Exploration

On Non-locality III: Dimensional Biopsychophysics

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ABSTRACT

In this third article of the six-part series, we extend to dimensions and the new area of dimensional biopsychophysics and recognize that we need extend beyond Popperian falsifiability to examine also feasibility of the limited jigsaw pieces we have available. This leads to the concept of lower dimensional feasibility, absent falsification. We recognize the importance of differentiating the discrete in the finite from the continuity that is in infinity. And we briefly show that the authors' "triadic dimensional-distinction vortical paradigm" model can be applied both empirically and mathematically in the analyses of the higher dimensions, including the 9 spinning finite dimensions that we have derived. The Standard Model of physics works bottoms-up from the experiences of 3 dimensions of space in a moment in time, as compared with a top-down approach. We introduce what we regard as the most fundamental concept, namely "immediacy".

Key Words: dimensional, biopsychophysics, TDVP, Triadic Dimensional Distinction Vortical Paradigm, distinctions, consciousness, relative, framework, non-locality, space-time, level, relative non-locality, dimension, beyond, infinity.

Dimensional Biopsychophysics [1, 4, 11]

Dimensional biopsychophysics (DBP) is a new multidisciplinary term coined by Neppe. DBP involves extensions of current physics and mathematics beyond the Standard space-time experiential and its related limiting quantal model to dimensions and dimensionometry. It includes extending the biological, consciousness research and psychological disciplines to recognizing that what *exists* and may impact our day-to-day experiences is far broader than purely space-time. DBP therefore involves what is regarded as non-local to many of us. [1, 4, 64 9, 12, 14, 18] It impacts across many different major areas of study and includes dimensions, the finite and infinite, and consciousness. It integrates and unifies reality involving these broader scientific biological, psychological and physical disciplines, as well as philosophy and several other areas of mathematics including the Calculus of Dimensional Distinctions (CoDD) — the area of mathematics pioneered and developed by Edward Close, later with an assist from Vernon Neppe. [65]

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Feasibility and falsifiability as a system of proof and verification (LFAF)

Dimensional biopsychophysics introduces an important new philosophy of science model to assess the necessary extensions of scientific data. Any multidimensional or cosmological model requires an extension of scientific analyses. This requires the development of a new feasible Philosophy of Science analytic technique, developed by Neppe and Close [66], called Lower Dimensional Feasibility, Absent Falsification (LFAF). This is so, as higher dimensional or cosmological aspects often cannot be directly falsified in our worldly "restricted space-time reality".

LFAF implies that if we could not prove extra dimensions, for example, it would become "metaphysical": Instead, we can apply the new LFAF technique to recognize that other higher dimensions still produce verifiable information in space-time. [4, 11] We then ask "is it feasible?" If we can express the empirical information scientifically in space-time as a piece of a complex jigsaw puzzle, then it is *feasible if it had not been falsified*. This LFAF technique effectively involves the methodology of literature review, hypotheses, methods, results, analysis, discussions and provisional conclusions (including statistical, clinical significance and observational non-statistically needed analyses) applying the recognized (Popperian) [67, 68] "not falsified" scientific analyses and then amplifying by saying "can this actively fit what we know into a space-time (or lower dimensional) jigsaw puzzle?" If that is feasible, that provisionally empirically validates; we can then progressively develop further hypotheses in that discipline (a paradigm) and extend LFAF hypotheses to other sciences (metaparadigm). We apply principles of LFAF too in our regular lives. It is very feasible to note whether a medication works in a high proportion of cases. We apply it too in cosmological studies such as evolution. But, in addition, given that we are going beyond space-time, LFAF clearly impacts on what is being labeled "non-local", and this is potentially dimensional and beyond.

The discrete and the continuous

We have provided several examples in other publications that support our contention that there are 9 finite spinning dimensions [4, 12-15]: In 2013, we mathematically proved the existence of 9 spinning dimensions by deriving a particular esoteric angle [b] in certain subatomic elementary particles [c]. We were not surprised by this finding because even before that, starting in 2011, we had proposed that there had to be a finite 9-dimensional spinning reality. We based this on the scientific principles underlying the Neppe-Close multidisciplinary paradigm shift model that we call the "Triadic Dimensional-Distinction Vortical Paradigm".

