The conception of time

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Abstract: In this paper, a follow-on from papers 1-9 [1-9], the idea of consciousness as a feature of the process itself of scientific inquiry shall come to attention; here, as per the previous papers and in alliance with contemporary notions of the idea of consciousness and time, the idea of "consciousness" shall be presented as the ideal "fixed" frame of reference with time, going a step beyond the concept both Descartes and Einstein assumed in their works as a requirement of scientific theory genesis for the ideas of time and space, and above all "our required ability to exercise certain conscious functions to fully utilise the associated theory of time and space". Ultimately, this proposed model of consciousness shall be demonstrated to not only abide with contemporary models of consciousness and thought, yet take those ideas a step ahead, as much as the new theory for time and space presented here as the golden ratio algorithm for time is being considered as a step ahead of contemporary ideas in physics. The aim here is not to change the impetus of our thinking, our philosophizing, or our world-view, yet to assess how a new theory of time and space aligns with a new ability, a new exercise of our conscious ability, to achieve that ability, to theorize time and space anew, as a step ahead of what has been previously thought possible in defining not just time, yet that tagged reference to time as consciousness.

1.   Introduction

In an ultimate code of time and space that relies on a stable reference of consciousness, what is that code, that code of the stable reference, and does it explain a particular process of interaction between that reference and time-space, does it explain time and space **by** its nature, or is there no limit to what that consciousness is allowed and what it observes is allowed? For instance, what is a consciousness reference defined "as", imbibed with time and space, as though a consciousness within a greater sphere of reality as time and space?

The aim for this paper is to uncover that specific script of consciousness reference for science. The ideas presented here won't describe role-play dynamics between this consciousness and that consciousness, one person to another. The aim here is not to change the status quo of our thinking, our philosophizing, our worldview, the aim of this paper is to assess how a new theory of time and space aligns with a new view itself, a new exercise of our conscious ability, to achieve that ability of theorizing time and space anew as the golden ratio algorithm for time, namely what type of consciousness "is" that, what's the code there? This paper is not about human-human role-plays, yet the **more major** roleplay of person and the greater system, consciousness and time-space, ultimately here as the idea of a human consciousness taking into account a golden ratio description of time and space and what thought process that conscious reference would be, *and is that conscious reference relevant to our contemporary understanding of a model of consciousness*. In short, individual role-plays with others are in general central to our own self-understanding and how we transfer/relate that with other people. Human role-plays, as important as they are in forging our self-identity, are not the focus of this paper, nor is the focus here on personal belief, yet what it appears the idea of consciousness in this paper is being requested to achieve as the idea of consciousness associated to time via the understanding of papers 1-9 [1-9]. Simply, the idea presented in this paper is central to explaining a consciousness construct in the reality *described by the golden ratio algorithm for time* as presented in the lead-up papers [1-9] and how closely that matches contemporary ideas on the notion of "consciousness".

To achieve this, a basic consciousness construct needs to be proposed, like a piece of clay we are all familiar with as a model of consciousness, as based on contemporary models of consciousness, the quest there being to find the applicability of the golden ratio time algorithm theory for space to the workings of our own perception, to that contemporary model of consciousness, to that piece of clay, namely, "does it fit?". The aim isn't to investigate every nook and cranny of this concept of perception, or that concept of perception. The aim here is to demonstrate the universal validity of that construct of consciousness, that it can work with commonly held notions of consciousness, yet not just work, yet work well in providing solutions to key problems of our interaction with reality that we have yet to solve, not necessarily issues with one another, even though by association that indeed may be the case, yet universal concepts on consciousness we have yet to grasp if not for this new theory for time and consciousness. Furthermore, the aim with this paper is to keep the description of consciousness short and simple, nonetheless long and detailed enough to inspire us to investigate the complete potential theory of consciousness for ourselves, to let us explore our own reference in life our own way.

2.   Consciousness theory in History

Consciousness, as defined by Merriam Webster, *"is the state or quality of being aware of an external object or something within oneself"* [10]. The Cambridge Dictionary defines consciousness as "*the state of understanding and realizing something.*" [11]. The Oxford Living Dictionary defines consciousness as "*The state of being aware of and responsive to one's surroundings.*", "*A person's awareness or perception of something.*", and "*The fact of awareness by the mind of itself and the world.*" [12]. These are words, and very well put, about something that is quite abstract. Here though in this paper the emphasis is to bring geometrical concepts, to bring time and space, to bare

on the idea of consciousness, and so words are not enough. The symbols used to describe consciousness here in this paper will be simple, yet localized enough to partition each facet of consciousness under investigation from the other. The symbols used are not meant to represent actual objects of time and space, although that would be ideal. The symbols presented here are aimed to merely label the different features of consciousness in question, and then to bring those symbols (patterned/colored circles, squares, etc.) closer to the ideas of time and space. Let's use figure 1 to highlight this as a starting point to describe consciousness as simply as possible based on what we know so far, namely there would be a conscious reference, the subject (A), and it would be conscious of something around it (B) or within itself as the object (C), with each associated process of consciousness around (D) and within (E), as per figure 1.
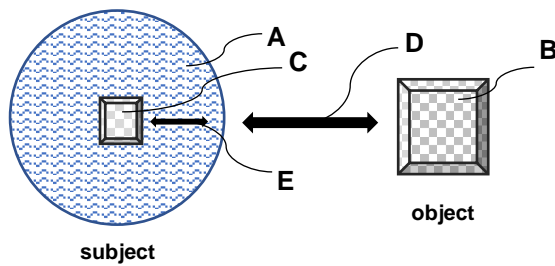

Figure 1: *subjective reference (A), outer objective reference (B), inner objective reference (C), outer field of consciousness (D), inner field of consciousness (E).*

The idea of consciousness has been defined in a number of ways, such as sentience, awareness, reason, understanding, meaning, subjectivity, thinking, feeling, wakefulness, dreaming, spirit, soul, experience. How all such ways of defining consciousness comes together as an exercise of consciousness examining its own purpose represents a body of knowledge we know as "philosophy", which technically makes us, through our own process of self-examination, all philosophers to some extent. Yet, it is only the great philosophers who are remembered for catching what they consider as the meaning of their own time and that of others of that time, and of course by those in a later time as an account of historical meaning. Rarely are visions of the future used as a philosophy other than an exercise of hope or foreboding. Suffice to say that there are several meanings according to dictionary accounts for the word *consciousness* that describe those different times in history and those varying meanings as philosophical musings, meanings that are a mix of both specific almost scientific accounts to more general accounts. One thing we can perhaps all agree on is that the integral feature to the idea of consciousness is of course the idea of "reasoning", a description of cause and effect most basically consistent with observation:

> ***Reason*** *is the capacity of **consciously** making sense of things, establishing and verifying facts, applying **logic**, and changing or justifying practices, **institutions**, and **beliefs** based on new or existing information [13].*

This description itself presents with the idea of consciousness intrinsically facilitating (in the case with a scientific observer) a "scientific account of logic itself" of what is being observed. Figure 2 highlights this proposal.
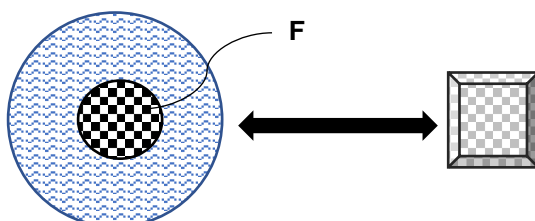
Figure 2: *the scientific logos/reason within the subject reference (F)*

