary, I rank Dr. Edward R. Close and Dr. Vernon M. Neppe as peers of the major authors of modern physics and mathematics. I equate them with greats, such as Planck, Einstein, Heisenberg, Schrödinger, Bohr, Dirac, Born, Pauli, Bell, De Broglie, and their predecessors such as Newton, Maxwell, Leibnitz, Kelvin, and many others.*

*The Neppe-Close work, which is built upon the works of these extraordinarily brilliant and innovating pioneers, has clarified, and extended the science and mathematics that these geniuses originated over a century ago.*

*The work of Close and Neppe has laid a foundation for all future science to develop. The world of scientific understanding, in all fields, has been permanently changed, and set in a new direction, by the work of Close and Neppe. The future of all mankind is forever brighter because of what they have done. And they aren't finished, yet.*

*... Dr. Neppe's contributions in both the Medical and Dimensional Biopsychophysics spheres are truly amazing.*

*I still foresee the day when they will both be awarded other honors, such as a Nobel Prize in Physics. If there were an equivalent award in Mathematics, I would nominate them for that prize, as well.”*

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