[b] We refer here to what is known as "the Cabibbo mixing angle in fermions". Additionally, we demonstrated "intrinsic angular momentum" in electron rotations.
[c] The pertinent elementary particles include quarks and electrons. Both are fermions as they have so-called "half spin" properties.

Triadic dimensional-distinction vortical paradigm (TDVP)

The Triadic Dimensional-Distinction Vortical Paradigm is a metaparadigmatic model developed equally by Drs. Vernon Neppe and Edward Close in 2011. It is based on the available broader empirical data of all the sciences (physical, biological, consciousness and psychological), validated partly by mathematical theorems. It applies LFAF for scientific validation, and extends to philosophy (as "Unified Monism").

The name TDVP derives because it is Triadic —Space, Time and Consciousness all *exist* as separate measurable substrates though are always "tethered" together —they're linked. D is for dimensions and we also make mathematical distinctions. The V is for spinning vortices, and it involves a paradigm shift.

Briefly, we regard TDVP as having several major elements that are *demonstrably proven because of its mathematical derivations* e.g., we have derived the Cabibbo angle and many other complex areas of physics. This can only be done with 9 dimensions, not 10 or 11 or 5 or 8 or our conventional 3 of space in a moment (the present) in time *(space-time).* One reason why there are several conundrums or contradictions in physics may be because our current "Standard Model of Physics" has not considered that our finite reality was 9 dimensions not just those 4, the space-time of our experience, instead of the many other components of our "non-local" existence, but not directly explained. We simply cannot explain everything applying this Standard Model.
What is covert —hidden and not directly accessible usually—may be pertinent in part in many altered states including near-death and out-of-body experiences.

Importantly, the TDVP model apparently explains all of nature from our physical world, to all aspects of psi and apparent life after death. The key features are the 9 finite dimensions, with further dimensions even higher extending to infinity, a broader "Consciousness", Infinity model of life and order.

"TDVP" is regarded as a Theory of Everything (TOE) that works. TDVP scores a perfect 39/39 for a Theory of Everything. When compared to 24 other TOEs, none besides that of the original models of Dr Neppe and Dr Close score even 20/39. There is no facet of the major part of the model so far that has been refuted.

Extensions beyond the 9 dimensions

But we also recognized that reality is not simply a 9 dimensional one. We add to this an even higher "countable infinity"— the "transfinite"—which, like these finite 9-dimensions, still has *discrete* pieces like the miniscule pixels on a television (TV). The technical term for this is *"quantized"* as these can be broken down only as far as their component parts. These pieces are *not continuous*, but ultimately at their smallest size can be conceptualized purely as "points". But they're too small to be "fuzzy". They look continuous just as that movie does. But in reality, we argue that these discrete elements, the finite dimensions plus the transfinite are necessarily further embedded in—*completely contained in*—that "infinite": It is this that is not fuzzy, not a

point even at its smallest. Instead, the infinite extends *without end* —the Ein Sof. This continuous infinity still contains the same *dimensional substrates of Space, Time and Consciousness* (STC), but this infinity is a never-ending continuous unbounded STC reality. We therefore call this the *"continuous infinite"* because there are no discrete, specific points in the infinite because the infinite is like continuous lines without any breaks, as opposed to those pixilated (discrete points) frames we see even on the best of TVs: These remain discrete frames though to our naked eyes may appear continuous and in reality, we perceive almost everything in a continuity even though they are discrete frames.

The reader therefore can understand that when we talk of "non-locality" it could involve any of several different levels—dimensions, the transfinite and/ or the infinite.

Frameworks

When we speak of non-locality, we traditionally are referring to non-locality from a *reference frame:* In us, living humans, this is the "*framework* of space-time". If that experience in space-time were all there was to our reality, we would not need to look at what could be interpreted as "non-local events" from any other framework of reference. But we know there are other frameworks such as the 9D discrete and the discrete transfinite and the continuous infinite frameworks.