Note here the process of "reason" as "F" which replaces the construct being observed in oneself in figure 1 (C); "reason" is considered as that intrinsic nature of consciousness we observe within ourselves whether in the form of logic or abstract images with symbolic meaning. This shall be further expanded on later in the paper as to why this replacement can be made. Papers 1-9 [1-9] having provided an account of consciousness in the context of relativity, as Einstein did, and yet using the golden ratio theory for time to add more detail to this idea of consciousness tagged to the flow of time, suggests that the "*reasoning*" element of consciousness in reality would already be embedded in that description itself of reality as a cause-effect flow of time, as the natural sciences of time and space, in stride with the idea of consciousness being aware of the event as a reasoning process, as a concept of science (and this will be explained further in the next section). Yet the fundamental consideration of the idea of "reasoning" remains, namely of organising that reasoning as a "reference", as a human reference, in that theorised reality, and what those basic logistics of interaction are between that reference and reality itself, or quite simply, "what would be the purpose of a human reference in reality, like a conscious reference that reasons and observes a system it reasons as though a part of that greater reasoned and observed system, and further to this, what is the facility of reason itself in the context of an isolated consciousness within that reasoned reality of time and space?". Even on a more difficult level, the question of "what if that system being reasoned and observed is itself a conscious scheme that has within itself a process of seeing and reasoning itself from within using human consciousness?" shall be explored. The aim of this paper is to address such issues, and yet not alone, for only logically the ideas of the greats in history need to be explored before continuing with any further modelling on the idea of consciousness.

The idea of "philosophy of mind" is perhaps the clearest label for our notions of consciousness, as a branch of philosophy that studies the ontology, nature, and relationship of the mind to the body [14]. In this genre of examination, The *Routledge Encyclopedia of Philosophy* defines consciousness as follows:

> **Consciousness**—*Philosophers have used the term 'consciousness' for four main topics: knowledge in general, intentionality, introspection (and the knowledge it specifically generates) and phenomenal experience... Something within one's mind is 'introspectively conscious' just in case one introspects it (or is poised to do so). Introspection is often thought to deliver one's primary knowledge of one's mental life. An experience or other mental entity is 'phenomenally conscious' just in case there is 'something it is like' for one to have it. The clearest examples are: perceptual experience, such as tastings and seeings; bodily-sensational experiences, such as those of pains, tickles and itches; imaginative experiences, such as those of one's own actions or perceptions; and streams of thought, as in the experience of thinking 'in words' or 'in images'. Introspection and phenomenality seem independent, or dissociable, although this is controversial. [15]*

This is in contrast to *Stuart Sutherland* idea who forwarded for the *Macmillan Dictionary of Psychology (1989)*:

> **Consciousness**—*The having of perceptions, thoughts, and feelings; awareness. The term is impossible to define except in terms that are unintelligible without a grasp of what consciousness means. Many fall into the trap of equating consciousness with self-consciousness—to be conscious it is only necessary to be aware of the external world. Consciousness is a fascinating but elusive phenomenon: it is impossible to specify what it is, what it does, or why it has evolved. Nothing worth reading has been written on it. [16]*

So, technically, any offer of a definition of consciousness as a historical analysis should be fraught with danger owing to the mercurial nature of consciousness, as demonstrated by the two clearly different views on consciousness accounted above. To present an account of consciousness based on the previous papers [1-9] we need a historical reference of opinion of ideas of consciousness relevant to not only history yet the content of the papers and the development of scientific ideas therein. And so, the course to be set for a historical account of our facility of consciousness and associated mechanisms of expression will be accounted for by three key ideas, those of Rene Descartes (who associated his model of thought with the scientific cartesian coordinate system), Martin

Heidegger ("Being and Time"), and Maurice Merleau-Ponty (who espoused the idea of a the relationship between subject and object), none of whom could *not* be regarded as heavy-weights in the world of this subject matter.

2.1   Rene Descartes

Rene Descartes most famously is known for *cogito ergo sum* (English: "I think, therefore I am") [17]. From this first principle, Descartes concluded that if he doubted then something or someone must be doing the doubting if indeed he thinks, and thus the very fact that he doubted has proved his existence as from another reference of thought*; "the simple meaning of the phrase is that if one is sceptical of existence, that is in and of itself proof that he does exist."* These two first principles lead to his *Third Meditation*, namely that he clearly and distinctly perceives those two principles as a concept without doubt. Essentially, Descartes concludes that he is certain that he exists because of the fact he thinks and therefore above and beyond a sentient thing that he is a *thinking thing*; Descartes defines "thought" (*cogitatio*) as "*what happens in me such that I am immediately conscious of it, insofar as I am conscious of it*". Subsequently, Descartes constructs a system of knowledge using only thought deduction as a method of being conscious. As a result of this, Descartes arrived at his basic idea of "dualism", as mind and body, two distinct features of being conscious, yet closely related via what he called "modes of abstraction". This can be outlined in figure 3.

F

Cogito ergo

<mind>

< body >
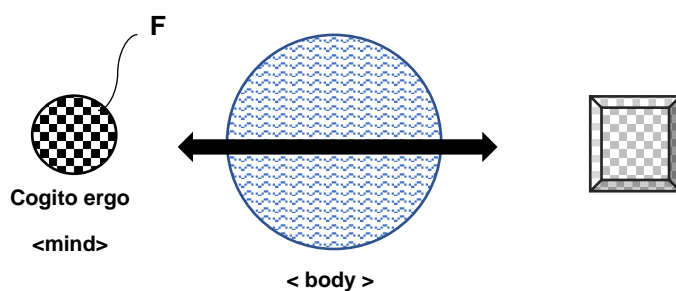
**Figure 3**: *Descartes' mode of abstraction (G).*

And thus:

G
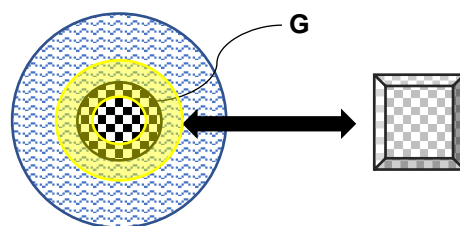
To note here with Descartes is his rationale for the idea of thought as paramount, ultimately leading to his development of what we know today as the Cartesian coordinate system, a mathematical grid of 3-dimensions of space for the purpose of examining geometrical relationships, providing the basis for the calculus developed by Newton and Leibniz.

2.2   Martin Heidegger

Heidegger's key philosophy as per his work "Being and Time" [18] attempts to merge his two fundamental insights: the first that the concept of "being" has been thus far an assumed construct without much detail to examination (that the presence of things for us is not their being, but merely an object of purpose), and secondly that describing experience as that being requires defining/isolating that being for

whom such a description might matter. Heidegger explains this process using his idea of "Dasein" (German for "existence"), the being for whom Being is a question (or in other words, if a being questions itself, then that process of self-questioning is a "process" of "Dasein" which seeks to find the fundamental being asking that question in the first place, as though taking a step back, more fundamentally, than Rene Descartes). This then leads to a process of temporality in the context of a self-examination of one's being, a cause and effect of questioning oneself until a core structure of being is found as a resulting "experience" (phenomenology) pointing to the nature of that fundamental being. Here, *Ontology is considered as pure reason, which just "is"; only as phenomenology is ontology possible*. This process of experience Heidegger relates as phenomenology, the phenomena, as the "being" in question, the "Dasein" as the "being for itself", and the ontological foundation as that repository of historical facts, the reasoning behind the being, the "being of itself".

Simply, Heidegger states that the reasoning of phenomenology leads to ontology, and that this highlights the process/flow of time, that humans are trapped in that context of time as an experience of being alive, as that phenomenology, with its primary place of being as Dasein, which paradoxically as a "*being for itself*" as he defined is a "future concept" which as Dasein reflects back into the past to effect itself as an ontological **basis/reason** for experience (phenomenology). A feature of this process is the idea of Dasein and conscience; Heidegger suggests that Dasein is pure conscience, and that the idea of guilt quite simply is an embedded need to find the ontological source of correctness, the experience of guilt being a part of that process, that phenomenon. Now, in comparing the work of Descartes with Heidegger, it becomes apparent that the "ontology" of Descartes is still valid as "I think therefore I am", that first principle of thought, and beyond that would be the "matter" of "experience", the sensory-motor flesh account of the phenomena of being lived. Yet Heidegger takes this to a new level, a new more fundamental level, paradoxically into the future, using the idea of "Dasein" as per figure 4.
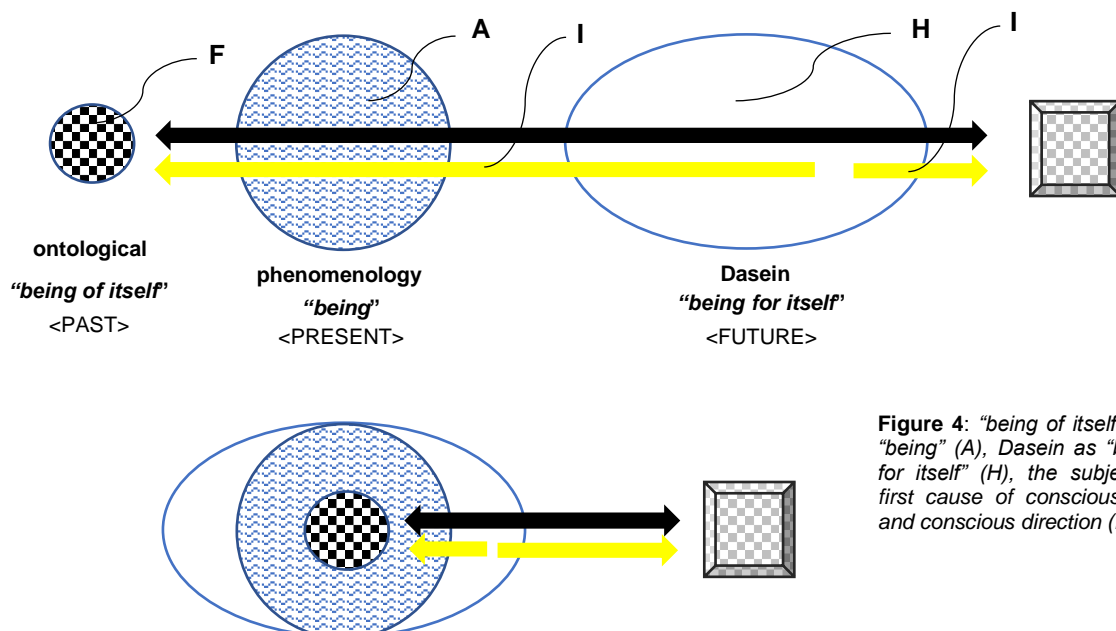
Figure 4: *"being of itself" (F), "being" (A), Dasein as "being for itself" (H), the subjective first cause of consciousness and conscious direction (I)*

By comparison to Descartes, Heidegger went a quantum leap ahead by both creating a future paradigm, the concept of a flow of time for consciousness paradoxically from the future primarily into the past, and then too much else to mention in this brief account of historical considerations of consciousness

(suffice to say that "Being and Time" is quite a large and detailed work). And so, who would take a new next step?

2.3   Maurice Merleau-Ponty

In *Phenomenology of Perception* (1945) [19], Merleau-Ponty forwarded the idea of the body as the subject (*le corps propre*) as an alternative to Descartes' first principle "ego cogito."; Merleau-Ponty considers that consciousness is intricately linked between the world and the human body. Here, like Heidegger, Merleau-Ponty forwarded that the experience of consciousness, the phenomena, is not the unchanging object of the natural sciences, but a process of the body and its sensory-motor functions. Although Heidegger was more concerned with "time" as the process of the "being", here Merleau-Ponty identifies this "being" primarily as the physical body itself. And so, as Merleau-Ponty suggests, the body's process of "communing with" the outside world works in step with a pre-conscious, a pre-predictive understanding of the world's makeup, together with the sense of self being an emergent phenomenon as a continual "becoming" of self. As a step beyond Heidegger, Merleau-Ponty coined the term "*being in the world*" to highlight the relationship between self and the world as a defining feature of the "being". As Merleau-Ponty suggests, in the state of *being-in-the-world* the perceiver experiences all the perspectives upon that object coming from all the surrounding things of its environment, as well as the potential perspectives that any such object has upon the beings around it, as a type of resonance of "being" imparted on the observer through a variety of "*being in the world*" perspectives. In other words, Merleau-Ponty considered that each object is a "mirror of all others", and that perception of the object through all perspectives is not a single layered experience yet rather something more multi-dimensional if not an ambiguous perception founded upon the body's primordial involvement and understanding of the world and of the meanings that constitute the landscape's perceptual *gestalt*. Here, Merleau-Ponty refers to the idea of a type of primordial historical knowledge base within the perceiver as an environmental process of recognition which allows the observer to perceive objects clearly, and that this *gestalt* is a process of construction leading to greater depths of understanding of objects being observed. To achieve this renewed data-gathering, this *gestalt*, Merleau-Ponty considered perception has an active dimension, in that it has a primordial openness to the **_lifeworld_**, and that it is this primordial openness that is central to his "primacy of perception", which takes on a very similar notion to that of Heidegger's historical "ontology" base of "*being of itself*". Figure 5 explains how this would work.
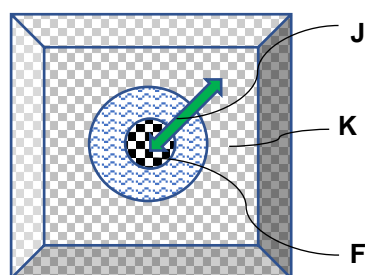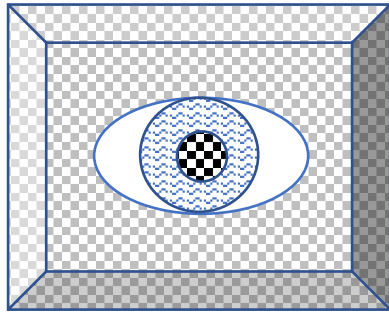

Figure 5: *the gestalt process (J) between reason (F) and the lifeworld (K).*

In combining this with the descriptions of Descartes, and Heidegger, we have figure 6.