A practical illustrative example is apposite: From what framework does someone subjectively experience an out-of-body experience (OBE)? That individual having the OBE is not experiencing his *subjective* happening as "non-local" because from his "*framework",* it is "local". Yet it may be that for us living humans, in space-time *experience*, that OBE is "non-local"!

But if we understand that OBE to be non-local, at what *level* of non-locality is it occurring? We could postulate that that OBE could be understood to be occurring beyond space-time, and possibly *within some* of those higher dimensional levels of existing finite reality—hypothetically, we do not know which level, and it could vary depending on the specific event, but it could involve only specific components of these dimensions like 5 and 6 together, or the 4^{th} to 9^{th} dimension, or dimensions 1 through 9, in which case some of it would be in space-time reflecting part of the broader whole.

The numbers are purely illustrative and the specific speculative detail is unimportant here. However, the principle could be that the specific dimensional domains involved even in OBEs might differ and be idiosyncratic for every specific individual "experient" [d]. Consequently, the experiences of each observer might reflect different subjective *levels* of non-locality *experience.* The descriptions of these events might vary greatly and theoretically the happening could, also or

[d] An "experient" subjectively experiences—his/her *perception* of reality, and then interprets that perception relative to that reality. Experients are not objectifying their experiences. In contrast, we in 3S-1t could imagine these descriptive levels, and propose how "observers" might describe their *conceptualizations,* and then interpret their reality of those theoretical experiences.

instead, be at the even higher levels of quantized discrete happenings, namely the "transfinite". Theoretically, the event could even be at the "infinite" levels. Consequently, an *experient* having an OBE might reflect his locality at a specific subjective *reference framework* level, yet we, as fully conscious space-time beings, would be interpreting a degree of "relative nonlocality" to that specific OBE experience: It is non-local *relative to our space-time fully conscious reality*, and we may or may not be able to define the extent of the non-locality, but, ultimately this might be important to ensure we interpret the commonalities with and the differences from the subcategories of OBE or of any other non-local experiences or events.

Moreover, the term *"framework"* in this context would refer to *the dimensional domain within which the experient is located*, and it is from that level that he will observe and interpret his reality. But when some experiences or aspects of consciousness or awareness are not located in *his specific* space and time and meaningful "conscious" awareness, he *might* experience that as *"relative non-locality"*: It is relative to his framework as the experient. To that observer, any event at an even higher dimensional level would certainly be non-local for him. And any events dimensionally "below", might be experienced as "local" because he would be looking from the outside into the dimensionally lower box of, for example, space-time. However, theoretically, not all the box below may be transparent because the walls of the box might still be opaque—the "translucency metaphor": This might mean that some aspects below would still be "relatively non-local" because not everything below the observer might be directly observable.

The basis of ostensible non-local phenomena in space-time

The postulation of different levels of non-locality is not idle speculation: We know scientifically that much of our actual reality is hidden from us—they are unavailable to our limited senses such as the infrared and the ultraviolet visual ranges, and the extensive inaudible ranges outside conventional hearing in humans. Now these descriptions could still be in space-time: We, therefore, actually only experience *"restricted space-time"* because our direct experience is restricted.

We can slightly extend our measurable experience indirectly using instruments (like X-Rays and MRIs) and we recognize that some of these events may be detected by land animals (e.g., profound olfaction—smell— in dogs) or sea creatures (like echolocation in dolphins). This means that even at this space-time level, we can interpret phenomena as "non-local" when other animals or even humans would directly experience it. It may be that some sensitive humans have sensors that allow some of this to be experienced but not consciously: it would be just *"subliminal"* for us.

The small case "1t" is the "present" moment in time, and that, too, is part of the restriction. We do not directly experience the future or even the past. That would be capital T but while fully conscious we perceive only our "restricted space-time" experience. But there is more.

The mathematical proof of the 9-dimensional finite reality

We have argued that there is empirical (scientific) and mathematical data supporting further dimensions besides these four that we experience in that restricted sense. The major reason for this is its demonstration by what could be called "the authors' mathematical derivation of 9 spinning dimensions" [4, 14, 15]: By this means, we apparently can demonstrate the solution to some of the most remarkable mysteries[1] in physics which are not accessible if we just apply space-time in any form.