Figure 6: *graphically combining the descriptions of Descartes, Heidegger, and Merleau-Ponty*

Essentially, Merleau-Ponty relates the idea of perception as process of developing reason based on a direct association with the environment through our sensory and motor traits as a process of perception strengthening of resolution and integrity, a highly natural/evolutionary if not anthropological driven idea. The question of course is regarding the idea of "time" and its association to consciousness, that relationship between the time paradigms as consciousness. Is it a simple arrow or something more complex? There's a simple solution and it is as per figure 7.

ontological
"being of itself"
<BEFORE>

phenomenology
"being"
<NOW>

Dasein
"being for itself"
<AFTER>
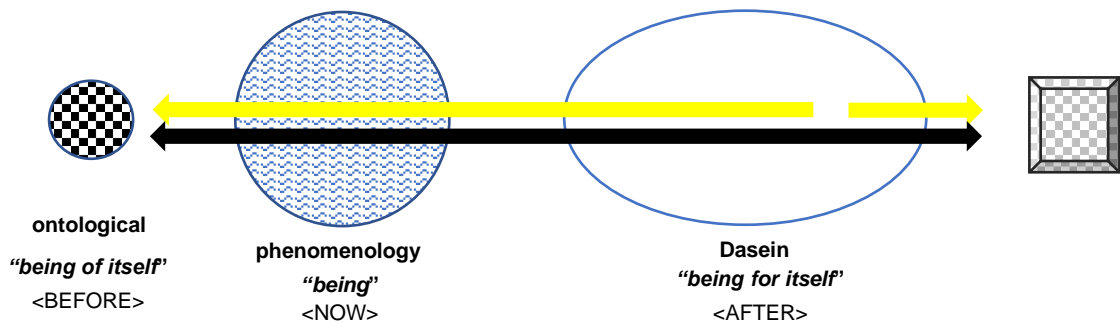
BEFORE/PAST	+	PRESENT/NOW	=	FUTURE/AFTER
Being of itself	+	being	=	Being for itself.
Ontological	+	phenomenology	=	Dasein

Figure 7: *relating in an equation for time to the graphic description of perception.*

Or, in other words, "self-consciousness" *(being for itself)* is (equates to) "*being*" a "*being of itself*", or more simply, a *being for itself* is a *being of itself* as *a being of itself* (like *being of itself* "*squared*"). Interestingly, this is analogous to the golden ratio algorithm for time, as presented in papers 1-9 [1-9], as per figure 8.

PAST	+	PRESENT	=	FUTURE
t_B	+	t_N (1)	=	t_B^2

Figure 8: *relating in the golden ratio time algorithm.*

The other interesting feature is what Heidegger suggested, namely that consciousness operates primarily from the Dasein reference (fig. 4, G), and thus from the future, as what has been presented in paper 6 ([6]: p3-4) regarding consciousness. So, we have three models of consciousness, seemingly linked, as would seem logical, as each is aiming to describe the same thing, namely consciousness from the same reference, the human reference, yet each clearly represents a different level of development of idea. There's one other theorist of consciousness though who was mentioned in paper 8, and his name is Albert Einstein. He made the great suggestion that consciousness is "pegged" to the passage of time. This then suggests that the idea presented by Heidegger in his work "Being and Time" would work best in this scientific inquiry of time and perception. Let us be reminded though

on what this paper is presenting, namely the core substrate of time as consciousness as a process of seeking a basic "all understanding" of the basics of time and space and it's place in that theoretical grid, and thus what that model of consciousness would be, and then extracting the idea of that model of consciousness from the theory thus far, leaving time in that equation of time-space, and then almost reflecting back in this paper as the theorised model of consciousness extracted from the previous 9 papers [1-9] to then suggest how that model of consciousness and associated logic works as a process of inquiry into science and logic-systems as a basic "all understanding" embedded in our consciousness. The obvious question then is, *"what is the difference between time and consciousness and how would a theory of reality based on time embed itself in our own consciousness if consciousness is time, namely how would it be evident, how would a theory on time as consciousness about reality embed itself into our consciousness for us to almost recognise that it exists separate to our standard perception ability?".*

The answer is not impossible to fathom. The "all understanding" concept is all around us as a concept of time unfolding the way it does in our observation of reality; we perceive reality and the flow of time, not as a theory, not as reason, yet as a phenomenon, a "now" event that various philosophers have explained a certain way. Yet how do we interrupt that flow of experience, that phenomena, and put that phenomena into "reason", words, into an "ontology"; by what mechanism of breaking up our own consciousness ability can we understand a theory of reality in words, with what symbols? What type of paradigm of consciousness can we plug into ourselves for that plug-in to bring into effect a way reality can be described, like a mental heads-up display? According to Merleau-Ponty *we can*, namely by expressing his concept of ***gestalt*** (fig. 5, I). So, let us now investigate that body of reason relevant to the algorithm of time as per papers 1-9 [1-9], as such a body of reason seems identical to the proposed historical models of consciousness proposed here.

3.   Golden Ratio Consciousness Theory

The previous papers presented the idea of consciousness in the following manner:

3.1   Paper 2: Golden Ratio Axioms of Time and Space ([2]: p19-20)

Given the proposals of sections 2.7-10, there would appear to be an inherent mismatch between "observation" and "calculation" regarding any elementary particle, together with an inherent universal entanglement between all particles care of a feature of observation. This mismatch and entanglement could be considered as giving rise to a third concept especially considering our drive to find an ultimate event-archaic. So here it is proposed such to be the very idea of consciousness [27] itself, a talent that allows us to think beyond what can't be, and as implicated here a type of dual nature of consciousness forever trying to resolve the mismatch between what is observed and what is calculated, while entertaining a common φ or $\frac{-1}{\varphi}$ nature for each construct set of observed entities, as though in an immediate entangled sense, pure calculation being relative blindness, and pure observation being relative miscalculation, all upon a universal 0-scalar "immediate" platform of consideration while light as time plays back and forth in that seemingly supernatural immediacy. The proposition here is that consciousness could well be described as being that "thing" that appears to be a supernatural feature of reality, a feature in making observation and calculation as one. This will be the topic of a subsequent paper given the strictly scientific nature of the paper presented here.

The idea proposed here is that consciousness would be integral to the process of the time-space scheme seeking to resolve the issue of π, of the wavefunction seeking to resolve its requirement of tracing a perfect circle as per the fundamental definition of time and space. The problem here though was "how".

3.2   Paper 3: The Emergence of Consciousness from Chaos [3]

Once again this idea of consciousness was proposed in the following manner ([3]: p5):

The only thing we can consider is that we must invite a new dimension that can address this error and the fallibility of chaos, beyond the simple idea of the chaos at play, that tries to rectify the observed position of a body (particle or groups of particles) with their actual placement. The proposal here is that such a "thing", such an extra-atomic manifestation, is consciousness [15], a merging of the immediacy of 0-scalar space as quantum entanglement, as also fractal mass and photon interaction along a Fibonacci sequence [13] gradient, with the need to bring synthesis to what is observed as what is exactly found to be observed where it should be. Consciousness would represent that feature of time and space extra-atomically that aims to keep everything together in a perfect circle without corrupting the atomic and subatomic protocols of time's placement upon space as the golden ratio. Simply, consciousness would be a bringing together of a certain set of conditions, and not a primary concept of itself. Thus, as a "bringing together" it would represent vast array of different references of spatial context, working as one, along the directive for time to achieve π and have the error of light and the observation of particles relevant to light rectified. Moreover, consciousness would be that feature of time and space that sets the value of "k" in the logistic map equation (eq. 3) towards fulfilling the given protocols.

The question here once again is how consciousness would represent that feature of perfection a circle for the wave function. To achieve this the only consideration is that an ultimate event is required from the standard arrow of time, from the "greatest" scheme of time and space, presumably reflecting back within itself to incur the new concept of consciousness.

3.3   Paper 6: The Relativity of Time [6]

The idea therefore of consciousness being a "reflection back" of an ultimate reference of time and space is summarised in the following manner ([6]: p4):

We are faced with a perplexing idea, namely that time can travel in reverse, from t_A to t_B via t_N. How could this be so? The proposal in this paper is that the "subjective reference" is in fact what we understand to be "consciousness", and the "objective reference" reality, time-space, in its primordial/raw form. How can it be proven/demonstrated that the subjective reference of this golden ratio interpretation of time is in fact consciousness? How is it possible to demonstrate "consciousness" to be a certain manifold of time-space? To answer this, a general description of the objective and subjective manifolds of time-space, of reality, shall be expanded upon in presenting the idea of "cause" and "effect"; it was simpler to detail the relativity of time using "subject" and "object" given the way we have been taught to regard relativity as a subjective or objective experience as per Einstein's theory of relativity, yet now we shall add more scope by presenting the feature of what gives time "purpose", and how those effects "emerge", and as what.

3.4   Paper 8: The Golden Ratio Time Algorithm [8]

Paper 8 took the idea of consciousness on board as a required *a priori of* investigating time and space, which although an intuitive requirement, took on a requirement of its own reckoning, as greatly as the ideas of time and space ([8]: p2):

One key assumption in this paper that will be carried is the notion that consciousness is concordant to the awareness of the passage of time, that the conscious experience is determined by the flow of time, as Einstein presented with his example of someone travelling at near light speed, namely that time would slow down, yet the occupant of the craft would be none the wiser. The problem with relativity using simple linear time is that **on the one hand perception appears to be the "standard", and on the other it negates the idea of a universal reference of stable consciousness owing to the different rates of motion of objects…..and what use is that? A universal reference of stable consciousness is like the idea of holding the understanding of reality as an understandable entity, as a feature of being conscious. The question is, how do we get to that "scientifically", how do we construct that algorithm for time for each reference of a body of motion?** *The first thing we need to consider is how and why we arrived at the idea of relativity and time's role there in the first place.*

This paper confirmed the requirement of tagging consciousness with the passage of time, with the flow of time. The question now became, "what are the actual mechanics of consciousness with time's flow?".

3.5   General Conclusions.

3.5.1   The flow of time as consciousness

Time essentially as presented in paper 1 [1], given the future is unknown, can only be accounted for as *time-before* and *time-now*. *Time-now* though is labelled as "1", a constant, much like the speed of light, which leaves *time-before* as our feature of time as "flux", as the golden ratio variables of φ or $\frac{-1}{\varphi}$, as presented in paper 1 ([1]: p3-5). "Space" was presented to be opposite to *time-before*, namely as *time-after*. Here in this paper, the suggestion is *time-after* being the primordial source of consciousness, as space itself, as per figure 9.
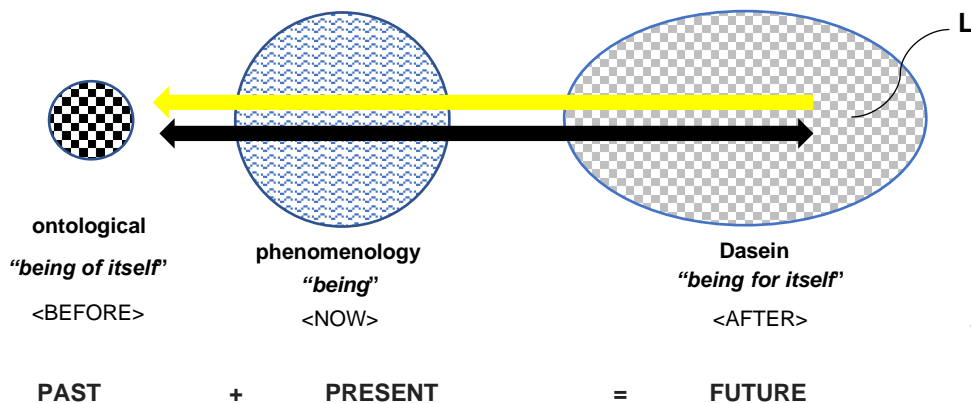

ontological
"being of itself"
<BEFORE>

phenomenology
"being"
<NOW>

Dasein
"being for itself"
<AFTER>

Figure 9: *the Dasein as "space" (L).*

PAST   +   PRESENT   =   FUTURE

Here we are associating *time-after* into the idea of "space", as "nothingness", bringing the idea of the outside world, the Merleau-Ponty **_lifeworld_**, **_into_** the workings of consciousness as *time-after* for practical purposes. This idea could be compared to Sartre's idea of "nothingness" in his work "Being and Nothingness" [20], where Sartre argues that the Dasein, a *being for itself*, in becoming an absolute, destroys the legality of the being of itself such that it becomes, naturally, a "*being in itself*", which is entirely correct. What prompts the idea of the Dasein to be as "nothing", Sartre argues, is that the essence of *being for itself* is a way a people deny and question the totality of their situation. Sartre argues that the "*for itself*" is by virtue of a perceived personal lack of something, for which a reason is sought to possess that perceived lack of. In terms of temporality, Sartre suggests that being in itself is the past that reaches into the present in seeking *being for itself*, the future being the actual drive of the past to complete itself into the now, and that the perception (as a resultant being) constantly falls back from the *being for itself* in the future to the past of *being in itself*, an ingenious notion. Sartre fundamentally agrees with *being in itself* and *being for itself*, yet says that *being for itself* is like a hole within *being in itself*, which ultimately as figure 9 explains would appear to be entirely correct.

The question now therefore is, "how can consciousness act as *space* seemingly looking back into time, as *time-after* looking into *time-before,* when technically consciousness is generally a process of our looking *out* into reality"? The first thing to note is the idea of consciousness proposed as the idea of *time-after* to *time-before*; this was reached after the first series of papers [1-3] as noted above from the first premise that consciousness would be a part of the process of "fixing" the wave-function, resolving the disparity between the wave-functions calculation of π and the real value of π. This idea though was improved in paper 6 [6] to the level of stating that in fact consciousness would represent the idea of *time-after* to *time-before*. Yet logically to reach that notion, it would be as though the arrow of time would have reached an ultimate level and reflected back from that ultimate level, presumably on the ultimate level of time and space extending out to complete its task of defining "π" absolutely, however that would happen.