The earliest proof of this was our mathematically elucidating the so-called "Cabibbo angle" and, with it, also demonstrating "intrinsic spin" in elementary particles. What does all this refer to? The Cabibbo angle, discovered by Nicola Cabibbo in 1963, is an esoteric measure of the probability of a certain kind of particle decay in particle physics. It had been found to persist at a very strange angle (13.04 degrees) by using sophisticated detectors and collectors in high-energy particle colliders. [4, 14, 15] However, the reason why it was that specific size could never be explained by the Standard Model of Particle Physics, even though it had been attempted. The mystery had consequently remained unsolved for 50 years:

It turns out that the Cabibbo angle can ***only*** be solved by mathematically applying a specific number of dimensions (in this instance, 9). However, we still cannot rule out exponents or harmonics of 9, such as 81 or 729 dimensions. Furthermore, our solving the derivation of this angle was particularly thought-provoking. This was because it confirmed two fundamental hypotheses in our TDVP model [12, 15], first, that the number of dimensions that *had to exist* in finite reality were 9, and, second, that they had to be spinning [13]: Importantly, these 9 dimensions were not associated with the "foldings" that have been hypothesized in "String Theory". [69-71]

After all these years, "String Theory" remains a "theory" because there is no adequate empirical evidence for making it more than theoretical. This is in contrast with TDVP, where there are already several "proofs" applying 9 dimensions to the nature of reality. [4, 14, 15 12, 15, 69-71] Instead, the way we shift in mathematical physics from one dimension to another is through rotations of tiny elementary subatomic particles. [14, 18]

The current Standard Model of physics is supplemented

Of course, any multidimensional model does not refute or violate most of the so-called "Standard Model of Physics" (SMP): The SMP is "standard" because the findings are based solely on our day-to-day scientific experiences within the space-time dimensional model, and can still explain possibly 99.9% of our reality. [4] However, there are areas of the SMP that remain incomplete. These inadequately explained aspects might potentially require explanations that involve extending dimensions. A commonly cited example in the SMP of a fundamentally unexplained linkage is the relationship of gravitation and quantum mechanics. [4 9] Even more so, some data in physics might even be contradicted by the standard model of physics—a reason why we're discussing "non-local" phenomena in this paper! [4]

But these reflect only a small number of unexplained theories and empirical data. Nevertheless, they are critically important, because any "theory of everything model" and any overarching paradigm should not be contradicted in any legitimate and valid model. When areas such as

entanglement might contradict or violate the SMP, we need to re-evaluate the assumptions underlying the SMP. [4] We argue for the need for dimensions above the conventional four (space-time) because higher dimensional models might facilitate answers to previously unanswered questions.

We see these extra dimensions as extending our knowledge base that still allows us to understand most of SMP. The extra dimensional idea is not just an idle speculation, because we have already demonstrated some cogent new findings by specifically applying a nine-dimensional model. [9] Amongst these new discoveries are that the electron structure cannot be purely spherical; that we can explain what was previously a conundrum, the reason for the disappearing electron cloud; and discovering intrinsic angular momentum. We are currently working on Special Relativity (not contradicting it, but recognizing that a 9-dimensional finite reality requires extending it), on triadic quarks and its relevance to the elements of life, and on so-called "Dark Matter" and on "Dark Energy". [9]

Most of our experiences based on the SMP, could theoretically and empirically be *incorporated* into the existence of higher dimensional models: space-time *experience* reflects an important part of our broader *existence*. And what is not our direct experience, is sometimes conceptualized as "non-local" and even more so thought of as "beyond space and time" when it may just be a different kind of space and time and consciousness that is not directly experienced by us as living humans.

Continuing this theme, though the mathematical calculation of the Cabibbo angle of itself might appear to be an obscurity [14, 18, 72], the context, proving as it does that our mathematical finite reality is made up fundamentally of nine spinning dimensions (9-D), might be huge [14, 18, 73]. Importantly, we now know, mathematically, that there cannot be 4 (as in the Standard Model) or 5 (as in so-called Kaluza-Klein theory [74]) or 10 or 11 or 26 (as in different String Theories [75-78]) or any other lower number of dimensions because the calculation would not work.