In *time-after* > *time-before* being entirely "subjective", like a "looking-within", *time-after* > *time-before* would represent the "subjective" flow of consciousness, whereas the "objective" flow of consciousness would represent the reverse, as *time-before* > *time-after*, that which the subjective flow of consciousness can be aware of other than itself, and thus outside itself, as per figure 10.
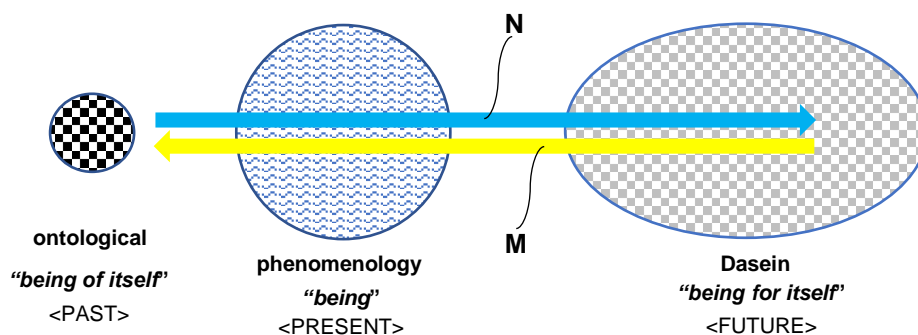

N

M

ontological
"being of itself"
<PAST>

phenomenology
"being"
<PRESENT>

Dasein
"being for itself"
<FUTURE>

Figure 10: *subjective (M) and objective (N) flows of consciousness*

Once again, as per the description of the basic wave-function of light regarding time and space as per papers 1-6 [1-6], there is a streaming process of golden ratio wave-function temporal sequences from the atomic level to an infinitely large level of sequences with the aim of perfecting

π, as the ultimate streaming of temporal events. Yet, if space is the future, time as the past must always appear to be "***creating***" space, as what would "appear" to be a process of "***expanding***" space, despite the overall construct of time-space being stable as an overall equation, meaning there would be an ultimate barrier of/as time itself to space, as it would appear, a "front". And so, the idea of consciousness on this ultimate level according to time would actually look like time being "ahead" of space, as time, as it would appear, as *time-before*, would have happened *before* space, which as an event would technically come *ahead* of space itself in being *before* it. Let us refer to this feature as the *time epoch* (O), as per figure 11.
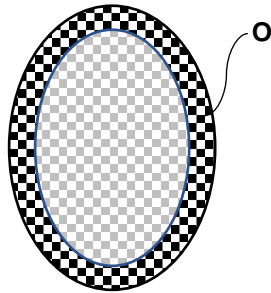
Figure 11: *the time epoch (O).*

It is as though t_B as reason, as time, the *being of itself*, as the two possibilities of the golden ratio, is wound around space as the future, space as the Dasein, as though if time moves from inside to outside space, from zero to infinity, it must always be ahead of space according to the definition of time being always "before" "space" (space as *time-after*), and this by definition an "epoch". This is an interesting concept, as it's not the first time it has been considered. The orphic egg of space entwined by a snake for instance as per image 1 presents a similar symbolic notion.

Image 1: *Jacob Bryant's Orphic Egg (1774)*

The **Orphic Egg** in the Ancient Greek Orphic tradition is the cosmic egg [21] from which hatched the primordial hermaphroditic deity Phanes/Protogonus (variously equated also with Zeus, Pan, Metis, Eros, Erikepaios and Bromius) who in turn created the other gods. The egg is often depicted with a serpent wound about it. Is this an example of some type of ancient intuition of our conscious ability regarding the nature of reality? The notion being suggested here is that the system of time and space would be the primary consciousness we would be a part of. The question then is how we would be conscious within that ultimate reference of consciousness, how would we connect with it? The answer is by simply just setting ourselves within that process, as per figure 12.
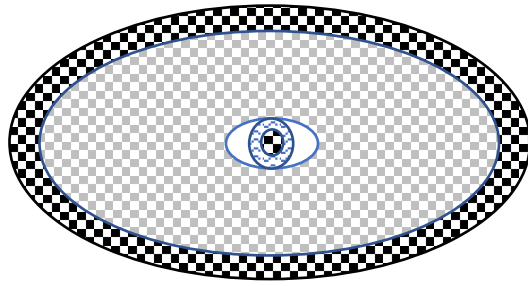
Figure 12: *setting the conscious reference within the greater system conscious epoch realm.*

The compulsion for the consciousness here is to not only look into the t_B within itself as pure subjective consciousness, yet to look out also to the virtual epoch t_B consciousness/reason in the greater system, to find that outer reason and presumably bring that into parity with the inner t_B, the mechanics of which shall now be described.

3.5.2   waking-time and dreaming-time

The concept of *time-future > time-past* as a time-flow presents us with a paradox, according to the ideas of Einstein's relativity. To explain this, let's start with the basic idea of relativity regarding time's arrow*, time-before > time-after* (figure 13) as marked with two arrows into the future, as the standard "objective" time-flow we are aware "of".
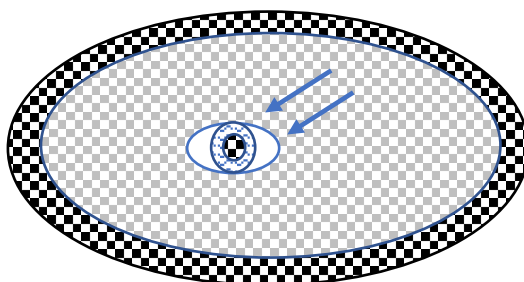
$$t_B \quad + \quad t_N\,(1) \quad = \quad t_B^2$$
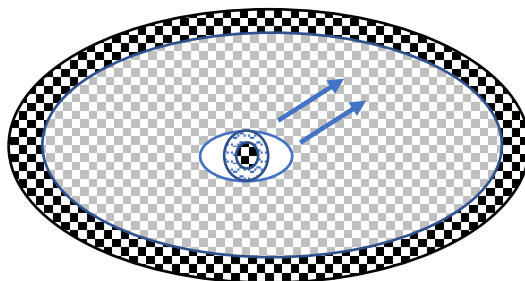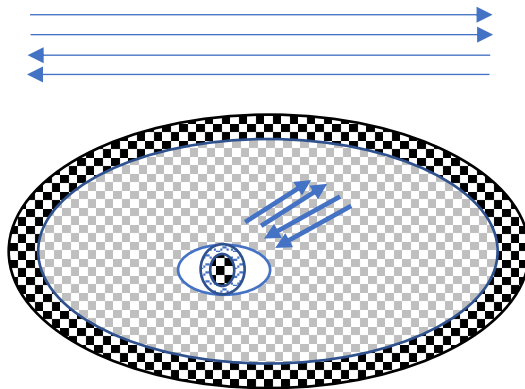

Figure 13: *standard objective time-flow*

Now, presenting the subjective time flow, the one primarily representative of the conscious process*, time-after > time-before* (figure 14) as marked with two arrows into the past, as the "subjective" time-flow.

$$t_B \quad + \quad t_N\,(1) \quad = \quad t_B^2$$

Figure 14: *standard subjective time-flow*

As a subject-object conscious experience, let us call standard waking consciousness, we would add say two extra blue arrows from *time-before* > *time-after* (figure 15).


Figure 15: *combining subjective and objective time-flow.*

We have four arrows as the process of the flow of time, each presumably in balance as time-forward (*time-before* > *time-after*) and time-reverse (*time-after* > *time-before*), and given as the papers suggest this is ultimately a "closed" system of time, and time is as energy (paper 5 [5]), then we have a process of conservation of "time" as "energy" and this time-flow. This has interesting consequences though when we change the dynamic of our motion in reality relative to the general backdrop of time and space. For instance, if in a defined-reference within the greater-closed system of time and space we suggest that the movement of time from *time-past* > *time-future* is enhanced for a defined-reference, in that "more space" is being reached as a *time-future* concept, as for instance in approaching the speed of light itself for that defined-reference, more time-lines from *time-past* > *time-future* would be incurred from the greater-closed system, presumably, as per figure 16.
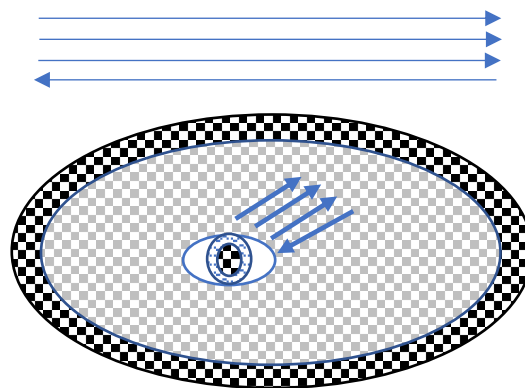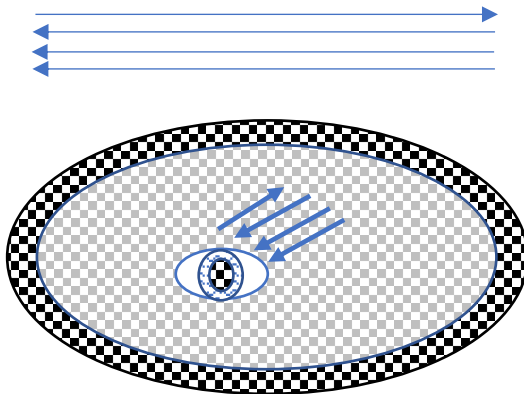

Figure 16: *outweighing objective time-flow against subjective time-flow.*

The suggestion here is that the subjective process of the time-flow of the greater-closed system is granted less time flow and thus overall would appear to "slow down", and this is precisely what relativity suggests, namely that time would appear to slow down from a system observation reference regarding a defined-reference craft approaching the speed of light. In an ultimate case, there would be no consciousness, when an object for instance reaches light speed (figure 17).
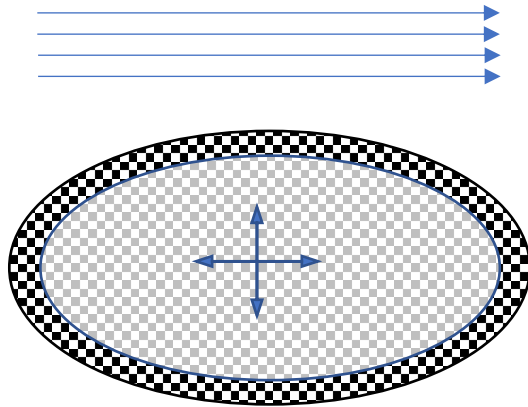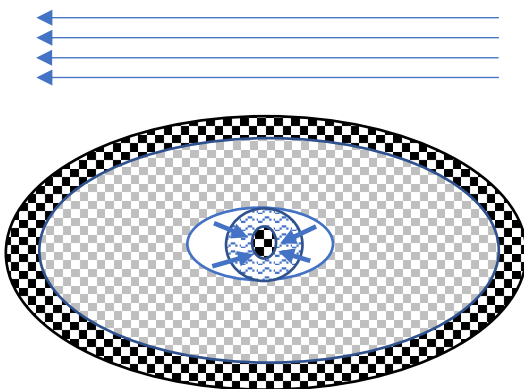
Figure 17: *complete objective time-flow.*

Here, there is no subjective reference. Let us call this "0-state consciousness", perhaps, where the idea there is that being is "pure nothingness" as a subject, perhaps like the idea of "artificial intelligence" [22], a running of a t_b program into the future. What if we tried the reverse though of speeding a craft up relative to standard waking consciousness, as per figure 18.

Figure 18: *outweighing subjective time-flow against objective time-flow.*

The suggestion here is that the idea of "consciousness" as "standard waking consciousness" would speed up in slowing down the normal movement of bodies. Let us suggest that the ultimate self-reference would be as self-state consciousness as per figure 19.


Figure 19: *complete subjective time-flow.*

The idea with self-state consciousness is that the idea of the future as space is purely nothing, as though the conscious reference is looking purely within itself, devoid of any outside reality. The proposal here is that such is what we would understand as the "dream-state", as compressed time as "subjective awareness". In other words, "consciousness" as "self-state consciousness" would essentially be a "dreaming state", and would be a subliminal feature of our general waking consciousness, as much as a 0-state consciousness would be a feature of our consciousness. This dream-state consciousness lends to the idea of "*rapid*" consciousness in the dream-state.

There would be an extra kick to this though, not as a concept of looking inside ourselves, yet taking the step in recognising that a new step is required beyond our reference, which could only represent an idea of something that connects the human conscious reference "*to*" a greater sphere of consciousness seemingly as a subject-object process, as a waking dream, perhaps as the idea of an "imagination", like a dream state effecting itself through waking reality, as per figure 20.
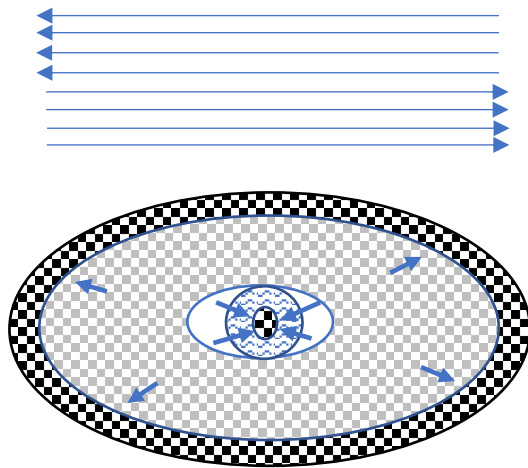

Figure 20: *subjective and virtual objective (epoch) time-flow.*

Here, the idea is associating the reason within us, in accordance with that greater outside epoch of reason that would naturally by the manner of construction of the system, as explained figure 13, as that t_B effect beyond space, a type of "ancient future" *time epoch*, would exist without/around ourselves. It's very like a "*greater epoch within = greater epoch beyond*" concept, and would be associated to the idea of perhaps dreaming as a waking "imagination", a vision, as the process here is one of ultimately looking out beyond oneself as happens in the waking state. It could also represent a dreaming that could allow a process of travelling outside one's own reference. The implication of this process is that it solves the ***gestalt*** and ***lifeworld*** issue Merleau-Ponty described, as it accounts for an inner reason with an outer environment, as an ultimate achievement of human purpose/understanding/exercise, as for instance E (fig.1, E) finding parity with C (fig. 2, C).