Because of this, in the context of non-locality, we therefore need to recognize that non-local phenomena, besides restricted space-time, exist. We postulate that they may even be beyond those 9 finite spinning dimensions and we must therefore define it relative to the specific levels of non-locality or from the framework of observers at those levels.

Non-local phenomena based on conceptualization of different dimensions

The concept of extra dimensions allows for a special way of approaching reality in the context of non-local phenomena. Let's apply the analogy of a MRI of the head for example: Specific cuts are taken through any part of the head. We could theoretically perform an infinite number of discrete ("transfinite" number) cuts through these planes (2 dimensions) (2D). This would produce a transfinite number of parallel lines (1D). Ultimately, we build up these planes into 3 dimensional volumes (3D)—the three spatial dimensions of length, breadth and height: Strangely, when we look down from the framework of that third dimension, there are an infinite number of two dimensional planes and even more so a further infinite number of parallel lines along those 2 dimensions. Further along these lines are an infinite number of points. When we

observe from the 1D line, we might sometimes see the points. Yet, along the plane we can see that they're continuous. Additionally, there may appear to be points in those planes because any wave or object that is not straight with the cut will appear discontinuous. But if it were in all three dimensions, we might see this as a continuous graph. To the lower dimensions, the points may be disconnected when they are actually continuous.

This analogy can be applied to a single higher dimension or series of dimensions (dimensional domains). Importantly, events that seem impossible because they're discontinuous and apparently disconnected, may be connected when observed from higher dimensions ("top-down") from higher dimensions. We could say from the lower dimensions that there is a disconnection in space (e.g., as in "remote viewing"), time (e.g., as in "precognition" or "retrocognition") or both (e.g. precognitive remote viewing). In every instance, this is modulated through some kind of consciousness, and in the living person, the endpoint expression (the brain, or for that matter, the autonomic nervous system as it may simply be registered) is a "local" organ. [60]

Effectively, this analogy provides for us a way to perceive space and time at higher levels when we may be saying that these higher events in space-time are non-local because they're beyond Space and Time, but that perception is simply based on our framework of our limited and restricted space-time experience and does not reflect the reality that exists.

Immediacy: Discontinuous and continuous is relative

What is the relevance of such concepts? Simply this: Effectively, events might appear discontinuous in lower dimensions, and yet be connected in higher dimensions. They may not lose their impacts over time and space because in higher dimensions, certain features observed in space-time may or may not apply: What would appear to be communications with immediate disconnectedness even at great distances, might sometimes be understood as "connected" from the framework of other higher dimensions. At that level, there may be actually be *connectivity*, and the *immediacy* of things happening (as in *knowing the future—precognition*) may occur because it is part of the same multidimensional event: It might not require even light speed to transfer information because there is no transfer —the connectedness, even at thousands of miles distance in lower dimensions, could be there as part of a single structure at a higher dimension, just as a circle in two dimensions may be part of a sphere in three dimensions.

This concept also is important in another way: Lower spatial dimensions may distort an obvious observation for an observer in a specific higher dimensional framework. Of course, it might require many dimensions or levels higher for the observer to understand this linkage: That is why we talk of "relative non-locality". Effectively, these findings may not apply from the framework of a specific dimensional domain because the analogous parallel cuts on the MRI may be much higher dimensionally. In other words, the dimensions remain relative. We could distinguish connections: These distinctions might be quite false at a lower dimensional level relative to an observer in a different higher framework. At some point, at certain higher dimensional domain levels, any connections may be obvious, because we have connected the dots that are continuous there, yet those dots appear separated in space, time and consciousness at the lower levels.

Because our consciousness as physical beings is usually limited to space-time, we look at these different specific non-locality examples as *relative to our space-time domain*, but clearly there may be different kinds of non-locality.

(*Continued on Part IV*)

References (See Part VII)