3.5.3   The localized time-space reference: the sphere or the singularity

One question to now face is how we as humans with both dreaming and waking ability, subjective and objective facilitation of conscious execution, "would perceive" the world the way we do, namely on a relatively large planet yet as though we live on a flat-plane in all manner of natural

conscious regard (without the assumed ability of seeing the planet from space). The theory presented here deals with this situation rather practically. For instance, if t_A is t_b^2, then we technically have a "surface area" of time as space as the surface area of a sphere. This was presented in paper 1 ([1]; p2-5), stated as the standard time-line (objective), as an objective *time-front* to represent a "*sphere*", the surface area of a sphere. Naturally, we would exist on a spherical object in that regard in being "objective". Yet this sphere is a thing we would naturally perceive as a flat surface of space in casting our consciousness outwards as an objective time-flow, *time-past > time-future*. Our instinct in observation of time's-flow in a *subjective sense* would of course lend to the notion of a "flat-plane" [23], from a sphere seeking to find a line of time, t_B, of seeking to find a singularity, as per figure 21.
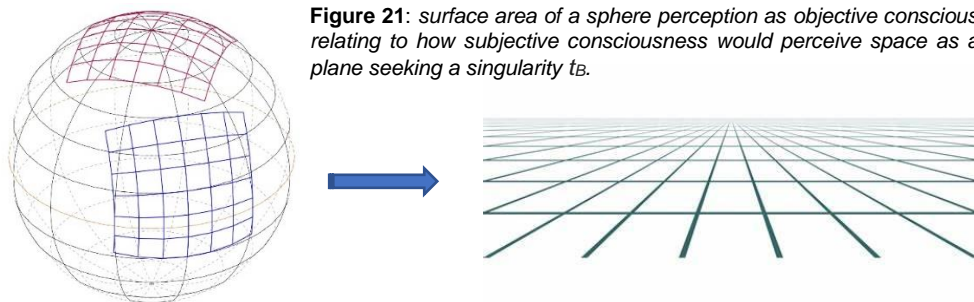
Figure 21: *surface area of a sphere perception as objective consciousness relating to how subjective consciousness would perceive space as a flat-plane seeking a singularity t_B.*

How would we naturally view a "waking world" reality in being subjective-objective? Ultimately, as according to the logic here, by any mechanism that grants that process, ultimately by bearing reference to an epoch time, which then begs the question from one subjective reference to another in the one epoch time reality, "how would we exist with others in bearing reference to the one reality, and in which way would we do so?". The feature itself of time and space and all those unique references would create that puzzle of uniqueness; our unique reference with others would be by virtue of our different references of time and space, as from our own history and associated t_B-ontological-reason base of logic and reality-exposure/interaction. Yet this idea of "independent sentience" requires more discussion.

4.   Independent sentience

If it can be proven that consciousness exists primarily throughout the system as an absolute event horizon future code of space connecting with *time-before* as the process of *time after > time-before*, a process all consciousness within which would be a part of, what is the idea of our independent reference, our independent sentience, what is that freedom defined as in that greater sphere of consciousness, as our unique notion of independent conscious awareness and reason, our free-will? The simplest way to address this question is to consider that free-will appears already pre-wired into consciousness as the code of space itself as per what Sartre presented and that associated model of consciousness regarding that paradigm of thought, the Dasein as "nothingness", that absolute emptiness, making consciousness the unique idea of free will per-se. However, Merleau-Ponty suggests the need to refund consciousness through the **gestalt** concept, interacting our t_B reason, our ontological base (as what Sartre termed the "*being in itself*") with the outside world, like programming our own biological computer in adapting to our environment to better "adapt" (obviously) to it. Yet is it enough to present such a notion? Is such a proposed process of "adaptation" that gives consciousness the resolution of thought and reason we understand it to be

necessary in order to understand reality "best", better than other species? There are a number of interesting insights worthy of mention, some straightforward, others surprising finds, especially when considering each of the different traits of subjective-objective play on offer. What ideally has been outlined in this paper is the following, as a general philosophy of science would aim to achieve:

- The idea of consciousness presented here *as a concept of science* can only be the essence of *objective reason* while *maintaining consciousness* and thus essentially *subjectivity*, while maintaining a *subjective ability of observation*, as the concept of expressing the "idea" that there exist laws of a time and space in reality that can be "predicted" as per investigating past events held in the context of time's natural flow, and thus also observed.

- Consciousness in moving into the past as a subjective code has the ability to bear reference to an objective *set of* laws that pass from the past into the future, such as what the scientific method [24] prescribes, namely laws as a science as descriptions explaining the past into the future of events in space, this as a process of objectivity in using the ability of observation, of being subjective.

- Thus, a science of time and space ultimately should come from a basic logic of consciousness and time, which is the proposal here, the same proposal Einstein forwarded with his notions of the observer and the clock.

- There is still the "after"/unknown idea of perception, and such is in alliance with why the future is always unknown to our perception.

- Science should reliably predict outcomes on the larger scale despite the future being unknown, which pre-supposed a greater closed system to time and space, a "consistency", as proposed with the golden ratio algorithm scaling system for time.

Clearly, all things need considering, all manners of reference regarding consciousness, subjective or objective, as *everything*, both subjective and objective, would have its place, it's purpose, it's relevance, in a reality that allows any such options as "choice". Why? Why not? What is our compass, and when do we use that, and why? It really depends on a multitude of things too numerous to account for here, namely the choices we have in each moment of time for however long that choice we would deem that choice relevant, and of course who we are, and why, what we consider important for our own unique situation.

5.   Conclusion

When asked, "*what can your model of physics, of time and space, predict that contemporary theories of physics cannot*", the answer is to the point, namely "*consciousness, human consciousness, as philosophized for ages, is what can be proved to exist*". How can it not? The idea of consciousness as separate from science has been explored via four great philosophers, namely Rene Descartes, Martin Heidegger, *Maurice Merleau-Ponty* , and Jean-Paul Sartre. The model of consciousness developed using these pioneers has demonstrated to exact the golden ratio time algorithm as a "time flow" of consciousness, in not forgetting that both Einstein and Descartes have locked the idea of time into the idea of consciousness. What's missing? Proving that gravity can in fact emerge from electrodynamics in a laboratory? Paper 7 [7] has addressed that issue, as convincingly as it can, as convincingly as the difficulty and work of such research would allow, given that gravity emerging from electromagnetism is such a fundamental process. In other words, it's is a vast concept in nature and not so easily reproduced, and nor should it

come easy. In fact, it would require a major departure from what happens "normally" in nature, which at the same time is not suggesting any such adventure is an adversary feature to nature.

The key idea presented here is that in convening the theories of consciousness of the great philosophers and applying those ideas of consciousness to a general model for consciousness with the emphasis on time's flow, we are able to arrive at a model of "time" that in all manner of regard fits with the model of time presented in the previous papers [1-9] in this series of papers on the subject of the golden ratio algorithm scaling system for time. For here in this series of papers [1-9] is detailed an algorithm of time emerging a spatial 3-d construct rising to a scientific model of reality by virtue of the process of the wave-function of time in play in that emergent spatial grid, a wave-function seeking to perfect "π". Along this process has been the required upholding of known data despite numerous other contemporary theories using that same known data according to their own descriptions.

Conflicts of Interest

The author declares no conflicts of interest; this has been an entirely self-funded independent project.

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